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Building an Index of Well-being for Children Living in Ireland: Conceptual, Measurement and Policy Considerations

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A thesis submitted for the award of Doctor of Social Science to the National University of Ireland, at the School of Applied Social Studies, University College Cork

Submission Date: February 2016

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Declaration

I certify that the work I am submitting is my own and has not been submitted for another degree, either at University College Cork or elsewhere. All external references and sources are clearly acknowledged and identified within the contents. I have read and understood the regulations of University College Cork concerning plagiarism.

The work reported on in this thesis conforms to the principles and requirements of the University's guidelines for ethics in research.

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Candidate Signature _____ Date _____

Abstract

This study conceptualised and measured children's well-being in Ireland and considered how such conceptualisations and approaches to the measurement of well-being might inform social policy for children and families living in Ireland.

This research explored what is meant by children's well-being and how it can be conceptualised and measured so as to reflect the multi-dimensionality of the concept. The study developed an index of well-being that was both theoretically and methodologically robust and could be meaningfully used to inform social policy developments for children and their families. For the first time, an index of well-being for children was developed using an explicitly articulated unifying theory of children's well-being. Moreover, for the first time an index of well-being was developed for 13-year old children living in Ireland using data from Wave 2 of the national longitudinal study of children.

The Structural Model of Child Well-being (SMCW), the theoretical framework that underpins the development of this study's index, offers a comprehensive understanding of well-being. The SMCW builds on, and integrates, a range of already-established theories concerning children's development, their agency, rights and capabilities into a unifying theory that explains well-being in its entirety. This conceptualisation of well-being moves beyond the narrow focus on child development adopted in some recent studies of children's well-being and which perpetuate individualised and self-responsibilising conceptualisations of well-being.

This study found that the SMCW can be meaningfully applied, both theoretically and operationally, to the construction of an index of well-being for children. While it was not the purpose of this study to validate the SMCW, in the process of developing the index, I concluded that there was a theoretical 'fit' between the conceptual orientation of the SMCW and the wider children's well-being literature. The 'nested' structure of the SMCW facilitated the identification of domains, sub-domains and indicators of well-being reflecting typical conventions of index construction.

The findings from the resulting index, in both its categorical and continuous forms, demonstrated how a comprehensive theory of well-being can be used to illustrate how children are faring and which children are experiencing poorer or better well-being. Furthermore, this study demonstrated how the SMCW and the resultant index can be meaningfully used to support the implementation and review of the national policy framework for children and young people in Ireland.

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Chapter 1 Introduction and Rationale for the Study

1.1 Introduction

This study examined how children's well-being is conceptualised and measured. The term 'well-being' is ubiquitous in our everyday discourse and the term permeates our social and public policy debates (Brooks and Hanafin, 2005; NESC, 2009; Edmunds, 2010). However, the term is often used loosely with little attention to what well-being is, how it is conceptualised and what is measured. This study explored what is meant by children's well-being and how it can be conceptualised and measured so as to reflect the multi-dimensionality of the concept. The research developed an index of well-being that was both theoretically robust and can be meaningfully used to inform social policy developments for children and their families. This study uniquely utilised recent theoretical developments with regard to the conceptualisation of a unifying theory of child well-being and applied this new overarching theory to the construction of an index using data from Wave 2 of the national longitudinal study, Growing Up in Ireland (GUI), for 13 year old children.

In this chapter, I contextualise this study by outlining the context and background to the study and setting out my rationale for undertaking it. I then identify my aims and objectives and specify the research questions. I provide a brief overview of the key literature with regard to children's well-being and briefly introduce the key facets of the Structural Model of Child Well-being (SMCW) which underpins my own understanding of well-being and guided the choice of domains, sub-domains and indicators used to populate this study's child well-being index. A short description of the methodology used to

construct the index is also provided. Finally, the chapter concludes with an overview of the chapters that comprise this thesis.

1.2 Context for the Study

There has been a growing emphasis in social and public policy debates on the concept of adult and child well-being (see, for example, publications from NESC, 2009; Brooks and Hanafin, 2005; Department of Health and Children, 2000; Buckner, 2008; Department of Health, 2013; Edmunds, 2010). Despite its growing use, the term 'well-being' is often used loosely with little clarity as to what constitutes well-being or what aspects of the concept are under discussion (Edmunds, 2010). On the one hand, the concept of well-being has the potential to reflect the complexity of children's lives by taking account of the material, relational and subjective dimensions of their lives (White, 2008). However, well-being has also been described as an "*empty signifier*" (Camfield *et al.*, 2009: 67) because it facilitates a range of meanings, that allows particular agendas to be promoted; framed within an apparently benevolent concept. For example, it has been argued that the term 'well-being' is associated with an increasingly individualised and self-responsibilising agenda (Sointu, 2005; Furedi, 2006). An agenda that fits with the current dominant neo-liberal political and economic ideology where individual rights are paramount and any intervention by the state is viewed as intrusion into family life. It was the contention of this study that narrow conceptualisations and measurement of well-being that consider only dimensions of child development are reductive. Such approaches focus on individual traits, skills and abilities and marginalise wider family, material, and community circumstances that can be legitimately understood to constitute well-being for children and young people. I was therefore concerned with utilising a conceptualisation for the measurement of children's well-being in Ireland that reflected the complexity of children's lives and moved beyond the narrow boundaries of individual child functioning only.

This study utilised the GUI dataset to develop an index of well-being for 13-year old children living in Ireland. The study applied the SMCW (Minkkinen, 2013), a recently conceptualised unifying theory of child well-being, to the development of the well-being index. In using the SMCW the diverse domains of children's lives were incorporated into the index thus reflecting the multi-dimensionality of the concept of well-being such that the "*broader contextual structural and political factors*" (Morrow and Mayall, 2009) that shape children's lives were taken into account.

1.3 Rationale of the Study

Well-being has become more pervasive in social policy debates and yet our understanding of what is meant by 'well-being' is fragmented, and oftentimes vague; the study of well-being lacks a unifying theory (Raghavan and Alexandrova, 2015; Frønes, 2007). There is a lack of clarity in the conceptualisation of well-being and the ways in which well-being is theorised varies considerably across and within disciplines (Edmunds, 2010). In this state of theoretical uncertainty the term 'well-being' rather than contributing to a more complete understanding of the human condition (Taylor, 2011) becomes meaningless, adopted and shaped to reflect a range of meanings in a seemingly benign way. It is argued that the term is increasingly associated with an individualised and self-responsibilising agenda (Sointu, 2005). In contemporary conceptualisations of well-being, it is "*predominantly conceptualised as chosen...Well-being carries connotations of authenticity and individual-specificity that open the sphere of well-being up to fluid and person-specific interpretation and meaning making*" (*ibid*: 263). Within this well-being construct the individual "*becomes the focus of action not the social, cultural or economic explanations of experience or identity"* (Edwards and Imrie, 2008: 338). Conceptualisations that equate adult well-being with happiness, life satisfaction or psycho-social functioning only, place the responsibility for being well "*solely within the individual*" (Barnes *et al.*, 2013: 454). The growing

emphasis on an individualised and self-responsibilising agenda in Irish social policy suggests that the state has little or no role to play in providing welfare measures or social services to improve its citizen's well-being. This emphasis is particularly problematic for child well-being as there is a risk that parents will be held responsible for the well-being of their children, irrespective of the economic forces or discriminatory practices which may hinder their success (Seaberg, 1990). By shifting the focus back to individuals, the political, social, economic and cultural aspects of well-being are marginalised.

This tendency is well-demonstrated in the child well-being literature where a number of recent studies have conceptualised child well-being in the context of child development only; see, for example, studies by Moore *et al.*, 2008; Sanson *et al.*, 2010; Cheevers and O'Connell, 2013; and Moore *et al*., 2012. In these studies, the concept and measurement of well-being are focused entirely on individual functioning, for example, children's health and physical development, social and emotional functioning and learning competency. Material, family, and environmental circumstances are used merely as explanatory variables in the analysis of well-being outcomes. These dimensions of children's lives are not considered inherent to the concept of well-being. In this way, child well-being is considered separate from the economic, social, cultural and political contexts in which children live. Child well-being is understood as synonymous with child development.

This approach to conceptualising and measuring child well-being is, in my view, retrograde, reductive and at odds with the origins of the child well-being and social indicators movement; origins which were rooted in social justice and equality concerns (Lippman, 2007). The term 'well-being' has the capacity to consider the multi-dimensional nature and complexity of children's lives; and to broaden our understanding and measurement of what is important for and to

children. In contrast, in narrow conceptualisations of well-being parents become the locus around which child well-being is anchored, and the importance of structural equalities and the agency-structure dynamic in understanding and conceptualising what constitutes well-being is lost. Policy responses to concerns about well-being concentrate on what parents must do to improve their child's well-being. The responsibility for well-being is individualised and the state is absolved of responsibility to intervene to promote or support well-being; well-being is the preserve of the individual family unit.

In an Irish context, this shift in meaning is well-illustrated with the recent publication of a number of strategic documents such as *Better Outcomes, Brighter Futures*, the national policy framework for children and young people (Department of Children and Youth Affairs, 2014), the Parent Support Strategy from Tusla (Child and Family Agency, 2013) and *Healthy Ireland: A framework for health and well-being* (Department of Health, 2013). Each of these strategies identifies parenting as a key mechanism with which to improve well-being outcomes for children. Moreover, each of the strategies, in different ways, places the responsibility for well-being on the individual with little reference to their social or economic circumstances, while limiting the role of the state in intervening to support the achievement of well-being.

As the term 'well-being' has become more pervasive in social policy debates, so too have attempts to measure and quantify the concept. This is evidenced by the range of national and international reports published on the theme of well-being. Among the most well-known are the United Nations Human Development Reports and the OECD report series *'Society at a Glance: OECD Social Indicators'*. Individual countries also publish a range of reports describing and measuring their citizens' well-being including the UK, the Netherlands,

Germany and Sweden amongst others (NESC, 2009). With respect to children there have been a number of efforts to measure and index child well-being at national (Land *et al.*, 2007; Bradshaw *et al.*, 2009; Sanson *et al.*, 2010; Moore *et al*., 2012), European (Bradshaw *et al.*, 2007b; Bradshaw and Richardson, 2009) and international levels (UNICEF, 2007; UNICEF, 2010, UNICEF, 2013; OECD, 2009). Indeed since 2006, Ireland has published biennial State of the Nation's Children reports. Moreover, the National Economic and Social Council (NESC) published "Well-being Matters: A social report for Ireland", which explores the conceptualisation of well-being across the life course, and recommends a well-being framework to measure progress in Ireland (NESC, 2009).

Ireland has an agreed set of Government-sponsored child well-being indicators. These indicators were developed in the mid-2000s by the National Children's Office in response to a key goal identified in the National Children's Strategy (NCS) (2000) and were intended to inform Government policy for children and young people (Hanafin and Brooks, 2005; Brooks and Hanafin, 2005). The final list of 42 indicators and nine socio-demographic characteristics were arrived at following an extensive consultative process with key stakeholders, including children themselves. The list includes indicators for physical and mental health; relationships with parents and peers; subjective well-being; and economic security amongst others. Given that Ireland has developed a Government-endorsed national set of child well-being indicators, why not build an index of well-being using the national indicator set?

While the list of indicators included in the national set of indicators is wide ranging, the identification and selection of indicators is not underpinned by any explicit theory of children's well-being. The conceptualisation of well-being is informed by Bronfenbrenner's bioecological theory of human development and by a '*whole child approach'* which underpins the NCS (Hanafin and Brooks,

2005). Moreover, the national set of child well-being indicators conflates indicators considered as constituent elements of well-being with determinants of well-being; that is the national set of well-being indicators does not differentiate between what is well-being and what contributes to well-being. For example, access to health services, as evidenced by the number of children on hospital waiting lists for in-patient admission, is included in the indicator set. While this indicator can suggest something about the state of our hospital services for children and young people, it says little about the actual physical well-being of children and young people. Likewise, the indicator for public expenditure on services for children and families, expressed as a percentage of GDP, can be used to comment on the level of investment in, and prioritisation of, services for children by the State, but it says little about any particular domain or dimension of children's well-being. Indeed, such data could be meaningfully used to analyse whether well-being varies in accordance with levels of investment, it does not measure well-being status *per se*. The demarcation between indicators that represent well-being and indicators that are determinants of well-being is not always clear. Using the SMCW to inform the selection of domains and indicators, it is suggested, could ameliorate the conceptual confusion between what constitutes well-being and the determinants of well-being.

The national set of child well-being indicators were developed before the initiation of the GUI longitudinal study of children's lives in 2007. The breadth of data included in the GUI dataset for both the child and infant cohort provides the opportunity to re-consider the national set of well-being indicators and to improve the quality and robustness of the indicators included in the national indicator set. More recently the publication of *Better Outcomes, Brighter Futures,* the national policy framework for children and young people 2014-2020, identifies five national outcomes for children and young people intended to improve their health and well-being (Department of Children and Youth

Affairs, 2014). The five national outcomes align well with the dimensions of well-being typically used in indices of children's well-being: active and healthy, physical and mental well-being; achieving full potential in all areas of learning and development; safe and protected from harm; economic security and opportunity; and connected, respected and contributing to the world. The Department of Children and Youth Affairs (DCYA) is currently considering a set of indicators to reflect the progress made with regard to the outcomes identified in the national policy framework with the intention of replacing the national set of well-being indicators. I am a member of the expert panel convened by DCYA to consider what indicators should be included in the new indicator set. Given these developments at a policy level, the theoretical enhancements to how well-being is conceptualised, and methodological advances over the 11 years since the national set of well-being indicators were selected, it is opportune to re-consider how well-being can be theorised and measured.

This study was concerned that poorly and narrowly defined conceptualisations of well-being undermine our understanding of the complexity of children's lives, serve a more individualised, self-responsibilising and self-governing agenda and minimise the role of the state in intervening to support the achievement of well-being. Given the policy developments noted above, it was timely to interrogate how a unifying theory of child well-being could be used to measure well-being in a way that was theoretically-informed, methodologically robust, compatible with the typical conventions of index building, and retained policy relevance.

This study utilised a conceptualisation of well-being to create an index of well-being for children in Ireland that takes a holistic account of their lives. The formulation of social policy for children and their families can be informed by a

comprehensive index in several ways. First, such an index can summarise an array of complex data points into domain-specific and composite scores of well-being. The availability of the data at the domain level facilitates analysis and policy responses that are targeted to the specific domain while simultaneously providing an overall well-being score that can be compared across different groups of children. Second, changes in the index over time are easy to chart and understand. Given that the GUI study is longitudinal it will be possible to retrospectively apply the same concept of child well-being and method of measurement, as used in this study, to the child cohort at age nine, as well as apply it to follow-up data collected from the child cohort at age 17 and age 20 (collected in 2015 and 2018 respectively). Finally, the theoretical approach adopted in this study and the method used to construct the index is applicable to the construction of an index of well-being for the infant cohort from GUI and across waves.

1.4 Aims of the Study

The study had two main aims. The first was to build a composite index of well-being for children living in Ireland which was explicitly informed by theory. Attempts to measure well-being date back to the 1960s, however, these early efforts were empirically rather than theory-driven. In the intervening years there have been a number of theoretical advancements in how child well-being is understood and conceptualised. Notwithstanding these developments, the field of social indicators and index construction lacks a unifying theory (Raghavan and Alexandrova, 2015; Frønes, 2007); indices of well-being continue to be largely empirically-driven; while the content and choice of domains included are more a matter of data availability and practicality. The child well-being index created in this study was informed by theoretical developments in the field and utilised the SMCW. The theoretical framework provided by the SMCW explicitly informed the choice of domains, sub-domains and indicators used to populate the index. The study also reflected on the usefulness and

applicability of this model for the construction of an index of well-being for children.

Second, the study aimed to build an index which reflected the complexity of children's lives. A number of recent index development studies have employed an understanding of well-being that is highly individualistic and locates well-being within the realm of individual functioning. Such narrow interpretations of well-being purposefully ignore the agency-structure dynamic inherent in well-being, which in turn mask or minimise the role of structural inequalities in children's lives, individualising and self-responsibilising well-being.

1.4.1 Objectives of the study

The objectives of the study were five-fold and served to achieve the aims of the study:

1. Develop an understanding and critique of the concept of child well-being and ground that understanding in the main theoretical debates
2. Consider the intersection of politics and well-being and consider how the social, political and economic environment potentially influences our understanding and use of the term 'well-being'
3. Apply a conceptualisation of well-being to children that takes account of the complexity of their lives and moves beyond child development concerns only
4. Construct an index of child well-being for children in Ireland informed by theory and utilising Wave 2 child cohort data from the GUI study
5. Consider how such a conceptualisation and index might inform social policy for children and their families in Ireland

1.4.2 Research questions

In this context a number of specific research questions were identified:

1. What is child well-being and how has the concept been theorised and measured?
2. What is the Structural Model of Child Well-being and can it be meaningfully applied to the construction of a composite index of well-being for children living in Ireland?
3. What does the resulting composite index tell us about the well-being of 13 year old children living in Ireland?
4. What are the implications for policy of the findings emerging from the composite index of well-being for children?

1.5 Conceptual Approaches

"*Child well-being is not a single construct, directly observable or measurable*" (Vandivere and McPhee, 2008: 262). It is a contested term; the understanding, interpretation and application of which is influenced by the conceptual and theoretical approaches adopted by those attempting to measure it (Edmunds, 2010).

While conceptualisations of child well-being have been influenced by developments in adult conceptualisations of well-being, for example Sen's Capability Approach (Southwell, 2009; Pedace, 2009; Ben-Arieh and Frønes, 2011); three child-specific theories/frameworks have been particularly influential. First, is the growing recognition of children's rights, as highlighted by the ratification of UNCRC, which has encouraged the inclusion of domains and dimensions of children's lives that have been previously excluded from consideration (Ben-Arieh, 2005). Second, are the theories associated with the

'new' sociology of childhood[1] which recognise that childhood is both a lived experience and a constructed state; that childhood is a developmental stage; and that children are active agents in their own lives (Camfield *et al.*, 2009; Tisdall and Punch, 2012). Third, is the bioecological model of development; this model demonstrates that child development is contingent on the relationships between a range of actors, contexts and systems in the child's life (Bronfenbrenner, 1979; 1986).

The conceptualisation of well-being adopted in this study is underpinned by the overarching SMCW, developed by a scholar in Finland (Minkkinen, 2013). The SMCW is informed by a range of theories including Bronfenbrenner's bioecological model and the 'new' sociology of childhood, as well as by the UNCRC and Sen's Capability Approach (*ibid*). The SMCW conceives well-being as a series of concentric circles; the innermost circle includes the dimensions of individual well-being (physical, mental, social, and material) and their interplay; the next level is subjective action which is the mediating level between individual well-being and the outermost circle, the societal frame of well-being (see Figure 2-1 on page 48).

The individual dimensions of well-being included in the SMCW have been informed by the WHO definition of health and well-being (Minkkinen, 2013) and complement the domains and indicators identified in the broader child well-being research (O'Hare and Gutierrez, 2012). Physical well-being includes health, the absence of illness, and physical functioning. Mental well-being comprises both emotional and cognitive well-being as well as the absence of psychiatric disorders. Social well-being refers to the positive relationships that the child has with the people in their lives. Finally, material well-being relates

[1] Although often referred to as the 'new' sociology of childhood, it is important to note these theories were first developed in the 1990s.

to sufficient nourishment, housing and other material items that are typical of the standard of living in the country, society or culture being studied (Minkkinen, 2013). The explicitness of the model in detailing the indicators/characteristics of individual well-being is of benefit to efforts to index well-being for children. The GUI dataset was interrogated to assess if the domains of individual child well-being, as articulated in the SMCW, were present in the data.

The subjective actions circle refers to the internal and external activities that children engage in that produce well-being. The influence of the 'new' sociology of childhood and the UNCRC on this concept of subjective action is evident in the way in which children are viewed as active agents in their social worlds. Furthermore, at the root of subjective action in the SMCW is the capability of children to act by utilising the resources available to them, thus drawing on Sen's Capability Approach which is concerned with what people (children) are effectively able to do and be (Robeyns, 2005). The availability of these resources is culturally and socially contingent; the role of society and culture in constructing an understanding of childhood is equally emphasised in the 'new' sociology of childhood. The inclusion of children's activity in the model also reflects a preoccupation of many child well-being scholars with the concepts of well-being and well-becoming (Ben-Arieh and Frønes, 2011). Activities in childhood have both an immediate effect (well-being) but also contribute to future well-being (well-becoming). Therefore, in populating the index to take account of subjective action, indicators that consider well-being and well-becoming were included. Activities that represent and promote child well-being *"include play, physical exercise, studying, learning new skills, working, spending time with family and friends, caring for pets, hobbies, creative action, arts and crafts, and civic involvement"* (Minkkinen, 2013: 552). The inclusion of such clearly articulated examples of subjective actions assisted in the identification and choice of indicators for inclusion in the final index.

The outermost circle of the model is the societal frame and includes the *"circle of care, the structures of society and culture"* (Minkkinen, 2013: 553). The influence of the bioecological model of development is most evident in the articulation of the societal frame. The bioecological model recognises that children do not grow up in a socio-cultural vacuum; both models also share the idea of distal and proximal influences on children's development. However, the SMCW suggests that child development is a process that contributes to well-being; well-being is not equivalent to the presence or absence of age appropriate developmental competencies. In this way more than individual functioning was included in the conceptualisation, measurement and construction of this child well-being index. The concept of a 'circle of care' refers to those people directly interacting with the child. The inclusion of the circle of care recognises that social support constitutes and influences both immediate well-being and well-becoming. The societal frame also includes the structures of society such as institutions, laws and conventions. This frame also considers how children can participate in these structures, a theme that is reflected in both the 'new' sociology of childhood and the UNCRC. The final layer in the societal frame is culture. Culture refers to the shared values, norms and attitudes (Minkkinen, 2013). Children are both influenced by and influence culture, a perspective shared by the 'new' sociology of childhood theorists. Culture occupies this outer most circle, as culture is understood to frame all types of human and societal activity; culture wraps around both the circle of care, the structures of society and subjective action.

The significant advantage of the SMCW is that it analyses children's lives at the individual level and societal levels. Furthermore, the nature of well-being and development are understood to be different entities; development represents a process which can produce well-being (Minkkinen, 2013). Development by itself does not equal well-being. This kind of approach helps to move conceptualisations beyond the narrow boundaries of child functioning.

Adopting this model as the conceptual framework within which the domains and indicators of well-being were selected ensured that a more complete understanding of well-being was applied to the creation of the index.

1.6 Method

The purpose of this study was to construct an index of well-being for children in Ireland aged 13 years. Indices are concerned with measuring, aggregating and synthesising large amounts of indicator data, usually gathered through surveys and/or censuses. As discussed above, the index was theoretically informed by the SMCW. Moreover, the index was constructed using data from the Wave 2 GUI dataset for 13-year children living in Ireland. The GUI data was well-suited for use in the conceptualisation, measurement and construction of this index of child well-being for a number of reasons. First, the range and availability of information from a number of perspectives, and importantly from children themselves, provided an array of data across a range of domains that facilitated the creation of a comprehensive index of well-being. Second, the aspects of children's lives studied in GUI are not only been informed by theory but also by children's own understanding of well-being. Third, nearly all children in the child cohort were aged 13 years, thus ensuring equivalency in the sample. Finally, domain-specific data were collected from the same children and their parents; thereby ensuring a consistent voice in the creation of the index, unlike other well-being indices which draw on survey and population data from different children.

This current study attempted to develop a composite and comprehensive index of child well-being for children in Ireland, drawing on the conceptual breadth and depth of single country indices such as those developed by Land *et al.* (2007) for the United States, and international comparative indices such as those developed by Bradshaw *et al.* (2007a), while avoiding the disadvantages

of using aggregated data. The development of this index was also informed by the analytical advances in the treatment of micro-data as demonstrated by the Moore *et al.* (2008), Sanson *et al.* (2010), Cheevers and O'Connell (2013) and Moore *et al.* (2012) studies, while utilising a more theoretically diverse framework to conceptualise well-being.

The index was developed in two stages. Stage one involved the application of the SMCW to the identification and selection of domains, sub-domains and indicators used to populate this well-being index for children. Stage two of the process was the calculation of the index from data mined from the GUI dataset, using recognised and established methods of index construction. The approach to constructing this study's index reflected the methods used more widely in the literature. Following guidance from the OECD (2008) a theoretical framework, in this study's case the SMCW, was used to guide domain and sub-domain conceptualisations and indicator selection in the first instance. Once satisfied that the selection of indicators conformed to the theoretical parameters of the SMCW, parametric and non-parametric tests were used to assess for correlations between the different indicators in each sub-domain and across the domain. It is important to ensure that different indicators are not too highly correlated as this suggests the indicators may be measuring the same underlying concept, thus rendering one of the indicators redundant. Moreover, the scalability of the index and inter-item reliability were assessed using Cronbach's alpha. Further to the assessment of the strength of the correlations between different indicators and inter-item reliability and satisfaction that statistically the indicators were valid for inclusion in the model the data were then standardised. The data were standardised in two ways; first, in terms of directionality, such that higher scores indicated higher levels of well-being; second, all the scores were standardised to *z*-scores to ensure consistency across the unit of measurement (O'Hare, 2014). Standardisation of the data in these ways is typical to the index construction process. Sub-domain scores

were achieved by calculating the mean score from the aggregated indicators, this mean score was then standardised. Domain scores were calculated in the same way; that is the mean score for the aggregated sub-domains were calculated and then standardised. Finally, the overall index score was achieved by calculating the mean from the aggregated domains and this score was then standardised to a mean of 100 and standard deviation of 10 (Sanson *et al*., 2010; Cheevers and O'Connell, 2013). The mean domain scores and the overall well-being score were explored using Independent Samples T-tests and ANOVAs to assess the differences in well-being between different groups of children. Additionally the top and bottom 15th percentile for the index were created to enable analysis of groups of children who were achieving poorer or better well-being.

1.7 Outline of the Study

In **Chapter Two**, I trace the conceptual development of human well-being more generally in order to contextualise and situate the later discussion on concepts of children's well-being. I consider different theoretical perspectives on well-being, including hedonic and eudaimonic interpretations as well as Sen's Capability Approach. The chapter explores the origins of the concept of children's well-being and critically considers the main theoretical frameworks that have informed contemporary understandings of well-being. Conceptions of children's well-being have been influenced by theories of human well-being and have also been informed by the growing emphasis on recognising children's rights, the theoretical advancements emerging from the 'new' sociology of childhood, bioecological theories of child development from the field of psychology (Ben-Arieh, 2008a), and the Capability Approach which emerged from the discipline of economics (Sen, 1999). The final section of the chapter describes and critiques the SMCW; the SMCW is the theoretical framework underpinning the understanding of well-being that was used in this study to develop the index of well-being.

Chapter Three considers well-being in the social policy context. This study was centrally concerned that defining well-being too narrowly, for example, wholly in terms of individual functioning or wholly in terms of subjective well-being, tacitly endorses a highly individualistic and self-responsibilising interpretation of well-being. Such understandings in turn influence what gets measured to represent well-being, and provide the rationale for the state to have little or no role to play in intervening to provide welfare measures or social services to improve citizens' well-being. In this context, the chapter first explores the linkages between conceptualisations of well-being and political ideologies, with particular reference to the growing individualisation agenda that has been identified in the social policy literature. The chapter discusses what is meant by individualisation more broadly before considering the influence that the growing individualisation agenda has had on conceptualisations and measurements of well-being. The chapter concludes with a discussion of social policy development in Ireland and considers if, and how, social policy developments in the Irish context reflect and articulate an individualisation and self-responsibilisation agenda.

In **Chapter Four**, I describe the process of, and methods used in, constructing a composite index of well-being for children living in Ireland. The index was theoretically informed by the SMCW; and the index was constructed using data from the Wave 2 GUI dataset for 13-year children living in Ireland. The chapter first explains what is meant by composite indices, considers the typical conventions of index construction, and critically reflects on both the benefits and limitations of using indices to measure and describe complex concepts such as well-being. The chapter goes on to discuss the applicability of the SMCW to the construction of an Irish index of well-being such that the final index is congruent with the conventions of index building, as described in the literature, including creating domains and sub-domains. The chapter also describes the GUI dataset from which the index was constructed, including the benefits and

limitations of the dataset. The chapter also sets out the method used in calculating the sub-domain and domain scores for the index, including standardising the directionality of the data, standardising indicator values, the treatment of missing of data, the weighting of indicators, and validating and sensitivity checking of the index. The chapter concludes with a discussion of the types of statistical tests used to explore differences in well-being between different groups of children.

Chapter Five is the first of two findings chapters and sets out the findings from applying the SMCW to the identification and selection of domains, sub-domains and indicators used to populate the final index. This chapter discusses the identification and justification for the selection of specific indicators to populate the domains and sub-domains of well-being that are compatible with the theoretical orientation of the SMCW. The chapter demonstrates the way in which the SMCW was applied to the indicator selection process and references the wider literature on child well-being indices to illustrate the congruity between the selected domains, sub-domains and indicators of child well-being for this study and other child well-being indices studies. Where differences were observed between this SMCW-informed index and other indices these are discussed and the implications for the resulting index are considered.

Chapter Six is the second findings chapter for this study and discusses how the SMCW was applied specifically to the GUI dataset for 13 year-olds in the construction of an index. The chapter begins by presenting descriptive statistics for all the indicators selected for inclusion in the index of well-being on the basis of the theoretical orientation of the SMCW. The data transformation procedures used to prepare the data from the GUI dataset for inclusion in the index are discussed for each of the 35 indicators populating the 14 sub-domains and four domains of well-being. Once the validity of the index was established,

the chapter analyses domain and overall well-being scores by child and family characteristics such as gender, family type, parental educational attainment and other factors. In addition, comparisons between the top and bottom 15 per cent of children were made to further explore these differences. These analyses were intended to suggest which groups of children may need more support to ensure their well-being and where policy interventions may be directed.

Chapter Seven briefly summarises the study and discusses a number of key theoretical and methodological issues arising from carrying out this research. The chapter also considers how the index and its findings can be used to inform policy for children and young people that avoids a highly individualistic or self-reponsibilisation policy response. In this regard, particular attention is paid to *Better Outcomes, Brighter Futures*, the national policy framework for children and young people 2014-2020, and how policy responses, if underpinned by a comprehensive theoretical framework that takes account of both the structural and individual dimensions of children's well-being can be meaningfully and appropriately utilised for the purposes of establishing and monitoring children's well-being. This chapter concludes by considering the opportunities for future research emerging from this study.

1.8 Conclusion

In this chapter, I contextualised my reasons for undertaking this study and gave a brief overview of the conceptual approaches to theorising well-being. I described the aims of my research and specified my research questions. I explained my methods in applying the SMCW to the construction of my index of children's well-being. Finally, I provided an outline of the chapters included in this thesis.

In using the SMCW to inform the development of this study's well-being index for 13-year old children living in Ireland I demonstrated that a unifying theory of child well-being, when applied to a micro-dataset, can be used to develop a comprehensive index of well-being that contributes to what we know about children's lives. Moreover, I hope to have illustrated that such an approach can be meaningfully utilised to inform policy development for children and their families which recognises that the state has a role to play in intervening to promote and support the achievement of children's well-being.

Chapter 2 Conceptualisations of Well-being

2.1 Introduction

The purpose of this chapter is threefold. The first is to trace the conceptual development of human well-being more generally in order to contextualise and situate the later discussion on conceptions of children's well-being. The second objective of the chapter is to explore the origins of the concept of children's well-being and critically consider the main theoretical frameworks that have informed contemporary understandings of it. The final objective of the chapter is to describe and critique the Structural Model of Child Well-being (SMCW). The SMCW provided the theoretical framework underpinning my understanding of well-being and guided the choice of domains and indicators used in building an index of well-being for children living in Ireland.

2.2 Conceptualising Human Well-being

This section of the chapter considered the origins and conceptualisation of the term 'well-being' more generally and discusses the advantages and disadvantages of the term. The term 'well-being' has been increasingly used in social and public policy debates over the last 15 years and, it is argued, has supplanted welfare as a key concept (Taylor, 2011). The growing use of the concept for social policy purposes is evidenced by the range of national and international reports published on the theme of well-being. Among the most well-known are international comparative reports such as the United Nations Human Development Reports, the OECD report series "Society at a Glance: OECD Social Indicators" and European publications including Quality of Life in Europe reports, Social Reality Report and Social Portraits. Individual countries also publish a range of reports describing and measuring their citizens' well-

being, including the UK's Social Trends, the Dutch and German Social Accounts and the Swedish Level of Living survey amongst others (NESC, 2009).

It has been suggested that the positive connotations associated with the word 'well' in well-being is de-stigmatising and as such renders the term amenable to use not just in relation to those who are disadvantaged or vulnerable (White, 2008). Some authors have suggested that a focus on well-being facilitates a holistic understanding of humanity (Taylor, 2011); it allows us to consider 'social value' and not just an economic understanding of utility that is often associated with welfare (Jordan, 2008). International development scholars have argued that well-being is a broader and preferable term to welfare as well-being incorporates both process and outcomes (Taylor, 2011). At the same time, well-being has also been described as an *"empty signifier"* (Camfield *et al.*, 2009: 67) because it facilitates a range of meanings, that allows particular agendas to be promoted within an apparently benevolent concept.

As is demonstrated by the range of opinions regarding the definitions noted above, well-being is a broad and contested concept, open to multiple interpretations (Camfield *et al.*, 2009); as observed by Seedhouse (1995: 65) *"well-being is essentially contested – it's meaning and content fluctuates dependent on who is using it, and why they are using it"*. A review of the literature on well-being found that the term is theorised most commonly in the fields of psychology, economics and health promotion/public health (de Chavez *et al.*, 2005). In the health promotion/public health literature, the meaning of the term 'well-being' is found to be generally uncontested insofar as it is used to denote physical health. The term is found to be understood in a less uniform way in both psychology and economics and is used sparingly in the sociological or anthropological literature (*ibid*). The following sections set out the main approaches to conceptualising and assessing human well-being from

the fields of psychology and economics, as these two disciplines have been to the forefront in considering and popularising the concept.

2.2.1 Psychological conceptualisations of well-being

The concept of well-being is considered to incorporate many of the ideas from quality of life and social quality theories. Within the field of psychology a distinction is made between hedonic and eudaimonic concepts of well-being. The former is concerned with well-being as happiness and pleasure; the latter emphasises the importance of goal fulfilment, the cultivation of personal strengths and a contribution to the greater good (McMahan and Estes, 2011).

2.2.1.1 Hedonic well-being

Hedonic psychologists identify well-being as maximising happiness and pleasure and minimising pain to establish subjective well-being (McMahan and Estes, 2011). Research into hedonic well-being utilises subjective measures which are concerned with assessing life satisfaction and positive affect and negative affect. These three dimensions are often referred to collectively as 'happiness'. Subjective well-being (SWB), it has been suggested, is largely determined by genetic factors; furthermore SWB has been found to be relatively stable over the life span (Ryan and Deci, 2001). Research from the hedonic paradigm suggests that "*personality traits were significantly associated with SWB, suggesting a correspondence between chronic personality styles and individual differences in SWB"* (*ibid*: 149). In linking personality, individual differences and well-being, the concept of hedonic adaptation is introduced. Hedonic adaptation asserts that regardless of changes to a person's life they will always return to their original state of well-being (NESC, 2009). In the hedonic approach, the definition and achievement of happiness is an individual matter. As such, advocates of the hedonic approach argue that their understanding of well-being is more egalitarian than other approaches. The individual is free to decide what is pleasurable or not; hedonic psychologists do not impose a fixed

set of criteria to the definition of well-being. The relativism of the concept makes it amenable to use by individuals of different nationalities and from different cultures (Diener and Diner, 1995).

2.2.1.2 Eudaimonic well-being

In psychological terms, eudaimonic well-being is concerned with positive mental health and concepts such as self-esteem, resilience and coping. Well-being is understood to mean the extent to which an individual is developing as a person, being fulfilled in their life choices and making a contribution to their community (Marks and Shah, 2004). In the eudaimonic approach well-being is distinct from and more than happiness; this approach recognises that although they may produce pleasure, not all fulfilled desires lead to well-being. For example, smoking or taking drugs may lead to pleasure, but ultimately do not lead to well-being (Ryan and Deci, 2001). Eudaimonic approaches utilise the notion of psychological well-being (PWB) rather than subjective well-being. PWB is a multi-dimensional construct that includes autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness (Ryff and Keyes, 1995). It is argued that these characteristics constitute physical and emotional health or well-being; eudaimonic well-being is often "*operationalised as happiness-plus-meaningfulness*" (Carlisle *et al.*, 2009: 1557). Research suggests that three factors influence levels of eudaimonic well-being: genetics, life circumstances and intentional activities. Genetics plays the greatest role in determining well-being, a finding shared with the hedonic well-being literature; after which intentional activities, such as setting goals, socialising and having aspirations, are important. Living circumstances, such as neighbourhood, income and material possessions, it is argued exert little influence on our happiness levels. Once basic needs are met money is not important, as it is argued individuals adapt very quickly to the material gains that come with increases in income, and human beings continually make comparisons with others which can lead to dissatisfaction (Marks and Shah, 2004).

Ryan and Deci's (2001) self-determination theory (SDT) describes the conditions that facilitate rather than constitute well-being; this they argue is the difference between SDT and PWB. They argue that the satisfaction of three basic psychological needs of autonomy, competence and relatedness usually foster hedonic (subjective) well-being and eudaimonic (psychological) well-being. In SDT, well-being is defined as *"life satisfaction and psychological health"* (Ryan and Deci, 2001:147). The cultural antecedents to constructions of well-being are acknowledged within SDT; however, it is asserted that characteristics such as autonomy (defined not as independence but as volition) are important across cultures and societies, lending a universalism to the SDT conception of well-being that is absent from hedonic conceptualisations.

2.2.1.3 Critiquing psychological conceptualisations of well-being

If, as Jordan (2008) argues, the use of well-being as a concept supports a broader understanding of humanity and facilitates an understanding of 'social value', then both the hedonic and eudaimonic conceptions of well-being are limited. The shortcomings of these conceptualisations of well-being include the highly individualised nature of the concept with its emphasis on self-reliance and individual responsibility; the cultural relativism inherent in the Western-centric expression of well-being based on concepts such as positive affect and negative affect or autonomy and competence; and the imperative from the discipline of psychology to 'treat' individuals where low levels of well-being are indicated (de Chavez *et al.*, 2005). In addition, it is argued that the hedonic approach lacks any theoretical underpinning, given its focus on self-generated meanings of life satisfaction (*ibid*).

The hedonic approach to well-being, in particular, sits within a positive psychology framework; the individual is responsible for drawing upon their own inner resources to affect change, and well-being is self-efficacy (Taylor, 2011). Furthermore, this approach complements the Utilitarian and Liberal values of

freedom by conferring on the individual the freedom to choose and pursue happiness as they see fit (Carlisle *et al.*, 2009). The eudaimonic conception of well-being retains a significant emphasis on the individual, albeit with some recognition of individuals as social beings interacting with others and the environment around them. However, in both hedonic and eudaimonic conceptions the individual is seen as the primary reality; a view that is shaped by individualistic moral visions of the good life (Christopher, 1999). These approaches exclude the values important to individuals from collectivist societies where notions of individual well-being are uncommon and personal happiness is reported to be derived from the sense of belonging to, shared responsibility towards and the achievement of common goals within a family and community (*ibid*).

The concept of agency is strong in both the hedonic and eudaimonic approaches to well-being; that is *"the actions, activities, decisions and behaviours that represent some measure of meaningful choice"* (Deacon and Mann, 1999: 413). Furthermore, the assertion that genetics are the most important determinant of individual well-being and the associated concept of hedonic adaptation, suggests that there is little that an individual or society can do to improve well-being. This presents a fatalistic and nihilistic view of social and economic policy. The responsibility for development, progress or change rests solely on the individual and the potential for development is anyway limited by our inherent disposition. The hedonic and eudaimonic approaches to well-being emphasise individual personal responsibility, moderation and work ethic which are all features of a modern neo-liberal economy (McDonald and O'Callaghan, 2008).

Life satisfaction; positive affect and negative affect; and autonomy and competence; cornerstones of the hedonic and eudaimonic understandings of

well-being respectively, are concepts that are reflective of the preoccupations of Western societies (Christopher, 1999) and the *"privatisation of identity"* (Furedi, 2002: 23). Carlisle (2009) goes further to suggest that these characteristics are indicative of a North American value system. Qualities such as modesty, self-effacement and self-denial, which are valued in collectivist societies, are considered problematic or indicative of low levels of well-being. Furthermore, psychological definitions of well-being, such as those adopted in the hedonic and eudaimonic conceptualisations, suggest that some form of response or treatment is required to ameliorate findings of poor well-being. For example, the expression of positive emotion in North America is viewed as an expression of personal and social success whereas negative emotion is seen as failure which requires intervention. Conceptualising well-being in this way supports a particular, albeit unrealistic, westernised world view of what constitutes the good life. Happiness either as a single concept (hedonic well-being) or coupled with emotional health (eudaimonic well-being) does not constitute well-being, it is argued, as it is perfectly normal to experience feelings of sadness, unhappiness or depression from time-to-time (Carlisle *et al.*, 2009).

2.2.2 Economic conceptualisations of well-being

The shift towards assessing a country's social progress and social conditions by considering more than just economic factors was spearheaded by the social indicators movement of the 1960s (NESC, 2009; Ben-Arieh, 2008; Lippman, 2007). The social indicators movement in the USA emerged during a period of great social change. Scholars and policy makers were interested in expanding the range of measures used to indicate development beyond traditional economic indicators in an attempt to focus on how people actually were, to better understand their lives and develop social policy that responded to their needs and circumstances (Andrews, 1989). The development of social indicators in the 1960s was largely an empirical exercise, as it was not

underpinned by explicit theories of human development. Social indicators were defined as *"statistics, statistical series, and all other forms of evidence....that enable us to assess where we stand and are going with respect to our values and goals"* (Bauer, 1966:1, cited by Ben-Arieh, 2008a) The movement gained significant momentum during the 1970s and into the 1980s and conceptual and methodological progress resulted. For example, quality of life as a concept and the methods for its measurement, using both objective and subjective indicators, for social policy purposes emerged (Andrews, 1989).

Happiness and life satisfaction, as described in hedonic well-being, have been adopted as a conceptual tool in economics. From an economic perspective, hedonic well-being is associated with utility, insofar as utilitarianism is understood as the exercise of choice in fulfilling personal desires (NESC, 2009). Economic research suggests contradictory evidence on the degree to which income and happiness are correlated. Some studies demonstrate that beyond a certain income threshold our happiness or satisfaction with life does not increase in line with increases in income. Other studies find that raising the income for an individual does lead to increased individual happiness, however, raising incomes for society as a whole does not yield increases in societal happiness. In contrast, other studies conclude that there is link between both absolute and relative income and happiness (*ibid*); and yet another body of research indicates that wealthier individuals are nearly always happier than poorer ones (Carlisle *et al.*, 2009).

2.2.2.1 Moving beyond GNP as an indicator of social progress: Sen's Capability Approach

Sen's Capability Approach has been particularly influential in conceptualising human well-being and provides an alternative to standard economic frameworks. The Capability Approach challenges the view that economic development or the consumption of goods and services are good indicators of

progress or development. The Capability Approach, while informed by classical political economy, is also influenced by the eudaimonic concept of well-being, which focuses on the idea of an individual realising their true potential (Clark, 2005). The Capability Approach is a response to traditional welfare economics where well-being is understood in terms of income and utility[2]. Sen suggests that knowing what makes people happy can provide information about their true and fundamental values (Anand *et al*., 2009) and there is more to life than achieving utility (Clark, 2005). In this context, the Capability Approach emphasises that the things a person manages to do or be (functioning) and their ability to achieve a given functioning (capabilities) are central to an individual's welfare, rather than focusing on what they actually do (Clark, 2005; Anand *et al*., 2009; Robeyns, 2005). Functioning in this context is understood as the *"use a person makes of the commodities at his or her command"* (Clark, 2006:4). Capabilities are the abilities and possibilities that individuals acquire in order to 'be and do', that is the outcomes that each individual assesses as contributing to the good life (Carpenter, 2009). The Capability Approach therefore considers how people can function with the goods and services they have at their disposal (Clark, 2006).

The Capability Approach recognises that different people and societies typically differ in their capacity to convert income and commodities into valuable achievements and that different people put different weights on different capabilities (Clark, 2006; Anand *et al*., 2009). Subjective well-being and individual constructions of well-being are therefore central to the Capability Approach. In the Capability Approach, the role of public institutions and the rights and values of individuals to operate and live in a world of institutions is important. Our opportunities and prospects depend crucially on what institutions exist and how they function (Sen, 1999: 142). Finally, the Capability

[2] Utility in this context is understood in terms of happiness and desire fulfilment (Clark, 2006).

Approach recognises the importance of freedom, referring to equality of freedom (NESC, 2009). A significant advantage of the Capability Approach is its focus on the freedom of the individual to do or be that which he/she values; in other words the Capability Approach is able to accommodate the range of human beings and the complexity of their situations (Dean, 2009). It therefore focuses on the things which people value and have reason to value. In particular, there is a focus on *"the importance of participation and agency and on rights and values which allow people to realise their full potential"* (NESC, 2009: 29).

The Capability Approach asks whether an individual is healthy, well-nourished, educated and so on, and whether the conditions, means or resources for the particular capability are being met; *"for some of these capabilities, the main input will be financial resources, and economic production, but for others it can also be political practices and institutions.....the Capability Approach thus covers all dimensions of human well-being"* (Robeyns, 2005: 96). A shortcoming of the Capability Approach is Sen's reluctance to identify the core capabilities required for a 'good' quality of life. According to Phillips (2011: 75) *"Sen refuses to be specific about a list of priority capabilities and functionings for all cases, because of his emphases on the value of freedom and on context-dependence"*. In other words, Sen argues that what constitutes quality of life is culturally and socially contingent and that the selection of capabilities is best left to the democratic process in individual societies.

2.2.2.2 Critiquing the Capability Approach

While developed around a more holistic understanding of well-being, the Capability Approach, like psychological approaches and other economic approaches to well-being, is individualistic. Not as narrowly defined as the hedonic concept, the Capability Approach does not take adequate account of where power resides, social structures, culture and the inequalities in society

which may limit an individual's 'being and doing' (Carpenter, 2009). As noted above, individual agency is an important feature of the Capability Approach, however, as Taylor (2011: 787) argues *"the capacity to act is not simply an individual resource, but it is contextual and depends upon the ability to mobilise self in the context of and with others – it is relational"*. In some situations, an individual may have the capability to flourish and grow and in others they may not; this is the notion of negative capability (Qizilash, 2011). Indeed, Sen (2005) argues that in some circumstances an individual may not have the freedom of choice to be and do; a violation of their "*process freedom*" (*ibid*: 153). Moreover, the individual may be obliged to do something that he/she would not ordinarily choose to do if there were any alternative, a violation of his/her freedom of opportunity to fully realise their capabilities (Sen, 2005: 153).

In this context, there may exist limited agency and negative capability, neither of which is adequately acknowledged in the Capability Approach. In other words, focusing on capabilities only limits the potential to focus on other aspects of freedom, such as freedom of opportunity. Furthermore, as Dean (2009) argues society is made up of interdependent beings. However, in the Capability Approach the individual is seen as autonomous and dependency is viewed as problematic, and where defining and achieving capabilities is viewed as highly individualised. Sen's refusal to compile a list of the essential capabilities, necessary for well-being, has been both endorsed and criticised. It is argued that Sen's refusal to define a list of agreed capabilities suggests a degree of flexibility and demonstrates what Clark (2006: 5) calls "*internal pluralism*". In leaving the interpretation and definition of capabilities open the Capability Approach does take account of cultural and social differences (Qizilbash, 2011; Clark, 2006). In contrast, critics suggest the lack of an agreed and defined list of capabilities indicate a vagueness which undermines his conceptualisation of well-being. Moreover, Sen's response to critics regarding this failure is that essential capabilities should be identified via local public

democratic processes, however, this fails to recognise the limited opportunities in some societies for such deliberation, and the absence of a common consensus on what constitutes 'public' (Dean, 2009).

2.3 Origins of Children's Well-being

In much the same way as the social indicators movement influenced the early conceptualisations of human well-being; commentators suggest that the current interest in children's well-being can also be traced back to that movement (Ben-Arieh, 2008b; Lippman, 2007). In parallel to the growing interest in measuring subjective well-being among adults, there was a growing interest in assessing the well-being of children as a discrete group. Zill and Brim (1975) were the first to introduce the phrase 'childhood social indicators' which *"refers to statistical time series data that measure changes (or constancies) in the health, behaviour, and well-being of American children and in the conditions of their lives"* (Zill and Brim, 1975: 1 cited by Lippman, 2007). For the most part, early attempts to assess children's well-being merely adopted the indicators and methods of assessment utilised in studies of adult well-being (Camfield *et al.*, 2009). Like its adult counterpart, the study of children's well-being during the early 1970s was largely an empirical exercise; little attention was paid to how children's well-being was conceptualised or the theoretical basis for the identification of the domains of well-being for children. However, authors such as Brim during the late 1970s and the Child and Family Indicators Advisory Group, established in the USA in the early 1980s, were influential in the debate of what to measure and how to measure children's well-being (Lippman, 2007). For example, Brim (1975) advocated for measures of well-being (indicators that measure the current state) and well-becoming (indicators that assess for future life chances). Brim (1975) also called for indicators that capture the ecology of children's development in their families, schools and communities (Lippman, 2007). It was during this period that it was recognised that children should be the unit of observation, not the family or household, and that contextual and

environmental factors be included in measuring children's well-being. Despite these important developments, the study of children's well-being continued to lack a coherent or unitary theoretical foundation, as its study had been framed within single disciplines, albeit, diverse theoretical paradigms, for example development psychology, education, social policy and so on (Camfield *et al.*, 2009).

2.4 Conceptualising Children's Well-being

While conceptualisations of children's well-being have been influenced by developments in adult conceptualisations, for example Sen's Capability Approach and SWB (Southwell, 2009; Pedace, 2009; Ben-Arieh and Frønes, 2011); three child-specific theories/frameworks have been influential. First, is the growing recognition of children's rights, as highlighted by the ratification of the UNCRC. The UNCRC has encouraged the inclusion of domains and dimensions of children's lives that have previously been excluded from consideration (Ben-Arieh, 2005). Second, are the theories associated with the 'new' sociology of childhood, which recognise that childhood is both a lived experience and a constructed state; that childhood is a developmental stage; and that children are active agents in their own lives (Camfield *et al.*, 2009; Tisdall and Punch, 2012). Third, is the bioecological (Bronfenbrenner, 1979, 1986) model of human development. This model demonstrates that human development is contingent on the complex interaction of person (individual traits, biology), process (processes of development), context (the environment in which the individual grows and develops), and time (both historical time and the timing of events in the individual's life) (Tudge *et al.*, 2009).

2.4.1 United Nations Convention on the Rights of the Child

The UNCRC emerges from the literature as an important normative framework influencing the conceptualisation of children's well-being (Ben-Arieh, 2008b;

Bradshaw *et al*, 2007b; UNICEF, 2013). It has been argued that the UNCRC promotes a holistic understanding of children, conferring on children rights under four broad categories: survival rights, developmental rights, protection rights and participation rights (NESC, 2009). A range of articles contained with the UNCRC also support a rights-based approach to conceptualising children's well-being including: Article 3 which contributes to defining what is understood as children's mental, spiritual, moral and social development; Article 32, on protecting children from damaging work; Article 24, on rights to health; Articles 28 and 29, on rights to education; Article 31, on recreation and play; and Articles 5 and 18, on the responsibilities of parents (Camfield *et al.*, 2009: 66). Furthermore, the four key UNCRC principles of non-discrimination, best interests of the child, survival and development, and respecting the views of the child, it is argued, also fit well with conceptions of children's well-being (NESC, 2009).

The UNCRC, by virtue of the rights articulated in the document and in concert with the principles underpinning it, accepts children as citizens in their own right, places children at the centre and recognises their capabilities to determine their own lives. Bradshaw *et al.* (2007b: 135) explicitly frame their definition of well-being around children's rights: *"well-being can be defined as the realisation of children's rights and the fulfilment of the opportunities for every child to be all she or he can be in light of a child's abilities, potential and skills"*. The rights perspective has had a particularly important influence on how children's well-being is conceptualised and measured. It is argued that the UNCRC has put children on the social and political agenda, thereby giving added impetus to theoretical debates about children and childhood and to efforts to measure their well-being.

While rights are one of the *"most powerful discourses globally*" (Tisdall and Punch, 2012: 256), there have been critiques of adopting a rights-based approach to theorising and assessing children's well-being using the UNCRC framework. In the first instance, Morrow and Mayall, (2009) argue that the UNCRC is an international treaty designed to assess the implementation of legislation and policies as they relate to children. In this context, the UNCRC is not the appropriate vehicle with which to interpret or analyse children's well-being. Second, in order to be a meaningful framework within which to promote children's rights across countries and cultures, by necessity the language of the UNCRC lacks specificity and does not reflect any particular philosophy. Terms such as 'best interests of the child' are open to interpretation by individual countries. These very efforts at ensuring its universal applicability undermine the strength and meaningfulness that the Convention is attempting to convey (James and James, 2004). Furthermore, the use of the term 'the child' throughout the document has been critiqued, as it is argued that the term 'the child' is reductive, pejorative and ignores children's uniqueness by collectivising them (*ibid*).

Third, James and James (2004) argue that the UNCRC attempts to establish a universally accepted understanding of childhood and presents children and childhood as an "*undifferentiated collective social status*" (*ibid*: 82). As we shall see in the following section, theorists from the field of the 'new' sociology of childhood argue that childhood is socially constructed and notions of 'childhood' are *"malleable, changeable and ultimately contested"* (Wyness, 2006: 8). The suggestion that one ideal or aspirational 'childhood' can be identified and achieved for all children across countries and cultures ignores that the construct and understanding of childhood is not the same for all children (James and James, 2004). Furthermore, the ideas and understandings of children and childhood contained within the UNCRC are informed by Western normative understandings of childhood. However, the way in which

children are viewed and childhood is understood differs across cultures. For example, there exists a tension between the UNCRC and African conceptualisations of children's responsibilities; the latter understands children as having responsibilities, living relationally, inter-generationally and with their communities (Tisdall and Punch, 2012) while the former articulates children as individuals. Therefore, basing conceptualisations of children's well-being on the rights articulated in the UNCRC at best underestimates, or at worst excludes, factors that might be considered important to children's well-being across cultures. This is a particularly pertinent issue for the construction of well-being indices for children where attempts are made to compare states of well-being using common indicators across countries and cultures.

Finally, there is a tension in the UNCRC between the different 'types' of rights articulated in the document. Three general 'types' of rights are articulated: rights of freedom, rights of protection and welfare-based rights. The first two are considered natural rights (Wringe, 1996). The tension resides in the primacy that governments and legislators in different countries attach to these different types of rights, primacy that is determined by social and cultural contexts.

Notwithstanding the limitations of using only the UNCRC as a framework for conceptualising children's well-being, utilising a rights-based approach in developing our understanding of well-being is useful. As noted, domains of well-being not previously considered are now routinely included in the conceptualisation and measurement of children's well-being. The emphasis on listening to children's views is evident in the way in which data on well-being is collected directly from children and not just through parent reports. However, by itself the rights-based approach provides only a loose framework with which

to conceptualise children's well-being and must be utilised in association with other theories.

2.4.2 The 'New' Sociology of Childhood

A challenge to the development of a unified conceptualisation and measurement of well-being for children globally is that the label 'child' is both a lived experience and a constructed state (Camfield *et al.*, 2009). Prior to the late 1980s and early 1990s, sociology was mainly concerned with how and why children fail to become the 'right' kind of adult. Little attention was paid to children as children; what mattered to them, what affected them and how they interacted with their families, peer networks, communities and their wider environments (Moran-Ellis, 2010). The 'new' sociology of childhood, on the other hand, views childhood as socially constructed, variable and context-specific; children are viewed as social actors and holders of rights (Tisdall and Punch, 2012). The concept of children's agency is articulated in this 'new' sociology of childhood; countering traditional conceptions of childhood which viewed children as less competent and 'less complete' (*ibid*). The concept of children's agency resonates with the notion of agency as articulated in the conceptualisations of adult well-being; that is individuals are active actors and decision-makers in the generation and determination of their well-being.

Children's well-being is *"a socially contingent, culturally anchored construct that changes over time, both in terms of individual life course changes as well as changes in socio-cultural context"* (Crivello *et al.*, 2008: 53). While it could be argued that these considerations apply to the study of human well-being more generally, these issues are particularly pertinent to how children's well-being is conceptualised. During childhood children grow and develop such that *"Being influences becoming; becoming influences the understanding of being"* (Frønes, 2007: 9). The social construction of childhood is influenced by a mix of *"social structures, political and economic institutions, beliefs, cultural mores, laws,*

polices and the everyday actions of both adults and children" (James and James, 2004: 13). This characteristic makes the conceptualisation of children's well-being all the more problematic, and particular attention must be paid to avoid applying western assumptions about normative children's development to global concepts of children's well-being. Ways of defining well-being for children may be differentiated by gender, nationality, ethnicity, birth order and many other factors (Camfield *et al.*, 2009).

While the social construction of childhood theory is an important framework that informs our understanding, it does not explain children's well-being. There are a number of reasons why it needs to be supplemented by other theories and frameworks. First, empirical research from the field of the 'new' sociology of childhood demonstrates that children are competent and active social agents and decision-makers. However, the relationship between structure and agency is critical and sufficient attention has not always been paid to this issue (Moran-Ellis, 2010). That children are competent social actors has largely been accepted with little questioning of what this means for different groups of children. The individualisation and agency thesis suggests an ideology of choice, but individuals with fewer resources and less power to exercise those choices, such as children, are vulnerable to social exclusion (Wyness, 2006). Children's agency may also be limited by their generational position, the myriad social positions they hold and the social and economic positions that their parents and families occupy. Second, the social construction of childhood potentially minimises the universal elements of childhood, for example, children's biological differences from adults need to be separated from the cultural components of childhood; and the problems of child neglect, child labour and child abuse are found in nearly all societies (Wyness, 2006). Children grow and develop rapidly; this is a common biological feature of most children's lives, notwithstanding development delays that some children may experience as a consequence of disability, illness or poverty. Decoupling

context from the common developmental stages of childhood suggests that there is little that can be said generally about the nature of childhood (*ibid*).

Nonetheless, the 'new' sociology of childhood has been influential to conceptualisations of children's well-being in two ways. First, it recognises that childhood is a life stage with its own sociological characteristics. Second, it conceptualises well-being in the context of how children are in childhood, not by projecting well-being to a future state in adulthood; that is well-being not just well-becoming (Ben-Arieh, 2008b). When considered in tandem with a number of other theories, the 'new' sociology of childhood provides a helpful theoretical framework within which to situate ideas about children's well-being.

2.4.3 Bioecological Theory of Human Development

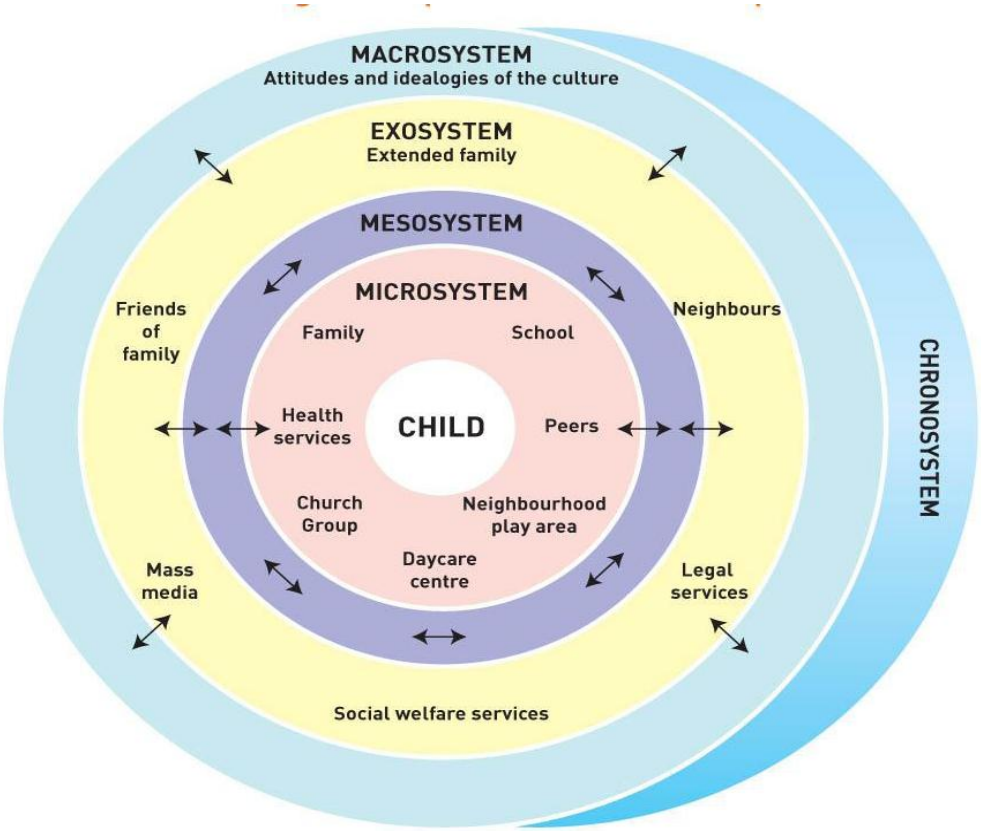
Bronfenbrenner's influence on conceptualisations and measurement of children's well-being has been significant. For example, the bioecological theory[3] has been used to inform domain choices in measuring well-being (Bradshaw *et al*., 2007b; Bradshaw and Richardson, 2009; Ben-Arieh and Frønes, 2007; Greene *et al.*, 2010a). Furthermore, the theoretical model framing this study, the SMCW, also draws heavily from Bronfenbrenner's theory.

The ecological theory of human development argues that development evolves as a result of the reciprocal interaction of the developing individual with the structures and environment that she/he inhabits. Environment is defined as the immediate setting as well as the wider surroundings in which the individual resides; it also includes the interactions between the settings and the wider surroundings (Bronfenbrenner, 1979). A defining characteristic of

[3] The term 'bioecological model' is used and understood to incorporate concepts first articulated by Bronfenbrenner in the ecological model of human development (1979).

Bronfenbrenner's ecological theory is the rejection of the 'nature or nurture' divide, evident in traditional developmental psychology, in favour of recognising an integrated model of development whereby the individual interacts with their environment and is both influenced by it and influences it (Greene *et al.*, 2010a). The ecological environment is "*conceived typologically as a nested arrangement of concentric structures, each contained within the next. These structures are referred to as the micro-, meso-, exo-, and macrosystems*" (Bronfenbrenner, 1979: 22).

Figure 2-1 Bronfenbrenner's Bioecological Theory of Child Development



Source: Greene, *et al*. (2010a) Adapted from Bronfenbrenner (1979) and Garbarino (1982)

The concept of the 'nested' arrangement and its visual representation has been used widely in child development research (Greene *et al.*, 2010a; Tudge *et al.*,

2009; McAuley and Rose, 2010) and in Irish policy formulation, for example, in the National Children's Strategy (Department of Health and Children, 2000), and more recently the Expert Advisory Group on the Early Years Strategy (Department of Children and Youth Affairs, 2013).

The microsystem is defined as a "*pattern of activities, roles and interpersonal relations....in a given setting with particular physical or material characteristics*" (Bronfenbrenner, 1979: 22). In the microsystem the environment includes not just the objective elements but the way in which these elements are perceived by those experiencing the system. The mesosystem is the interaction between two or more settings in which the child participates, for example, home and school. The mesosystem is a system of microsystems (Bronfenbrenner, 1979). The exosystem refers to one or more settings that the child does not directly participate in but is affected by or affects what happens in it. Typical examples of the exosystem include parental employment, parental social networks and so on. Finally, the macrosystem refers to the 'consistencies' that exist at the level of culture, belief systems or ideologies. These four integrated environments provide an effective taxonomy of factors *"that may influence the experiences and well-being of a child as he/she develops from birth to adulthood"* (Greene *et al.*, 2010a: 22). As Bronfenbrenner developed the model during the 1980s he introduced the concept of the chronosystem. The chronosystem introduces time into the model, and facilitates the assessment of the impact of changes over time in the environment in which the person lives on their development (Bronfenbrenner, 1986).

During the 1980s and 1990s Bronfenbrenner continued to refine his model of development. While retaining a systems focus, the role the person plays (biology) in their own development becomes much more central, as do the processes of human development (Tudge *et al.*, 2009). Four features of the

bioecological model of development (Bronfenbrenner, 1986) have been identified: process, person, context and time (PPCT).

Human development primarily takes place through proximal processes, defined as the activities or interactions between the individual and the people, objects and systems in their immediate environment (Greene *et al.*, 2010a). Proximal processes are fundamental to the bioecological model, as these activities and interactions represent the 'engines of development'; by engaging in these activities individuals come to understand their world and their place in it (Tudge *et al.*, 2009). These proximal processes are not uniform but vary from person-to-person depending on the characteristics of the developing person; of their environment; the nature of the developmental outcomes under consideration; and on the continuities and changes in the social context that happen over time (*ibid*).

As noted above, biology is identified as a crucial contributor to human development, hence the re-framing of the theory as the bioecological model. The model identifies three features of the person that impact on proximal processes: demand, resource and force. Demands are the characteristics of the individual that affect the way in which another person interacts with the developing subject, for example, gender, age, ethnicity, or physical appearance. Resource characteristics include the mental and emotional resources that affect the developing individual's ability to capitalise on proximal processes. Finally, force characteristics have to do with differences in temperament, motivation, persistence and so on (Greene *et al.*, 2010a; Tudge *et al.*, 2009).

Context in the PPCT model refers to the four inter-related environments, first articulated in the ecological model of human development. Context acknowledges that the developing person is influenced by and influences both

their immediate (microsystem) and wider environment (exo-and-macrosystems), thereby influencing the proximal processes that facilitate development. Finally, time is a critical element of the bioecological model. That is time in terms of the timing of events and historical time, the period during which an individual lives.

The bioecological model (Bronfenbrenner, 1986) draws together some of the key concepts first theorised in the ecological theory of human development, while expanding on them and emphasising the importance of the individual in their own development. There are number of features of the model that make it an attractive theoretical foundation for the study of well-being.

First, the bioecological model recognises that children interact with different systems, both proximal and distil, with time as an underlying factor. Children's interactions with these systems influence their development. The child, with all his or her personal traits and characteristics primarily interacts with their family, followed by their friends, community, school, childcare, and healthcare and so on. The extent to which child development is achieved can then be examined and assessed across these domains. Second, these systems and structures interact and operate with each other within a wider societal context with reference, for example, to cultural norms and government policies (Bradshaw *et al*., 2007b). The full ecology of the child's world is taken into account. Children's well-being can therefore be enumerated through the collection of indicators that reference personal, family, social, community and other factors. The importance of the bioecological model is that it demonstrates that children's development is contingent on a range of actors and the relationships between the different systems inherent to and present in the child's life. Third, the bioecological model recognises the individual (child) as central to the developmental process; individual agency and predisposition

are seen as increasingly important (Greene, 2006). The importance and centrality of the individual suggests that the bioecological model is compatible with the concept of agency as articulated in the 'new' sociology of childhood literature. Fourth, the phenomenological approach to studying human development and the importance of perception are also a good fit with the 'new' sociology of childhood. Bronfenbrenner's (1979) model moves beyond the traditional scope of developmental psychology, with its emphasis on objectivist ontology and positivist epistemology, to consider how an individual's perception of their environment, from microsystem to macrosystem, could influence their development.

The advantages enumerated above suggest that Bronfenbrenner's bioecological model should be considered in any theoretical understanding of well-being. The model does indeed contribute to our understanding of well-being; however, it does not explain it. There are two important and interconnected reasons why Bronfenbrenner's model is one of a number of theoretical perspectives that should be used to inform our understanding of children's well-being.

First, the model is essentially a psychological framework detailing the processes of human ***development***[4]. It is my contention that well-being is a broader concept than development; development by itself does not constitute well-being. As Greene *et al.* (2010a: 23) argue, a psychological perspective on children's well-being "*can usefully be supplemented by work from other disciplines, which take as their main focus the effect of social structures on individual outcomes"*. Development is both an input to well-being, for example physical and intellectual development may contribute to well-being, and an

[4] My emphasis

outcome of well-being; development is enhanced by well-being. Development is not equivalent to well-being; *"developmental outcomes are not synonymous with the measures which policy-makers and others use to gauge children's well-being"* (Greene *et al.*, 2010a: 13). A single-disciplinary theoretical framework, such as Bronfenbrenner's bioecological model, is insufficient to theorise well-being.

Second, over and above the epistemological limitations of applying one theoretical perspective from one discipline to a multi-dimensional construct that is neither directly observable nor measurable (Vandivere and McPhee, 2008) the developmental perspective focuses heavily on individual functioning. The ecological theory of well-being was weighted heavily towards a 'systems' understanding of development, whereas the later bioecological model focused more centrally on the role of the individual in mediating their own development.

Notwithstanding the influence of, and the relationship between, the immediate and wider environments on children's development in the bioecological model, the 'context' in the PPCT model, such as personal and family characteristics, are all proximally related to child development. Within this context, personal characteristics have been reframed as individual functioning and described in terms of children's outcomes; the ecology of development is analysed in contextual terms. For example, recent studies into children's well-being distinguish between children's well-being outcome measures and contextual measures; the latter assess the risk and/or protective factors present in children's lives (Cheevers and O'Connell, 2013; Moore *et al*., 2012; Sanson *et al.*, 2010; Moore *et al.*, 2008; Vandivere and McPhee, 2008). In these studies, the concept and measurement of well-being are focused entirely on individual functioning, for example, health and physical development, social and

emotional functioning and learning competency. Material, family and environmental circumstances are used to explain variations in well-being outcomes; these factors are not considered intrinsic to the concept of well-being. Children's well-being is understood as synonymous with child development. The bioecological model is compatible with this type of interpretation of well-being given its emphasis on the role of the individual in their own development.

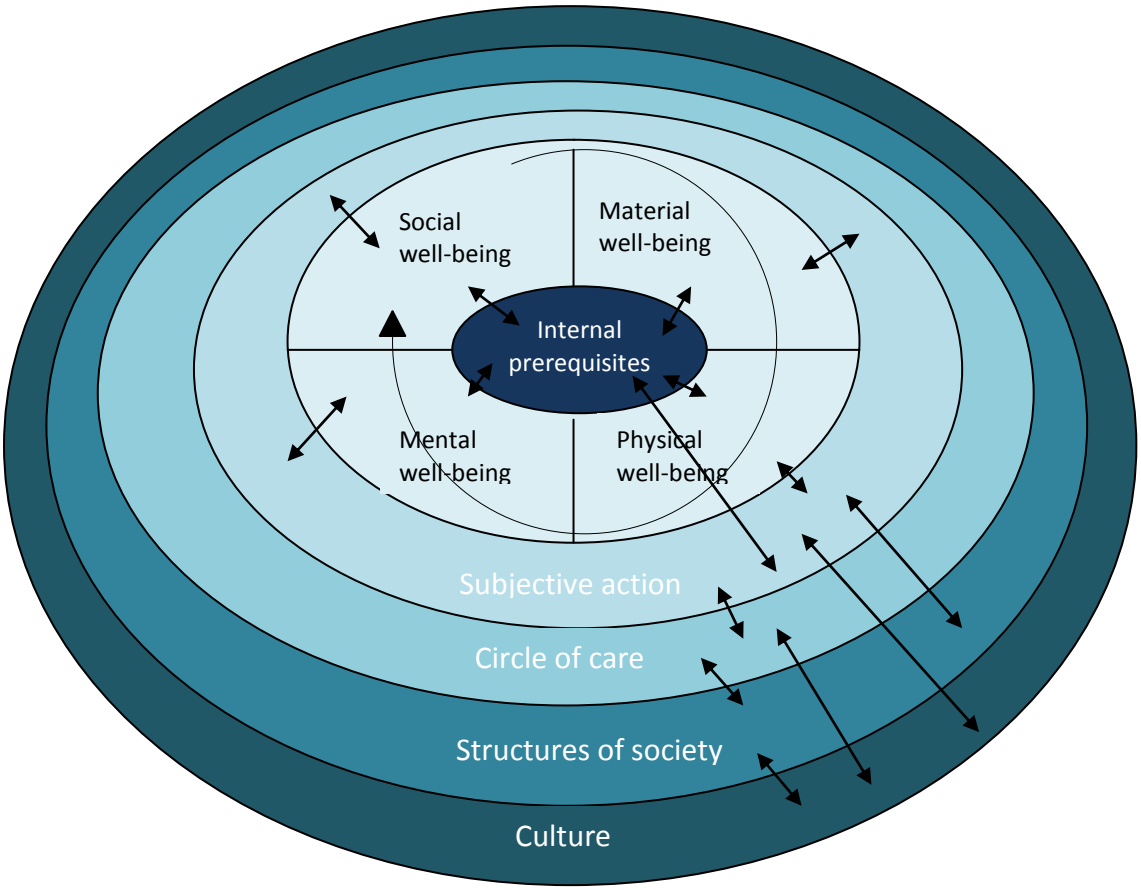
A multi-disciplinary approach to the study of well-being is required in order to theorise a comprehensive model of children's well-being, that takes due account of children's agency and their capacity for action, but also recognises the agency-structure dynamic, the universal nature of some aspects of children's development and the importance of social and cultural contexts. None of the theoretical frameworks described above taken individually adequately conceptualise the complexity of the concept of children's well-being; rather they are useful and important frameworks that inform our understanding and contribute to a unifying theory of well-being for children. A useful development in the conceptualisation of children's well-being has been the emergence of the SMCW. The next section of the chapter describes the SMCW in more detail.

2.5 The Structural Model of Child Well-being

The SMCW has been developed by a researcher in Finland and has been informed by a range of theories including Sen's Capability Approach, Bronfenbrenner's bioecological model of human development, the 'new' sociology of childhood, the UNCRC and theories of child development (Minkkinen, 2013). The SMCW is informed by the idea of the *"individual as a physical, mental and social being who lives and acts in a material world, interacting with other people and institutions around the cultural environment"*

(*ibid*: 548). The diagram below shows the main components of the model and the ways in which these different components interact with each other. Four dimensions of well-being are identified in the model: physical, mental, social and material. The intrinsic and extrinsic conditions that constitute and moderate well-being, including the internal prerequisites and subjective action, which in turn are influenced by and influence the societal frame of well-being are also described. Each aspect of the model is discussed in turn.

Figure 2-2 The Structural Model of Child Well-being



Adapted from Minkkinen, J. (2013). The Structural Model of Child Well-being. *Child Indicators Research, 6, (3):* 549

2.5.1 The dimensions of well-being

The four dimensions of well-being selected for the SMCW are informed by the World Health Organisation (WHO) definition of health and well-being (Minkkinen, 2013) and include physical, mental, social and material well-being. These dimensions complement the domains and indicators identified in the broader children's well-being literature (O'Hare and Gutierrez, 2012). The SMCW identifies the constituent parts of each of the dimensions. The constituent parts of physical well-being include health, the absence of illness and complete physical functioning. Mental well-being comprises emotional and cognitive well-being as well as the absence of psychiatric disorders. The constituent parts of the social dimension of well-being include the positive relationships that a child has with the people in their lives. Finally, material well-being relates to sufficient nourishment, housing and other material items that are typical of the standard of living in the country, society or culture being studied (Minkkinen, 2013). In utilising the WHO dimensions of well-being, the model suggests a universal understanding that facilitates the study of children's well-being across countries and cultures.

Each individual dimension of well-being is made up of constituent parts which in turn are represented by pre-requisites for each of the constituent parts. Taken together the constituent parts of the dimensions of well-being and their associated pre-requisites represent more than the determinants of well-being, they are well-being. For example, in order to demonstrate mental well-being internal pre-requisites such as self-esteem, self-regulation and resilience are required; to achieve physical well-being heredity is an important pre-requisite. However, it is not clear from the model if the internal pre-requisites for each of the dimensions are biological/genetic, learned skills and capabilities, the influence of personal experience or some combination of these. For example, with respect to physical health, heredity is clearly a genetic characteristic,

outside the control of individual children, however, a history of accidents and injuries are also considered to be internal pre-requisites neither of which are biological or genetic.

In applying this understanding of the constituent elements of the dimensions of well-being and their associated internal pre-requisites, the constituent parts of physical well-being are the absence of illness, physical functionality and health; and the indicators for this type of well-being include heredity, and the history of injuries and accidents. The constituent parts of mental well-being are described as positive mental health, the absence of psychiatric disorders, emotional well-being, cognitive skills and life satisfaction; the indicators (internal pre-requisites) for the achievement of these are self-esteem, self-regulation, resilience and problem-solving. For social well-being, the constituent parts are identified as positive social relationships with adults and peers, the indicators (internal pre-requisites) representing these states include the ability to make and sustain friendships. Finally, the constituent parts of material well-being are sufficient nourishment, shelter and other material resources that are typical of the society in which children live. Minkkinen (2013: 551) suggests that the indicators (internal pre-requisites) representing these constituent parts include *"the child's ability to feel and show what he or she needs, such as an infant's cry to communicate hunger. Among the youth, the readiness to get a job and work, for instance, is the precondition for material well-being"*.

2.5.2 Subjective Action

The circle of subjective action has been informed by the 'new' sociology of childhood, Sen's Capability Approach and the UNCRC (Minkkinen, 2013). Subjective action refers to the internal and external activities that children engage in that both constitute and produce well-being. Internal activities refer to those internal mental processes such as *"perception, thinking and memory"* (ibid: 552). External activities that represent and lead to children's well-being

"include play, physical exercise, studying, learning new skills, working, spending time with family and friends, caring for pets, hobbies, creative action, arts and crafts and civic involvement" (Minkkinen, 2013: 552).

The influence of the 'new' sociology of childhood and the UNCRC on subjective action is evident in the SMCW. The inclusion of subjective action clearly identifies children as active agents in contributing to their own well-being; children not only react but also co-create their social lives. This feature of the SMCW strengthens the requirement to consider the reports of children themselves, not just their parents, and to consider how children's actions mediate between them as individuals and the social world they inhabit. This approach also reflects one of the underlying principles of the UNCRC: respecting the views of the child. Furthermore, the pre-condition of subjective action in the SMCW is capability; that is the capability of children to act by utilising the resources available to them, thus drawing on Sen's Capability Approach which is concerned with what people (children) are effectively able to do and be (Robeyns, 2005). The availability of these resources is culturally and socially contingent; the role of society and culture in constructing an understanding of childhood is equally emphasised in the 'new' sociology of childhood. The inclusion of children's activity in the SMCW also reflects a preoccupation of many child well-being scholars with the concepts of well-being and well-becoming (Ben-Arieh and Frønes, 2011). Activities in childhood have both an immediate effect (well-being) but also contribute to future well-being (well-becoming).

While children's agency and their capability to act and be are central to the subjective action aspect of the model, the author overstates, somewhat, the difference between the SMCW and the ecological model of development. For example, the author argues *"the SMCW places greater emphasis on the child's*

role as a collective actor, forming the face-to-face interaction with others and hence being a contributor to society and cultural production" (Minkkinen, 2013: 554). However, the microsystem described in Bronfenbrenner's bioecological model of development describes the pattern of activities, roles and interpersonal relations experienced by the developing person. Proximal processes are identified as the engines of development; they are defined as the activities and interactions between the individual child and the people, objects and systems in their immediate environment (Bronfenbrenner, 1986). While there is little in the bioecological model that suggests that the child is not a contributor or active participant in these activities, the SMCW identifies and articulates the child's role more explicitly. A key feature of both models is the idea of reciprocity; the difference is in the scope and depth of that influence.

2.5.3 Societal frame of well-being

The outermost circle of the SMCW is the societal frame and includes the *"circle of care, the structures of society and culture"* (Minkkinen, 2013: 553). The term 'frame' in this context is used to describe the conditions, circumstances and activities that constitute, promote or result in well-being for the child. The influence of the bioecological model of development is most evident in the articulation of the societal frame. The bioecological model recognises that children do not grow up in a socio-cultural vacuum. Both models also share the idea of distal and proximal influences on children's development. The advantage of the SMCW is that different elements of the societal frame of well-being can be understood as both intrinsic to and determinants of well-being. In contrast, the bioecological model is a model of human development, not a model of well-being and therefore, despite its inclusion and recognition of systems external to the developing human, remains inherently individualistic. The microsystem, exosystem and macrosystem of the bioecological model influence human development but are not intrinsic to it. Importantly and in contrast to models of human development, the SMCW in attempting to

conceptualise well-being more holistically benefits from the integration of several important theoretical frameworks which suggest that child development is a process that contributes to well-being; well-being is not equivalent to the presence or absence of age appropriate developmental competencies. In this context, well-being is more than development. This is an important distinction for the formulation of an index of well-being for children. In the SMCW, some of the elements of the societal frame can be understood as intrinsic to conceptualising the dimensions of well-being as well as being determinants of well-being. For example, cultural and societal interpretations of relative poverty and deprivation are inherent to the conceptualisation of the material well-being domain, while social welfare services can be considered as determinants of well-being and can be used to analyse the impact of different social welfare regimes on levels of well-being. Each element of the societal frame of well-being is discussed in turn below.

The concept of a 'circle of care' refers to those people directly interacting with the child. The inclusion of the circle of care recognises that social support is both intrinsic to, and directly influences, immediate well-being and well-becoming. The circle of care includes the physical, cognitive, emotional and material support that the people in children's lives can provide. Social support is an important feature of the circle of care. The conceptualisation of social support articulated in the SMCW is influenced by Cobb's social support theory which is understood to be the product of reciprocal interaction between the child and other people in their lives (Minkkinen, 2013). The circle of care maps closely onto Bronfenbrenner's microsystem as described in the bioecological model, however, it does differ, insofar as the circle of care takes account of adult responsibilities and obligations towards children as articulated in the UNCRC. Bronfenbrenner's model is context-free in this regard. In addition, the SMCW's circle of care posits that children are more active participants in these reciprocal relationships than is suggested in the bioecological model of human

development, underlining the core principle of the 'new' sociology of childhood, which recognises children as active agents in their own lives, being influenced by but also influencing those around them. In addition, the SMCW also suggests that the circle of care exists between children as well as between adults and children; this is played out in the friendships and peer relationships that children experience (*ibid*). The concept of the circle of care also refers to the interactions and reciprocal relationships between the other social actors in the child's life and the mediating role that these relationships have on children's well-being. This latter concept of the interactions between other actors echoes the concept of the mesosystem from the bioecological model of development, which recognises that although children may not be active participants in these interactions, they nonetheless influence and are influenced by them.

The societal frame also includes the structures of society such as institutions, laws and conventions. This frame considers how children can participate in these structures, a theme that is reflected in both the 'new' sociology of childhood and the UNCRC. The structures of society also refer to *"children's opportunities to participate in making decisions that affect them, the sense of security among people, welfare services and income transfers concerning families with children, the general economic situation in society and environmental factors"* (Minkkinen, 2013: 555). The idea of the societal frame is roughly equivalent to the exosystem from the bioecological model, but unlike the bioecological model, the SMCW includes both direct and indirect influences on children's well-being by including subjective action. Importantly, the inclusion of the structures of society as a frame or condition that is inherent to and promotes well-being takes account of the agency-structure dynamic that is often under-represented in conceptualisations of well-being.

The final layer in the societal frame is culture; where culture refers to the shared values, norms and attitudes of a society towards children (Minkkinen, 2013). While sharing similarities with the macrosystem in the bioecological model, it is different insofar as the macrosystem refers *"more to the superstructures behind the cultural characteristics"* (*ibid*: 555), whereas the SMCW conceptualises culture as "*collectively shared conscious and unconscious values, norms, and attitudes*" (*ibid*: 555). Culture occupies the outer most circle of the SMCW. This position reflects the view that culture frames all types of human and societal activity, it wraps around the circle of care, the structures of society and subjective action. Children are both influenced by, but also influence, culture, a concept that is shared with theorists from the 'new' sociology of childhood (James and James, 2004; Tisdall and Punch, 2012).

2.5.4 Theoretical strengths of the SMCW

The SMCW is informed by a range of theories and frameworks commonly referenced by researchers conceptualising and measuring children's well-being. These other theories and frameworks offer important ideas and concepts about childhood, child development and children's lives but taken individually they do not fully explain well-being. In contrast, the SMCW attempts to articulate a unifying theory of children's well-being that moves beyond individual theories of development and theories of childhood. Instead, the SMCW endeavours to integrate these separate theoretical frameworks into a coherent and unifying whole that recognises the complexity and multi-dimensionality of children's lives and their well-being.

The four domains of well-being articulated in the model and adopted from the WHO, as physical, mental, social and material well-being reflect a universality to the conceptualisation of well-being that facilitates the study of children's well-being across countries and over time. Moreover, the four domains reflect elements from each of the different perspectives of well-being that have been

identified in the literature. For example, the inclusion of material well-being connects with economic theories of consumption and income; mental well-being, which includes components such as happiness and life satisfaction, is compatible with subjective well-being, a concept found in the hedonic tradition of well-being. Furthermore, mental well-being, as understood in the SMCW, also includes components and prerequisites such as self-esteem, resilience and positive mental health, all of which reflect PWB, which is central to the eudaimonic perspective of well-being. Aspects of the eudaimonic approach to understanding well-being, such as positive relatedness, can also be found in the SMCW's social well-being domain, as it includes components such as relationships with family and friends. Finally, each of the domains can also be meaningfully interpreted within the Capability Approach, that is what individuals are capable of being and doing can be considered in the context of their material circumstances, their physical and mental capabilities and their social situations.

Moreover, the SMCW reflects key conceptual domains present in the literature about child well-being specifically. For example, the bioecological nature of development is expressed through the inclusion of the social well-being domain which recognises the importance of children's relationship with their family and their wider circle of friends. The role of the exosystem and macrosystem as discussed by Bronfenbrenner (1979, 1986) is expressed through the inclusion of the material well-being domain. Children's capacity to be active agents in their own well-being, as articulated through the subjective action element of the SMCW and operationalised as different components across each of the domains, reflects key concepts emerging from the 'new' sociology of childhood. Concepts of child development are captured across the three domains of physical, social and mental well-being. In summary, the key conceptual frameworks that underpin the SMCW, and are found in the wider adult and

child well-being literature, are evident in the choice of domains identified in the SMCW.

The SMCW articulates well-being as both a process and an outcome. This conceptualisation reinforces the view, expressed in the wider child well-being literature, that children's well-being should be theorised in terms of both children's current well-being and their future well-becoming (Ben-Arieh and Frønes, 2011; Ben-Arieh, 2005). Well-being in childhood represents an outcome for children in the present while at the same time well-being in childhood contributes to later adult well-being. This acknowledgement that how children are right now is just as important as how children will be in the future seeks to address what sociologists of childhood note was previous scholarly preoccupation with how and why children fail to become the 'right' kind of adult (Moran-Ellis, 2010). Instead, in the SMCW articulation of well-being, attention is being paid to children as children. Furthermore, the SMCW recognises that children are active agents in their own development, their own current well-being and their future well-becoming. The rights of children to be heard, to participate, to define and to contribute to their own well-being are clearly articulated in the circle of subjective action in the SMCW. This focus reflects the theoretical orientation of the 'new' sociology of childhood, the UNCRC and Sen's Capability Approach. However, it is important to note that the SMCW also takes account of the agency-structure dynamic (Moran-Ellis, 2010). The SMCW recognises that children live with families and families exist within wider social, economic, political and cultural contexts. Children do not have equivalent power to adults and as such are vulnerable to social exclusion (Wyness, 2006). The SMCW recognises the important, but by no means singular, role that family plays in supporting and promoting children's well-being. With the inclusion of the societal frame of well-being, the SMCW explicitly recognises the wider social, economic, political and cultural dimensions that are inherent to, and determine and mediate well-being.

The SMCW theorises what constitutes well-being as well as considering the determinants of well-being. The SMCW explicitly identifies the complexity of differentiating between what is inherent to well-being and what influences well-being. As shown in Figure 2-2, the bi-directionality of the arrows between the concentric circles describes the interactions and relationships between the different elements of the model and demonstrates that constituent elements of well-being can also be determinants of well-being elsewhere in the model. The domains of well-being influence and are influenced by the internal prerequisites and extrinsic conditions articulated in the SMCW. What constitutes well-being in one domain influences whether or not well-being is achieved in another domain. For example, physical well-being influences mental well-being such that poor physical health may negatively impact on children's feelings of happiness. Mental well-being influences social well-being such that children's anxiety or feelings of depression may socially isolate them and impact on the number of close friends that they have in their lives. Material well-being influences social well-being such that poverty may impact on children's ability to participate in hobbies, games or other social activities, and so on. The SMCW articulates the challenges of differentiating between what is inherent to well-being and what determines well-being. Ultimately however, unpicking and isolating these differences remains challenging conceptually and in operationalising the SMCW in the development of an index of well-being (this latter challenge is discussed in more detail in Chapter Four).

Importantly, well-being is understood as a truly multi-dimensional concept in the SMCW. It cuts across disciplines by considering the economic, psychological, social and physical dimensions of well-being. The SMCW is not just concerned with interpreting well-being in hedonic, eudaimonic or development terms. Well-being is understood as more than the achievement of individual happiness or individual development. This understanding of well-being, particularly for children, as more than the achievement of developmental

milestones is particularly important given that a number of recent studies have conceptualised well-being purely in these terms (see, for example, Moore *et al*., 2012; Cheevers and O'Connell, 2013; Sanson *et al*., 2010; Moore *et al*., 2008). The SMCW explicitly states that child well-being is more than individual development. Development is not equivalent to well-being; development is both a process that contributes to well-being and an outcome of well-being. The SMCW while recognising that well-being is more than development and that children are active agents in the achievement of their own well-being, also explicitly pays attention to wider social, political and cultural dimensions of children's lives and their interplay with well-being. In this way, the SMCW moves away from conceptualisations of well-being that focus only on agency and individualisation. Adopting the SMCW as the conceptual framework within which the domains and indicators of well-being are selected ensures that a more complete understanding of well-being is applied to the creation of the index.

2.6 Conclusion

This chapter opened by discussing a number of key theories relating to human well-being, including theories from the disciplines of psychology and economics, given that they have informed our understanding of children's well-being. Theories of well-being more generally were critiqued in this chapter as being highly individualistic, placing the individual at the centre, with an emphasis on agency in the pursuit of well-being. Such conceptualisations of well-being do not adequately capture 'social value' as envisaged by Jordan (2008). For this reason, well-being must be considered from a multi-disciplinary perspective, taking account of the subjective and emotional experiences of individuals as well as issues of redistribution and social justice (Stenner and Taylor, 2008).

A range of theories and normative frameworks have informed the development of our understanding of child well-being; for example, the UNCRC, the 'new' sociology of childhood and Bronfenbrenner's ecological and bioecological models. However, taken individually these frameworks, theories and models do not fully explain well-being. Furthermore, they each share a common emphasis on the role of the individual child in creating and sustaining their own well-being. Such approaches to children's well-being also undermine the multi-dimensionality of the concept and locate the responsibility for and control of well-being in the individual child or attribute well-being or its lack to parental behaviours. The SMCW attempts to counter this tendency by developing a multi-disciplinary unifying theory of children's well-being that takes account of the individual and societal conditions inherent to and necessary for well-being.

This chapter located the SMCW and its theoretical framework in the context of the literature on well-being more generally and children's well-being specifically. The following chapter explores the linkages between conceptualisations of well-being and political ideologies, with particular reference to the growing individualisation agenda in social policy that has been identified in the literature. The potential impact of this individualisation agenda on our understanding of, and social policy responses to, children's well-being is also considered. The chapter also explores the trajectory of Irish social policy for children and families and considers if, and how, individualisation theories have influenced Irish social policy developments.

Chapter 3 Social Policy for Children and Families and Well-being

3.1 Introduction

There has been a growing emphasis in social[5] policy debates, in Ireland and elsewhere, on the concept of adult and child well-being (see, for example, publications from NESC, 2009; Brooks and Hanafin, 2005; Department of Health and Children, 2000; Buckner, 2008; Department of Health, 2013; Edmunds, 2010). In this context, the purpose of this chapter is twofold. In Chapter Two, the ways in which adult and child well-being are conceptualised were discussed, while this chapter explores the linkages between conceptualisations of well-being and political ideologies, with particular reference to the growing individualisation agenda that has been identified in the social policy literature. The chapter discusses what is meant by individualisation more broadly before considering the influence of, what I consider to be, the growing individualisation agenda on conceptualisations and measurement of well-being. The chapter will discuss the influences on social policy development in Ireland and if and how, contemporary social policy developments in the Irish context reflect and articulate an individualisation and self-responsibilisation agenda.

[5] My understanding of social policy in the context of this chapter is informed by Dean (2012) who suggests that social policy is concerned with human well-being, the social relations necessary for well-being and the systems that support and promote well-being. The focus of this chapter is on the latter; that is the systems that support and promote well-being, and in particular the supports provided by the state; understanding what constitutes well-being and the social relations necessary for well-being were discussed in Chapter Two.

3.2 Individualisation

While the term 'individualisation' is not new in sociology, with a 'sociological lineage' that can be traced from *"Marx, Simmel, Parsons, Habermas and Giddens"* (Dawson, 2012: 305), contemporary understandings of the concept relate to three central themes. First, the preoccupation with the distribution of risk, rather than of wealth, differentiates contemporary understandings of individualisation from earlier individualisation theories. In individualisation theory, risks are transferred to the individual and the individual must navigate these new options with *"their own learned capacity for decision-making, risk management and lifestyle construction"* (van Gerven and Ossewaarde, 2012: 39). Second, the concept of reflexive modernity, in which our ability to reflect on our actions and the changing ways of obtaining knowledge, suggests that our ways of interacting have changed, "*modernity comes face to face with the results of its own success, and reflexivity becomes essential to forming new logics of development"* (Brannen and Nilsen, 2005: 415). Third, classic modernity is characterised by class-based societies, whereas in a society defined by reflexive modernity and the management of risk, individuals shape their own identities (*ibid*). Traditional ways of categorising or understanding social structures, for example, class, gender, and ethnicity, are no longer relevant as individuals are responsible for creating their own identities and risk biographies (Brannen and Nilsen, 2005; van Gerven and Ossewaarde, 2012). Individualisation theorists argue that in contemporary society, individuals are not limited by the 'standard biography' of class or other categorisations, but have the freedom to choose and create their own biography.

In contemporary individualisation theories, the concept of 'choice' is central; the freedom to choose is an indicator of an individual's agency (Brannen and Nilsen, 2005); the citizen is reframed as a consumer (Bauman, 2007). In contrast, the universalist approach to welfare and social policy which advocates

the delivery of social services and the receipt of social security as a matter of right, available to all without the use of means testing or other measures of differentiation, understands groups, communities and societies as the basic unit of social structure, not the individual. Needs and risks are met and shared by all, with responsibility devolved to the state to respond to those needs and risks by and on behalf of its citizens (Considine and Dukelow, 2009). Moreover, the state is concerned with, and contributes to, the well-being of its citizens by developing social and economic policies that address inequalities, and by providing universal and comprehensive provision of basic social services and supports and social security. Even in countries with more diluted forms of the welfare state, there was historically recognition that the state had a role to play in supporting the well-being of its citizens, by providing basic social services and social security.

The characteristics of individualism, personal responsibility and consumerism have also been associated with a neo-liberal political ideology (Considine and Dukelow, 2009). In contemporary terms neo-liberalism emphasises the importance of the global free market. Neo-liberal ideology argues that the welfare state is not fit for purpose and that the focus of government should be towards the enhancement of opportunity, privatisation and subsidiarity (Taylor-Gooby, 2001). Individualisation theories inform neo-liberalism insofar as they suggest that individuals are empowered and liberated by their ability to create their own risk biographies and the choices that are available to them as a result. However, these approaches minimise or ignore the importance of structure in the agency-choice discourse inherent in them. These theories ignore that choice and agency are anchored in, and influenced by, the context within which individuals live and the structural inequalities that they experience (Brannen and Nilsen, 2005). The increased individualised responsibility which has emerged as part of an "*ideology of privatisation*" (Bauman, 2008: 88) assumes meritocracy. However, just because there exists a discourse of choice and

agency this does not mean that structure ceases to be important or that inequalities do not exist. The issue of structure is complex and one that many individuals feel that they have no control over (Bauman, 2001 in Brannen and Nilsen, 2005: 423). Therefore, rather than feel empowered, individuals actually experience disempowerment as the emphasis is placed on agency (self-regulation) in the agency-structure dynamic and the sources of social control are rendered invisible (Brannen and Nilsen, 2005).

3.3 Individualisation and Well-being

The increasing use of the term 'well-being' in social and welfare policies in the UK has been associated, by some authors, with an increasingly individualised, consumerist and self-responsibilising society (Furedi, 2006, cited in Edwards and Imrie, 2008; Sointu, 2005; Barnes *et al*., 2013). This emphasis on self-responsibilisation and individualisation has been traced to a shift from 'traditional' welfare state models of social policy to a more "*active, preventative welfare state"* (Murphy and Millar, 2007: 95). In the ideology of the individualised society, the concept of communal responsibility for seeking to achieve and support the well-being of individuals is understood in negative terms, couched in language of the 'nanny state' and pejorative interpretations of the term 'dependency' (Bauman, 2008). It has been further argued that in the context of UK social and welfare policy, definitions of well-being have tended to focus on identifying some set of idealised individual behaviours, the pursuit and achievement of which will result in self-fulfilment and satisfaction (Edwards and Imrie, 2008).

Conceptualisations that equate adult well-being with happiness, life satisfaction or psycho-social functioning place the responsibility for being well "*solely within the individual*" (Barnes *et al*., 2013: 454). Sointu (2005) argues that well-being has changed from a concept dealing with the 'body politic' to the 'body person'.

In contemporary conceptualisations of well-being, *"wellbeing is predominantly conceptualised as chosen...Wellbeing carries connotations of authenticity and individual-specificity that open the sphere of wellbeing up to fluid and person-specific interpretation and meaning making"* (*ibid*: 263). In this context, there is a "*privatisation of identity*" (Furedi, 2002: 23); the concept of choice is paramount; and citizens become consumers of welfare and social services (Sointu, 2005). In focusing on an individualistic and narrow conceptualisation of well-being, failure to achieve well-being becomes the responsibility of the individual. Within this well-being construct, the individual "*becomes the focus of action not the social, cultural or economic explanations of experience or identity*" (Edwards and Imrie, 2008: 338). In this construct, the state has little or no role to play in providing welfare measures or social services to improve its citizens' well-being. When individual autonomy is at the centre of the concept of well-being, the receipt of welfare benefits and services are seen as weaknesses, representative of dependency and a lack of self-efficacy (Taylor, 2011). This emphasis is particularly problematic for understanding and assessing children's well-being as there is a risk that parents will be held wholly responsible for the well-being of their children, irrespective of the economic forces or discriminatory practices which may hinder their success (Seaberg, 1990). In this conceptualisation, parents become responsible for the failure to secure their children's current well-being and to promote and provide the life skills required to ensure their future well-being.

Where conceptualisations of well-being are narrow, so too are the ways in which well-being is measured. What gets measured reflects the influence of different disciplines and the application of different theoretical frameworks. Early efforts to conceptualise and measure children's well-being in the United States were rooted in the social justice movements of the 1960s and a desire to reflect social change (Ben-Arieh, 2008a). Although lacking a common theoretical foundation, early scholars understood well-being in its broadest

terms. This is well-illustrated in early efforts to operationalise and measure well-being in order to inform social policy. One of the earliest attempts to measure well-being in a way that reflected the complexity of children's lives, and that could be used to inform policy developments for children, was the Child and Youth Well-being Index developed in the United States (Land *et al*., 2007). The index understood children's well-being to mean their material well-being; their health; their social relationships; their safety and behaviour; their educational attainment; their place in the community; and their spiritual well-being. Later efforts to measure well-being also recognised the holistic nature of children's well-being; attempting to operationalise an understanding of well-being that incorporated multiple dimensions of well-being at both the individual and structural level. For example, the development of an EU-wide index by Bradshaw *et al*. (2007b), which assesses well-being across the EU25, and is theoretically informed by Bronfenbrenner's bioecological model of child development and the UNCRC framework. The index takes account of the processes of child development and the importance of the interplay of different systems on children's development using a rights perspective.

In contrast, a number of recent studies have conceptualised well-being in terms of children's individual functioning; well-being is understood as child development (see, for example, Moore *et al*., 2012; Cheevers and O'Connell, 2013; Sanson *et al*., 2010; Moore *et al*., 2008). These studies consider children's well-being in the context of individual functioning only. Factors such as material well-being, physical environment and community characteristics are measured separately and treated as contextual variables only[6]. In this way, what constitutes children's well-being is considered as separate from the

[6] The index developed as part of the Australian study is clearly described as an index of child development. However, it should be noted that on number of occasions the authors conflate well-being with "developmental competencies" (Sanson *et al*, 2010: 276). The paper is included here because of its relevance to the discussion of the individualisation of conceptualisations of well-being.

economic, social, cultural and political contexts in which children live. Moore *et al*., (2008: 25) make the distinction between outcome domains (physical, psychological, social, and educational/ intellectual) and contextual influences (family, neighbourhood, and socio-demographic) arguing that well-being is "*a multi-dimensional construct incorporating all dimensions of* ***individual functioning***[7]*...we consider it extremely important conceptually to distinguish between child well-being per se from those factors that contribute to (or undermine) child well-being*". In that study, an index that included contextual factors was calculated separately to the child outcome index (Moore *et al*., 2008), thus abstracting these important dimensions of children's lives from any understanding of what constitutes well-being. Indeed, later efforts to construct a child well-being index by the same principal author did not include the contextual factors index, reporting only on the outcomes index (Moore *et al*., 2012). Material, family, and environmental well-being are not understood to constitute well-being but to be the determinants of well-being.

This focus on individual functioning and the achievement of normative developmental milestones, with 'contextual factors' making up a secondary and separate index, reinforces the perception that well-being is inherently individualistic. Well-being thus conceptualised becomes a matter for, and concerning, the individual child only and their family: *"Abstracting children from the social and economic contexts in which they live their lives, ignores the complexities of individual children's lives and thereby risks inappropriately simplistic policy responses, such as blaming parents for children's lack of coping skills or poor self-esteem"* (Fattore *et al.*, 2007: 9). When children's well-being is understood as synonymous with child development then personal and family characteristics are found to be highly correlated with levels of well-being; while economic, social and cultural factors appear to exert less influence.

[7] My emphasis

There is a risk however, that in measuring children's well-being in such an individualistic way, parents will be held responsible for the well-being of their children, irrespective of the economic circumstances or social or economic inequalities they experience. The conceptualisation and measurement of children's well-being in such narrow terms has implications for social policy. The focus of action becomes changing individual child or parental behaviours, with little attempt to alter or address more fundamental structural inequalities. This approach to conceptualising and measuring child well-being undermines the efforts of early scholars in the field. These scholars attempted to focus on how people actually were, to better understand their lives and develop social policy that responded to their needs and circumstances (Andrews, 1989). By shifting the focus back to individuals, the political, social, economic and cultural aspects of well-being are minimised (Fattore *et al*., 2007) and the potential for social and welfare policies to contribute positively to the achievement of well-being become subordinate to individual action and responsibility. The realisation of this inference is well-demonstrated with a brief critique of some recent social policy developments for children and families in Ireland.

3.4 Irish Social Policy for Children and Families

Before considering if, and how, the discourse of individualisation and self-responsibilisation has influenced contemporary Irish social policy and conceptualisations of well-being, it is important to first consider the nature, development and trajectory of Irish social policy for children and families since independence. While Irish social policy has been much influenced by developments in Europe, particularly since our accession to the EEC in 1973, there are a number of circumstances and factors that are particular to the way in which the Irish State and its social policy has evolved.

A number of distinct periods of social and welfare policy development in Ireland are identified in the literature; including the immediate post-independence period; economic and political isolation during the Second World War; growing liberalisation, industrialisation and modernisation in the 1960s; the impact of EEC membership, alongside retrenchment and contraction of social and welfare services in the 1980s; and growing neo-liberalism in the 1990s and 2000s (Dukelow, 2011; Kirby, 2008; Considine and Dukelow, 2009).

Ireland has always had a more 'hands-off' or non-interventionist approach to social policy for children and families, however, the motivations behind this hands-off approach have varied over time. During the immediate post-independence period and up until the 1980s, the non-interventionist approach to social policy for the well-being of children and families was largely influenced by the dominant position of the Catholic Church in Irish social life and its conservative social teachings. More recently however, the non-interventionist approach mirrors more closely what has been described elsewhere in this chapter as a neo-liberal, market-driven ideology. Successive Irish governments have increasingly opened up the provision of social services, such as health, housing, childcare and education to the market in the pursuit of well-being; decisions regarding access to and uptake of such services are framed in terms of individual choice.

3.4.1 Social policy development for children and families 1920s – 1950s

The hands-off approach to social policy for children and families was very evident in the post-independence era. This was in contrast to the UK and other western countries that had more progressive social policy and welfare state models, which were further strengthened during the 1940s and 1950s. During this period in Ireland, children continued to be a private responsibility, with

parents considered to be the sole providers of care and well-being for children (Considine and Dukelow, 2009). In the early days of the state, this position was influenced by both Catholic social teaching and the agrarian nature of Irish society. The former promoted the idea that children and their welfare were the private concerns of the family and that the state had no role and should not interfere. The latter suggested that the reliance on small holdings to provide for the basic needs of individuals ameliorated the requirement for the state to provide social insurance or social assistance schemes (Considine and Dukelow, 2009). The 1937 Constitution made evident the Catholic social principles that dominated, insofar as the traditional family, based on marriage, was central and women were viewed in the context of their homemaking and caring duties. Indeed prior to this, the 1932 marriage ban, which compelled women to retire from employment in a range of sectors including service industries, banks, local authorities, semi-state bodies and the civil service, sought to limit women's participation in paid employment and copper-fastened the view of women as homemakers and men as breadwinners (Redmond and Harford, 2010; Murphy-Lawless and McCarthy, 1999; Pyle, 1990).

The provision of welfare and social services, during this period, was characterised by the principle of subsidiarity, an approach that advocates for policy and service provision to be situated in the smallest, least centralised and most local unit possible (Powell, 1992; Considine and Dukelow, 2009). Issues concerning family life, the care and protection of children, the role of women and access to health services for example, were located within the private domain, considered not appropriate for government intervention (Canavan, 2012). In many ways, the early Irish state typified what we now know as late modernity's focus on individualisation and self-responsibilisation, with its emphasis on private provision and subsidiarity. However, unlike contemporary individualisation theories, citizens in Ireland during this period were not free to create their own biographies but rather were expected to behave in accordance

with pre-conceived roles. For example, women were expected to be mothers and homemakers, men were expected to be breadwinners, and children were largely invisible, had few explicit rights and the thresholds for intervention for the protection of children were high (Ferriter, 2008).

3.4.2 Social policy for children and families 1960s – 1980s

By the late 1960s and 1970s the relationship between Church and state began to change significantly (Canavan, 2012). The removal from the Constitution in 1972 of the special place of the Catholic Church provides clear evidence of this changing relationship. Notwithstanding this change, the hands-off approach of the state with regard to social policy concerning children and families during this period continued to be influenced more by Catholic social teachings than political ideology. While there was retrenchment in public expenditure during the 1980s; the Fine Gael government, in coalition with the Labour Party and led by Garret Fitzgerald, adopted a more liberal approach to social issues; for example, the liberalisation of contraception and the attempt to introduce divorce into Ireland. However, the Catholic Church remained highly influential in the areas of sexual morality and reproductive rights (*ibid*). For example, the first referendum to introduce divorce was rejected and an anti-abortion amendment was added to the Constitution (Girvin, 2008). Considine and Dukelow (2009: 63) contend that a number of the gains made in the 1970s by the women's movement and others in terms of the liberalisation of social attitudes were undermined by the deep recession of the 1980s: *"the decade was marked by a resurgence of Catholic social teaching and conflict in areas such as sexuality, contraception, divorce, the family and the role of the state in the lives of individuals generally"*. However, quoting Inglis (2002) the authors also acknowledge that there is no evidence of causality between the onset of the recession and the reversal of advances made by the women's movement. These advances were not so deeply embedded into Irish social values and

attitudes that they transcended the economic and social challenges that arose from the recession of the 1980s (Considine and Dukelow, 2009).

3.4.3 Social policy for children and families and the influence of the EU

Irish social policy since the mid-1970s has been influenced by our membership of the EU and this influence can be seen in a series of developments between the mid-1970s and the 2000s. There is discussion in the literature about the extent of the EU's influence on social policy in Ireland given that the principle of subsidiarity, which underpins EU approaches to social and welfare policy, was already well-embedded in Irish social policy approaches (Murphy, 2012; Ferriter, 2008; Considine and Dukelow, 2009; Smith, 2006). Considine and Dukelow (2009) suggest that EU directives and EU poverty programmes have had the most significant impact on Irish social policy. With respect to the former, they identify five directives[8] between 1975 and 1986 that were important in addressing gender discrimination in the workplace. EU poverty programmes were influential in four ways. First, they raised the profile of poverty as a policy issue; second, they identified the structural nature of poverty; third, they examined the causes of poverty; and fourth, they introduced the concept of social inclusion (*ibid*). This concept of social inclusion, for example, has been particularly influential in Irish policy discourses. Furthermore, in 1987 a model of social partnership was introduced in response to the experiences of the recession in the 1980s; social partnership became the focal point for economic and social debate and its introduction reflected a shift to the EU model and further away from the UK one (Dukelow and Considine, 2014b). Introduced by the Fianna Fail government, social partnership reflected

[8] The five include directives on equal pay for work of equal value; equal treatment of women and men in relation to employment, social security payments and occupational social security schemes; equal treatment for self-employed men and women; parental leave; and the working time directive (Considine and Dukelow, 2009: 184)

a corporatist approach to the welfare state; that is the organisation of society into major interest groups. In the Irish social partnership model these interest groups included government, business, trade unions and later the community and voluntary sector (Kirby, 2004). Over time, the social partners considered more social policy issues such as childcare, housing, racism and social inclusion. However, these issues remained subservient to the central issues of wage moderation, fiscal restraint and tax concessions (Doherty, 2011).

3.4.4 Social policy for children and families 1994-2007

During the boom period between 1994 and 2007, and immediately prior to it, there were a number of important legislative and social policy developments for children and families. For example, in 1991 the Child Care Act was introduced which provided the framework for the operation of the child protection and welfare system, and was the first comprehensive change to legislation concerning children since the 1908 Children's Act. The Act brought the care and protection of children into the public domain. In 1992, Ireland ratified the UNCRC; the UNCRC provides a framework for domestic policy and practice relating to children's rights (Department of Children and Youth Affairs, 2014). Other important national policies and initiatives included the National Anti-Poverty Strategy (NAPS) which was published in 1997, followed by a series of National Action Plans on Social Inclusion; the National Children's Strategy (NCS) published in 2000; the Youth Homelessness Strategy in 2001; and the DEIS[9] scheme for tackling educational disadvantage which was launched in 2005. The NAPS strategy was reviewed in 2002, the targets were updated and six new themes were added, including a focus on child poverty and women's poverty. The NCS contained clear goals and objectives in relation to access to, and provision of, quality services for all children and particularly for children

[9] DEIS is an acronym for the Delivering Equality of Opportunity in Schools initiative implemented by the Department of Education and Skills to tackle educational disadvantage. The initiative focuses on addressing the educational needs of children and young people from disadvantaged communities (Department of Education and Skills, 2015).

with additional needs including educational, psychological, health and family support needs. The DEIS scheme included a range of actions and committed funding to reduce educational inequality in schools located in rural and urban areas of disadvantage. Key strategies included smaller class sizes, provision of additional learning support resources, and additional funding for school completion and home-school liaison schemes.

A number of these developments, during this period, were mandated by our membership of the EU and other changes and initiatives were dictated by economic needs rather than any fundamental commitment to social justice, equality or promoting children's well-being. The policy for early childhood care and education typifies this response. While the number of childcare places increased over the period of the Celtic Tiger, a market approach was taken to tackling the '*childcare problem'* where early childhood care and education provision was articulated as a consumer good and not as a benefit of social citizenship (Hynes and Hayes, 2011). Government policy focused on the private provision of childcare and the public provision of early education for disadvantaged children to ameliorate educational disadvantage (Horgan *et al*., 2014; Hayes, 2010). The former was dominated by small owner-operators where parents who could afford it purchased higher quality early childhood care and education services; while the latter was provided by state-supported community providers (Hayes, 2010). While the NCS and the later DEIS scheme located the need for additional childcare places in the context of improving outcomes for children and reducing educational inequalities, the government's response to the childcare issue was driven by labour market participation concerns (Horgan, *et al*., 2014; Murphy, 2012; Hynes and Hayes, 2011; Hayes, 2010). For example, female labour force participation increased substantially from 34 per cent in 1992 to 39 per cent in 1997 (Horgan, 2001) and employer organisations entered the debate to call for more childcare places to alleviate worker shortages and reduce barriers to female labour force participation

(Hayes, 2010). The Government response during this period was mainly on the demand-side and reflected a neo-liberal, market-driven response, where the focus was on the provision of subsidies and cash transfers to parents. This is evidenced by the introduction, in 2006, of the Early Childhood Supplement (ECS) at a cost of €400 million (Horgan *et al.*, 2014). The ECS was an annual payment of €1,000 to parents of children under-six so that they could purchase childcare to facilitate parental employment (Hayes, 2010). The differentiation between childcare and education continued, with little attention paid to issues of quality of service provision, training and professional development or affordability. Moreover, early education continued to be viewed as a mechanism with which to address educational disadvantage for disadvantaged children (*ibid*).

The influence of the Catholic Church waned during this period. Notwithstanding the important legislative changes as a result of the introduction of the Child Care Act, 1991, issues concerning children and their families continued to be considered as private matters, except where such issues interfered with the economic goals of the state (Considine and Dukelow, 2009). The Fianna Fail-Progressive Democrat coalition governments that were in power during this period, adopted neo-liberal policies of privatisation with a range of public-private partnership (PPPs) arrangements for the provision of infrastructure such as roads, public housing, school buildings and water services. For example, by 2003 more than 130 PPP projects were at different stages of development (Reeves, 2013). Moreover, activation policies that promoted the notion that social inclusion could be achieved through participation in work were also adopted and successive Governments held the ideological position that once an individual's basic needs were met, a de-regulated and free market economy would provide for all else (Considine and Dukelow, 2009).

3.4.5 Social policy for children and families 2008-2015

Social and welfare policy since the economic downturn has been subordinate to economic policy, with much of the policy debate surrounding the crisis focusing on regaining competitiveness within the markets, exiting the bailout and returning to the markets for future borrowing (O'Callaghan *et al.*, 2015). The mantra of the two crisis-era Governments has been one of reframing the crisis as a debt crisis (Dukelow and Considine, 2014a; O'Callaghan *et al*., 2015), as government gross debt increased from 25.1 per cent in 2007 to 106.4 per cent in 2011 (Dukelow and Considine, 2014a). The policy response to this framing of a debt crisis was austerity. Welfare retrenchment was put forward as the prudent course of action, leading to the reversal of decisions made during the Celtic Tiger period that had extended and expanded social security provision (O'Callaghan *et al.,* 2015). As part of the bailout from the EU, European Central Bank (ECB) and International Monetary Fund (IMF), a national recovery plan was agreed for the period 2011-2014 during which a €15 billon fiscal adjustment was undertaken. Two-thirds of the €15 billion budgetary adjustment came from cuts to social and welfare programmes (Dukelow and Considine, 2014a; Hick, 2014). There was a 13 per cent drop in expenditure on social protection from the 2010 spending level (Hick, 2014). Children and families have been particularly badly affected by recent welfare retrenchment decisions. For example, by 2014 Child Benefit had been cut by between 20 and 30 per cent, depending on family size, other cuts or limiting of eligibility have been applied to the One Parent Family Payment and the Back to School Clothing and Footwear Allowance. By 2012 the real value of Child Benefit was less than its 2002 value (Hick, 2014). The number of people living in consistent poverty increased from 4.2 per cent in 2008 to 8.2 per cent in 2013. Children remained the group most vulnerable to consistent poverty, with 11.7 per cent of children living in consistent poverty. Moreover, consistent poverty in lone parent households continued to rise over the period of the recession, increasing from

17.8 per cent in 2008 to 23 per cent in 2013 (EAPN, 2013). The national relative poverty rate was 18 per cent in 2013 (Central Statistics Office, 2013b).

While much of the focus of Government action in recent years has been on economic policy and reducing public expenditure as demonstrated above, there have also been a number of important social policy and legislative developments with regard to children and families. For example, a policy of one Free Pre-school Year (FPY) for children aged between three years and two months and four years and seven months was introduced in 2010. The FPY entitles children to three hours of free care and education per day for 38 weeks annually. Participation in the scheme was high with 95 per cent of all eligible children taking part in 2012/2013 (Horgan *et al*., 2014). It is argued that the FPY is more child-centred than previous policy developments in this area, given the universal nature of the provision (Share *et al*., 2013). Notwithstanding this important development, access, availability and quality remain key concerns for the sector; with for example, a three per cent reduction in capitation grants and the increase in the ratio of adult staff to children, from 1:11 to 1:12 in 2012 (Horgan *et al*, 2014).

In 2012 a children's referendum was held and although voter turnout was low, 58 per cent of voters voted in favour of the amendment to the Irish Constitution strengthening the rights of children. The change to the Constitution has three broad implications for children; first a child-centred approach should underpin the protection of all children; second, children in long-term state care have the opportunity to be adopted; and third, decisions regarding child protection, care, adoption, guardianship, custody and access should be based on what is in the best interests of the child (Children's Rights Alliance, 2012).

In 2014, Tusla, the Child and Family Agency, was established to coordinate and provide services for children and families. For the first time in the history of the state, a dedicated statutory body has been established with the responsibility to provide social services for vulnerable children and families. During 2014, *Better Outcomes, Brighter Futures* (Department of Children and Youth Affairs, 2014), the first overarching national policy framework for children and young people was published by Government. The purpose of the national policy framework is to direct and inform the coordination of policy across Government to achieve better outcomes for children and young people.

Finally, in 2015 the Child and Family Relationships Act came into effect. The Act includes provision on adoption, guardianship and custody and strengthens the rights of civil partners and co-habiting couples with regard to the adoption, guardianship and custody of non-biological children. The Act also strengthens the rights of fathers with regard to guardianship (Citizens Information Board, 2015).

Taken together these constitutional, legislative and social policy changes suggest positive and important developments for children's well-being. They must however, be viewed alongside the significant cuts in public expenditure to services and welfare supports for children and families discussed earlier in this section. The approach to social and welfare policy for children and families, over the period of the economic downturn, is both contradictory and confusing. On the one hand the state has signalled its willingness to intervene to support children's well-being and distance itself from historical non-interventionist approaches to social policy for children and families, for example, with the children's referendum and the introduction of the Child and Family Relationships Act, 2015. At the same time however, many of the social policies introduced over recent years also serve to emphasise individualisation and

parental responsibility for children's well-being. These contradictions are discussed in more detail in section 3.5.

3.5 The Individualisation Agenda in Irish Social Policy for Children and Families

It is the contention of this study that contemporary social policy in Ireland continues to be underpinned by the principles of individualisation and self-responsibilisation. The motivations behind this tendency have shifted from those influenced by Catholic social teachings to influences from a neo-liberal and market-driven ideology and a pre-occupation with individualisation and self-responsibilisation. Irish political culture has been characterised as pragmatic and one that stresses consensus and avoids extremism (Murphy, 2012) and as a result, the approach to social policy development is confusing and contradictory. On the one hand, social policy developments have been underpinned by neo-liberal ideas of individualisation, the citizen as consumer and the central role of the market in the provision of social services. However, more recently the state has demonstrated a greater willingness to become involved in children's lives. So while promoting an individualistic and self-reponsibilising agenda, the state has inserted itself into what was previously understood as the private domain of family life.

In order to demonstrate this tendency, a number of recent policy initiatives/developments will be considered as they relate to the well-being of children and their families: the national policy framework for children and young people, *Better Outcomes, Brighter Futures*; the parenting support strategy published by Tusla, the Child and Family Agency (CFA) in 2013; and the *Healthy Ireland* framework document, developed in 2013. Each is discussed in turn in the following sections.

3.5.1 *Better Outcomes, Brighter Futures*: national policy framework for children and young people

Better Outcomes, Brighter Futures is the first national policy framework for children and young people. The framework is intended to coordinate policy across government to achieve better outcomes for children and young people. These outcomes are that children are: active and healthy; achieving in all areas of learning and development; safe and protected from harm; economically secure; and connected, respected and contributing (Department of Children and Youth Affairs, 2014: 4). It is intended that six transformational goals will facilitate the achievement of these outcomes. These transformational goals are: (i) to support parents; (ii) earlier intervention and prevention; (iii) listen to and involve children and young people in decision making; (iv) provide quality services; (v) support effective transitions; and (vi) ensure cross-government and interagency collaboration and co-ordination. It is beyond the scope of this thesis to review, in forensic detail, each transformational goal and national outcome, however, this section will consider to what extent the national policy framework situates the transformational goals within an individualisation agenda, with particular emphasis on transformational goal one '*Support parents'*.

The development of the national framework is underpinned by three broad themes; the first is that of valuing and supporting children in childhood. The second is supporting children in childhood in order that they will be fulfilled and responsible adult citizens in the future. The third is the economic argument, such that supporting children is important for our future economic planning (Department of Children and Youth Affairs, 2014: viii). Supporting parents is identified as the first of six transformational goals. Transformational goals, in the context of the national policy framework, are understood as *"key areas that, with focused and collective effort, have the potential to transform the*

effectiveness of existing policies, services and resources" (Department of Children and Youth Affairs, 2014: 7). Therefore, parents are seen as a key driver for the achievement of outcomes for children, ahead of earlier intervention and prevention (transformational goal two) or ensuring quality services (transformational goal three) or cross-government and interagency collaboration and coordination (transformational goal six).

The policy framework notes that there are multiple benefits from positive parenting and supportive home environments, including supporting childhood development, influencing future prospects, improving social mobility and alleviating the impacts of intergenerational poverty (*ibid*). Moreover, the national policy framework states that what parents do is more important than who they are (Department of Children and Youth Affairs, 2014: 27). Parents are viewed as key in supporting and ensuring their children's health, development and well-being.

As noted above, one of the starting points for the national policy framework is that investing in children makes sound economic sense. The rationale for the development of the national policy is understood in terms of investing in children, such that the capital investment yields significant later returns (Department of Children and Youth Affairs, 2014). The language and ideology of the market has made its way into the social sector (Smeyers, 2010) and into what were previously understood to be private, caring and non-monetised relationships. Foregrounding the national policy framework in this context and identifying a key transformational goal as parenting establishes a link that has been observed elsewhere between the well-being and rearing of children and the welfare of wider society (Gillies, 2008).

The positioning of parents as a key mechanism for tackling wider social problems has been identified in the literature as a feature of social policy predicated on the themes of individualisation and responsibilisation (Gillies, 2005a; Gillies, 2008; Smith, 2013; Bragg, 2012). Effective parenting is identified in *Better Outcomes, Brighter Futures* as a critical lever in ameliorating the impact of some of the more negative impacts of intergenerational poverty. Indeed, the policy framework states that *"What parents **do**[10] is more important than who they are. How children are parented has a larger influence on a child's future than wealth, socio-economic class, education or any other common social factor"* (Department of Children and Youth Affairs, 2014: 27). Situating parents thus, suggests that child rearing is *"repositioned as a public rather than a private concern and the state must take responsibility for inculcating the practice of good parenting"* (Gillies, 2008: 99). Given the apparently critical role of parents in mediating their children's future behaviour, well-being and life chances, a set of idealised parenting behaviours, such that parents are better able to adopt positive parenting and discipline approaches, are identified in the national policy framework. The policy advocates that parenting *"programmes and interventions used should be proven to increase parenting skills, confidence and capacity, reduce parental stress; improve child well-being and behaviour; and increase the enjoyment of, and satisfaction in, parenting"* (Department of Children and Youth Affairs, 2014: 27). A central mechanism, responsible for ensuring better outcomes and brighter futures for children, is effective parenting, and parenting is therefore prioritised in the national policy framework.

The transformational goal is identified as '*Support Parents'* which suggests a universality to this transformational goal, both in terms of gender and class. However, as has been noted elsewhere in the literature, in practice these types

[10] My emphasis

of strategies tend to target poor and disadvantaged women (Gillies, 2008; Smith, 2013). Supporting parents generally means the provision of parenting programmes rather than material or practical help (Gillies, 2008). Indeed, the national policy explicitly identifies programmes and interventions in this regard. Caring for children is generally done by women and as Smith (2013) observes when we talk about parenting interventions we usually mean policies aimed at mothers and she further suggests that there is a *"gender subtext to much policy reform"* (*ibid*: 161). This is a charge which could also be levelled at the national policy framework wherein parents are viewed as the *"foundation for good child outcomes and have significant influence, particularly in the early years of children's lives"* (Department of Children and Youth Affairs, 2014: 27).

In the policy framework, children's disadvantage and vulnerability are understood as inherited from their parents and therefore breaking the cycle of deprivation requires a change in parenting behaviours and attitudes. Challenging structural inequalities that contribute to and exacerbate intergenerational poverty and disadvantage is considered less important than changing parental attitudes. However, the policy framework in this regard is contradictory and paradoxical. For example, parental employment, and in particular female labour force participation, is seen as a route out of poverty for children and their families in the context of outcome five, economic security and opportunity. On the one hand, the policy framework exhorts parents to be more effective, supportive and present in their children's lives, while at the same time identifying that *"supporting the economic engagement of all women and in helping lone parents to make the transition from welfare dependency to economic independence"* (Department of Children and Youth Affairs, 2014: 90) is key to tackling disadvantage.

In such discourses lone parents, usually women, are identified as welfare dependents, responsible for the poverty in which their children are growing up (Smith, 2013). In this regard, the national policy framework establishes individualisation and responsibilisation of parents in social policy in two contrasting ways. First, by emphasising individual parenting practices and attitudes in mediating the achievement of outcomes, irrespective of parental economic or social circumstances. Second, by focusing on individual agency and self-sufficiency parental participation in paid employment is seen as a route out of poverty and disadvantage, thus avoiding welfare dependency. As Smith (2013: 162) notes in the context of the new deal for lone parents introduced in the UK in 1998 *"Such policies* [activation policies] *can be read as part of the move towards individualisation whereby notions of individual agency and self-sufficiency are valorised and sources of dependency are minimised".* The emphasis on female labour force participation, and particularly that of lone parents, in the national policy framework is couched in terms of lifting lone parent families out of poverty. The national policy framework commits to the provision of *"affordable quality childcare"* to facilitate all parents, especially lone parents, to take up paid employment (Department of Children and Youth Affairs, 2014: x). However, since the publication of the national policy framework in 2014, significant changes have been made to the One Parent Family Payment (OPFP), a key welfare payment made to lone parent families. The changes to the OPFP have meant that lone parents, whose children are aged seven years or older, have been transferred from the OPFP and onto the Transitional Jobseeker's Allowance Payment. This latter type of payment is contingent on recipients taking part in education and further training programmes in readiness for taking up paid employment. These changes have been made with no significant investment in affordable quality childcare and in the expectation that childcare needs would be met by private sector provision. It is therefore difficult to avoid the conclusion that the changes to the OPFP were made in the context of reducing the welfare bill rather than in any

attempt to improve children's well-being. Once again, notions of individual agency are privileged, and the state withdraws from responsibility to intervene or support parents in the transition to paid employment.

As can be seen from the discussion above, the individualisation and responsibilisation of parents for the well-being of their children is evident in the recent national policy framework for children and young people. Parents are identified as the key agents for securing their children's well-being, irrespective of the economic, cultural, social and personal resources and circumstances available to them. Children's well-being in the first instance is understood as mediated by parental behaviours, skills and attitudes, and parents behaving or parenting outside of these established normative parameters are framed as failing their children. The challenge therefore in conceptualising and measuring children's well-being in the context of the national policy framework is to ensure that what constitutes children's well-being is understood as more than individual child behaviours and includes some measures of economic, cultural, social and personal resources, even if the national policy framework foregrounds parental determinants for the achievement of well-being.

3.5.2 Parenting Support Strategy

In *Better Outcomes, Brighter Futures*, the national policy framework, Government commits to *"develop a high-level policy statement on Parenting and Family Support to guide the provision of universal evidence-informed parenting supports"* (Department of Children and Youth Affairs, 2014: 28). In the meantime, Tusla, the Child and Family Agency[11], which was established in January 2014, developed a parenting support strategy (Child and Family Agency,

[11] Tusla is responsible for providing child protection and welfare services; educational welfare services; psychological services; alternative care; family and locally-based community supports; early years' services; and domestic, sexual and gender-based violence services (Child and Family Agency, 2014). For brevity, the term 'Tusla' is used throughout this thesis.

2013). The strategy was produced to guide the processes, practices and procedures for the operation of the new agency in the care and protection of children. This strategy demonstrates its inherent individualisation and self-responsibilisation agenda and sets out Tusla's approach to supporting parents and what it considers to be the role of parents.

The document *"Investing in Families: Supporting Parents to Improve Outcomes for Children"*[12] is described by its authors as the first national parenting support strategy (Child and Family Agency, 2013). Parenting support is described as both *"a style of work and a set of activities that provides information, advice and assistance to parents and carers in relation to the upbringing of their children, in order to maximise their child's potential"* (*ibid*: 1). The parenting support strategy articulates three high level objectives identified in a DCYA Statement of Strategy (2012). The first is to *"develop, strengthen and align policies, legislation and resources to achieve better outcomes for children"*(Child and Family Agency, 2013: 7); the second concerns the processes and systems to support families to better protect children; and the third aims to improve collaboration between stakeholders in monitoring and promoting children's well-being. The parenting support strategy, it is suggested, outlines how Tusla activities can contribute to the realisation of these objectives. However, the first and third objectives of the DCYA Statement of Strategy are not discussed in the parenting support strategy.

The parenting support strategy document argues that by supporting parents, children's well-being can be enhanced and improved outcomes for children can be achieved. Parenting support and family support, as models of intervention, emphasise and focus on the strengths and functioning of individual parents and families. However, focusing only on individual parenting support interventions

[12] This document is referred to as the parenting support strategy in the remainder of this thesis.

to break the cycle of disadvantage ignores factors such as poverty, insecurity and poor living conditions that are critical to the achievement of positive outcomes for children (Gillies, 2005a; Gillies, 2005b). In this context, parenting practices are isolated from the socio-economic circumstances that parents and families experience. In the past 'support' has usually meant direct help in the form of welfare supports, however, in this articulation 'support' is much less tangible (Gillies, 2005a) and it is individually-focused. This represents a shift from concerns about collective welfare and life circumstances to matters of 'individual lifestyle' which relate to consumerism and market choices (Brannen and Nilsen, 2005). The parenting support strategy identifies a core feature of parenting support as increasing parents' resources; resources are defined as *"information, knowledge, skills, personal and social resources and material resources*[13]*"* (Child and Family Agency, 2013: 10). However, educating parents and improving their knowledge and skills, by themselves is not necessarily going to change anything for these families because of our *"hierarchically ordered and competitive society"* (Gewirtz, 2001: 373).

The parenting support strategy defines an *"effective parent"* (Child and Family Agency, 2013: 10) and the core tasks of parenting as *"protection, nurturing, guiding and directing"* (*ibid*: 10). Furthermore, the strategy argues that these core tasks are common to all cultures. The implication of the parenting support strategy is that parents not performing these core tasks require intervention. However, the strategy does not take account that the understanding and/or focus of these core tasks is not universal, for example, different parents will have different views on what constitutes guidance or direction for their children. The parenting support strategy imposes a normative set of parenting standards and attempts to normalise all those who do not behave in a particular way (Gewirtz, 2001). The parenting support strategy suggests, as

[13] While material resources are name-checked in the strategy, there is no explicit connection made between wider social and welfare policy decisions and parenting.

Gillies (2005a:77) observes in relation to the UK policy focus on parenting under New Labour, that parenting is not understood as an *"intimate relationship but as an occupation requiring particular knowledge and skills"*; knowledge and skills that can be gained from engaging with 'expert' providers. As with the experience in the UK, the welfare agenda becomes concerned not with providing direct material or financial supports typical of 'traditional' welfare states, but on providing opportunities to develop the skills needed to parent appropriately, thereby reinforcing the responsibility of parents to secure the well-being of their children (*ibid*). Rather than introduce policies that address the root causes of inequality that lead to differential states of well-being between children, the emphasis is on constructing the "*worthy citizen as a self-determining, agentic individual who accepts their obligation to act morally*"(Gillies, 2005a:77). However, this approach to social policy-making for families contains an inherent contradiction insofar as parenting, formerly belonging in the private domain becomes a public concern, while at the same time responsibility is put back upon parents, and the state and the structures perpetuating inequality are absolved of any role in sustaining disadvantage (Gillies, 2005b; Bragg, 2012).

The parenting support strategy suggests that *"Parenting support may need to be targeted towards specific populations or parenting contexts"* (Child and Family Agency, 2013: 12). These specific populations and contexts while framed in the context of needs are also informed by the risk and protective factors paradigm; responsibilisation is a key feature of contemporary risk management (O'Mahony, 2009). While the risk and protective factors paradigm appears to focus on broader structural issues, it is, in fact, a highly individualised approach to assessing needs, as the individual is the unit of analysis and situational dynamics and group processes are minimised (O'Mahony, 2009; Smeyers, 2010). Groups or contexts identified in the parenting support strategy as 'at risk' include parents living with illness or disability, parenting alone, parenting in

LGBT families, step-parenting, and cultural aspects of parenting. It is argued that these types of families and parents are likely to require support before problems escalate; and the presumption is that difference is likely to be problematic. But as Smeyers (2010: 275) argues *"Who is at risk? At risk for what? Who defines risks? In what ways is the discourse of risk essentialist, reductionistic and dogmatic?"* The parenting support strategy therefore locates parenting within, and establishes, a set of parenting interventions that promote and model white, middle class values that take little account of cultural or social differences (Gewirtz, 2001; Smith, 2013).

The parenting support strategy document identifies principles such as empowerment, taking a strengths-based approach, valuing diversity, and emphasising partnership and participation. However, the language of 'choice' and 'empowerment' is not benign (Ferguson, 2007), and the practice of using strengths-based and solution-focused approaches is highly individualistic. These approaches rely on the expert-client relationship, with little critique of the power dynamic and differential between the professional and the service user (Skehill, 1999). The issue of consent and participation are identified in the parenting support strategy; however, they fail to recognise that the role of statutory social work is essentially regulatory (*ibid*). The document therefore offers a contradictory vision for support, insofar as parents are made responsible for the well-being of their children and ensuring that they follow the appropriate *"moral and social trajectories",* while at the same these parents are open to much greater scrutiny, and hierarchical and power dynamics that make the role of the state more threatening and interventionist (Wyness, 2014: 64).

This strategy document from Tusla demonstrates the individualisation and responsibilisation agenda that is also found in the national policy framework for

children and young people, *Better Outcomes, Brighter Futures* (Department of Children and Youth Affairs, 2014). Parenting is viewed as the mechanism by which children's well-being is secured, and changing parental attitudes, behaviours and skills is understood to be central to changing children's well-being trajectories. However, in these contexts parenting is abstracted from the economic, cultural, social and personal resources and circumstances available to families. The parenting support strategy and the national policy framework demonstrate the contradiction at the heart of Irish social policy for children and families. The parenting support strategy emphasises parental responsibility and the role of individual parenting behaviours in the achievement of children's well-being, with little reference to their wider social and economic circumstances. *Better Outcomes, Brighter Futures* suggests that what parents do is more important than the circumstances of children and their families. Parents are encouraged to seek guidance from 'experts' and the notion that *"all problems can be solved, or at the very least their negative effects can be lessened, and that there are experts who know how to do that"* (Smeyers, 2010: 272) is propagated. In this regard, parenting is caught between the private domain of family life and intimate family relationships where individual agency and responsibility lie, while at the same time parenting is subject to control and regulation from experts mandated by the state to advise, guide, admonish or sanction (Smith, 2013).

3.5.3 Healthy Ireland

An area in which the growing emphasis on individualisation is also apparent is in the field of public health and health policy. In 2013 the Department of Health published "Healthy Ireland: A Framework for Improved Health and Wellbeing, 2013-2025"[14]. *Healthy Ireland* warrants particular attention as it says much about the state's approach to the well-being of both adults and children; and

[14] The framework document is referred to as *Healthy Ireland* in the remainder of this thesis.

who and what is responsible for promoting and achieving health and well-being. *Healthy Ireland* builds on earlier policy documents, an example of which is the Report of the Taskforce on Obesity (Department of Health and Children, 2005), which explicitly located the resolution of the obesity 'problem' in the individual.

The Report of the Taskforce on Obesity (2005) is centrally concerned with the economic cost of the obesity 'epidemic' to the Irish state, and pays particular attention to individual behaviours and choices with respect to diet and physical activity. The representation and discussion of research findings regarding obesity suggests that individual behaviours have driven the increase in obesity. For example, poor diet choices, such as the over-consumption of fried food, the inability of individuals to appropriately assess portion size, failure among Irish adults and children to meet daily physical activity recommendations, and the increasing demand from the general public for pre-prepared food are all implicated in the increase in obesity levels (Department of Children and Health, 2005). Furthermore, the report suggests that increasing numbers of dual working parent households and individualised taxation policy may have contributed to increasing levels of obesity among children. The inference is that by participating in the labour force working mothers have somehow increased their children's vulnerability to obesity (Share and Strain, 2008). The language of the report is imbued with strong moral undertones, assigns blame and suggests obese people are not good community members and are unworthy citizens who fail to accept their obligation to act morally: "*Obesity, the result of private actions by individuals, imposes costs on others through higher taxes, or higher insurance premia, and, given the ever-present waiting lists for hospital care, through increased pain and suffering on others arising from delays in treatment*" (Department of Health and Children, 2005: 57). The recommendations covering the education sector, the social and community sectors and the health sector are heavily weighted towards addressing personal responsibility and individual choice. The language of these recommendations

distances government from becoming directly involved in the solutions to obesity (Share and Strain, 2008).

In a similar vein, *Healthy Ireland* clearly locates national policy for health and well-being within an individualised and self-responsibilising agenda. The vision articulated in *Healthy Ireland* is one "*where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone's responsibility*" (Department of Health, 2013: 5). The framework document sets out an ambitious programme, the purpose of which is to "*create a coherent policy and sustainable co-operative action for health and wellbeing*" (Department of Health, 2013: 1). However, from the very beginning of the document, this aspiration for a healthy Ireland is located within economic concerns and the responsibility of individuals to ensure and achieve their own health and well-being pervades all aspects of *Healthy Ireland*. The framework document identifies the cost of the health service as the second largest component of public expenditure in Ireland, after the Department of Social Protection, and warns that the provision of healthcare in Ireland will likely become unaffordable if health and well-being are not improved. The emphasis on economic growth and the underlying rationale that economic prosperity is critical to our national health illustrates the concept of social neo-liberalism, as discussed in previous sections. Underpinning the continued references to the centrality of economic prosperity is the notion that economic development will provide opportunities for social development which in turn will further propel economic development. This is a well-rehearsed Irish policy position that continues to be used today, despite the evidence from the Celtic Tiger period which demonstrates that inequalities persisted, and even increased, during the boom period (Kirby, 2008).

While recognising that *Healthy Ireland* is the product of just one department - the Department of Health - there are few specific actions within the framework that address the issues of social, economic or educational disadvantage, unemployment or poor housing. One of the key themes of the framework is '*Empowering People and Communities*'. This theme explicitly identifies a range of actions intended to promote and locate the responsibility for health and well-being within the individual. Action 3.1 identifies the need to build decision-making capacity among children and young people, by aiming to improve "*the decision-making capacity of children and young people through strengthening self-esteem, resilience, responses to social and interpersonal pressure, health and media literacy (including social media literacy)"* (Department of Health, 2013: 24). Action 3.4 identifies the need to improve capacity among parents, carers and families to support healthier choices for themselves and their children. The language of choice, opportunity and empowerment permeates this section of the document. As Ferguson (2007: 388) asks "*Who, for example, could be against empowerment or against choice in health and social care services?"* Choice and empowerment are less benign, as is demonstrated in this framework document, when individual citizens are expected to take responsibility for ensuring their own health and well-being when there is no parallel or corresponding statutory effort to address the structural causes of health and social inequalities. In articulating the achievement of health and well-being as a matter of lifestyle change and choice, no attempt is made to tackle poverty or inequality (Ferguson, 2007). In *Healthy Ireland*, parents are explicitly responsible for making healthier choices for themselves and their children; indeed, the importance of children's health and well-being is located in their well-becoming and their potential contribution to Ireland's future growth and prosperity rather than their current well-being. Articulating important public health issues as individual choices and decisions mean they become disconnected from the social circumstances and contexts in

which these '*choices*' take place; it is assumed that optimum conditions exist at a structural level and are equally distributed (Brannen and Nilsen, 2005).

Healthy Ireland represents a clear articulation of a neo-liberal and individualised agenda with respect to health and well-being policy. The promotion of health and well-being is identified as critical to the country's economic growth prospects and future prosperity. Health and well-being are discussed in the context of choices and opportunities with little detailed consideration of the socio-economic and other structural conditions that affect health status. Therefore, many of the actions identified as required to promote and improve health and well-being are attributed to the individual and implicated as life style choices. This perspective distances governments from the structural causes of inequality and poor health while emphasising community, local and individual responsibility for same (Harris, 2006).

3.6 Conclusion

This chapter reflected on the journey of Irish social policy since independence and discussed some key of the key social policy developments as they relate to children and families. The chapter argued that the Irish state has always exhibited liberal tendencies of self-reliance and individual responsibility, an approach initially informed by Catholic social teachings but that more recently informed by a neo-liberal ideology where social policy is subordinate to economic policy, the behaviour of the market dominates decision-making and increasing privatisation of public goods is pervasive. Three policy areas discussed in this chapter: *Better Outcomes, Brighter Futures*, the national policy framework for children and young people (Department of Children and Youth Affairs, 2014); the parenting support strategy developed by Tusla (Child and Family Agency, 2013); and *Healthy Ireland* (Department of Health, 2013) typify what I argue is the growing emphasis on responsibilising parents for the well-

being of their children. While parents have always had responsibility to ensure the health and well-being of their children (Gillies, 2008), the individualisation and self-responsibilising approach as articulated in neo-liberalism and operationalised in recent Irish social policy concerned with children's well-being, equate the challenges facing parents, in supporting and promoting their children's well-being, as requiring lifestyle changes not structurally embedded obstacles that require a comprehensive and holistic response (Ferguson, 2007). The implications from such approaches to conceptualising and assessing well-being are therefore clear; in order to compensate for, or counteract, this highly individualised approach, concepts of well-being should concern the personal, social and material worlds that individuals inhabit. Well-being *"cannot be grasped outside of the material circumstances within which relationships are formed and which embody the consequences of both socio-economic and cultural or symbolic injustices"*(Barnes *et al.*, 2013: 454).

Chapter Two described the theoretical framework underpinning the SMCW, and this chapter explored the ways in which linkages between conceptualisations of well-being and political ideologies impact on the state's response to children's well-being. The chapter also demonstrated the importance of adopting a theoretically holistic model of children's well-being, such as the SMCW, that takes account of the agency-structure dynamic that is often missing in much of the contemporary literature on well-being. The following chapter explicitly describes how the SMCW was meaningfully utilised to inform the construction of a well-being index for children living in Ireland that recognises the role of the individual and the structures of society as both intrinsic to and contributing towards well-being.

Chapter 4 Methods: Constructing an Index of Well-being for Children Living in Ireland

4.1 Introduction

The purpose of this chapter is to describe the process of, and methods used in, constructing a composite index of well-being for children living in Ireland. The index was theoretically informed by the Structural Model of Child Well-being (SMCW); and it was constructed using data from the Wave 2 Growing Up in Ireland (GUI) dataset on 13-year children living in Ireland. The index was developed in two stages. Stage one involved the application of the SMCW to the identification and selection of domains, sub-domains and indicators used to populate this well-being index for children. Stage two of the process was the calculation of the index from data sourced from the GUI dataset, using recognised and established methods of index construction.

The first section of the chapter explains what is meant by composite indices; considers the typical conventions of index construction; and discusses both the benefits and limitations of using indices to measure and describe complex concepts such as well-being. The chapter goes on to discuss the applicability of the SMCW to the construction of this study's index of well-being such that the final index is congruent with the conventions of index building, including creating domains and sub-domains. Third, the chapter describes the GUI dataset from which the index has been constructed. Finally, the chapter describes the method of calculating sub-domain and domain scores for the index, including standardising the directionality of the data, standardising

indicator values, the treatment of missing data, the weighting of indicators, and validating the index.

4.2 Well-being Indices

A comprehensive and composite index of children's well-being combines a range of indicators from different domains or dimensions of children's lives into a single measure of overall well-being and provides a way of operationalising the concepts of children's well-being (O'Hare, 2014). The objective of well-being indices for children is to distil large quantities of data about them in ways that can be easily communicated to, and understood by, policy makers and the general public (Vandivere and McPhee, 2008). The use of composite indices is increasingly acknowledged as a useful tool in policy analysis and for communicating with the general public about issues of concern to them (O'Hare, 2014; Ben-Arieh, 2005; Ben-Arieh, 2008b). Composite indices can be meaningfully used to illustrate complex and difficult to define concepts across a range of issues. The issue of well-being is particularly well-suited for index construction as composite indicators are ideally used to describe and measure multi-dimensional concepts that cannot be explained or captured by a single indicator (OECD, 2008).

Early efforts to measure children's well-being were largely empirical (Ben-Arieh, 2008b) and primarily concerned with identifying indicators of well-being and the ways in which these indicators could be summarised into useful indices. During the 1980s it was recognised that the child should be the unit of observation and that contextual and environmental factors be included in measuring children's well-being (Lippman, 2007). Over the last two decades significant research has been carried out to identify, measure and aggregate indicators into composite indices of children's well-being (O'Hare and Gutierrez, 2012). Indices of children's well-being are influenced by a variety of theoretical

approaches, including Bronfenbrenner's bioecological theory, Sen's Capability Approach, theories of child development, the 'new' sociology of childhood, quality of life perspectives and policy frameworks such as the UNCRC (see, for example Bradshaw *et al.*, 2007b; Ben-Arieh and Frønes, 2011; Fernandez, 2011; Moore *et al.*, 2008).

4.2.1 Indicators and domains

The building blocks of index construction are indicators. Indicators are statistical markers used to monitor patterns and trends over time (Moore *et al.*, 2008). Ben-Arieh and Frønes (2011: 462) argue that indicators "*bridge the gap between conceptual models and empirical realities*". They further argue that children's well-being indicators are related to domains and are rooted in values and ideology, as well as theories of childhood, and are informed by understandings and definitions of well-being more generally. A domain is a broad construct that is represented by one or more indicators (O'Hare and Gutierrez, 2012). For example, physical well-being could be considered a domain, while the quality of the child's health and their consumption of fruit and vegetables (which goes to the quality of the child's diet) might be indicators for that domain.

Some theorists further group indicators into sub-domains which are in turn aggregated into domains (Bradshaw *et al*., 2007b; Bradshaw and Richardson 2009; Richardson *et al*., 2008; Lau and Bradshaw, 2010; Moore *et al*., 2012; Cheevers and O'Connell, 2013). Sub-domains are understood to bridge the gap between the broader concept of a well-being domain and the micro-level indicators that are used to populate the sub-domain. Sub-domains can be understood as the intermediate step in the building of a well-being index. Taking the example of the physical well-being domain and the two indicators noted above, the quality of the child's health and the quality of their diet might be understood to belong to different and discrete sub-domains of physical well-

being. The frequency of a child's fruit consumption is distinct from, and conceptually different to, the quality of the child's health, notwithstanding that there might be a relationship between the indicators (poor diet may result in poor overall health quality). However, not all indices adopt the convention of using sub-domains (see, for example, Land *et al*., 2007; OECD, 2009); instead these indices are constructed on the basis of a two-tier (domain and indicators) rather than three-tier index design. The advantage of a three-tier index is that it facilitates greater disaggregation of the index. This enables the researcher to explore differences between groups of children at a sub-domain level without having to examine differences at the individual indicator level.

The definition of domains, and the selection of indicators to populate these domains, influences the domain and index scores and the interpretation of the data (Frønes, 2007). The field of social indication is fragmented and the selection of indicators and the definition of domains for inclusion in index construction has, to date, been informed by a variety of issues including the academic discipline of the researcher, the theoretical frameworks employed and pragmatic concerns such as the availability of relevant and suitable data (*ibid*). Pollard and Lee's (2003) review of the literature found great variablity in the range of indicators used to represent well-being. The studies reveiwed included a mix of positive and negative indicators, and subjective and objective measures. Moreover, a recent review of 19 studies concerned with developing indices of children's well-being, found significant variation in the choice of indicators and domains used to measure it (O'Hare and Gutierrez, 2012). In addition, there is no common language to describe or explain concepts where multiple indicators are gathered together (*ibid*). The language of 'domains', 'clusters' and 'dimensions' is variously used to denote the grouping together of several indicators to represent a broader concept (Ben-Arieh and Frønes, 2011; Bradshaw *et al.,* 2007a; Minkkinen, 2013 respectively). Notwithstanding the variation in terms, 'domain' is the term used most widely to describe the

grouping together of several indicators (see, for example, Vandivere and McPhee, 2008; Fernandes *et al.*, 2012; Frønes, 2007; Lippman, 2007; Land *et al.*, 2007; Moore *et al.*, 2008) and was the term used in this study to explain this concept.

In recognition of the lack of consistency or uniformity in indicator selection and domain labelling, a number of authors suggest criteria to inform and aid the selection of indicators. These criteria include the requirement that indicators have significance for children (Ben-Arieh, 2008b); the child is the desirable unit of analysis (OECD, 2009); and the indicator is easily understandable to the public (The Annie E. Casey Foundation, 2010).

In summary, well-being is assessed according to the aggregation of indicators into sub-domains and/or domains; and domain scores are in turn aggregated into a single composite index score. In breaking down multi-dimensional concepts, such as well-being, into domains and sub-domains it is argued that the *"nested structure improves the user's understanding of the driving forces behind the composite indicator"* (OECD, 2008: 22).

4.2.2 Benefits and limitations of indices

There are many benefits to the use of composite indices, not least of which is that they are a useful way to operationalise the concept of children's well-being (O'Hare, 2014). Well-being is a multi-dimensional concept and indices are especially useful as they can facilitate a 'whole child' understanding of well-being (Cheevers and O'Connell, 2013). The children's well-being indices literature emphasises the potential for composite indices to influence national policy for children and to hold policy makers to account for the progress, or otherwise, of children over time (Bowers Andrews and Ben-Arieh, 1999; Cheevers and O'Connell, 2013; Ben-Arieh, 2008b; O'Hare and Gutierrez, 2012;

Moore *et al.*, 2008). Composite indices are important in the policy arena, insofar as they can be used to summarise complex multi-dimensional concepts such that policy makers, rather than trying to interpret a whole range of disparate indicators, can access one useful summary score (OECD, 2008). Composite indices facilitate the monitoring of children's well-being over time; they can be used to communicate complex concepts thus making them less opaque; they contribute to the identification of areas for policy intervention; and they help to focus public attention on children's well-being (OECD, 2008; Moore *et al.*, 2008). Furthermore, the ability to disaggregate data and the use of measures that reflect the diversity of children's experiences and circumstances provide a richer and more accurate perspective on what childhood is like (Bowers Andrews and Ben-Arieh, 1999). The recognition of, and recent trend to, include the voice of children in the collection of data concerning subjective well-being is also an important and welcome development (Moore *et al.*, 2008; Bowers Andrews and Ben-Arieh, 1999).

However, there are a number of limitations to composite indices. From a methodological perspective negative trends in one indicator may cancel out positive trends in another indicator from the same domain or vice versa. Moreover, a lack of transparency in the selection of the indicators, and the lack of availability of important data may compromise the theoretical robustness of the final index (Moore *et al.*, 2008; O'Hare and Gutierrez, 2012). Many indices rely on data collected from different sources, across different time periods and at different developmental stages of childhood. These types of indices describe the average conditions of children but are unable to describe how multiple problems are distributed across the same cohort of children (Moore *et al.*, 2008). However, the use of the GUI dataset in this study offsets this particular limitation, as the data for this index was collected from the same cohort of children. Finally, very few studies have attempted to weight the importance of different domains in calculating the final summary index score (O'Hare and

Gutierrez, 2012; Moore *et al.*, 2008). In this way, summary indices are deliberately reductionist. While undoubtedly an important tool in the policy arena, there is a danger that single score composite indices suggest simplistic policy responses to what are in fact complex social situations (OECD, 2008). In addition, the lack of transparency noted above can contribute to the propagation of misleading policy messages, particularly if important indicators are ignored because the data is not available or the issue is considered too difficult to measure (O'Hare and Gutierrez, 2012; OECD, 2008).

A more fundamental critique of the children's well-being indices movement is that composite indices lack the capacity to truly capture the 'whole child' perspective and the diversity of children's lives. This lack of capacity stems from the potentially reductionist nature of this largely empirical approach to the study of well-being, which assumes that there exist facts about well-being that can be measured and organised (Fattore *et al.*, 2007). It is argued that the amorphous nature of the concept of well-being makes its study more suited to a qualitative approach, rooted in constructionist ontology and an interpretivist epistemology (Crivello *et al.*, 2008; Fattore *et al.*, 2007). However, data-driven indices need not be culturally or context insensitive. The construction of social domains should be based on social context and the period in history during which the social phenomena is measured (Frønes, 2007). Moreover, if the indicators are adequately varied, capture the instability of children's lives and the diversity of their experiences then an index can be very a useful tool (Bowers Andrews and Ben-Arieh, 1999).

Indicators and indices are powerful instruments, and are useful tools for policy formulation. However, index construction is not value-free (Ben-Arieh and Frønes, 2007); the selection of indicators, sub-domains and domains illustrates the researcher's interpretation and conceptualisation of well-being. The

following section turns to discussing the way in which the SMCW was applied to the process of constructing the index.

4.3 Applying the SMCW to the Creation of an Index of Children's Well-being

The utilisation of an explicitly defined theoretical model of well-being, such as the SMCW, reflects the OECD (2008) recommendation that the first step in constructing a composite index is the identification and selection of the theoretical framework that defines the phenomenon to be measured and informs the selection of domains, sub-domains and indicators.

There are a number of further advantages to using the SMCW for the construction of a well-being index for children living in Ireland. First, and as has been noted in the literature, the field of social indication lacks a unifying theory (Frønes, 2007); as does the study of children's well-being (Raghavan and Alexandrova, 2015; Edmunds, 2010). For example, a review of child well-being index construction studies found that *"eight were based on clearly articulated theory, seven had some acknowledgement of a theoretical background or conceptual framework, but the biggest group was the 11 that had no theoretical or conceptual grounding"* (O'Hare, 2014: 2). The SMCW provides an overarching theoretical framework for conceptualising children's well-being. Second, the theoretical framework underpinning the SMCW draws on a variety of theories common to the wider child well-being literature, and is therefore compatible with previous efforts to construct indices in a more theoretically informed way. Thirdly, the SMCW is informed by a children's rights perspective. A number of recently developed indices make reference to, and are informed by, the UNCRC (see, for example, Bradshaw *et al*., 2007b; Richardson *et al*., 2008; Bradshaw and Richardson, 2009; OECD, 2009; Lau and Bradshaw, 2010).

Fourthly, and in contrast to recent studies that have defined well-being in narrow terms of individual functioning and development only (see, for example Moore *et al.*, 2012; Sanson *et al.*, 2010; Cheevers and O'Connell, 2013; Moore *et al*., 2008), in the SMCW the nature of well-being and development are understood to be different entities. Development represents a process which can produce well-being, but development by itself does not equal well-being.

In adopting the SMCW as the conceptual framework, within which the sub-domains and indicators of well-being were selected, a more complete understanding of well-being was applied to the creation of this index. Furthermore, the SMCW analyses children's lives at the individual level and at the societal level. These important distinctions provide the conceptual opportunity to incorporate domains, sub-domains and indicators of children's well-being that move beyond individual development and functioning and help us to think about the distinction between what constitutes well-being and the determinants of well-being. The use of the SMCW, therefore, provides an opportunity to select theoretically informed domains, sub-domains and indicators of well-being; whilst also being relevant to, and reflective of, the wider child well-being indices literature.

4.3.1 Identifying domains of well-being in the SMCW

Minkkinen (2013:548) argues that "*the model combines the focal dimensions of well-being, the prerequisites for well-being and the mutual relationships between the different elements*". In order to usefully employ the SMCW in constructing an index of well-being, these core concepts were conceptually understood to represent different parts of the index building process.

The focal dimensions described in the SMCW, for example, physical, mental, social and material well-being represent the fundamental elements of overall

well-being. The inclusion of the first three dimensions is informed by the WHO definition of health and well-being. The inclusion of material well-being in the SMCW is informed by, and congruent with, the wider literature on well-being. For the purposes of this study's index, these dimensions were understood as domains, reflecting the language of index construction. Taken together these domains *are* well-being in this study.

4.3.2 Identifying sub-domains of well-being in the SMCW

What Minkkinen (2013) describes as the components of a particular dimension (domain) were interpreted for the purposes of index building, as the constituent parts or sub-domains of well-being. These constituent parts are intrinsic and fundamental to our understanding of what well-being is. The conceptualisation of the domains of well-being in the SMCW are also understood to be multi-dimensional; for example, physical well-being is, in itself, a multi-dimensional construct comprising of components such as "*health, the absence of disease, and proper physical functionality*" (ibid: 550). Components were therefore understood to represent the various constituent parts of the domains of well-being. These constituent parts, called sub-domains in this index, bridge the gap between the broader concept of a well-being domain and the micro-level indicators that were used to populate the sub-domain.

The sub-domains of the domains are also explicitly articulated in the SMCW; the number of sub-domains described in the SMCW differs from domain-to-domain (see Table 4-1 for a list of domains, sub-domains and indicators included in this study's index). Four sub-domains of physical well-being are identified in the SMCW including health status; absence of illness or disease; physical functionality; and health behaviours. With reference to the last sub-domain, the SMCW explicitly identifies children's own individual health behaviours as a key component of physical health and a sub-domain called 'Health Behaviours'

was therefore included in the index. The SMCW identifies four sub-domains of mental well-being as emotional well-being, cognitive development, the absence of psychiatric disorders and subjective well-being. Three sub-domains of social well-being were identified from the SMCW including the relationships that children experience with family; the relationships that children experience with friends; and their participation in group hobbies and activities. Finally, three sub-domains of material well-being were identified from my analysis of the SMCW and include income; deprivation; and neighbourhood. The potential sub-domains for the material well-being domain are articulated less explicitly in the SMCW; "*nourishment, housing and other material items*" (Minkkinen, 2013: 551) are indicated as inherent to this domain. The issue of nourishment is understood in terms the affordability of a nutritious diet. This concept was captured in the index through the inclusion of a sub-domain of deprivation, characteristics of which included the affordability of consuming certain food types weekly. The issue of housing was dealt with in a sub-domain concerning community and neighbourhood. Finally, "other material items" were interpreted as including sub-domains relating to income and poverty.

4.3.3 Identifying indicators of well-being in the SMCW

Indicators are the foundations to index building. The pre-requisites and societal frame of well-being that are articulated in the SMCW were interpreted as intrinsic to well-being rather than just as determinants of well-being. For the purposes of this study, selected pre-requisites and elements of the societal frame of well-being were understood as indicators for the sub-domains of well-being. The presence or absence of the pre-requisites, in the form of indicators, represents the presence or absence of well-being for children. For example, a positive relationship with a primary caregiver represents positive social well-being whereas a child's poor health status indicates poor overall physical well-being. These indicators when standardised and averaged contributed to the establishment of the sub-domain score.

Key elements of the SMCW include the subjective actions that children engage in and the societal frame of well-being. Subjective action is described as the internal and external activities that children engage in that both represent and foster their well-being. The absence or presence of these activities and the capability to engage in these activities, whether due to individual, family, community or societal constraints can be understood to indicate the absence or presence of well-being. In this way, the features of subjective action are included in the selection of indicators. As noted in Chapter Two, activities associated with subjective action include play, physical exercise, studying, learning new skills, working, spending time with family and friends, caring for pets, hobbies and civic engagement (Minkkinen, 2013). The activities associated with subjective action cut across domains and sub-domains. For example, physical exercise was included as an indicator in the physical well-being domain, whereas play was included as an indicator for the quality of peer relationships within the social well-being domain. The breadth of the subjective actions named in the theory provides the researcher with a rich range of indicators from which to choose.

Conversely this wide of range of indicators also meant that it was difficult to include them all in the index and individual researcher judgement informed the selection of indicators. Moreover, some subjective actions were more easily accommodated as indicators in the four domains of well-being than others. For example, physical exercise clearly fit within the domain of physical well-being, as spending time with family fit within the social well-being domain. In contrast, the subjective action of civic engagement was less easily accommodated as there did not appear to be a natural home for it within the physical, mental or material well-being domains. While the social well-being domain might, on the surface, be considered a suitable domain for an indicator for civic engagement, the SMCW clearly articulates social well-being in terms of the relationships that children have with close adults and friends rather than a

broader interpretation which would facilitate the inclusion of indicators of civic engagement.

The societal frame of well-being operates in much the same manner. That is the circle of care; structures of society; and culture were accommodated in the index by mapping these concepts onto the sub-domains and through the selection of indicators. For example, the circle of care refers to those people directly interacting with the child including caregivers and peers. These elements of the circle of care are compatible with the social well-being domain and can, in turn, be divided into sub-domains of relationships with family and relationships with peers. The multi-dimensionality of concepts such as subjective action and the societal frame of well-being, meant that some indicator selections and the decisions as to where some indicators were situated within the sub-domains and domains of the index were matters of researcher judgement. However, the judgment was nonetheless informed by the practices of index building, as evidenced in the literature.

The structures of society and culture were also represented in the index. The characteristics of the structures of society articulated in the SMCW include participation structures, welfare services and income transfers, and people's sense of security (Minkkinen, 2013). In much the same way as the circle of care was represented in the index by mapping the concept onto different sub-domains and selecting suitable indicators for inclusion in these sub-domains, the features of the structures of society were also represented in various sub-domains by the indicators. As noted above, civic participation was not easily located in any one domain, whereas children's participation in activities was more easily accommodated. For example, indicators of children's participation were included in the social well-being domain by the participation in hobbies and play sub-domain; children's sense of security was included in both the

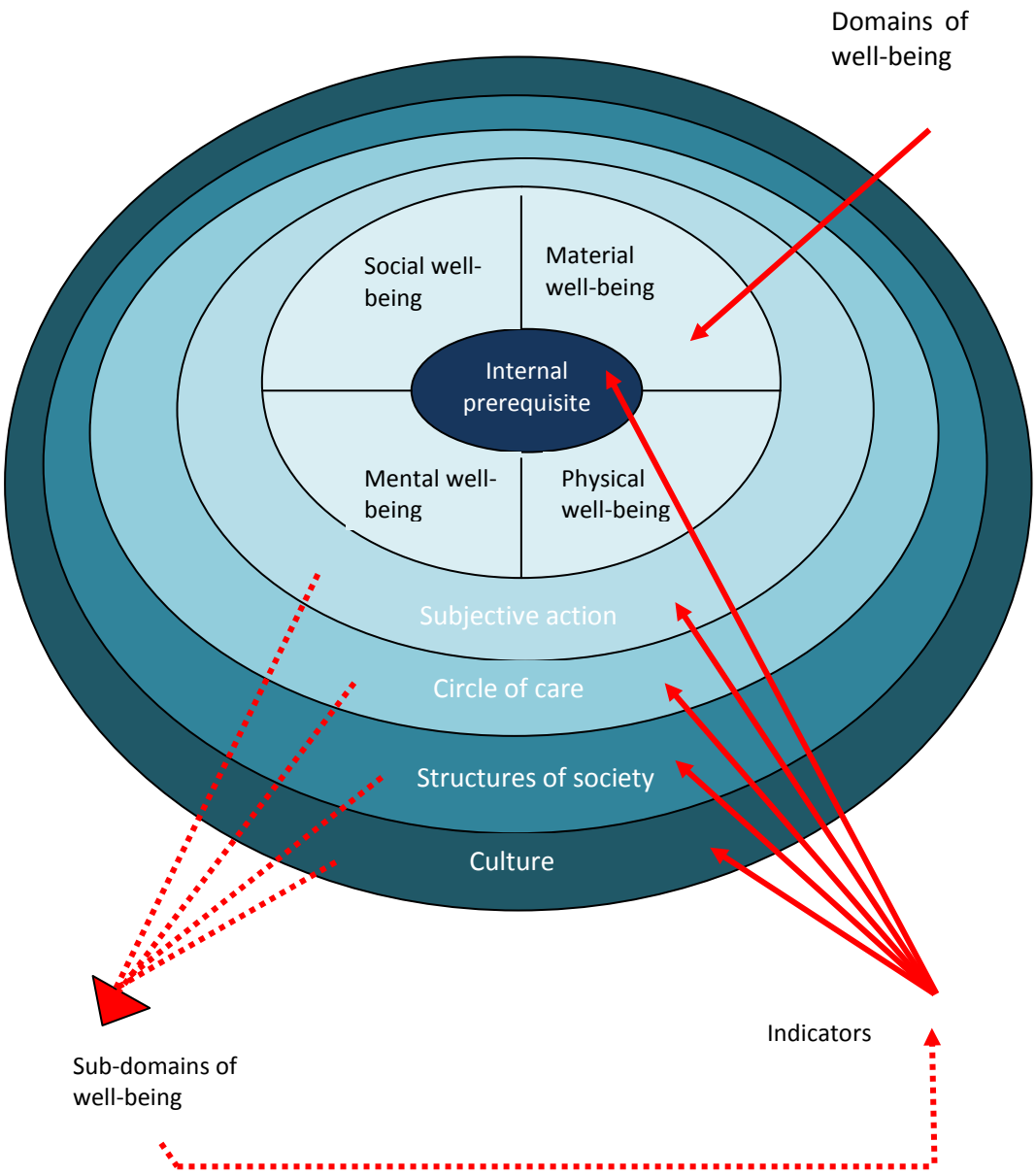
mental well-being domain (i.e. feelings of anxiety, safety or fear) and in the material domain (i.e. neighbourhood quality and security). And finally, welfare services and income transfers were included in the material well-being domain within the income sub-domain. The inclusion of welfare services and income transfers in the SMCW is noteworthy as it provides a theoretical basis for including indicators on poverty, deprivation, income levels and so on in the index. This is especially important given that a number of recent studies (Moore *et al.*, 2008; Sanson *et al.*, 2010; Cheevers and O'Connell, 2013; Moore *et al*., 2012) have purposely omitted a domain of material well-being in their indices, choosing instead to build indices that focus on individual functioning only. Such indices only consider material well-being as a contextual factor not as inherent to the overall concept of well-being.

Conceptually, the application of the SMCW to the construction of this study's well-being index for children is depicted in Figure 4-1. As can be seen from Figure 4-1, the domains of well-being are clearly articulated in the SMCW as physical, mental, social and material well-being. For the purposes of constructing the index, the internal prerequisites, also clearly articulated in the SMCW, were interpreted as indicators. The direct and explicit interaction between subjective action, the societal frame of well-being and the sub-domains of well-being in the index are illustrated through a series of broken arrows in Figure 4-1.

At the same time, subjective action and the structures of society informed the selection of indicators included in the index. For example, the inclusion of a sub-domain informed by the circle of care suggests the inclusion of indicators that represent the quality of the relationships between the child and those closest to him/her. Therefore, this implicit relationship between sub-domains

and indicators is illustrated with the use of a broken arrow between the sub-domain label and the indicator label.

Figure 4-1 How the Structural Model of Child Well-being Informs the Index



Source: Adapted from Minkkinen (2013)

As discussed above, this index was chiefly informed by the SMCW, however, it did take account of a number of other considerations, not least the wider literature on children's well-being indices. This study's index was therefore

made up of four domains of well-being; each domain was in turn made up of between three and four sub-domains; and each sub-domain was made up of between one and four indicators. A more detailed discussion of the choice of indicators that make up the index is included in the following chapter. In the meantime, this study's index of well-being is summarised below.

Table 4-1 Summary of Domains, Sub-domains and Indicators Used in this Study

Domains	Sub-domains	Indicators
Physical well-being	Health status	Quality of child's health
	Absence of illness/disease	Absence of illness
		Impact of illness
	Physical functioning	Accidents and injuries
		Presence of a disability
	Health behaviours	BMI
		Diet
		Dental hygiene
		Physical exercise
Mental well-being	Absence of disorders	Behaviour/conduct disorder
		Hyperactivity
		Anxiety
		Depression and low mood
	Emotional well-being	Emotional competence
	Cognitive development	Verbal and numeric reasoning
		Additional help at school
		Sense of intellectual capacity
	Life satisfaction	Happiness
		Like school
Social well-being	Relationship with parents	Relationship with mother
		Relationship with father

Domains	Sub-domains	Indicators
		Time spent with family and friends
	Relationship with peers	Quality of peer relationships
		Pro-social behaviours/skills
		Number of close friends
		Feeling of popularity
	Participation in play	Participation in play and hobbies
Material well-being	Income	At-risk of poverty
		Parental joblessness
		Financial strain
	Deprivation	Experiencing deprivation
		Educational deprivation
		Number of books
	Neighbourhood	Neighbourhood disorder
		Neighbourhood quality

4.3.4 Domain, sub-domain and indicator similarities

The SMCW is a recent theoretical development, first published in the journal *Child Indicators Research* in 2013. While it was not the purpose of this study to validate the SMCW, it was considered important to assess compatibility with, and congruence between, the domains, sub-domains and indicators selected for inclusion in this study's index with what is known from previous efforts to measure children's well-being. This comparison served two purposes. First, it suggested where there might be a 'fit' between the theoretically identified and selected domains, sub-domains and indicators and the wider literature. Second, it identified differences between this index and other indices and provided an opportunity to assess the implications of these differences.

The SMCW includes a number domains commonly used in child well-being index studies (see, for example, O'Hare and Gutierrez, 2012; Bradshaw *et al*., 2007b; Bradshaw and Richardson, 2009; Land *et al.*, 2007). A recent review of 19 studies, that specifically developed composite indices of children's well-being, shows that 16 of the studies used a domain or category of well-being called 'Health' which is equivalent to Minkkinen's physical health domain; and 17 of the studies included a domain labelled 'material well-being' (O'Hare and Gutierrez, 2012). Less well used in other indices of children's well-being are the domains of social and mental well-being. For example, the O'Hare and Gutierrez (2012) review found that a domain name incorporating the term 'social well-being' was included in 10 studies; while the specific term 'mental well-being' was used not at all.

In the SMCW, social well-being is understood to pertain to the quality of the relationships that children experience with their families, friends and communities. Mental well-being is understood to include emotional competence, the absence of psychiatric disorders, cognitive development and life satisfaction. The four focal dimensions of well-being articulated in the SMCW map closely onto the domains suggested in a 2003 review of the child well-being literature (Pollard and Lee, 2003). The Pollard and Lee (2003: 66) review suggests five common domains: physical, psychological, cognitive, social and economic. A more recent review of the literature, categorising domain and sub-domain nomenclature by O'Hare and Gutierrez (2012), demonstrates that while the SMCW domain labels may not match exactly those used in recent studies, there is greater equivalence between the components (sub-domains) of the SMCW and their associated indicators and other indices.

Close examination of the indicators used to populate the domains of this index demonstrates significant similarity between indicators, albeit that the domains

have different nomenclature. For example, out of 13 indices reviewed[15] for this study for comparison purposes, eight include indicators on peer relationships and all 13 include indicators for reading and numeracy competencies although neither social well-being or mental well-being respectively are commonly used nomenclature in the literature (a short description of each of the 13 studies is included in Appendix 6).

4.3.5 Domain differences

Notwithstanding the findings from the literature that demonstrate similarities between the domains, sub-domains and indicators of well-being as articulated in the SMCW and other indices of child well-being, some differences do exist and these differences warrant further discussion.

A recent review found that 'education' was a commonly used domain label in 17 out of 19 studies; albeit the domain labels varied and included names such as 'education', 'educational attainment', and 'educational well-being' (O'Hare and Gutierrez, 2012). In contrast, an earlier systematic review of the child well-being literature found that education was not typically included as a domain; instead a domain of 'cognitive well-being' was used to capture children's well-being with regard to their intellectual development and educational achievement (Pollard and Lee, 2003). Reflecting Pollard and Lee's (2003) findings, education is not included as a domain or dimension of well-being in

[15] Reviewed studies include those where the indices were constructed within the last ten years. In addition, studies were included where the indices were developed for an individual country (for example, Land *et al*., 2007; Bradshaw *et al*., 2009; O'Hare *et al*., 2013). Indices that compared well-being between countries were also reviewed (for example, Bradshaw *et al*., 2007a; Bradshaw *et al*., 2007b; Richardson *et al*., 2008; Bradshaw and Richardson, 2009; OCED, 2009; Lau and Bradshaw, 2010; UNICEF, 2013). Studies that utilised micro-datasets to construct their indices were also included in the review (for example, Moore *et al.*, 2012; Sanson *et al*., 2010; Cheevers and O'Connell, 2013). All of the indices reviewed considered and measured well-being as a multi-dimensional construct. Studies that focused on only one dimension of well-being, such as subjective well-being, were excluded from the comparison due to the narrow definition of well-being being assessed. See Appendix 6 for descriptions of the studies.

the SMCW. Indeed, education is purposely not included in this conceptualisation of well-being as *"education is not a dimension of well-being in the SMCW but a contextual factor which has the potential to promote well-being"* (Minkkinen, 2013: 552). In other words, education by itself does not constitute well-being, but through children's engagement with the education system, and their own subjective actions such as studying, education is a mechanism by which the focal dimension of mental well-being and its constituent element of cognitive development can be supported and achieved.

A closer analysis of the sub-domains and indicators typically used to populate domains labelled 'education' in the 13 indices reviewed for this study, shows that most include indicators of reading and numeracy competency. These indicators are compatible with the sub-domain of cognitive development which is explicitly articulated in the SMCW and is located in the domain of mental well-being. In fact, the index created by Moore, *et al*. (2008: 46) creates a domain called *"Educational achievement and cognitive development".* The concept of cognitive development is, therefore, represented in SMCW and non-SMCW approaches, albeit located in differently labelled domains and sub-domains (see, for example, Bradshaw et al., 2007a; Land *et al.*, 2007; Bradshaw and Richardson, 2009; Richardson *et al.*, 2008; UNICEF Office of Research, 2013).

However, it should also be noted that the aforementioned studies also include sub-domains and indicators of educational participation and educational aspirations, represented by enrolment rates in secondary school and the number of young people (age 15-19) not in education, employment or training (NEET) respectively. There is no easy fit for a sub-domain or indicator of educational participation in an index informed by the SMCW. The absence of a sub-domain for educational aspirations, as indicated by NEET, is perhaps less

problematic for analysing well-being among 13-year-olds, as it is more typically associated with young people aged between 15 and 19 years.

As noted above, social well-being in the SMCW is understood to relate to the quality of the relationships that children experience with their families and friends and their participation in social activities. A domain including reference to 'social' in its nomenclature was included in 10 out of 19 studies reviewed by O'Hare and Gutierrez (2012). However, the underlying aspects of social well-being that are measured vary considerably across studies that use the term 'social' in their naming of domains and sub-domains. For example, three of the studies, reviewed by O'Hare and Gutierrez (2012: 620), grouped social and emotional development together. In contrast, and on the basis of the SMCW, this index conceptualised emotional competence as belonging to the mental well-being domain; whereas social well-being, was understood to refer specifically to social relationships and social participation.

Social well-being in the SMCW is understood to reflect quite different concepts than those included in the mental well-being domain, notwithstanding that some aspects of emotional competence may be related to social well-being. This conceptualisation of social well-being reflects the finding from a 2003 review of the child well-being literature that conceptualised social well-being and emotional or psychological well-being as two separate concepts (Pollard and Lee, 2003). The coupling of family and peer relationships into a single domain is evident in a number of other studies included in the O'Hare and Gutierrez (2012) review, notwithstanding that the nomenclature 'social well-being' is not used. Six out of 19 studies, included domains of family and peer relationships or some variation thereof; for example, the domain 'Social relationships' was used in four studies; and 'Family and Peer Relationships' and 'Family and Social Relationships' were each used once (O'Hare and Gutierrez,

2012: 620). In one study reviewed, personal and social well-being were conceptualised as one domain (*ibid*). In this study's index, and informed by the SMCW, personal well-being (understood to mean subjective well-being) was located in the mental well-being domain and is conceptualised differently to social well-being.

A number of studies include a domain that deals with behaviour and lifestyles. For example 11 of the 19 studies reviewed by O'Hare and Gutierrez (2012) include a domain incorporating risks, safety or behaviours. In the 13 indices that I reviewed for this study, 'risks' typically referred to risky behaviours such as drug misuse, sexual activity, alcohol misuse, and cigarette smoking. The sub-domain of 'safety' typically includes indicators such as personal safety, violence in the home or involvement in criminal activity. While 'behaviours' are often described in terms of health behaviours for example, BMI/overweight, dental hygiene practices, consumption of fruit, consumption of daily breakfast and physical activity. Given the variety of conceptualisations of 'risk and behaviours' domains across a number of studies and the inclusion of such a wide range of indicators it is not unreasonable to suggest that *"the concept underlying this domain may not be as clear or sharply conceived as Education, Health or Material well-being"* (O'Hare and Gutierrez, 2012: 21).

The concept of 'behaviour' contributing to well-being is dealt with in the SMCW in both the discussion of physical well-being and in the discussion of subjective action. The former identifies that children and young people can contribute to their own physical well-being *"through their actions, such as adopting healthy habits, or engaging in risk behaviour"* (Minkkinen, 2013: 550). Children and young people's subjective action, that is *"the internal and external activities engaged in by the child.....internal activity refers to mental processes such as perception, thinking and memory, while external activity refers to practical*

actions" (*ibid*: 552) is also critical to well-being. The concept of healthy habits and their associated subjective actions were accommodated in this index-building process by the inclusion of a sub-domain called 'Health Behaviours' in the physical well-being domain.

The issue of where to locate other risk behaviours, in the context of the SMCW, while retaining the structure of domains, sub-domains and indicators was somewhat more problematic. Indicators of 'risky' behaviours such as drug misuse, alcohol misuse, cigarette smoking and sexual activity could potentially be accommodated in the physical well-being domain. However, the domain was already populated by four sub-domains and nine indicators; introducing a further four indicators would have unbalanced the index and given a particularly strong implied importance to physical well-being in contrast to the other more modestly populated domains. In addition, it is also important to note that the literature on constructing indices of well-being shows that risk behaviours are typically included for young people 15 years or older. For example, Land *et al*. (2007) include measures on rates of cigarette smoking, rates of alcohol consumption and rates of illicit drug use among 12th Graders (usually aged 17-18 years). Similarly, Bradshaw *et al*. (2007b) include indicators of risk behaviours such as cannabis use, experience of drunkenness, use of inhalants and cigarette smoking for young people aged 15 and 16 years. The data used by Bradshaw *et al*. (2007b) on risk behaviours was obtained from ESPAD; which is the European School Survey Project on Alcohol and Other Drugs. The ESPAD study is a collaborative research project across 40 European countries; the purpose of the study is to repeatedly collect comparable data on alcohol and drug use among 15 and 16 year old students (ESPAD, 2015). Sexual behaviour is included as an indicator of risk behaviours in a number of studies, the reference age in these studies is age 15 years or older (see, for example, Bradshaw *et al*., 2007b; Richardson *et al*., 2008; Bradshaw and Richardson, 2009).

The tendency to include these risk indicators for an older cohort than that included in GUI ameliorates, to some degree, the gap of not including them in this index. Notwithstanding the question of the age appropriateness of these indicators for 13-year-olds, it is acknowledged that these types of behaviours, both negative and positive as articulated in the SMCW, cannot be easily accommodated in the index-building process. Finally, it is also important to note that the GUI AMF[16] dataset, used to construct this study's index, does not include data on smoking or substance misuse, despite this information being collected as part of the interview process. This data is considered sensitive and is therefore removed from the AMF data. The intent behind using the AMF in this study was to assess if a robust and comprehensive index of children's well-being could be constructed using a publicly available dataset such as GUI; for this reason it was decided to proceed without this data and assess the completeness of the index at the conclusion of the index building process. Given the lack of an explicitly identified well-being domain of 'risky' behaviours within the SMCW, the non-applicability of some of these indicators to children aged 13 years, and the removal of sensitive data from the GUI AMF, the issue of risk, safety and behaviours was therefore only partially dealt with in this index.

4.3.6 Sub-domain differences

While there was some equivalence between the selection of domains and indicators used in the construction of this study's index and those used in other indices, the conceptualisation and choice of sub-domains differed somewhat. There are a number of reasons for these sub-domain differences. First, this study, in contrast to others, was theory-driven. The SMCW determined the selection of domains, sub-domains and indicators. By virtue of the use of this

[16] Two different types of data file are available from GUI. The anonymised micro-data file (AMF) is widely and publicly available while the research micro-data file (RMF) requires special permission for its use. Further details of the differences between the two types of file are discussed later in this chapter.

particular theoretical framework, the sub-domains and their associated indicators did not map exactly onto those used in previous studies.

Second, this study was concerned with building an index of well-being for children aged 13 years living in Ireland, based on the GUI micro-dataset. This index was constructed on the basis of data obtained from a single cohort study rather than a selection of data from a variety of population-level surveys. One of the implications of using a micro-dataset is that sub-domains (and indicators) relate to a particular age cohort of children and all are therefore relevant to 13-year olds. In contrast, international indices covering childhood from birth to age 18, such as those constructed by OECD, UNICEF and others, include sub-domains and indicators that reflect well-being across all of childhood. For example, OECD and UNICEF indices include a physical health domain which in turn includes indicators of health such as infant mortality rates, immunisation rates and nutrition among under-fives. The selection of sub-domains in these types of indices is therefore mandated by the wide target group and the necessity to include a broad range of indicators that reflect well-being across the totality of childhood. In contrast, an index concerned with the well-being of children from a single age cohort is free to include only indicators that are relevant to that particular cohort.

4.3.7 Indicator differences

Notwithstanding the differences in sub-domain nomenclature, my review of 13 recent child well-being index studies demonstrated that while the sub-domain labels differed the choice of indicators used to populate the sub-domains of this index did reflect the wider indicator selection found in the research literature (for a more detailed discussion and description of the indicators used to build this index, see Chapter Six).

There is a degree of equivalence between the indicators selected for inclusion in this index and previous indices of well-being. For example, 31 out of the 35 indicators that populated this index across four domains are used in at least one other index construction study. However, as discussed above, the choice, or indeed, number of indicators did not match exactly with previous studies, in large part because the choice of sub-domains used in this index was markedly different. The nature and scope of the sub-domain determined which indicators were selected for inclusion. The number of indicators also varies considerably across indices. For example, in my review of 13 indices for this study, the index with the smallest number of indicators, just 14 (Cheevers and O'Connell, 2013), is compiled on the basis of conceptualising well-being in terms of individual functioning across three domains, while the index with the largest number of indicators (52) compares the well-being of children in Central and Eastern European (CEE) countries and the Commonwealth of Independent States (CIS) (Richardson *et al.*, 2008) across seven domains.

4.3.8 Comparing domains, sub-domains and indicators

My review of 13 indices compared this study's index of well-being across domains, sub-domains and indicators with those found elsewhere in the literature. Table 4-2 compares the number of domains, sub-domains and indicators included in my index with my review of 13 indices.

Table 4-2 Comparing Domains, Sub-domains and Indicators

Study	Number Domains	Number Sub-domains	Number Indicators
Bradshaw, *et al.* (2007a)	6	18	40
Land, *et al*. (2007)	7	0	28
Bradshaw *et al*. (2007b)	8	23	51
Richardson *et al.* (2008)	7	24	52

Study	Number Domains	Number Sub-domains	Number Indicators
Bradshaw and Richardson (2009)	7	19	43
Bradshaw, *et al*. (2009)	7	4	31
OECD (2009)	6	0	21
Sanson, *et al*.* (2010)	3	9	16
Lau and Bradshaw (2010)	6	21	46
Moore, *et al*.* (2012)	4	12	32
Cheevers& O'Connell* (2013)	3	6	14
O'Hare, *et al*. (2013)	7	0	25
UNICEF (2013)	5	12	26
Average across studies	***6***	***11***	***33***
This study	4	14	35

* Indices developed using micro-data

Excluding my index, the average number of domains identified across all the studies noted above was six, with an average of 11 sub-domains and 33 indicators. However, as can also be seen from the table there was significant variation between studies. The exclusion of discrete domains such as education, risk behaviours and neighbourhood account for some of the differences between the number of domains included in this study and the average number of domains found across the other indices referenced in Table 4-2. However, data relating to each of these aspects of well-being: education, risk behaviours and neighbourhood were included in this study's index, not as discrete domains, but as sub-domains of the mental, physical and material well-being domains respectively.

There is also variation in the number of indices that have been developed using sub-domains. Two studies from the USA do not use the convention of sub-domains (Land *et al.*, 2007; O'Hare *et al.*, 2013), nor does the OECD (2009) index

of children's well-being. Richardson *et al*. (2008) in their index of children's well-being for CEE countries and CIS use 24 sub-domains; in contrast Bradshaw *et al*. (2009) include four sub-domains in their study of child well-being at the small area level in England. The average number of sub-domains used across the indices referenced in this study is 11.

While a smaller number of domains were included in this study, there was a greater than average number of sub-domains. Some of this difference may be explained by the inclusion of the components of well-being as sub-domains in this index, rather than as discrete domains as is the case in other indices. It should be noted, when the studies that do not adopt a convention of sub-domains were excluded from the calculation of the average, then the mean number of sub-domains was 15, which was closer to the number of sub-domains used in this study.

As noted already, this study's index included 35 indicators; the average number across the 13 indices reviewed is 33. Two out of the three indices that conceptualise child well-being in terms of individual functioning also include the least number of indicators, for example, Sanson *et al*. (2010) include 16 indicators while Cheevers and O'Connell (2013) include just 14 indicators. In contrast, the Moore *et al*. (2012) index, which also conceptualised well-being in terms of individual functioning, includes 32 indicators in the children and young people aged 12 to 17 years index and 30 indicators in the index developed for children aged 6 to 11 years.

In conclusion, the difference in the number of domains included in this index when compared with others is compensated by a greater number of sub-domains. The number of indicators included was very close to the average

number of indicators used in a range of indices that have been developed for children across ages, across countries and using data from different sources.

Following chapters present and discuss in greater detail the selection of specific indicators to populate the domains and sub-domains, on the basis of the application of the SMCW to the index. The following section of this chapter describes the GUI dataset from which the data used to represent the indicators were selected.

4.4 The Growing Up in Ireland Dataset

This study utilised the GUI micro dataset for 13-year old children in Ireland to build a composite index of child well-being. The GUI study is the national longitudinal study of children in Ireland. It is the most comprehensive Irish study of the lives of children conducted to date and provides a rich source of data about a range of aspects of the lives of children. The data used in this study was collected as part of the second wave of data collection in GUI. In order to contextualise the data for the 13-year old cohort, a description of the origins of the study and the details of the design of the original nine-year old cohort study is also provided in this section. The overall design of the study from its theoretical underpinnings through to the choice of items and measures included in the questionnaires and the sampling strategy employed for the nine-year old cohort have determined the content of the questionnaires and the sampling frame for the 13-year old cohort.

4.4.1 About the GUI study

The national longitudinal study of children in Ireland, called Growing Up in Ireland (GUI), was commissioned in 2006. It was funded by the Department of Health and Children through the then Office for the Minister for Children and

Youth Affairs[17]in association with the Department of Social and Family Affairs[18] and the Central Statistics Office (CSO). A consortium of researchers from the Economic and Social Research Institute (ESRI) and Trinity College Dublin (TCD) were awarded the contract to develop, implement and manage the longitudinal study.

The GUI study emerged in response to the commitment made in the National Children's Strategy, published in 2000, to better understand the lives of children living in Ireland in terms of their individual and shared needs (Goal 4). The absence of quality, evidence-based and longitudinal data about children's lives was identified as a gap with implications for both policy development and service provision (Department of Health and Children, 2000).

The GUI study is focused on measuring child outcomes. The intention of the study is to document how well children in Ireland are doing across a number of key developmental dimensions; namely physical health and development; social, emotional and behavioural well-being; and educational achievement and intellectual capacity (Greene *et al.*, 2010b). A key aim of the study is to use the data to increase our knowledge about children so as to inform effective policy and services developments (Greene *et al*., 2010a).

The study is a two-age cohort longitudinal design. More than 8,500 nine-year olds and 11,100 nine-month old infants and their families participated in the

[17] The Department for Children and Youth Affairs (DCYA) replaced the Office of the Minister for Children and Youth Affairs in June 2011 and brings together into one department a number of functions that were previously undertaken by other offices and departments of government, for example, youth justice, education welfare and so on. The Minister for Children and Youth Affairs is a member of the Cabinet. DCYA now funds the Growing Up in Ireland study.

[18] The Department for Social and Family Affairs was renamed the Department for Social Protection in 2010.

study in two and three waves of data collection respectively (Growing Up in Ireland Team, 2010a). Wave 1 data collection for the nine-year cohort was conducted between August 2007 and May 2008. The second wave of data collection for the child cohort was carried out between August 2011 and May 2012 when this group of children were aged 13 years.

It should be noted that GUI utilised a mixed method approach. Quantitative data were collected from more than 8,000 nine-year old children in Wave 1 and 7,500 13-year children in Wave 2 and their parents and school staff. Qualitative data was collected from 120 families in Wave 1. Qualitative interviews took place after the survey work was completed. One interview was held with the participating child and one interview with their parent or parents; the interviews were held with children and their parents in the participant's home. The child interviews were semi-structured and used a mix of visual and verbal methods. This study utilises data from the quantitative strand of GUI only, collected between the end of 2011 and the middle of 2012.

The next phase of the GUI study has recently been announced by DCYA. Phase two of GUI will be carried out with both of the original cohorts. Infants aged nine months at Wave 1, aged three years at Wave 2 and aged five years at Wave 3 will be interviewed again at age nine. The child cohort, who were aged nine years at Wave 1 and aged 13 at Wave 2 will be interviewed again at age 17 and again at age 20. This new phase with the original child cohort will explore some topics that are particular to young people as they transition into adulthood. As such, phase two will include questions about mental health, identity, sexuality and civic participation. Data collection for phase two of GUI began in late 2015 and will continue until 2019 (Department of Children and Youth Affairs, 2015).

4.4.2 GUI theoretical orientation

The middle childhood period, covering the years six to twelve, have been neglected in the research generally (Greene *et al*., 2010b; Moore and Theokas, 2008). Moreover, there is a lack of information about the developmental progress and status of children in Ireland, including nine-year olds (Greene *et al.*, 2010b). In adopting a longitudinal design, and revisiting the original nine-year old cohort again at age 13, the changes in children's lives and their developmental progress from a period of childhood that is often considered to be relatively stable at age nine to one with myriad physical, emotional and educational changes as a result of puberty and adolescence can be mapped (*ibid*).

The GUI study is concerned with charting the achievement of development outcomes and adopts Bronfenbrenner's bioecological model of development as its theoretical foundation. As noted in Chapter Two, the bioecological model argues that development evolves as a result of the reciprocal interaction of the developing individual with the environment and structures that s/he inhabits. Bronfenbrenner's bioecological theory has influenced the selection of the development domains included in the study and the inclusion of questions concerning the wider micro and macro systems affecting children's lives.

Other theoretical and conceptual influences on the design and orientation of GUI include the risk and protective factors discourse and theories of resilience. A risk factor is a variable that increases the chances that a child will have a poor outcome in any one of the development domains; in contrast a protective factor is a variable that may ameliorate the potential impact of a risk factor on the achievement of outcomes (Greene *et al.*, 2010b). The risk and protective factors discourse has informed the choice of measures and questions that focus

on variables or characteristics that are considered to potentially affect the achievement, or otherwise, of outcomes.

Resilience refers to a dynamic process in which positive adaptation occurs within the context of significant adversity (Luthar and Cicchetti, 2000). Resilience is understood as a critical characteristic in maintaining and promoting well-being by providing a buffer to offset potential risk factors. Resilience is a strengths-based concept that builds on an individual's strengths, rather than focusing on their deficits (Khanlou and Wray, 2014). The inclusion of resilience as a theoretical basis to the design of the GUI study is compatible with contemporary well-being discourses which suggest a focus on positive rather than negative outcomes for children (Moore *et al.*, 2008; Ben-Arieh, 2008a; Ben-Arieh, 2000). Another important theoretical influence has been the 'new' sociology of childhood and its emphasis on individual agency. The inclusion of subjective well-being measures and the direct engagement of the researchers with children themselves reflect the concept of agency and children as active actors, both of which are central to the 'new' sociology of childhood (Tisdall and Punch, 2012).

The conceptual orientation of GUI provides a good fit with the SMCW. As has been noted in Chapter Two, the SMCW's own theoretical foundation is informed by both the bioecological theory of development and the 'new' sociology of childhood. Furthermore, the inclusion of measures of risk and protective factors and indicators of resilience within the dataset can be meaningfully utilised in the development of the index to reflect the theoretical approaches of Sen's Capability Approach and Cobb's social support theory, both of which also underpin the SMCW.

4.4.3 GUI respondents and sampling strategy

Irish census data from 2006 showed that the nine-year old child population was 54,497; the GUI study therefore aimed to survey approximately 14 per cent of the child population aged nine years (Cheevers and O'Connell, 2013). Eligible children were born between the 1st November 1997 and the 31st October 1998 (Murray *et al.*, 2011). The sample requirements included that the sample be randomly selected and regionally representative with no spatial bias; that there would be no over-sampling; and booster sampling would not be required (Growing Up in Ireland Team, 2010a).

Children were recruited to the study via national primary schools. The sampling frame was made up of public and private national primary schools and special schools. There were a number of benefits to utilising the national primary school system to access the sample. First, the school system provided a comprehensive record of nine-year old children in the country. Second, engaging with schools at the sampling stage established relationships with, an understanding of the importance of the study among, and facilitated access to, school staff for later questionnaire completion during Wave 1 and Wave 2. Third, utilising the school system in this way facilitated school-based academic testing to establish children's competencies in reading and mathematics at Wave 1 (Growing Up in Ireland Team, 2010a). At Wave 2, when the children had reached age 13, academic testing took place in the home.

The original nine-year old sample was identified in two stages. The first stage involved the selection of a stratified random sample of 1,105 schools, out of a possible 3,177 primary schools. Schools were stratified according to their location; whether they were single sex or co-educational; whether they were designated as disadvantaged; by the size of the nine-year old student population; and by their religious denomination (Growing Up in Ireland Team,

2010b). A total of 910 schools (82 per cent) from the target sample were successfully recruited to the study (*ibid*). The second stage of sampling involved the selection of individual children. In order to select children, schools were divided into those with more than 40 eligible pupils and those with less than 40 eligible pupils. Where there were less than 40 eligible children, all such children were invited to participate in the study. In larger schools, up to 40 eligible children were randomly recruited to the study. This second stage sampling procedure yielded a total eligible sample of 17,054 children, of which 9,645 (57 per cent) agreed to participate in the study and 8,655 successfully completed the survey (Growing Up in Ireland Team, 2010b). Details of the profile of children participating in Wave 1 data collection by region, by disadvantaged school designation, by school type, by co-educational status and by religious denomination are included in Appendix 1. The final number of cases included in the data file for the nine-year old cohort was 8,568 (Growing Up in Ireland Team, 2010b).

The same children that participated in the study at age nine were identified for re-interview in Wave 2 data collection. The study, by tracking, re-interviewing, measuring and testing the same children over time, irrespective of the changes in their family circumstances, structure or location, was based on "*a pure, fixed panel of children who were nine years of age at the time of first interview*" (Quail *et al.*, 2014: 4). Attrition from Wave 2 was due to non-response as a result of the child or their family moving outside the jurisdiction or the death of the study child (ibid).

The final sample for the 13-year old cohort was 7,525 children from 7,423 families; the number of children exceeds the total number of families as the sample includes twins and triplets. The final figure represents 87.7 per cent of

the original 8,568 respondents that participated in Wave 1 data collection. Table 4-3 shows the response rates in Wave 2 of the child cohort:

Table 4-3 Summary of Response Rates from GUI Wave 2 of the Child Cohort at Age 13: 2011-2012

	Number of Cases	Percent
Consented	7,423	87.7
Refused	668	7.9
Could not contact	218	2.6
Other	156	1.8
Total Valid Cases	***8,465***	***100***
Moved abroad/child died	103	
Initial Sample Target Wave 2	***8,568***	

Table adapted from Quail, *et al*. (2014b:5)

Analysis of attrition rates shows a correlation between study drop-out and socio-demographic characteristics, such that families with lower educational achievement levels or experiencing disadvantage had higher drop-out rates. For example, 92 per cent of families where the primary caregiver was educated to degree level took part compared with 81 per cent of families where the primary caregiver was educated to junior certificate level or less. Ninety-one (91) per cent of families characterised as 'professional' participated in Wave 2 compared to 80 per cent of families characterised as 'having never worked' and had no social class assigned. Furthermore, 89 per cent of two-parent families compared with 82 per cent of lone parent families took part in the study. Age of the primary caregiver was also found to be a factor in participation in Wave 2. Primary caregivers aged 45 years or older at Wave 2 were more likely to continue their participation than their younger counterparts aged 30 years or less (Quail *et al.*, 2014b).

The Wave 2 data were re-weighted to account for attrition rates between the two waves. The re-weighting was carried out to ensure that the sample of children continued to be representative of the population of children who were resident in Ireland at age nine years and who were still living in Ireland at age 13 (Quail *et al.*, 2014b: 10). In the first instance the data were re-weighted to apply an attrition weight which accounted for the non-participation of 1,042 children and their families and to take account of the adjusted socio-demographic structure of the new sample size. This latter issue was of particular importance to the construction of the well-being index given that material well-being was one of four domains representing the over-arching concept of well-being it was therefore critical that the data on material well-being be fully representative. The final weight applied to the data was a combination of the attrition weight and the weight applied at Wave 1. The main characteristics used to adjust for the inter-wave attrition differential included amongst others the gender of the child, family structure, accommodation tenure type and maternal and paternal characteristics such as age, ethnicity, economic status and social class (Quail *et al.*, 2014b).

The Wave 2 sample was adjusted to ensure that its distribution was in line with the Wave 1 sample, having adjusted for the 103 families who had left Ireland between the two waves. The final re-weighted sample of 13-year olds reflects the population of children who were living in Ireland at nine years of age and who continued to live in Ireland at age 13 (*ibid*).

4.4.4 GUI data collection

All child and parent/caregiver questionnaires and assessments were completed in the home for Wave 2 of data collection. Computer assisted interviewing technology was used to administer the questionnaires with parents and children and to record their responses. The child's school principal also

completed a four-page postal questionnaire. The survey collected school-level data.

Parental consent was sought from the primary, and where appropriate secondary, caregiver[19] of the target child for their own participation in the study; parental consent was sought for their child's participation. Agreement to participate was also sought directly from the child themselves. Parents were also explicitly requested to consent to their child's completion of the child's sensitive questionnaire, which included personal information about the child, such as nature of the child's relationship with their Mum and Dad, the child's behaviour and their mental health. In the event that parental consent was not obtained for the child to complete the sensitive questionnaire, but consent was obtained for completion of the main questionnaire, the child could still complete the main questionnaire.

All respondents were guaranteed of the confidentiality of the information provided. Parents were advised that they would not be informed of their child's responses to the questionnaires, nor would their child's scores on any of the academic tests be shared with them. Children were advised that all their responses were confidential and would not be shared with any family member. The only exception to the rule of confidentiality was if the interviewer observed or was told something that would cause the interviewer or the study team to have serious concerns for the child's welfare or protection. In that event, children and their parents were advised that this type of information would be shared.

[19]The term parent has been used interchangeably with the term primary and/or secondary caregiver where appropriate and where a distinction between the primary and secondary caregiver is not required.

4.4.5 GUI questionnaire content

A range of questionnaires for each Wave 2 respondent group were developed and were contingent on the content from the Wave 1 phase of the study. Questionnaires were divided into two categories: a main questionnaire and a sensitive questionnaire. The categorisation of 'main' and 'sensitive' was used for both parents and children.

The primary and secondary caregiver respondents answered questions about themselves, their families and about the participating child. Topics in these questionnaires included, amongst others, details of household composition and socio-demographic characteristics; respondent health; and information about the child's health, social emotional well-being and education (a full list of topic areas for primary and secondary caregivers main and sensitive questionnaires is included in Appendix 2). The participating child answered questions about a range of issues including their school, their activities and participation in sports, their friends, health behaviours, mental health and their relationship with parents (a full list of topic areas for the child main and sensitive questionnaires is included in Appendix 3).

School principals were asked to provide personal information, such as age, gender and experience; school information, such as gender mix, religious ethos and school type; information on school resources, including staff and learning support resources; information about the student body, such as entrance criteria, and attendance and absences; and school policies and practices information, such as range of subjects, extracurricular activities, bullying, student council and so on.

4.4.6 GUI data used in this study

The data utilised for this study was the weighted data from the Anonymised Microdata File (AMF)[20]. This data file includes data collected from the home-based interviews and data collected from the child's school principal. The case-base is the child. In order to ensure and protect the anonymity of the respondents a range of variables are excluded from the AMF, including respondent names, dates of birth and open text variables. It should also be noted that a large number of the questions included in the sensitive questionnaires for the primary and secondary caregivers and the child are not included in the AMF (Quail *et al.*, 2014). For example, data concerning the presence of psychiatric symptoms, anti-social and criminal behaviour, and certain risk behaviours such as drug and alcohol misuse among children and their parents are not included in the AMF. With respect to psychiatric symptoms there is sufficient detail in the AMF, from the general questionnaire to establish the mental well-being of children. For example, scores from both the Piers-Harris Self-Concept Scale and the Strength and Difficulties Questionnaire (SDQ) are provided in the AMF. The former measures how young people feel about themselves and their attitudes and behaviours across a range of domains including feelings of anxiety. The latter is a screening questionnaire that assesses for behavioural and emotional symptoms in children and young people (Murray *et al.*, 2011). In relation to the removal of data on risk behaviours, and as discussed in previous sections, the wider children's well-being indices literature shows that some of these risk indicators are not routinely collected for 13-year-olds and are usually reported for young people aged 15 years and over, for example, sexual activity, teenage pregnancy,

[20] There are two types of data file available from GUI, the Anonymised Microdata File (AMF) and the Researcher Microdata File (RMF). Identifying variables have been removed from the AMF and sensitive variables have been top coded or categorised to ensure anonymity. The AMF is available, subject to application, from the Irish Social Science Data Archive (ISSDA). The RMF retains more sensitive data and less top coding. A detailed application for access to the RMF must be completed and submitted to the Department of Children and Youth Affairs and the Central Statistics Office for assessment and approval.

alcohol consumption (see, for example, Bradshaw *et al*., 2007a; Land *et al.*, 2007; Richardson *et al.*, 2008; OECD, 2009).

4.4.7 Benefits of the GUI dataset

GUI data is well-suited for use in the conceptualisation, measurement and construction of an index of child well-being for a number of reasons. First, the range and availability of information from a number of perspectives, and importantly from children themselves, provides an array of data across a range of domains, which facilitates the creation of a comprehensive index of well-being. Despite the limited availability of some responses to sensitive questions, the GUI AMF retains sufficiently detailed information across the four domains of well-being so as to be able to provide meaningful data for analysis that reflects the SMCW theoretical framework. Second, the aspects of children's lives studied in GUI have not only been informed by theory but also by children's own understanding of well-being. Third, nearly all participants in the child cohort were aged 13 years and at the same development stage of childhood, thus ensuring equivalency in the sample. Fourth, domain-specific data were collected from the same children and their parents; thereby ensuring a consistent voice in the creation of the index, unlike other well-being indices which draw on survey data from different children. Fifth, the AMF is more readily available to researchers and policy analysts than the Researcher Microdata File (RMF). This enhances the transparency of the index-building process as other researchers' can more easily replicate and verify the methods used in building particular indices.

Finally, the two waves of data collection for GUI occurred at very important periods in Ireland's economic and social development; namely Wave 1 in 2008-2009 when the bite of the economic crisis was being keenly experienced by children and their families and Wave 2 in 2011-2012 four years into the economic crisis and following a series of austerity budgets. Between the two

periods of data collection Ireland experienced significant economic difficulties as a result of the banking and economic crisis. There was a significant increase in unemployment, retrenchment of social services, reduced welfare payments and increases in personal and indirect taxation (Allen, 2012). The methodology used in the development of this index if applied to the data for the nine-year old cohort has the potential to demonstrate the differences in well-being for children between the start of the economic crisis and the latter period of the crisis. It is important to note that the economic forecasts for 2014 and 2015 are more optimistic and the economy shows signs of significant growth, for example, growth rates of 7.7 per cent between January and June 2014 (CSO, 2104). It is possible therefore that the index developed from this data may not accurately reflect the current position of children's well-being in Ireland. However, the issue of a time-lag between data collection and index construction is not unique to this study.

4.4.8 Limitations of the GUI dataset

Notwithstanding the many advantages of utilising the GUI micro-data for this study there are a number of limitations that should be noted. All responses in the dataset have been grossed up and reweighted to be representative of the 56,400 13-year olds in Ireland (Williams *et al.*, 2009). As such, the claims made in this thesis to the well-being status of children living in Ireland were made for 13-year old children only. No inferences can be drawn as to the well-being of other children in Ireland of different ages. The design of GUI included both quantitative and qualitative data; the former is utilised by this study. The latter, while providing a rich source of information on the lived experiences of children's lives, is not utilised for this study for two reasons. First, qualitative data is only available for Wave 1, with no corresponding data for Wave 2. Second, the qualitative interviews were conducted with only a small sub-sample of 120 children from the Wave 1 cohort.

Data from the Anonymised Microdata File (AMF) were utilised in the construction of this study's index of well-being. Identifying variables have been removed from the AMF and sensitive data have been top coded, or categorised to ensure anonymity or removed altogether. For example, sensitive data concerning parental mental health, parental drug and alcohol misuse, and the quality of the relationship between adult partners are not included in the AMF. The removal of identifying variables and some sensitive data makes the AMF more readily available to the wider research community. The exclusion of parent-level sensitive data was not problematic for this index, insofar as the literature suggests that the unit of observation for a child well-being index is the child; albeit that there are some necessary exceptions, such as indicators for material well-being which are collected at the household level. The exclusion of sensitive parental data only becomes problematic if the researcher wishes to explore the interaction between parental characteristics and children's well-being.

At the child-level, some sensitive data has also been removed from the AMF. For example, data concerning children's psychotic experiences, anti-social and criminal behaviour and certain risk behaviours, such as smoking and alcohol consumption, and risky sexual behaviour have been removed from the AMF. While the absence of this data was disappointing, it was not significantly problematic for the construction of this index of well-being for children at age 13. The issue of anti-social behaviour is partially covered in the AMF with the inclusion of data from the SDQ and in particular the conduct problems sub-scale which includes questions about the child's involvement in stealing, bullying and fighting. However, data regarding children's contact with the Gardaí and more serious delinquent behaviour is not available in the AMF. It is important to note that few studies include indicators for serious delinquent behaviour and instead tend to include data on bullying and fighting (see, for example, Bradshaw *et al*., 2007a; Bradshaw *et al*., 2007b; UNICEF, 2013). Perhaps the biggest gap in the

AMF concerns the removal of data relating to risky behaviours such as sexual behaviour, smoking, alcohol consumption and drug taking. On balance however, the absence of these risk behaviours in the data for children aged 13 in the AMF was not considered insurmountable for the construction of this study's index. My review of the wider child well-being indices literature suggested that where these types of indicators are included they typically, though not always, reference the behaviours of young people aged 15 years and older. For example, Land *et al*. (2007) include indicators on the rates of cigarette smoking, alcohol consumption and illicit drug use among 12th Graders (typically aged 17-18 years). Similarly Bradshaw *et al*. (2007b) include indicators for risk behaviours such as cannabis use, experiences of drunkenness and smoking for young people aged 15 and 16 years. Likewise sexual behaviour is included in a number of studies, and only a small number explore the issue of sexual behaviour with children as young as 13. However, the exclusion of data on risk behaviours becomes more problematic as children mature and it becomes more important to track these types of behaviours from both a well-being status and policy perspective.

Finally, the AMF excludes some potentially important variables that could have been meaningfully used to explore the well-being status of different groups of children. While this type of data was not required for the construction of the index itself, it could be used to better understand how well-being varies among different groups. It was not possible to explore differences in children's well-being on the basis of where they live (rural or urban) or their ethnicity, for example, exploring the well-being of Traveller children and other minority groups. These kinds of analyses could provide important insight into well-being differences between groups of children and could be used to meaningfully contribute to policy development in this regard.

As noted above, GUI has drawn on a range of theories to inform the study design, it is nonetheless important to note that it is a developmentally-focused study. GUI is fundamentally concerned with the development trajectories of children, rather than the holistic circumstances of the child participants. As was discussed in Chapter Two, bioecological theories of development are useful insofar as the interconnections between family, school, neighbourhood, community and the wider contexts in which children grow-up are considered. However, bioecological approaches focus on the *relationships* between these different systems in the child's life, not on how the structures are established or their underlying functioning; in this way structural conditions are not thoroughly accounted for (Houston, 2002; Earls and Carlson, 2001). Moreover, the risk discourse that also informs the theoretical orientation of the GUI study has been critiqued for being individualistic (O'Mahony, 2009; Smeyers, 2001), and this orientation is also reflected in the range of issues included GUI. Notwithstanding important conceptual issues of what gets defined as a risk and by whom, the risk discourse locates the 'risk' in the individual. The individual becomes the *"reproduction unit for the social in the lifeworld"* (Smeyers, 2010, 275). In other words, these risks are perpetuated and maintained by the behaviours and actions of the individual. The underlying nature of these theoretical orientations suggests data analyses that are more individually-framed. The study of a comprehensive understanding of child well-being is more limited and efforts to link key findings from such studies to wider structural and system characteristics are constrained.

The theoretical framing of GUI therefore has implications on what data is collected. While it captures a wide range of data about children's lives there are some gaps in what is gathered. For example, there is limited data on educational deprivation. Other international indices have included such indicators, where educational deprivation is defined as lacking a number of educational items from an agreed list. In addition, only a small number of

questions are included in the primary caregiver questionnaire about neighbourhood/community; and there is little attention paid to issues of housing, housing quality, housing problems or overcrowding. Indicators for housing quality have been used in many other indices (see, for example, Bradshaw and Richardson, 2009; Bradshaw *et al*., 2007b; Bradshaw *et al*., 2009; OECD, 2009; Richardson *et al*., 2008; UNICEF, 2013). Moreover, there is no data collected as part of the GUI on civic or community participation. However, it is important to note that this is included as a theme in phase two of the child cohort, which commenced in 2015.

While it is important to be aware of these potential limitations as result of the theories underpinning the GUI study design, ultimately these limitations were not insurmountable. The GUI study team acknowledge that developmental outcome measures are not equivalent to the measures of well-being that policy makers are interested in and as such GUI endeavours to incorporate a variety of data that can tell us about other aspects of children's lives. Nonetheless, it is important to consider and assess the impact of the theoretical orientation on what can or cannot be said about children's well-being on the basis of data mined from the GUI dataset.

Notwithstanding the exclusion of these types of data and the theoretical orientation of the GUI the GUI AMF dataset remained a useful, robust and comprehensive source of data with which to develop an index of well-being for children. The dataset includes sufficiently detailed data across the four domains of well-being so as to be able to provide meaningful data with which to construct an index that reflected the theoretical framework provided by the SMCW and was cognisant of the wider child well-being indices literature. Moreover, while the inclusion of more explanatory variables would be welcome in the AMF, they were not required for the construction of the index itself.

Finally and importantly, the use of the GUI dataset, and the AMF in particular, is justified as it is more readily available than the RMF, thus making any resultant index more open to validation and verification by other researchers. The potential for verification enhances the transparency of the index-building process as other researchers can more easily replicate the methods used here. As noted by the OECD (2008: 17) *"transparency must be the guiding principal of the entire exercise"* and using the AMF improves the transparency of the index construction process and facilitates verification.

4.5 Building an Index of Well-being for Children Living in Ireland

There are a number of technical and statistical issues that must be considered at the beginning of any attempt to construct an index. These key issues include standardisation of the data both in terms of directionality and in variability; how to handle missing data; and the weighting of data (O'Hare, 2014; OECD, 2008). The OECD (2008) recommends a checklist for building composite indices, starting with selecting the theoretical framework in order to establish a clear understanding of, and definition for, the multi-dimensional concept to be measured, moving onto data selection including quality and availability checks. The sequence of steps also includes the ways in which missing data are handled, followed by multivariate analysis to assess the overall structure of the data, and assessing its suitability to inform later methodological choices. Fifth and sixth on the checklist are the normalisation of the data and the weighting and aggregation of the data respectively. The former ensures that data from different measurement scales and with different values are comparable, while the latter deals with how different domains are treated in the construction of the index and the way in which the final score is calculated (OECD, 2008).

The role of the theory has been discussed in the first half of this chapter, while the identification, selection and assessment of specific data for its suitability, strengths and weaknesses is discussed in Chapter Six. What follows is a discussion of how the data were handled from a data management and data analysis perspective and the order in which the relevant transformations and computations were applied to the data; first however, there is a brief discussion of how using a micro-dataset such as the GUI has impacted on the development of the index.

4.5.1 Using micro and macro-datasets to build indices

The index developed for this study was constructed using micro-data; that is all the data used to populate the index were drawn from a sample of the same children. While the use of micro-data is still relatively new in the field of index construction (Cheevers and O'Connell, 2013), there have been a number of recent studies of children's subjective well-being that used data from a single source including international surveys such as the Health Behaviour of School-Aged Children (see, for example, Bradshaw *et al*., 2013; Klocke *et al*., 2014; Martorano *et al*., 2014;) and country-specific studies , such as the Good Childhood Survey in England (see, for example, Pople *et al*., 2015; Rees *et al*., 2015)

Data used to populate indices are typically sourced from multiple population-level surveys, combined together to create national or international comparative indices (Sanson *et al*., 2010). Population-level indices utilise aggregated data to describe the proportion of children in the population with a particular characteristic or outcome (Fernandes *et al*., 2012), they are unable to study or explore well-being at the individual child level. Indices compiled using population-level data draw their indicators from multiple surveys (see, for example, Land *et al*., 2007; Bradshaw *et al*., 2007a; Richardson *et al*., 2008; Lau and Bradshaw, 2010) and the sample is therefore not stable for the whole of set

of indicators (Fernandes *et al*., 2012). Moreover, international comparison studies comparing well-being across countries may be subject to high levels of missing data.

In contrast, indicators sourced from micro-data all relate to the same cohort of children, thus the sample is more stable and the researcher can explore well-being for a particular cohort of children across the different domains of well-being that make up the resulting index (Sanson, et al., 2005). Furthermore, population-level indices usually divide children into dichotomous groups based on the achievement of a particular threshold denoting poorer or better well-being in the particular domain being assessed (Cheevers and O'Connell, 2013). In contrast, a number of recent indices that use micro-datasets instead use data in its continuous form where possible (see, for example, Sanson *et al*., 2010; Cheevers and O'Connell, 2013; Klocke *et al*., 2014). In this way, the application of arbitrary cut-off points is avoided and the richness of continuous data is retained (Sanson *et al*., 2005). Where possible continuous data was used in the construction of this study's index and where continuous data was not available, or appropriate, ordinal data was used instead.

4.5.2 Standardising the data

Standardisation of the data takes two forms. The first is standardisation in terms of the direction of the data. The second is standardisation in the units of measurement. The two processes are discussed below.

4.5.2.1 Standardising directionality of the data

The basis of an index is the aggregation and averaging of indicator, sub-domain and domain scores in order to arrive at a single composite score. Therefore, a high value on indicators should be consistently good or bad (O'Hare, 2014). For example, both household income and child poverty could be considered as meaningful indicators for material well-being; however, a high value on income

reflects positive well-being for children, whereas a high value on child poverty reflects negative well-being. Moreover, if a sub-domain is made up of data that has indicators of high values such that the high values reflect both positive and negative states, then their scores cancel each other out. In order to make the direction of the data consistent some values are reverse coded (*ibid*). In this index, ordinal or categorical data were simply re-coded so that all positively framed responses receive higher scores. For example, ranking scales that rate satisfaction from one to five where very satisfied was given a value of one and very dissatisfied a value of five were reverse coded so that a very satisfied response was coded to five and a very dissatisfied response was re-coded to one. In this way, a higher value denoted a more positive condition and when averaged yielded a higher mean value. However, continuous data, for example, income levels or test scores are more complicated to invert (*ibid*). There are a variety of ways in which to invert continuous data including multiplying the score by a -1, subtracting the observed value from the highest value or by dividing the observed value into one (O'Hare, 2014). In this study, high values on continuous data that indicate a poorer level of well-being were multiplied by -1; for example, higher values on the majority of sub-scales from the Strengths and Difficulties Questionnaire (SDQ) which measures social and emotional well-being indicate greater social and emotional difficulties (the SDQ is discussed in greater detail in Chapter Six) were multiplied by -1. As is consistent with recent index-building efforts (Cheevers and O'Connell, 2013; Michalos *et al.*, 2011; Bradshaw and Richardson, 2009; Bradshaw *et al.,* 2007b), the index developed for this study was positively framed, that is higher sub-domain, domain and overall scores represented greater well-being.

4.5.2.2 Standardising values

A variety of measures and scales capturing nominal, ordinal and interval data[21] are utilised in the GUI study. In order for the scores from the variety of measures and scales to be meaningfully aggregated to generate sub-domain and domain scores the data were standardised to take account of different scales of measurement and different distributions (O'Hare, 2014; OECD, 2008). For example, combining data on equivalised income which is reported in Euros with health rating scores which are reported as ordinal scores does not make sense. The most widely used method of standardising values is the standard scores approach (O'Hare, 2014; Bradshaw and Richardson, 2009; Bradshaw *et al.,* 2007b; Cheevers and O'Connell, 2013; Sanson *et al.,* 2010; Lau and Bradshaw, 2010). Standard scores or *z*-scores are a method of converting indicators into a standardised scale with a mean of zero and standard deviation of one (Lau and Bradshaw, 2010; OECD, 2008). The advantage of *z*-scores is that they "*capture the amount of dispersion around the mean value and provide a metric measure of distances between measures*" (O'Hare, 2014: 11). The final composite index score was calculated by summing the standardised scores of all the variables that contributed to the sub-domain, the domain score was in turn computed by summing the standardised scores of the sub-domains, these standardised sub-domain socres were in turn summed to yield the overall index score (Sanson, *et al*., 2005).

Once it was established that although statistically significant, none of the indicators were so closely correlated as to suggest that the indicators were

[21] Nominal data are data where the number associated with the response has no value or meaning other than denoting the category of response, for example, where male is coded to 1 and female coded to 2. Ordinal data is data where the numeric value attached to the response has meaning but does not tell us anything about the difference between the values; for example, rating scales where a value of 5 denotes greater satisfaction but does not mean that satisfaction is five times higher than someone scoring 1 on the same scale. Interval data is measured on a scale in which the intervals are equal, for example, age or income (Field, 2005).

contributing the same thing to the sub-domain and should be dropped from the index (see section 4.5.5 for more a detailed discussion of this process), the scores for each indicator were standardised. The standard score was calculated by subtracting the sample mean from the individual raw score; the resulting score was then divided by the sample standard deviation to give all scores a standard deviation of one (Field, 2005) :

z-score: $$z = \frac{x - \bar{x}}{s}$$

Where *x* is the individual score, $\bar{x}$ is the mean of all scores and *s* is the standard deviation (Field, 2005). The standardised scores for each indicator in each sub-domain were averaged to give a sub-domain score and the average scores for the sub-domain were standardised (the treatment of missing data is discussed below). For sub-domains with only one indicator, for example, quality of the child's health in the sub-domain 'Health Status', the *z*-score from the first round of standardisation became the sub-domain score (Sanson *et al.*, 2010). The standardised sub-domain scores for each domain were averaged; these averages were then standardised to provide the domain scores.

4.5.3 Dealing with missing data

Missing data from a dataset can be problematic as it can make it more difficult to develop robust composite indicators (OECD, 2008). In a number of indices where indicator values are missing researchers average the values that are available (OECD, 2009; Lau and Bradshaw, 2010). As O'Hare (2014: 4) notes *"Dealing with missing data involves a trade-off of comparability and completeness"*. The OECD (2008) identifies three methods of dealing with missing data: case deletion, single imputation and multiple imputations. Case deletion simply excludes the missing records from the analysis; however, this approach ignores potentially systematic differences in responses while also

omitting potentially important data (O'Hare, 2014). It is suggested that if a variable has more than five per cent of its cases with missing values then cases are not deleted (OECD, 2008). The other two methods consider missing data in the analysis and impute the values through either single imputation, for example, mean/median/mode substitution or regression imputation or through multiple imputation (*ibid*).

This study treated missing data using the same method as has been used in two other child well-being index development studies utilising micro-data (Sanson *et al.*, 2005; Cheevers and O'Connell, 2013). In the event that data were missing at the indicator, sub-domain or domain level a mean score was still calculated using the available data. Where data was missing, the resulting mean scores were skewed, as fewer scores were used to create the mean score and the standard deviation was larger. Children with missing data had scores further away from the average value without this being a reflection of their 'true' value. To correct for the level of 'missingness' for each sub-domain and domain, new variables were calculated to reflect the level of 'missingness' for each group of data. These new variables were used as grouping variables to split the file by level of 'missingness' for each sub-domain and domain. A standard deviation score was then calculated for each level of 'missingness' which was used to divide the sub-domain and/or domain scores. This method of dealing with missing data for standardisation purposes "*corrects for the greater standard deviation obtained when averaging fewer z-scores, without disguising any mean differences present in the data"* (Sanson *et al*., 2005: 24). Once the new mean scores were calculated, taking account of the level of 'missingness' for each of the indicators in the sub-domains, the indicators were re-standardised and then combined as described above into standardised sub-domain scores, which in turn were averaged and standardised to provide domain scores that take account of the levels of 'missingness'.

4.5.4 Equal weighting

Adopting an equal weighting strategy whereby each indicator, sub-domain and domain has an equal weighting is the easiest and most widely used method of calculating the composite score for an index (O'Hare, 2014). Nonetheless, applying equal weights to indicators, sub-domains and domains remains the biggest criticism of the methodology applied to constructing child well-being indices (*ibid*). As Bradshaw and Richardson note (2009: 321) "*the issue of weighting is one of the most difficult to resolve in building any index*". Adopting an equal weighting strategy means that each indicator within a sub-domain, each sub-domain within each domain, and each domain within the overall index is treated equally.

Applying equal weighting to each of the elements of the index ignores that some indicators may have more far-reaching implications for children's well-being than others, which may mislead policy makers and others about what really matters for children's well-being. Moreover, the application of an equal weighting strategy does not take account that some indicators are more policy-relevant than others at different times in the policy and political cycle. An equal weighting strategy is therefore problematic from both a causal and perception perspective (Zill, 2006). When using an equal weighting approach the weight is dependent on the number of indicators in each sub-domain and the number of sub-domains included in each domain. One strategy is to ensure that each sub-domain and domain have the same number of indicators and sub-domains respectively. Developing an index on the basis that each sub-domain includes the same number of indicators involves a trade-off as some particularly relevant, important and available indicators may need to be sacrificed in order to ensure equality across the sub-domains and domains, thus undermining the completeness of the final index (O'Hare, 2014).

It is argued that there is no agreement on a preferred alternative to equal weighting (O'Hare, 2014). Factor analysis and principal component analysis have been suggested by some as potential methods of assessing the relative importance of different indicators in the process of constructing composite indices (OECD, 2008; Zill, 2006). These methods give insight into the dimensionality of a dataset (Zill, 2006) and each factor describes the range of indicators with which it has the greatest association (OECD, 2008). Other methods used to ascribe different weights to different indicators that are described in the literature include scaling, which is based on expert or lay assessments of the relative importance of different indicators; and regression analysis of longitudinal data which can be used to predict how significant each immediate-term indicator is in predicting longer-term child outcomes (Zill, 2006; OECD, 2008).

However, it has been demonstrated empirically that in the absence of a compelling reason to weight the indicators, an equal weighting strategy works best (Hagerty and Land, 2007). Hagerty and Land (2007) argue that the equal weights method is a 'minimax' statistical estimator, insofar as the method minimises extreme disagreements among individuals on weights for individual indicators (O'Hare, 2014; Bradshaw and Richardson, 2009). In addition, little difference has been demonstrated between the findings emerging from an index developed using factor analysis to assign weights to indicators and an index developed using an equal weighting strategy (Zill, 2006). Therefore, and in line with the methods adopted in numerous other index construction studies, this study adopted an equal weight approach to the treatment of indicators and the calculation of sub-domain and domain scores.

4.5.5 Validating the index

A total of 35 indicators were used to construct the index of well-being for children. Domains of well-being and their associated sub-domains bring

together a series of indicators that are intended to represent the phenomenon that the domain or sub-domain is attempting to convey. Given that the domains and sub-domains attempt to group variables illustrating some common construct it is important to assess the strength of the correlations between the indicators populating sub-domains and domains. Assessing the correlations between indicators ensures that the data are not too highly correlated so as to suggest redundancy, insofar as they might be measuring the same phenomenon (Bradshaw *et al*, 2007b). Spearman's rho [22]and Pearson's product-moment correlation[23] were used to assess whether or not the indicators were significantly correlated within and between sub-domains. The former was used where data were largely ordinal, for example, ranked data, while the latter was used where data were primarily interval or scale, for example, psychometric test scores. In most cases, the indicators were significantly correlated with the other indicators in the sub-domain and across the sub-domains. Given the large sample size for the GUI, this is, perhaps, unsurprising. Given that many of the indicators were correlated with each other, within and between sub-domains, attention was also paid to the size of the correlation coefficients. No indicators were dropped from the index on the basis of being too closely related with another indicator from the same sub-domain or another sub-domain. However, it is important to note that there is little advice in the literature as to what constitutes 'too' closely correlated (Bollen and Lennox, 1991).

The relationship between the individual domains of well-being and overall well-being and the sensitivity of the index was also tested using Pearson's product-moment correlation (see, for example, Bradshaw *et al*., 2007b; Richardson *et*

[22] Spearman's correlation coefficient (Spearman's rho) is a measure of the strength of the relationship between two variables that are non-normally distributed and/or ordinal (Field, 2005).

[23] Pearson's product-moment correlation is a standardised measure of the relationship between two variables; the variables should be normally distributed and interval in nature (Field, 2005).

al., 2008; Cheevers and O'Connell, 2013). For example, the index was tested to assess if an index with fewer indicators could be constructed; and to investigate which indicator in each domain most strongly represented that domain. Inter-item reliability and the overall scalability of the index were assessed using Cronbach's alpha. Finally, and following validation procedures used elsewhere (see, Cheevers and O'Connell, 2013) a forced one-factor Principal Components Analysis (PCA) was conducted to assess whether the four domains loaded adequately onto a single factor. The PCA also demonstrated the extent to which the domains explained the variance in the underlying factor (overall well-being).

Once the index was finalised and validated, two forms of the index were prepared. The first was a continuous index of well-being that utilised mean scores for each domain and the overall mean well-being scores. All scores were further standardised to have a mean of 100 and standard deviation of 10. This was done in order to simplify the depiction of scores and reader interpretation of the final index. Differences in continuous scores between different groups of children were explored using Independent Samples T-tests. The Independent Samples T-test established whether the means between two different samples differed significantly (Field, 2005). Mean score differences in each of the well-being domains and overall well-being were explored between boys and girls; between children living in lone parent or dual parent households; between those whose parents were born in Ireland and those whose parents were not born in Ireland; and between children who attended DEIS schools and those who attended non-DEIS schools. School status represented by DEIS status was used as a proxy for social disadvantage more generally. One Way Analysis of Variance (ANOVA) was used to assess whether group means differed (*ibid*). This test was used when there were more than two independent groups of children, for example, exploring well-being among children by maternal education level.

An index based on categorical scores was also developed. Cut-off points for the upper and lower 15th percentiles for the index and for each domain were used to create variables showing the groups of children who were doing most well and least well respectively in terms of their well-being. The cut-off point of the upper and lower 15th percentile as groupings for children was not intended to be clinically significant, instead they are based on the statistical view that scoring more than one standard deviation below the population mean, which equates to approximately 15 per cent of the population, indicates a difficulty (Sanson *et al*., 2005; Cheevers and O'Connell, 2013). In addition, the upper and lower 15th percentile cut-off point reflected the approach adopted in two recent index construction studies (see, Sanson *et al*., 2010; Cheevers and O'Connell, 2013).

4.6 Conclusion

This chapter started by discussing how composite indices are compiled more generally, enumerating both the benefits and limitations of using indices to generate information about what we know about children's well-being and to inform social policy. The ways in which the SMCW was interpreted to inform the construction of the index was then discussed and the model was found to be well-suited to the task of compiling an index of well-being for children. The four domains of well-being articulated in the model reflect the type and nature of domains used elsewhere in the field of child well-being indices. Moreover, the 'nested' structure of well-being as articulated in the SMCW fits well with the approach taken in constructing indices: indicators sit within sub-domains, sub-domains sit within domains and domains sit within the overarching construct that is well-being. The third section of the chapter went on to discuss the dataset from which the variables for the index were selected, including the origins of the study, its theoretical orientation and sampling strategy. The benefits and limitations of using the GUI dataset for the purposes of this study were also discussed. The final section of the chapter described the

methodology used to develop this study's index of well-being for children. The ways in which the data were standardised, how missing data was treated, validation and sensitivity testing of the final index, the creation of continuous and categorical forms of the index and the types of statistical tests used were also discussed.

While this chapter discussed how the index was constructed and described how the SMCW was utilised more generally, the following chapter discusses how the SMCW was used to select specific domains, sub-domains and indicators of well-being and how these selections compare with the wider literature on children's well-being indices.

Chapter 5 Findings Part 1: Applying the Structural Model of Child Well-being to the Construction of a Well-being Index

5.1 Introduction

The Structural Model of Child Well-being (SMCW) was used in this study to develop an index of well-being for children living in Ireland. The index was developed using the Growing Up in Ireland (GUI) dataset for 13 year-olds. The SMCW is well-suited for the purpose of index building. The model provides an important, and as discussed in Chapter Two, previously missing, unifying theory of child well-being. Chapter Four discussed the way in which the SMCW was applied to the development of an index of children's well-being such that the resultant index followed typical index construction conventions of identifying and calculating well-being scores across domains, sub-domains and indicators. This chapter discusses the identification and justification for the selection of specific indicators to populate the domains and sub-domains of well-being that are compatible with the theoretical orientation of the SMCW. The chapter demonstrates the way in which the SMCW was applied to the indicator selection process and references the wider literature on child well-being indices to illustrate the congruity between the selected domains, sub-domains and indicators used in this study and other child well-being indices studies. Where differences were observed between this SMCW-informed index and other indices, these are discussed and the implications for the resulting index are considered.

5.2 Identifying Indicators of Children's Well-being

The following sections describe the process of identifying and justifying the indicators to populate the domains and sub-domains that are compatible with the theoretical orientation of the SMCW. As discussed in Chapter Two, the SMCW identifies four domains of well-being: physical; mental; social; and material. Each domain is, in turn, divided into a number of sub-domains. The rationale for the selection of indicators is discussed in detail below.

5.2.1 Physical well-being

As noted previously, the SMCW specifically states that *"Physical well-being comprises health, the absence of disease, and proper physical functionality ...Furthermore, a child could affect his or her own physical health either positively or negatively through his or her actions, such as adopting healthy habits"* (Minkkinen, 2013: 550). Physical well-being has therefore four sub-domains of well-being: health status; absence of illness; physical functioning; and health behaviours. A total of nine (9) indicators were selected to populate these four sub-domains. These indicators are summarised in Table 5-1.

Table 5-1 Sub-domains and Indicators of Physical Well-being

Sub-domains	Indicators
Health status	• Quality of child's health
Absence of illness/disease	• Absence of a chronic illness • Impact of chronic illness
Physical functioning	• Presence of a disability • Number of accidents or injuries
Health behaviours	• Body Mass Index • Diet • Dental hygiene • Exercise

As can be seen from Table 5-2 indicators such as the quality of the child's health, Body Mass Index (BMI), and the absence or presence of illness/disease are commonly used in a variety of child well-being indices. Indicators such as levels of physical exercise and dental hygiene are included to a lesser extent. The inclusion of indicators for physical disability and visual or hearing impairment and injuries have rarely, if ever, been utilised in previous indices and were particular to this index. The SMCW makes explicit reference to physical disability and accidents and injuries as being pre-requisites for physical well-being and physical functionality (Minkkinen, 2013: 550). The inclusion of such indicators reflects the broad understanding of physical well-being articulated in the SMCW.

Participation in physical activity was also included in the index and in the physical health domain specifically, for a number of reasons. First, the inclusion of this indicator in the index was theory-driven, as participation in sports and physical exercise is noted as a characteristic of subjective action in the SMCW that both represents, and contributes, to physical well-being. The SMCW describes how children directly influence their own well-being via their actions, choices and capabilities, an example of which is whether or not they participate in physical activities that promote their own health, such as sports. It was therefore included in the sub-domain of '*Health Behaviours*'. Second, the inclusion of the indicator in the physical health domain, and the health behaviours sub-domain specifically, recognised that physical activity is a key public health policy concern for children. For example, GUI and the Health Behaviour of School-Aged Children (HBSC) study (Gavin *et al.*, 2013) include data regarding levels of, and participation in, physical activity so as to inform policy development. In addition, one of the five national outcomes identified in *Better Outcomes, Brighter Futures* the national policy framework for children and young people (Department of Children and Youth Affairs, 2014) is that children and young people are 'Active and Healthy'. Third, there is an inverse

correlation between participation in physical activities such as sport and healthy body weight; that is, less physical activity results in a higher BMI (Department of Children and Youth Affairs, 2012). Furthermore, BMI is a key component in nearly all indices compiled at both national and international level (see, for example, Land *et al.*, 2007; Bradshaw *et al*., 2007a; UNICEF Office of Research, 2013). Fourth, participation in physical activity and sports can lead to unintentional accidents (Rivara *et al.*, 1991) hence its inclusion more generally in the physical health domain.

Table 5-2 Use of Physical Well-being Indicators in Selected Studies

Study	Quality Child's Health	Illness/ Disease	Impact of Illness	Disability	No. Accidents & Injuries	BMI	Dental Health	Fruit Consumption	Physical Exercise
Bradshaw, *et al.*‡ (2007a)	✓					✓		✓	✓
Land, *et al*.†(2007)	✓		✓	✓		✓			
Bradshaw *et al*.‡ (2007b)	✓					✓	✓	✓	✓
Richardson *et al.* ‡ (2008)						✓	✓		
Bradshaw and Richardson ‡ (2009)	✓					✓	✓	✓	✓
Bradshaw, *et al*. † (2009)				✓	✓	✓	✓		
OECD ‡ (2009)									✓
Sanson, *et al*.* (2010)	✓	✓				✓			
Lau and Bradshaw ‡ (2010)		✓				✓	✓		
Moore, *et al*.* (2012)	✓	✓	✓	✓		✓	✓		✓
Cheevers & O'Connell* (2013)	✓	✓	✓	✓		✓			
O'Hare, *et al*. † (2013)	✓		✓	✓		✓			
UNICEF ‡ (2013)						✓		✓	✓

* Single country indices using data from micro-datasets; † Single country indices using data from population-level surveys; ‡ International comparative indices using data from population-level surveys

5.2.1.1 Health status

The selection of one indicator in this domain was in the first instance informed by the theory of the SMCW, and secondly, by other studies that have developed composite indices of children's well-being. Health status has been identified as a sub-domain of the physical well-being domain (Minkkinen, 2013). As can be seen from Table 5-2, a number of studies have included an indicator for self or parent-reported quality of health. For example, Bradshaw and Richardson (2009) and Bradshaw *et al*. (2007a) include child-reported quality of health in their index. However, in both studies the indicator is not included in the health domain but in a domain called 'subjective well-being'. In contrast, a number of studies include parent-reported quality of health for the child (see, for example, Moore *et al.*, 2012; Cheevers and O'Connell, 2013; Land *et al.*, 2007; Sanson *et al.*, 2010).

5.2.1.2 Absence of illness or disease

Two items were included in this index to reflect the sub-domain absence of illness or disease: the absence of a chronic physical or mental health problem, illness or disability; and the impact of the illness or health problem. This index differs to others by incorporating these indicators. Just four of the 13 indices reviewed as part of this study include indicators on the presence or absence of illness and disease. For example, Sanson *et al*. (2010) estimate the well-being of children at age four and five years and include an indicator on special health needs. While Moore *et al*. (2012) estimate well-being across all childhood and include indicators on the presence of diabetes, asthma and limiting conditions, amongst others. Cheevers and O'Connell (2013) also include an indicator on the presence of a long-term illness or disability among children aged nine years. All of these indices are constructed using micro-data. An index developed comparing well-being across countries in the Pacific Rim includes two indicators of illness in a sub-domain labelled 'Children's Health'. These indicators are the percentage of children under age five with acute respiratory infection and fever

and the percentage of children under five with diarrhoea receiving oral rehydration and continued feeding (Lau and Bradshaw, 2010: 372). The same study also includes two indicators for the presence of illness associated with poor nutrition (*ibid*: 371). While the Sanson *et al*. (2010), Moore *et al*. (2012) and Lau and Bradshaw (2010) studies include indicators that are not comparable with the indicators used in this index, their inclusion here shows how different approaches to sub-domain and indicator selection are accommodated within index-building processes. The Cheevers and O'Connell (2013) study comes closest to including an indicator measuring the same type of concept, unsurprising, as it is also an Irish study, and utilises the Wave 1 GUI dataset.

5.2.1.3 Physical functionality

Two indicators were included in this sub-domain: the number of injuries/accidents that required a visit to a hospital Accident and Emergency (A&E) department and the number of disabilities experienced by children; both are parent-reported indicators. As noted in section 5.2.1., the inclusion of this sub-domain and these indicators are particular to the SMCW. The SMCW states that *"Physical well-being comprises...proper physical functionality...Injuries, for example, pose physical limitations and disability could greatly impact physical well-being"* (Minkkinen, 2013: 550). Injury has been identified as a key cause of death and morbidity among children from the age of one and increases to become the leading cause of death among children and young people from age 10 to 19 years. For example, in high-income countries, 40 per cent of all child deaths are caused by accidental injuries (Harvey *et al.*, 2009). Given that injuries result in child deaths, long-term illness, impaired physical functioning, and in-hospital stays, it is reasonable to include injuries and accidents in any discussion of physical health (Pless, 2009). Just one index of the 13 indices reviewed for this study uses a comparable indicator. Bradshaw *et al*. (2009) include an indicator for emergency hospital admissions for children aged 0-18

years; this data reflects "*the incidence of acute illness and accidents in children and young people"* (*ibid*: 205). While not an exact match to the indicator included in this study, it is comparable with its partial focus on accidents. As noted, while not commonly used in child well-being indices these indicators are used elsewhere; indeed the EU Child Health Indicators of Life and Development Project (CHILD) includes injuries as one of its indicators of child health (Rigby, 2005).

A small number of the indices reviewed for this study include indicators of physical disability or impairment (Land *et al.*, 2007; Moore *et al.*, 2012; O'Hare *et al.*, 2013). For example, Land *et al*. (2007: 113) include data on the *"Rate of children with activity limitations (as reported by parents)"*. Moore *et al*. (2012: 126) include data on "*Developmental delay or physical impairment*"; and O'Hare *et al.* (2013: 406) include an indicator of *"children with functional limitations".* Therefore, the inclusion of an indicator on the number of disabilities that children experience is compatible with other index construction studies.

5.2.1.4 Health behaviours

The inclusion of a sub-domain encompassing indicators of health behaviours was theory-driven. This nomenclature of sub-domain is also used in a number of other index construction studies including Bradshaw *et al*. (2007a), Bradshaw and Richardson (2009), OECD (2009), UNICEF (2013) and Moore *et al*. (2012); all include a sub-domain concerned with health promoting behaviours. The use of this sub-domain is therefore, consistent with the typical conventions of index-building. Four indicators were included in this index: BMI[24]; the child's diet, as represented by data collected on the frequency of consumption of fruit; dental

[24] BMI is a method used to measure and identify obesity; BMI is calculated by dividing a person's weight in kilograms by their height in metres squared (weight (kg)/ height (m^2)). http://www.worldobesity.org/aboutobesity/

health/hygiene, represented by data collected on the frequency of teeth brushing; and the frequency of physical exercise.

The child's BMI is a common indicator included in child well-being indices. It measures whether or not the participating child is overweight, obese or has a healthy weight. It should be noted that some studies, for example, Lau and Bradshaw (2010) and Richardson *et al*. (2008), assess child weight using data on the number of children under five years who are malnourished or stunted due to poor nutrition. This is a measure used to assess for nutrition and is not a typically- used indicator of physical well-being in indices for developed countries. All the other studies cited in Table 5-2 use an indicator of BMI or overweight, based on the BMI categorisation.

Dental health is used as indicator of physical well-being in a smaller number of studies than indicators such as health status or BMI; nonetheless it is a useful indicator to include when such data is available. In some studies (Bradshaw *et al.,* 2007b; Bradshaw and Richardson, 2009), dental health is measured by including data on daily teeth brushing. In others (Moore *et al.,* 2012), a simple rating scale from excellent to poor has been used to assess dental health and in the remaining studies (Lau and Bradshaw, 2010; Richardson *et al.*, 2008), dental health is represented by the percentage of children with decayed, missing or filled teeth. Dental hygiene/dental health is considered an indicator of current positive health behaviour; it impacts on children's current health status and it is also a predictor for children's health behaviour in adulthood (Bradshaw *et al.,* 2007b).

Fruit consumption was included in the index as a proxy for the quality of the child's diet. The use of the indicator consumption of fruit as a proxy for diet is used in the calculation of an EU-wide index (Bradshaw *et al.,* 2007b; Bradshaw

and Richardson, 2009). The consumption of fresh fruit and vegetables is considered by Bradshaw *et al*. (2007b) to be an indicator of positive health behaviour, and notwithstanding the potential relationship between the consumption of fresh fruit and the availability of material resources, is also an indicator of positive health.

The final indicator included in the sub-domain of health behaviours was physical exercise. This indicator is included in six out of the 13 indices reviewed for this study. For example, Bradshaw *et al.* (2007b) include an indicator on physical activity in their EU-wide index; and both the OECD (2009) and UNICEF (2013) include an indicator on physical activity in their respective international indices.

5.2.2 Mental Well-being

The SMCW defines mental well-being as "*mental health and the absence of psychiatric disorders and includes both emotional and cognitive well-being...mental well-being involves the child's own view of his or her situation concerning happiness and life satisfaction*" (Minkkinen, 2013: 550). This definition therefore suggests four components or sub-domains for this domain. Furthermore, the SMCW identifies that the pre-requisites for mental well-being include concepts such as self-esteem, self-regulation and resilience (*ibid*: 550). These concepts were represented by indicators of emotional competence, behaviour/conduct disorder and freedom from anxiety and depression respectively. The four sub-domains of the mental well-being domain in this index were: absence of psychiatric disorders; emotional competence; cognitive development; and life satisfaction.

Table 5-3 Sub-domains and Indicators of Mental Well-being

Sub-domains	Indicators
Absence of psychiatric disorders	• Behaviour • Hyperactivity • Anxiety • Depression/low mood
Emotional competence	• Emotional difficulties
Cognitive development	• Verbal and numeric reasoning • Extra help at school • Self-rated intellectual score
Life satisfaction	• Happiness • Liking school

As can be seen from Table 5-3, the four sub-domains of mental well-being included a total of 10 indicators. The sub-domain of 'Absence of psychiatric disorders' included indicators on children's behaviour/conduct disorder, hyperactivity, anxiety and depression/low mood. The sub-domain 'Emotional competence' included just one indicator called emotional difficulties. The sub-domain 'Cognitive development' included three indicators including verbal reasoning and numeric reasoning scores, as well as an indicator on whether or not the child requires extra help at school, and the final indicator was a self-rated intellectual score. The final sub-domain, 'Life satisfaction' was made up of two indicators: child-reported happiness and child-reported enjoyment of school. As noted in Chapter Four, a domain dedicated to mental well-being is not typically included in other indices. However, the SMCW is clear that mental well-being is a focal dimension of well-being and is a critical, and constituent, element of overall well-being. Notwithstanding the relative uniqueness of mental well-being as a domain to this study, Table 5-4 shows that the indicators used to populate this domain are used elsewhere to varying degrees.

Table 5-4 Use of Mental Well-being Indicators in Selected Studies

Study	Behaviour	Hyperactivity [25]	Anxiety [26]	Low Mood	Emotional difficulties [27]	Verbal & Numerical skills	Help at school	Intellectual capacity[28]	Self-rated happiness [29]	Like school
Bradshaw, *et al.* ‡ (2007a)						✓			✓	✓
Land, *et al.*† (2007)						✓				
Bradshaw *et al.* ‡ (2007b)						✓			✓	✓
Richardson *et al.* ‡ (2008)						✓			✓	
Bradshaw and Richardson ‡ (2009)						✓			✓	✓
Bradshaw, *et al.* †						✓				

[25] Derived from the Strengths and Difficulties Questionnaire hyperactive behaviour sub-scale, however, some studies have used different measures to represent the same or similar concepts

[26] Derived from the Piers-Harris experiencing anxious feelings sub-scale, however, some studies have used different measures to represent the same or similar concepts

[27] Derived from the Strengths and Difficulties Questionnaire emotional competence sub-scale, however, some studies have used different measures to represent the same or similar concepts

[28] Derived from the Piers-Harris Intellectual sub-scale, however, some studies have used different measures to represent the same or similar concepts

[29]Derived from the Piers-Harris happiness sub-scale , however, some studies have used different measures to represent the same or similar concepts

Study	Behaviour	Hyperactivity [25]	Anxiety [26]	Low Mood	Emotional difficulties [27]	Verbal & Numerical skills	Help at school	Intellectual capacity[28]	Self-rated happiness [29]	Like school
(2009)										
OECD ‡ (2009)						✓				✓
Sanson, *et al*.* (2010)	✓	✓			✓	✓				
Lau and Bradshaw ‡ (2010)						✓			✓	✓
Moore, *et al*.* (2012)	✓	✓	✓	✓						
Cheevers & O'Connell* (2013)	✓	✓			✓	✓				
O'Hare, *et al*. † (2013)						✓				
UNICEF ‡ (2013)						✓				

* Single country indices using data from micro-datasets

† Single country indices using data from population-level surveys

‡ International comparative indices using data from population-level surveys

Nearly all 13 indices reviewed for this study include indicators of children's competence in literacy and numeracy; however, none of the indices reviewed include this type of data in a sub-domain conceptualised in terms of mental well-being. For example, a number of studies, such as Bradshaw, *et al*. (2007a); Land, *et al*. (2007); Bradshaw *et al.* (2007b); Richardson *et al.* (2008); OECD (2009); Lau and Bradshaw (2010); O'Hare, *et al.* (2013); and UNICEF (2013) locate reading and numeracy within a domain of 'education', 'educational attainment' or 'educational well-being'. Moore *et al*. (2012: 126) in developing a child well-being index for the USA, based on a micro-data, are the exception as they do not include a measure of reading ability but rather a measure of reading for pleasure. Moreover, the indicator is located within a domain called 'education achievement and cognitive development'. Sanson *et al*. (2010: 281), in creating an Australian index of child development, include reading, writing, numeracy and literacy in a domain labelled 'Learning'. Cheevers and O'Connell (2013: 224) in their Irish index of well-being for nine-year old children include literacy and numeracy in an 'educational attainment domain'. As discussed in Chapter Four, Minkkinen (2013) argues that education is not a discrete domain of well-being in the SMCW; rather it is a contextual factor that has the potential to contribute to well-being. This conceptualisation is not dissimilar to the conceptualisation articulated by Pollard and Lee (2003) which suggests the inclusion of a domain called 'cognitive development'. Cognitive development is captured in the SMCW in the domain of mental well-being.

Once literacy and numeracy competency were accounted for, seven out of the remaining nine indicators populating the mental well-being domain of this index are included in other indices. For example, three out of the 13 indices reviewed for this study utilise indicators concerning children's behaviour and hyperactivity. Moore *et al*. (2012) include a domain of 'psychological health', which includes indicators for behavioural or conduct problems and Attention Deficit Hyperactivity Disorder (ADHD). Sanson *et al*. (2010: 281) include

indicators of hyperactivity and conduct disorder in a 'social/emotional domain'; and an Irish index includes indicators for conduct problems and hyperactivity in a 'social and emotional functioning domain' (Cheevers and O'Connell, 2013: 224).

As already noted in Chapter Four, the SMCW clearly identifies children's own subjective assessment of their life satisfaction and happiness as a key component of mental well-being: *"mental well-being involves the child's own view of his or her situation concerning happiness and life satisfaction"* (Minkkinen, 2013: 550). It was therefore appropriate to include measures of subjective well-being in this index. The GUI dataset includes two variables that describe children's life satisfaction: happiness and enjoyment of school and both were included in this index. While their inclusion in this index was theory-driven, these indicators are used elsewhere. For example, an EU-wide index (Bradshaw and Richardson, 2009) and a child well-being index for the Pacific Rim (Lau and Bradshaw, 2010) include an indicator of child-reported subjective personal well-being. An indicator of school enjoyment is also used in the OECD index (2009).

Emotional well-being and mental health are rarely captured in child well-being indices (O'Hare and Gutierrez, 2012). Although infrequently utilised in other studies, indicators for depression and anxiety were included in this index; for example, only one other index uses these indicators (Moore *et al.*, 2012). The SMCW specifically names the absence of psychiatric disorders and mental health more generally as key components of mental well-being. In this way, the inclusion of these indicators was theory driven.

Neither the indicator '*extra help in school*' nor the indicator '*self-rated intellectual capacity*' is utilised in the other index building studies reviewed.

However, the inclusion of these indicators in this index was appropriate and important for a number of reasons. First, their inclusion was theory-driven. Second, and with particular reference to the indicator *'extra help in school'*, in its articulation of subjective action the SMCW explicitly references Sen's Capability Approach which is understood as the "*person's actual ability to act utilising the resources available"* (Minkkinen, 2013: 552). The access to, and ability to draw upon, additional resources that mitigate any individual deficit or disadvantage is a key concept within the SMCW, therefore the access to and use of extra support at school, in the event that it is required, is a key feature of the model's interpretation of mental well-being. Third, both of these indicators are child-reported and so meet a key criterion for indicator selection as suggested in the child well-being literature (Ben-Arieh, 2008a).

5.2.2.1 Absence of disorders

Absence of disorders is explicitly named in the SMCW as a component of mental well-being. While specific psychiatric disorders are not identified in the SMCW, a review of the indices literature suggested that measures for conduct disorder, anxiety and depression are appropriate to include. As such, four indicators were included in this sub-domain: behaviour/conduct disorder; hyperactivity; anxiety; and depression and low mood.

No other indices include a sub-domain labelled 'absence of disorders'; however, three indices reviewed for the purposes of this study do include indicators for similar concepts. Domain and sub-domain nomenclature used by Moore *et al*. (2012) is most similar to the labelling and conceptualisation of mental well-being and the sub-domain 'absence of disorders' as articulated in the SMCW. For example, Moore *et al*. (2012) include a sub-domain called 'absence of conduct disorder', which is populated by indicators for conduct problems and ADHD. Moreover, Moore *et al*. (2012) also include a sub-domain labelled 'absence of internalising behaviours' populated by indicators for depression and

anxiety and feelings of unhappiness or sadness. Both of these sub-domains are located within a broader domain of 'psychological health'; not dissimilar conceptually to Minkkinen's (2013) mental well-being domain. Cheevers and O'Connell (2013) include a sub-domain labelled 'externalising behaviours' that includes indicators for conduct problems and hyperactivity; the sub-domain and indicators are located within a social and emotional functioning domain. Sanson *et al*. (2010) also include a sub-domain labelled 'externalising behaviours'; the sub-domain is populated with indicators for hyperactivity and conduct problems. Like Cheevers and O'Connell (2013), Sanson *et al*. (2010) locate the sub-domain and the indicators in a domain labelled 'social and emotional functioning'.

5.2.2.2 Emotional competence

The SMCW explicitly names emotional competence as a key component of mental well-being. A sub-domain of emotional competence was therefore included in the index to represent this concept. The concept of emotional competence or emotional well-being has not been widely used in other indices. Just two of the 13 studies reviewed include such an indicator; an Australian index of children's development at age four (Sanson *et al.*, 2010) and an Irish index of well-being for children aged nine years (Cheevers and O'Connell, 2013).

This sub-domain was populated by just one indicator, a measure of children's emotional difficulties; this is not atypical in index building. For example, *Moore et al.* (2012); Bradshaw and Richardson (2009); Richardson *et al.* (2009); Sanson *et al*. (2010); and Lau and Bradshaw (2010) include sub-domains populated by just one indicator.

5.2.2.3 Cognitive development

Cognitive development is explicitly referenced in the SMCW in the articulation of mental well-being. As discussed earlier, the inclusion of indicators of

cognitive development is not unusual in index building. However, what is distinctive about the SMCW is that indicators of cognitive development sit side-by-side with indicators for mental health in a domain named 'mental well-being'. This is in contrast to the practice of including cognitive development in a domain concerned with educational attainment or achievement (see, for example, Bradshaw *et al.,* 2007a, Bradshaw *et al.,* 2007b and Richardson *et al*., 2008). Their inclusion here is therefore theory-driven. Three indicators were selected to populate the cognitive development sub-domain: verbal reasoning and numerical reasoning; extra help at school; and the Piers Harris 2 intellectual score.

5.2.2.4 Life satisfaction

The SMCW explicitly identifies the way in which children view their lives as being intrinsic to mental well-being: *"mental well-being involves the child's own view of his or her own situation concerning happiness and life satisfaction"* (Minkkinen, 2013: 550). Indicators of subjective well-being have long been included in indices of both child and adult well-being. Indeed a number of scholars conceptualise well-being only in terms of subjective well-being (NESC, 2009). The concept of assessing subjective well-being among children has been found to be applicable to children and adolescents aged eight and older (Land *et al.*, 2007). Negative self-perceptions about personal circumstances and situations are associated with feelings of depression and hopelessness and less assertiveness among children, which may make them more susceptible to bullying and other forms of victimisation (Salmivelli and Isaacs, 2005 cited in Bradshaw *et al.,* 2007b). As noted by Minkkinen (2013) children play an active role in creating their own well-being; in this context children's personal resources, such as subjective well-being, *"are simultaneously the most basic outcomes and the very basis for achieving well-being"*(Bradshaw *et al.,* 2007b: 137).

Two indicators were selected for inclusion in the sub-domain 'life satisfaction': child-rated happiness and child-rated liking of school. Five of the 13 indices reviewed as part of this study include an indicator of children's subjective well-being (see, for example, Bradshaw *et al.,* 2007a; Bradshaw *et al.,* 2007b; Richardson *et al.*, 2008; Bradshaw and Richardson, 2009; Lau and Bradshaw, 2010). The second indicator included in this sub-domain concerned children's feelings towards school. Children spend a great deal of their time in school, how they feel about school is therefore an important element of their well-being (Bradshaw *et al.,* 2007b).

5.2.3 Social Well-being

Social well-being is understood in the SMCW to mean the *"positive situation between the child and the people in his or her life. It embraces the child's relationships with close adults such as parents, other relatives, adult caregivers and coaches, as well as friends"* (Minkkinen, 2013: 551).

Children's relationships with adults and other children are very important to building the social aspects of their well-being (Aldgate, 2010). The importance of social relationships, and by extension social well-being, to children is recognised in the literature "*children experience their world as an environment of relationships, and these relationships affect virtually all aspects of their development"* (National Scientific Council on the Developing Child, 2004: 1). Moreover, it has been argued that social relationships are not just determinants of happiness and well-being, but necessary and intrinsic to happiness and well-being (Uusitalo-Malmivaara and Lehto, 2013), thus supporting the inclusion of social well-being as a discrete domain in the SMCW. Furthermore, social well-being in the SMCW is understood to encompass the child's social activity, "*Social well-being is dependent on the child's social activity*" (Minkkinen, 2013: 551), such social activity, including participation in play, hobbies and group sports, are seen as ways of initiating, fostering and sustaining friendships with

peers. This understanding of well-being suggests three sub-domains of social well-being: relationship with parents; relationship with peers; and participation in play.

The SMCW notes that the parent-child relationship is critical to the child's later ability to interact in positive social relationships. In addition, the SMCW suggests that a child's ability to make and maintain friendships is a crucial element of well-being. In the context of subjective action, that is the child's agency in creating well-being, and as noted above, activities such as play and participation in hobbies and sports are considered to be central (Minkkinen, 2013: 552). However, 'play' may be understood to be a way of socialisation and peer interaction for younger children rather than the 13-year old cohort of children taking part in Wave 2 of GUI. For this reason, the concept of play and interaction with peers was understood in the context of participation in organised and unorganised sports and games, participation in clubs and groups and an interest and participation in hobbies. The SMCWs conceptualisation of social well-being reflects what Pollard and Lee (2003: 64) call "*sociological perspectives*".

As can be seen from Table 5-5 the three sub-domains of social well-being included a total of eight indicators. The sub-domain *'*relationship with parents' included three indicators; capturing not just the relationships with their parents, but the time children spend with their family. The sub-domain 'relationship with peers' included four indicators: the quality of children's peer relationships; children's pro-social skills; the number of close friends that children reported; and self-rated assessment of popularity. Children's own subjective actions and their capacities to participate in play are understood, in the SMCW, to be core to children's well-being; as such one indicator was

included in the sub-domain: 'participation in play': children's participation in non-solitary hobbies, sports and play more generally.

Table 5-5 Sub-domains and Indicators of Social Well-being

Sub-domains	Indicators
Relationship with parents	• Relationship with Mum • Relationship with Dad • Time spent with family
Relationship with peers	• Quality of peer relationships • Pro-social skills and behaviours • Number of close friends • Feelings of popularity
Participation in play	• Participation in play and group hobbies

As was discussed earlier, a domain including reference to 'social' in its nomenclature is included in 10 out of 19 studies reviewed by O'Hare and Gutierrez (2012). The specific dimensions of social well-being that are measured vary considerably across the 10 studies that use the term 'social' in their naming of domains and sub-domains. For example, a small number of studies group social and emotional development together (*ibid*, 2012: 620). In contrast, and informed by the SMCW, this index conceptualised emotional competence as belonging to the mental well-being domain. The SMCW explicitly identifies social well-being as pertaining to children's social relationships and their participation in social activities. Social well-being in the SMCW is understood to reflect quite different concepts than those included in the mental well-being domain. The SMCW conceptualisation of social well-being reflects the conclusion from the Pollard and Lee (2003) review of the child well-being literature that social well-being and emotional or psychological well-being are understood as two separate concepts.

Table 5-6 shows the degree to which indicators used to populate this index have been used elsewhere. A review of Table 5-6 illustrates the discussion above, that social well-being and indicators of social well-being are not well-represented in indices of children's well-being.

Table 5-6 Use of Social Well-being Indicators in Selected Studies

Study	Relationship with Mum	Relationship with Dad	Time spent with family	Peer Problems[30]	Pro-social behaviour [31]	No. close friends	Self-rated popularity[32]	Participation in play and hobbies
Bradshaw, *et al.* ‡ (2007a)			✓	✓				
Land, *et al*.†(2007)								
Bradshaw *et al*. ‡ (2007b)			✓	✓				
Richardson *et al.* ‡ (2008)	✓	✓		✓				
Bradshaw and Richardson ‡ (2009)	✓	✓		✓				
Bradshaw, *et al*. † (2009)								
OECD ‡ (2009)								

[30] Derived from the Strengths and Difficulties Questionnaire peer problems sub-scale, however, some studies have used different measures to represent the same or similar concepts

[31] Derived from the Strengths and Difficulties Questionnaire pro-social behaviour sub-scale, however, some studies have used different measures to represent the same or similar concepts

[32] Derived from the Piers-Harris popularity sub-scale, however, some studies have used different measures to represent the same or similar concepts

Study	Relationship with Mum	Relationship with Dad	Time spent with family	Peer Problems[30]	Pro-social behaviour[31]	No. close friends	Self-rated popularity[32]	Participation in play and hobbies
Sanson, *et al*.* (2010)				✓	✓			
Lau and Bradshaw ‡ (2010)	✓	✓		✓				
Moore, *et al*.* (2012)	✓			✓	✓			✓
Cheevers& O'Connell* (2013)				✓	✓			
O'Hare, *et al*. † (2013)								
UNICEF (2013)								

* Single country indices using data from micro-datasets
† Single country indices using data from population-level surveys
‡ International comparative indices using data from population-level surveys

The most commonly used indicator from the social well-being domain is peer problems, used in eight of the 13 studies reviewed. In contrast, the more positively framed indicator 'pro-social behaviour' is used in just two studies. This reflects a tendency for children's well-being indices to focus more on the negative aspects of children's lives. While sub-domain and domain scores can be inverted so that higher scores reflect better well-being, well-being is more than the absence of a problem or difficulty (Pollard and Lee, 2003).

The remaining indicators used to populate the social well-being domain are more positively framed, insofar as they are not explicitly focusing on a deficit or negative aspect of children's lives, albeit that a low score on the indicator reflects less well-being. The quality of the child's relationship with their Mum is used as an indicator in four studies, one of which compiled an index of well-being based on micro-data (Moore *et al*., 2012); whereas the child's relationship with their Dad is used in three indices. Time spent with family and friends is a key feature of the SMCW, insofar as it reflects children's subjective action and agency through their interaction with their families, and it also reflects the ecological perspective that the child is part of, and interacts with and influences, the people and systems around them. Finally, a variation of the indicator 'participation in play/hobbies' has been used in just one other study (see Table 5-6). For example, Moore *et al*., (2012: 127) include a sub-domain of 'activity engagement' that includes a number of indicators concerning children's participation in sports, in clubs or organisations and in organised events or activities.

5.2.3.1 Relationship with parents

Children's first relationships with their parents play a critical role in shaping children's future social relationships (Greene *et al.*, 2009; Greene *et al.*, 2010a). Research indicates that in the absence of consistent attachment or a reliable relationship with a primary caregiver children can experience later difficulties in

their social development (Aldgate, 2010). While the neutral term 'primary caregiver' (PCG) is used throughout the GUI literature, the overwhelming majority (97 per cent) of PCGs in GUI are female and the participating child's mother; the question pertaining to the child's relationship is framed in terms of their relationship with their Mum. Research shows that children who have positive and healthy relationships with their mothers are more likely to demonstrate empathy as they develop and grow (National Scientific Council on the Developing Child, 2004).

The role of fathers in children's lives has not received the same attention in the literature as the role of mothers (Greene *et al.*, 2010a). Attachment theory suggests that there is a hierarchy of attachment figures (Bowlby, 1958). However, recent research suggests that children accommodate and integrate all their attachment relationships and benefit from the cumulative effect of multiple attachment relationships (Aldgate, 2010).

Two studies included in the 13 reviewed for this index included indicators on the time that children spent with their parents. Both of these studies, by Bradshaw *et al*. (2007a) and Bradshaw *et al*. (2007b), use these data as proxies for a measure of the quality of the child's relationship with their parents. Proxy data is used in these studies due to the lack of comparative data available at an international and European level respectively.

5.2.3.2 Relationship with peers

The importance of relationships with friends has been viewed as second only to the relationship with their parents by children themselves (Hanafin and Brooks, 2005). Children's well-being has been shown to be related to social relationships (Uusitalo-Malmivaara and Lehto, 2013). As children get older, peer relationships become more important as friends influence children's

values, behaviours, sense of belonging and connectedness to wider society (Richardson *et al.*, 2008). The SMCW recognises the importance of children's peer relationships. The particular focus on social well-being, and in particular the reference to peer relationships, is somewhat unusual in the recent well-being literature. For this reason there is significant variation in the literature regarding the inclusion of indicators for children's relationships with peers, and in particular the inclusion of positive indicators for social well-being. Four indicators were included in the sub-domain 'relationship with peers' in this index: the peer relationship problems sub-scale and the pro-social sub-scale from the SDQ; the number of close friends; and the feelings of popularity sub-scale from the Piers-Harris 2.

Friendships provide *"an environment for security and social support, learning problem-solving skills, sources of information for self-knowledge and esteem, a forum for the development of social competence, and practice for later relationships"* (Waldrip *et al.*, 2008: 835). It was, therefore, appropriate to include indicators concerning the presence or absence of peer problems, as poor peer relationships indicate poorer social well-being. Likewise, it was appropriate to include an indicator of pro-social behaviour, as this facilitates positive peer relationships which, in turn, indicate greater social well-being. The indicator for peer relationship problems is used in a number of other studies (see, for example, Bradshaw *et al.,* 2007a; Bradshaw *et al.,* 2007b; Moore *et al*., 2012; Richardson *et al*., 2008; Sanson *et al*., 2010; Lau and Bradshaw, 2010; and Cheevers and O'Connell, 2013). The indicator for pro-social behaviour is included in three indices (see Sanson *et al*., 2010; Cheevers and O'Connell, 2013; Moore *et al*., 2012). In contrast, the two remaining indicators, 'number of close friends' and 'feelings of popularity' are not used in any of the 13 indices reviewed for this study. Their inclusion in this index is justified in two ways. First, their inclusion was theory-driven, insofar as peer relationships are understood to be a key component of children's social well-

being in the SMCW. Second, the research literature shows that children who experience quality peer relationships, in terms of peer acceptance, quality of friendships and reciprocal friendships, also experience other indicators of well-being and are more likely to be socially well-adjusted (Waldrip *et al.*, 2008). In particular, research has shown that the size of children's and adolescents' social networks contributes to socio-emotional adjustment and adolescents who have few or no friends are at risk for later maladjustment (*ibid*).

5.2.3.3 Participation in play

Participation in hobbies and other organised activities was included as a sub-domain within the domain of social well-being for two main reasons. First, the SMCW recognises participation in such activities as intrinsic to social well-being. Moreover, the SMCW explicitly recognises the potential for children to influence their own social well-being through their capacity to participate in both paid and unpaid hobbies, sports and other organised activities. Second, research into peer relationships has consistently shown that participation in organised activities such as sports, hobbies and other group activities yields positive outcomes for children and young people, such as better academic achievement, better psycho-social adjustment, less problematic behaviour and lower levels of depressive symptoms (Poulin and Denault, 2013; Schaefer *et al.*, 2011).

A number of factors associated with participation in organised activities are thought to foster and facilitate these positive outcomes for children and young people. First, participation in regular and consistent activities increases the likelihood that friendships will develop and be sustained through meeting and mixing with other children and young people who share an interest in the particular organised activity (Schaefer *et al.*, 2011; Bohnert *et al.*, 2013). Second, organised and extracurricular activities provide an environment in which children are afforded an opportunity to develop, test and refine their

social skills; skills such as team work and emotion regulation, thereby promoting social well-being. Third, participation in organised activities exposes children to social networks outside the confines of school or neighbourhood boundaries, thus potentially adding depth and diversity to social networks which, in turn, may have positive psycho-social impacts (Poulin and Denault, 2013).

Indicators representing a similar construct to participation in play and/or hobbies used here have been included in just one other index reviewed for this study. Moore *et al*. (2012) include three indicators: participation in sports, participation in clubs or organisations and participation in organised events or activities. These indicators are included under a sub-domain labelled 'activity engagement'; this is the closest approximation to the understanding and rationale for inclusion of such an indicator in this study's index. Furthermore, the sub-domain activity engagement and its associated indicators populate the domain labelled 's*ocial health*' in the Moore *et al*. (2012) index.

5.2.4 Material Well-being

Material well-being in the SMCW is understood to mean a *"positive material situation in a child's life...The material care at home and the family's economic situation are the most important factors in relation to children's well-being"* (Minkkinen, 2013: 551). The OECD argues that income and wealth are central components of individual well-being; and income and wealth can be more usefully categorised into a domain of well-being called material living conditions or material well-being. Key elements of material living conditions are understood to include income and wealth, jobs, earnings and housing (OECD, 2013b). The SMCW echoes such a conceptualisation in its articulation of material well-being: *"It* [material well-being] *relates to having sufficient nourishment, housing and other material items that are normally elements in*

the standard of living in the society and culture surrounding the child" (Minkkinen, 2013: 551).

It is widely recognised that children's economic situation influences their well-being and their well-becoming (Bradshaw *et al.,* 2007b; Bradshaw *et al*., 2007c; Bradshaw, 2015; Main and Bradshaw, 2012). Poverty has been found to have a number of negative effects on children's development, including their physical and mental health, educational achievement, and emotional and behavioural competencies (Watson *et al.*, 2014). The inclusion of a material well-being domain in this index was particularly pertinent given Ireland's recent economic difficulties. By including a measure of material well-being the turbulent and damaging impact of the recent recession on well-being more generally can be taken into account. For example, in 2007, annual GDP growth was five per cent, and in 2012 annual GDP growth had fallen to 0.2 per cent, unemployment increased from four per cent in the mid-2000s to 15 per cent in 2012 (*ibid*). In a recent Irish study, economic vulnerability, understood to mean a heightened risk of experiencing material disadvantage such as deprivation and poverty, increased from 16 per cent pre-recession to 26 per cent during the recession (Whelan and Maître, 2014). A recent study exploring the impact of the recession on the well-being of children living in rich countries found that relative child poverty (measured as the number of children living below the poverty line fixed at 60 per cent of median income) increased in Ireland from 18 per cent in 2008 to 28.6 per cent in 2012 (UNICEF Office of Research, 2014).

The understanding of well-being as articulated in the SMCW, taken together with the wider literature, suggested the inclusion of three sub-domains of material well-being in this index: income, including indicators for children at-risk of poverty, parental joblessness, and experiences of financial strain;

deprivation, which takes into account the broader concept of economic vulnerability; and neighbourhood and housing.

The sub-domain 'income' included three indicators: children at-risk poverty (also known as relative poverty), defined as the 60 per cent of median equivalised income; joblessness, defined as the number of adults in the household not in work; and the experience of financial strain. As was discussed in Chapter Two, the SMCW is informed by the UNCRC and the inclusion of material well-being as a discrete domain of well-being reflects the commitment of governments under the UNCRC to ensure that children have a standard of living that meets their physical, mental, spiritual, moral and social development. Signatory governments to the UNCRC are therefore not only committed to supplementing family income but 'in the case of need' to provide material assistance (OECD, 2009), thus justifying the inclusion of the income sub-domain within the material domain, and in the index more generally.

The sub-domain 'deprivation' was made up of three indicators including deprivation, defined as the number of goods and services from a list of 11 that a household is unable to purchase for financial reasons; deprivation of educational possessions; and children who have 10 or fewer books in their home. The inclusion of deprivation within the material well-being domain also reflected the influence of the UNCRC as the Convention recognises and defines children's right to access diverse materials for their development, such as educational items and books (OECD, 2009).

The final sub-domain of 'neighbourhood' included two indicators, one for neighbourhood quality and one for neighbourhood amenities, representing housing, as noted in both the SMCW and the OECDs material living situation (OECD, 2013b). This sub-domain also reflects commitments set out in the

UNCRC, such that governments have a specific role to play in children's housing conditions (OECD, 2009).

Table 5-7 summarises the sub-domains and indicators that populated the material well-being domain of this index.

Table 5-7 Sub-domains and Indicators of Material Well-being

Sub-domains	Indicators
Income	• At-risk of poverty • Parental joblessness • Financial strain
Deprivation	• Deprivation scale • Educational possessions • Number of books in the home
Neighbourhood	• Neighbourhood disorder • Neighbourhood quality

As discussed in Chapter Four, a domain of 'material well-being' is included in 17 out of 19 studies of children's well-being reviewed by O'Hare and Gutierrez (2012). Indeed a systematic review of the literature, conducted in the early 2000s, identifies economic well-being as being one of five commonly referenced domains of well-being (Pollard and Lee, 2003). Notwithstanding the common use of the domain 'material well-being' in index-building, a number of recent studies have chosen to exclude material well-being as a discrete domain (see, for example, Sanson *et al*., 2010; Cheevers and O'Connell, 2013; Moore *et al*., 2012). These studies, instead, focus exclusively on individual functioning and treat variables such as income, poverty and deprivation as contextual characteristics that impede or promote well-being. In these studies, well-being is understood in terms of individual functioning only; separate to conceptualisations of what constitutes well-being.

Table 5-8 shows the frequency with which the indicators selected for inclusion in this study's material well-being domain are used elsewhere. As noted previously, key principles in selecting child well-being indicators are that the indicators are child-centred and that the child is the unit of observation; however, this is not possible for all indicators included in the material well-being domain. This reflects that children are wholly dependent on their parents or carers for the generation of income-related well-being. As such, a number of the material well-being indicators relate to the household in which the child lives or to the adults with whom child the lives. This is particularly relevant to the income sub-domain and to the deprivation sub-domain, where some, but not all, of the indicators are based on household circumstances.

Table 5-8 Use of Material Well-being Indicators in Selected Studies

Study	At-risk of Poverty	Parental Joblessness	Financial strain	Deprivation	Educational possessions	No. of books	Neighbourhood quality	Neighbourhood amenities
Bradshaw, *et al.* ‡ (2007a)	✓	✓		✓	✓			
Land, *et al*.† (2007)	✓							
Bradshaw *et al*. ‡ (2007b)	✓	✓		✓	✓	✓	✓	
Richardson *et al.* ‡ (2008)	✓		✓		✓	✓	✓	
Bradshaw and Richardson ‡ (2009)	✓	✓	✓	✓	✓	✓	✓	
Bradshaw, *et al*. †(2009)	✓							✓
OECD ‡ (2009)	✓				✓		✓	
Sanson, *et al*.* (2010)								
Lau and Bradshaw ‡ (2010)	✓				✓	✓	✓	
Moore, *et al*.* (2012)								
Cheevers & O'Connell* (2013)								
O'Hare, *et al*. † (2013)	✓							
UNICEF ‡ (2013)	✓			✓				

* Single country indices using data from micro-datasets; † Single country indices using data from population-level surveys; ‡ International comparative indices using data from population-level surveys

As can be seen from Table 5-8, the number of children at-risk of poverty is a commonly used indicator of material well-being. However, it is important to note that while an indicator for relative poverty is included in 10 out the 13 indices reviewed for this study, the cut-off point for assessing relative poverty differs from index-to-index, as it differs from country-to-country. Relative poverty is defined in Ireland as 60 per cent of median equivalised income (Department of Social Protection, 2011) and this cut-off point is also used in Bradshaw *et al*. (2007b); Bradshaw and Richardson (2009); and Bradshaw *et al*. (2009)[33]. In contrast, Bradshaw *et al*. (2007a) use 50 per cent of median equivalised income as the cut-off point, as do the OECD (2009) and UNICEF (2013); whereas Lau and Bradshaw (2010: 371) include the percentage of income received by the 40 per cent of households with the lowest income. In one study by Richardson *et al*. (2008) a dollar amount below which children are considered to live in poverty is used to calculate the poverty rate for the index. The remaining studies do not specify the cut-off points or their definitions of poverty, for example, Land *et al*. (2007) and O'Hare *et al*. (2013).

The lack of educational possessions is used as a proxy for deprivation in six out of 13 indices reviewed as part of this study. There is significant variation as to what constitutes educational deprivation. In some indices the cut-off point for educational deprivation is less than six out of eight educational possessions (see, for example, Bradshaw *et al.,* 2007b and Richardson *et al*., 2008). In another, the cut-off for educational deprivation is four or fewer educational

[33] The poverty rate used in Ireland and in the studies by Bradshaw *et al*., (2007b) and Bradshaw and Richardson (2009) reflects the definition for financial poverty as used in the EU with a cut-off point of 60 per cent of median equivalised income (Lelkes, O. & Gasior, K. 2011. *Income Poverty in the EU: Situation in 2007 and Trends (based on EU-SILC 2005-2008)* [Online]. Vienna: European Centre for Social Welfare Policy and Research. Available: http://www.euro.centre.org/data/1295444473_73292.pdf [Accessed 1].) In contrast the OECD defines the poverty rate as the ratio of people falling below the poverty line taken as half (50 per cent) of the median household income OECD. 2015. *Poverty rate (indicator).* [Online]. Available: https://data.oecd.org/inequality/poverty-rate.htm [Accessed 27 June 2015].

possessions (see, for example, OECD, 2009) and in yet another index, the cut-off point is three or fewer educational possessions (see, for example, Lau and Bradshaw, 2010). The cut-off point is usually determined by the source of the data, as data from different population surveys are used to construct the sub-domain in the different indices. The number of books that children have in their home is another common indicator of deprivation; this indicator is used in five other indices. In these indices, children are considered to be deprived if they are reported to own 10 or less books.

Neighbourhood quality is also commonly used in indices. However, it is important to note that in seven of the 13 indices reviewed for this study, indicators for neighbourhood quality and disorder (the definition of neighbourhood disorder is discussed later, in section 5.2.4.3 of this chapter) are located in a discrete and dedicated domain concerned with housing and environment indicators (see, for example, Bradshaw *et al.,* 2007a; Bradshaw *et al.,* 2007b; Richardson *et al*., 2008; Bradshaw and Richardson, 2009; Bradshaw *et al*., 2009; OECD, 2009; Lau and Bradshaw, 2010; and UNICEF, 2013). However, the inclusion of neighbourhood quality and disorder in the material well-being domain was directly informed by the SMCW, which explicitly includes housing and neighbourhood in its articulation of material well-being: "*It* [material well-being] *relates to having sufficient nourishment, housing and other material items"* (Minkkinen, 2013: 551). The issue of whether or not the child has sufficient nourishment was captured in the calculation of the deprivation scale score (the calculation of the deprivation scale is discussed in more detail in section 5.2.4.2).

Less commonly used indicators in other indices include deprivation, as understood in the Irish context and financial strain. Both of these indicators were selected to represent two different aspects of material well-being;

deprivation and income respectively. In Irish social welfare policy and discourses about poverty, households are understood to experience material deprivation if they are unable to afford to purchase two or more goods or services from a list of 11 (Department of Social Protection, 2011). A number of studies use an indicator of family affluence (Bradshaw *et al*., 2007b and Bradshaw and Richardson, 2009), calculated in a manner not dissimilar to the way in which deprivation is calculated in the Irish context.

5.2.4.1 Income

Three indicators were included in the sub-domain '*Income'*; these were relative poverty, parental joblessness and financial strain. Each is discussed in turn.

Income and wealth are critical elements of individual well-being (OECD, 2013a). When individuals or households have resources at their disposal it allows them to satisfy their basic needs and to pursue other life goals and objectives that are important to them (*ibid*). The impact of inadequate household income and poverty is particularly pernicious for children. Research has demonstrated correlations between family income and children's development in areas such as academic achievement, health and behaviour, such that children living in poorer households do less well (Duncan, 2005). The effects of poverty are not just felt by children in childhood, as childhood poverty is associated with greater risk of poverty in adulthood and reduced life chances (Watson *et al*., 2014). Income and poverty levels are not just drivers of children's well-being, they are constituent elements of it; that is, if children are experiencing poverty and are living in families where household income is inadequate then they have poor material well-being. The inclusion of indicators related to income and poverty is therefore critical in the construction of any index of well-being.

Relative poverty was used in this index to represent income inadequacy. A number of indices reviewed as part of this study use two measures of poverty; the 'at-risk of poverty rate', defined as 60 per cent of median equivalised income after social transfers, and the relative poverty gap, defined as 60 per cent of median equivalised income (see, for example, Bradshaw *et al.,* 2007b; Bradshaw and Richardson, 2009; and UNICEF, 2013).

The second indicator included in this sub-domain was parental joblessness. Joblessness is defined as a situation where adults of working age are not in work (National Economic & Social Council, 2014). While unemployment focuses on the employment of individuals, joblessness is understood to encompass a broader concept at the household level (*ibid*). The indicator 'joblessness' is used in three indices reviewed for this study (Bradshaw *et al.,* 2007a; Bradshaw *et al.,* 2007b; and Bradshaw *et al.,* 2009). Excluded from the definition of joblessness are individuals aged 18 years or older who are in employment, training or education; included in the definition are adults over the age of 18 who are unemployed, retired or who may be understood to be engaged in some form of productive activity, albeit not generating an income, for example, women and men with caring duties or a homemaking role (NESC, 2014). In contrast, two US-based indices use an indicator of secure parental employment in their consideration of material well-being (Land *et al*., 2007; O'Hare *et al*., 2013). The primary advantage of using the indicator joblessness rather than unemployment is that the former includes households where the primary and/or secondary caregiver, even if reported to be engaged in non-paid, albeit productive activities. This is an important consideration in calculating material well-being because, if unemployment is the indicator used to denote poorer material well-being, then single parent households where the parent is recorded as a home-maker are not counted. In using unemployment rather than joblessness as an indicator, the potential to under-estimate the number of children experiencing poor material well-being is greater. Research has shown

that lone parent households are more likely to be jobless (Watson *et al.*, 2012b). Lone parent households experience some of the highest at-risk of poverty rates, for example, 32 per cent of lone parent households were at-risk of poverty in 2013 (European Anti-Poverty Network, 2013).

The final indicator included in the sub-domain 'income' was financial strain; this goes to household income adequacy. An indicator representing the concept of financial strain or economic hardship is used in two indices reviewed as part of this study (Richardson *et al*., 2008 and Bradshaw and Richardson, 2009). In the former, the indicator is based on child-reported concerns or worries about money and, in the latter, is based on child-reported economic strain.

5.2.4.2 Deprivation

Material well-being is a wider concept than income adequacy or income poverty alone. Material well-being incorporates concepts of deprivation in which individual and household capacities to purchase goods and services must also be considered. Deprivation data provide a more direct assessment of children's economic situation than income or relative income by themselves (Bradshaw *et al.,* 2007b). This understanding of deprivation, as a component of well-being, reflects the concerns of Sen (1999) who considered well-being to be contingent on capability; that is the capability to be and do. The inclusion of a sub-domain of deprivation was also appropriate given the focus on deprivation in the Irish policy context (Watson *et al.*, 2012a). Three indicators of deprivation were included in this index: basic deprivation, education deprivation and the number of books a child owns. Each is discussed in turn.

Basic deprivation in Ireland is based on a household's ability to purchase a range of goods and services from a specified list of 11 items; inability to afford two or more items from the list indicates that a household is experiencing basic

deprivation. The Central Statistics Office (CSO) Survey of Income and Living Conditions (SILC) deprivation list is based on the EU-SILC list of deprivation; however, the EU-SILC definition of deprivation is based on the enforced deprivation of two or more items from a list of eight[34]. The measure used to identify children living in families experiencing basic deprivation in GUI is the same as the measure used in CSOs SILC (Central Statistics Office, 2103). The list of 11 basic deprivation items includes:

1. Two pairs of strong shoes
2. A warm, waterproof overcoat
3. Buy new (not second-hand) clothes
4. Eat meal with meat, chicken, fish (or vegetarian equivalent) every second day
5. Have a roast joint or its equivalent once a week
6. Had to go without heating during the last year through lack of money
7. Keep the home adequately warm
8. Buy presents for family or friends at least once a year
9. Replace any worn out furniture
10. Have family or friends for a drink or meal once a month
11. Have a morning, afternoon or evening out in the last fortnight for entertainment

A child-specific deprivation list was developed for EU-SILC and SILC[35] 2009. These lists, although slightly different in terms of composition, include between

[34] The EU-SILC list of deprivation includes: (i) unable to afford a warm, waterproof coat; (ii) unable to afford a meal with meat, chicken, fish or vegetarian equivalent every second day; (iii) unable to afford two pairs of strong shoes; (iv) unable to afford a roast once a week; (v) no substantial meal on at least one day in the last two weeks; (vi) without heating at some stage in the past year; (vii) unable to afford new (not second hand) clothes; (viii) and experienced debt problems arising from ordinary living expenses (Central Statistics Office (2007). *EU Survey on Income and Living Conditions (EU-SILC).* Dublin: Central Statistics Office.

[35] EU-SILC is the EU annual household survey of living and income conditions across member states; the CSO is responsible for conducting the survey in Ireland. Data compiled by Eurostat for European purposes is referred to as EU-SILC and data compiled and analysed purely for national purposes is referred to as SILC (Watson *et al*., 2012).

13 and 16 items of goods and services specific to children that the household cannot afford. Common items include adequate food and clothing, books, toys and games, and school trips and so on (Watson *et al*., 2014). UNICEF has also developed a child-specific deprivation list, based on the EU-SILC measure (UNICEF Innocenti Research Centre, 2012). It also shares some of the items included in the SILC measure, however, there are some differences. The items included in the SILC child-specific list, not on the UNICEF list of deprivation, include being able to attend the doctor if required, being able to attend the dentist if required and access to outside space to play. A child-specific deprivation list is included in GUI, however, it does not map exactly onto the SILC child-specific list or to the UNICEF list (GUI Team, 2014). Concerns have been expressed by some that household-based measures of deprivation may not be adequate to measure deprivation specific to children (Main and Bradshaw, 2012). Research suggests that the distribution of resources within a family is linked to the experience of deprivation by different family members, for example, parents may place their children's needs above their own, protecting their children from the effects of deprivation (Swords *et al.*, 2011). A 2012 Irish study, comparing how well household basic deprivation measures captured children in deprivation with child-specific measures of deprivation, shows that population-level deprivation measures adequately capture children. Indeed, the population-level measures include a greater proportion of children experiencing deprivation than are found using the child-specific measure (Whelan and Maitre, 2012).

The measure of basic deprivation was used in the construction of this index for a number of reasons. First, and notwithstanding that there is some agreement on the items to include in a child-specific deprivation list, differences remain. Second, the basic deprivation measure is the one used most widely in Irish policy discourses of poverty and deprivation. For example, national consistent poverty rates are calculated using the 11-item deprivation scale (EAPN, 2013;

DSP, 2011). Third, research shows that measures of basic deprivation adequately capture children experiencing deprivation and there is little risk of excluding children that might be found to be experiencing deprivation using an alternative child-specific measure. Finally, and rather more prosaically, the data arising from the child-specific deprivation measure is not available in the GUI AMF. While it is disappointing that data from a child-specific measure could not be used for the purpose of this index, it is important to note that, from a deprivation measurement perspective, research (Whelan and Maitre, 2012) has shown that population-level measures of deprivation more than adequately capture child deprivation.

An indicator for deprivation is utilised in three indices reviewed for this study (Bradshaw *et al.,* 2007b; Bradshaw and Richardson, 2009 and UNICEF, 2013). The former study utilises an indicator that measured family affluence (Bradshaw *et al.,* 2007b). The measure of family affluence is based on ownership of up to eight items, such as car ownership, the number of family holidays and so on; lack of ownership of three or more items indicates low levels of family affluence (*ibid*: 143). Bradshaw and Richardson (2009) utilise the EU-SILC measure of basic deprivation. The UNICEF study utilises two different measures of deprivation; a child-specific deprivation measure and a measure of family affluence (UNICEF Innocenti Research Centre, 2012).

The concept of educational deprivation is widely used in index construction elsewhere. As can be seen in Table 5-8, an indicator for educational deprivation is used in six out of thirteen indices reviewed for this study (see, for example, Bradshaw *et al*., 2007b; Richardson *et al*., 2008; OECD, 2009; Lau and Bradshaw, 2010). As noted earlier in this chapter, the definition of educational deprivation varies from index-to-index; however, typical items that are included in lists of educational possessions to assess for deprivation include having a desk to study

at, having a quiet space in which to study, owning a calculator, owning a computer, an internet connection, a dictionary and school text books (Bradshaw *et al.,* 2007b).

The final indicator included in the 'deprivation' sub-domain was the number of books that the child owns; this indicator is used in four indices reviewed for this study (see, for example, Bradshaw *et al.,* 2007b; Richardson *et al*., 2008; Bradshaw and Richardson, 2009; and Lau and Bradshaw, 2010). Primary caregivers, as part of the GUI interview, were asked to report the number of books owned by their child.

5.2.4.3 Neighbourhood

The final sub-domain included in the domain of material well-being concerned the neighbourhood in which the child lives. When indicators of housing and neighbourhood are included in indices of well-being they are typically included as a separate domain. This is not the case here; the SMCW explicitly includes issues of housing and neighbourhood in its articulation of material well-being: *"It* [material well-being] *relates to having...housing and other material items that are normally elements in the standard of living in the society and culture surrounding the child"* (Minkkinen, 2013: 551).

The rationale for including neighbourhood indicators in the index was informed not just by the SMCW, but also the child well-being literature more generally. Research has found that children living in neighbourhoods characterised by multiple risk and adverse factors tend to have poorer outcomes and experience less well-being (Coulton and Korbin, 2007). A number of variables are identified as particularly pertinent to children's development and well-being (Dockery, 2010), such as social disorganisation/ disorder and safety. Social disorganisation relates to the disruption to community life that is caused by

criminal, deviant or disorderly behaviour. Safety, in the neighbourhood context, refers to the degree to which residents feel physically threatened in their community (*ibid*). In addition, neighbourhood quality is also identified as a meaningful indicator for child well-being. Neighbourhood quality includes features such as whether the neighbourhood is good place to live and if the family plan to remain in the neighbourhood (Coulton and Korbin, 2007). An Australian study exploring the impact of neighbourhood on children aged four and five years of age shows that higher perceived neighbourhood safety and belonging, as reported by parents, are associated with fewer conduct problems among children (Edwards and Bromfield, 2008). The same study also demonstrates that neighbourhood quality characteristics, such as neighbourhood cleanliness, have a significant positive impact on pro-social behaviour (*ibid*). Furthermore, perceived neighbourhood safety, or lack thereof, has been found to impact on parents' willingness to allow their children to play outside (Molnar *et al.*, 2004).

Indicators of neighbourhood quality are used in a number of indices; six indices out of 13 reviewed as part of this study utilise indicators for neighbourhood quality. For example, Bradshaw *et al*. (2007b); Richardson *et al*. (2008); and Lau and Bradshaw (2010) all include an indicator on neighbourhood safety. The OECD (2009) includes an indicator for noise, dirt and grime in the child's local area. Bradshaw *et al*. (2009) include a number of indicators on children's and young people's access to amenities and facilities in their local areas. Two studies (Richardson *et al*., 2008 and Lau and Bradshaw, 2010) include an indicator on access to neighbourhood facilities. The facilities referred to are improved sanitation and improved water facilities in CEE countries and CIS, and the Pacific Rim respectively. It was judged that the concept and indicators of neighbourhood amenities and facilities used in these studies were not comparable to the indicators included in this index and for this reason they have not been included in Table 5-8.

5.3 Conclusion

This chapter discussed how the SMCW provided a useful and applicable theoretical framework to guide the selection of specific indicators used to populate this study's index of well-being for children living in Ireland. The four domains, 14 sub-domains and 35 indicators used in the construction of this index clearly reflect and reference the theoretical orientation of the SMCW. As the discussion above demonstrates, the selection of specific indicators fit with both the theory of the SMCW and the wider literature on index construction. Furthermore, while the selection of indicators used to populate this index was in the first instance determined by the theoretical orientation of the SMCW, their inclusion was also informed by a number of other considerations, as suggested in the literature (O'Hare and Gutierrez, 2012; Richardson *et al.*, 2008; Ben-Arieh, 2008). This a children's well-being index, therefore it is critical that the child is the unit of observation at the indicator level. For the majority of the indicators selected for inclusion in this index, the child was the unit of observation , the indicators were concerned with the condition and circumstances of the participating child, and children's self-reported data was used where possible. Indicators were chosen to reflect both children's current well-being and their future well-becoming. Finally, and importantly, the indicators selected for inclusion in this index are policy-relevant to the Irish context; and in particular to the national policy framework for children and young people: *Better Outcomes, Brighter Futures* (Department of Children and Youth Affairs, 2014).

While this chapter discussed the selection of indicators for inclusion in the index more generally, the following chapter discusses the identification, treatment and analysis of data from GUI that map onto or represent the indicators that populate the domains and sub-domains of well-being for children living in Ireland.

Chapter 6 Findings Part 2: An Index of Well-being for Children Living in Ireland

6.1 Introduction

Chapters Four and Five of this thesis discussed the ways in which the theoretical framework provided by the Structural Model of Child Well-being (SMCW) was applied to the construction of an index of well-being for children living in Ireland. This chapter now turns its attention to how the SMCW was specifically applied to the Growing Up in Ireland (GUI) AMF dataset for 13 year-olds; and it presents and considers the findings emerging from the development of this index of well-being for children living in Ireland.

In this context, the purpose of this chapter is twofold. First, the chapter presents descriptive statistics for all the indicators selected for inclusion in the index of well-being on the basis of the theoretical orientation of the SMCW. The data transformation procedures used to prepare the data from the GUI dataset for inclusion in the index are discussed for each of the 35 indicators populating the 14 sub-domains and four domains of well-being. Second, once the validity of the index was established, domain and overall well-being scores by child and family characteristics, such as gender, family type, parental educational attainment and other factors, were analysed. In addition, comparisons between the top and bottom 15 per cent of children were made to further explore these differences.

6.2 An Index of Well-Being for Children Living in Ireland

As discussed in previous chapters, this index was constructed using a three-tier 'nested' structure consisting of macro-level domains, intermediate-level sub-domains and micro-level indicators, all of which contribute to the overall well-being score. There were four domains of well-being included in the index, directly informed by the SMCW: physical, mental, social and material well-being. Each domain varied in the number of sub-domains.

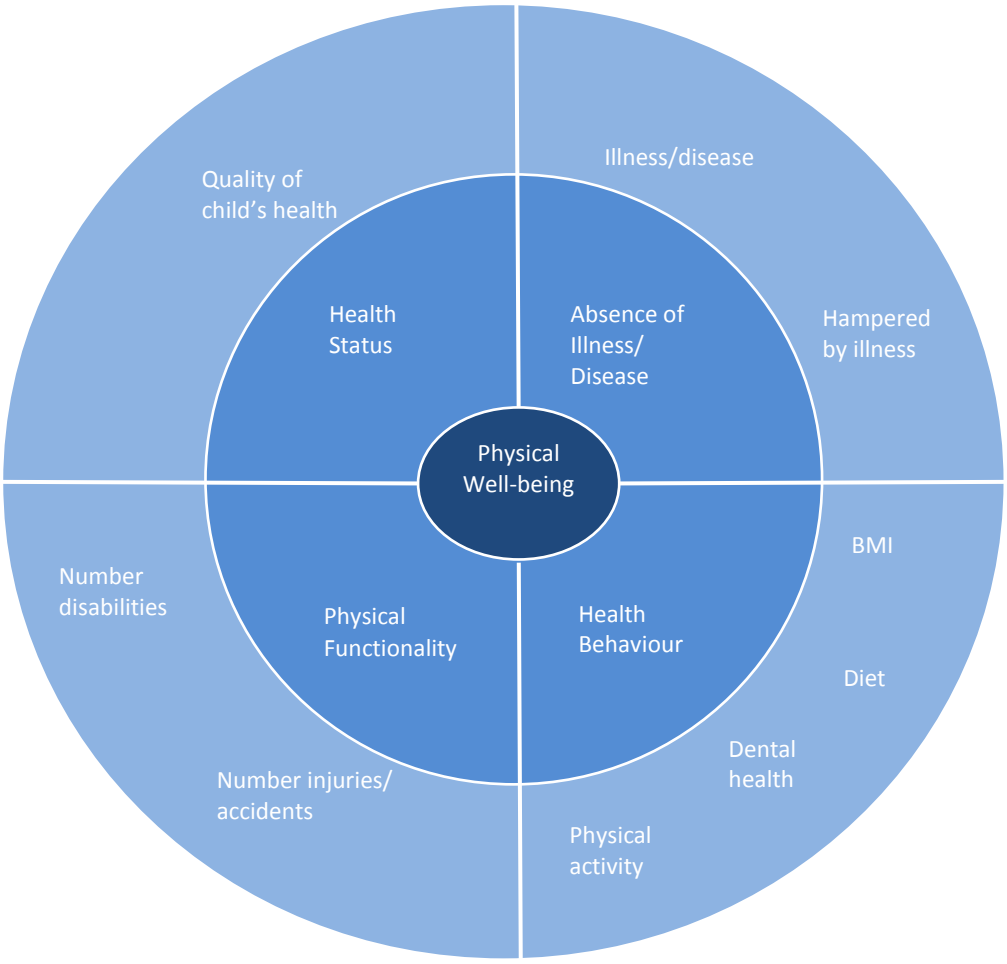
Data from GUI were selected to match these indicators. The advantage of using a micro-dataset such as GUI becomes obvious at the point of indicator selection. Indices that aggregate data from a variety of population-level studies tend to include indicators that cover an age range from birth to 18 years. For example, Bradshaw and Richardson's (2009) health domain in their EU-wide index combines indicators on infant and toddler health such as infant mortality rates, low birth weights and immunisation rates with indicators more commonly associated with older children and adolescents such as physical activity, rates of overweight and dental hygiene; likewise the Child and Youth Well-being Index combines indicators across age ranges (Land *et al.*, 2007). Whereas, using micro-data enables the researcher to select variables that are all pertinent to a single cohort, thereby strengthening what can be asserted about children's well-being based on the index. The index of children's outcomes for infants and children aged 4-5 years based on the Longitudinal Study of Australian Children (LSAC) by Sanson *et al*. (2010) is an example of such an index.

The following sections describe the process of selecting, preparing and analysing variables from the GUI dataset for the construction of an index of well-being for children living in Ireland.

6.2.1 Physical well-being

The GUI dataset was reviewed to assess whether there were data to support the identification of sub-domains and indicators compatible with the conceptualisation of physical well-being as articulated in the SMCW. As can be seen in Figure 6-1, the domain of physical well-being for this index was made up of four sub-domains: health status, absence of illness or disease, physical functionality and health behaviours. A total of nine indicators were selected across the four sub-domains. One indicator was included in the sub-domain of health status; two indicators in the absence of illness or disease sub-domain, two indicators in the sub-domain of physical functionality and four indicators in the sub-domain of health behaviours. The selection and treatment of each data identified in GUI to represent the indicator is discussed in turn below.

Figure 6-1 Physical Well-being



6.2.1.1 Health status

In GUI the child's primary caregiver[36] was asked to rate the quality of the child's health. Parents were asked to rate their child's health on a scale from very healthy, no problems; healthy but a few minor problems; to sometimes quite ill/almost always unwell. These data were reverse coded in order to standardise the directionality of the scores so that a higher score represented greater well-being. The full cohort of participants responded to this question and no data was missing. The majority of young people (76 per cent) were

[36] For brevity the term 'parent' has been used to represent both primary and secondary caregivers.

reported by their parent to be very healthy, with no problems. Table 6-1 summarises parental responses regarding the quality of the child's health:

Table 6-1 Parent-reported Quality of Child's Health

Category of Response	Number	Percent
Sometimes quite ill/almost always unwell	112	1.5
Healthy, some minor problems	1,707	22.7
Very healthy, no problems	5,705	75.8
Total	7,524	100

6.2.1.2 Absence of illness or disease

The GUI study includes a number of questions for the parent about the health of the participating child such as: the presence of a chronic physical or mental health problem, illness or disability; and the impact of the illness or health problem. Parent responses to the question "*Does the child have any on-going chronic physical or mental health problem, illness or disability?*" (Growing Up in Ireland Team, 2014: 6) were analysed for the prevalence of chronic illness. Just over one-in-ten children were reported to have an ongoing chronic illness or disability. Table 6-2 describes the responses to this question.

Table 6-2 Parent-reported Presence of Chronic Illness

Category of Response	Number	Percent
Yes, child has chronic illness or disability	839	11.2
No, child has no chronic illness or disability	6,684	88.8
Total	7,523	100

In order to fully explore the implications of the presence of a chronic childhood illness on children's well-being, an indicator exploring whether or not the child's life was hampered by the chronic illness was also included in the index. The

parent of each participating child, who had answered in the affirmative to the presence of a chronic illness; was asked to indicate how hampered the child was by the illness; severely hampered, hampered to some extent or not hampered at all. The data were reverse coded in order to standardise the directionality of the scores so that a higher score represented greater well-being. The full cohort of participants responded to this question and no data were missing. Of the 839 children who were reported to have a chronic illness, 440 or just over half were hampered to some degree in their daily life by illness. Table 6-3 shows the percentage of children whose lives are hampered by chronic illness or disability as a percentage of the total study population.

Table 6-3 Parent-reported Impact of Chronic Illness on Daily Activities

Category of Response	Number	Percent
Yes, hampered severely	60	0.8
Yes, hampered somewhat	380	5.0
Not at all hampered/No chronic illness or disability	7,085	94.2
Total	7,525	100
Missing	0	0

6.2.1.3 Physical functionality

The data in response to the question: "*In the last 12 months has [*child*] had an accident or injury that required hospital treatment or admission?*" (Quail *et al.*, 2014a: 2) were analysed. The majority of children (86.5 per cent) had none; the remaining children (13.5 per cent) were reported to have had between one and five accidents or injuries requiring a hospital visit. Table 6-4 shows the number of accident and injury-associated hospital treatments and admissions.

Table 6-4 Parent-reported Accident and Injury-associated Hospital Treatments and Admissions

Category of Response	Number	Percent
5 or more hospital treatments/admissions	42	0.6
4 hospital treatments/admissions	25	0.3
3 hospital treatments/admissions	65	0.9
2 hospital treatments/admissions	190	2.5
1 hospital treatment/admission	694	9.2
None	6,509	86.5
Total	7,525	100
Missing	0	0

The data were reverse coded in order to standardise the directionality of the scores so that fewer accidents and injuries represented greater physical functionality. The mean score for the number of accidents and injuries requiring hospital treatment or admission was -0.2.

In GUI parents were asked to indicate the number of disabilities or conditions that their child had; scores ranged between zero and four, with four indicating four or more conditions. The majority of children, 81 per cent, had no condition or disability. The data were reverse coded in order to standardise the directionality of the scores so that fewer conditions or disabilities represented greater physical functionality. The mean score for the number of conditions/disabilities was -0.27. Table 6-5 shows the number of conditions and/or disabilities that children experienced.

Table 6-5 Parent-reported Number of Conditions and/or Disabilities

Category of Response	Number	Percent
4 or more conditions/disabilities	66	0.9
3 conditions/disabilities	84	1.1
2 conditions/disabilities	239	3.2
1 condition/disability	1,049	13.9
No conditions/disabilities	6,078	80.8
Total	7,516	99.9
Missing	9	0.1

6.2.1.4 Health behaviours

In GUI, BMI was calculated on height and weight measures for the participating child taken by the researcher in the child's home at the time of the interview. The GUI dataset includes both derived continuous BMI data based on these calculations and cut-off categories of BMI, as suggested by the International Obesity Taskforce (IOTF)[37]. The IOTF categories are non-overweight, a BMI of less than 21.90 for boys and less than 22.57 for girls; overweight, a BMI of between 21.91 and 26.83 for boys and between 22.58 and 27.75 for girls; and obese, a BMI of more than 26.84 for boys and more than 27.76 for girls (Cole *et al.*, 2000). For the purposes of this index the IOTF categories were used to indicate problematic or non-problematic weight levels in young people, in order to take account of gender differences and ensure that children were correctly categorised. This variable was reverse coded in order to standardise the directionality of the scores so that a higher score represented non-overweight and therefore greater well-being. Levels of BMI were calculated for almost 97 per cent of the sample population; weight and/or height measurements were not provided for 250 children and consequently it was not possible to calculate

[37] The International Obesity Taskforce, now known as World Obesity is a global network of experts working to inform policy makers, medical professionals and the general public about the growing health crisis as a result of obesity. It works with the World Health Organisation (WHO) and other NGOs to develop policy and prevention strategies to address the issue. http://www.worldobesity.org/what-we-do/policy-prevention/

the BMI for these children. Table 6-6 summarises the findings with regard to levels of obesity.

Table 6-6 Categorisation of Body Mass Index for Participating Children (Direct Measurement)

Category of Response	Number	Percent
Obese	433	5.7
Overweight	1,533	20.4
Non-overweight	5,309	70.6
Total	7,275	96.7
Missing	250	3.3

In GUI, children were asked to indicate how often they brushed their teeth on a scale from 'More than twice a day' to 'Rarely/Not at all'. This variable was reverse coded in order to standardise the directionality of the scores so that a higher score represented more positive dental hygiene practices and therefore greater well-being. Nearly two-thirds (61.1 per cent) of children brushed their teeth twice per day; Table 6-7 summarises the responses to this question.

Table 6-7 Child-reported Dental Hygiene Practices

Category of Response	Number	Percent
Rarely/Not at all	215	2.8
Less often than once a day	196	2.6
Once a day	1,527	20.3
Twice a day	4,596	61.1
More than twice a day	874	11.6
Total	7,413	98.4
Missing	112	1.5

Children were asked to indicate how often they ate fruit on a scale of 'Once per day', 'More than once' and 'Not at all'. This variable was re-coded in order to standardise the directionality of the scores so that a higher score represented

greater frequency of consumption of fruit and therefore greater well-being. Table 6-8 summarises the data.

Table 6-8 Child-reported Fresh Fruit Consumption

Category of Response	Number	Percent
Not at all	1,634	21.7
Once per day	3,064	40.7
More than once per day	2,705	35.9
Total	7,403	98.4
Missing	122	1.6

In GUI children were asked directly to report on the number of times, in the 14 days prior to the survey, that she/he had engaged in at least 20 minutes of hard exercise. Just five per cent children reported taking no hard exercise in the previous 14 days; in contrast, approximately 27 per cent of children reported that they had participated in hard exercise nine or more days out of the last 14. Table 6-9 shows the frequency of children's participation in hard exercise.

Table 6-9 Child-reported Frequency of Participation in 20 Minutes of Hard Exercise in the Previous 14 Days

Category of Response	Number	Percent
None	390	5.2
1 to 2 days	1,392	18.5
3 to 5 days	2,125	28.2
6 to 8 days	1,450	19.3
9 or more days	2,052	27.3
Total	7,409	98.5
Missing	116	1.5

6.2.1.5 Validating the physical well-being domain

As advised by the OECD (2008), once all the indicators were selected they were assessed for indicator-level correlation to ensure multiple indicators measuring the same underlying concept were not erroneously included in the index, thus unbalancing it. All the data included in this domain of physical well-being and its

four constituent sub-domains were populated by ordinal data; that is the data values represent ordered categories. Correlations between the indicators were therefore tested using Spearman's rank correlation coefficient ρ (rho), a non-parametric statistic (Field, 2005) and the scalability of the indicators included in the domain was assessed using Cronbach's alpha.

Some level of correlation is desirable between indicators within the sub-domain in order to demonstrate that the indicators are tapping into the same underlying construction (Cheevers and O'Connell, 2013). However, it should be noted that the absence of correlations between indicators does not always result in the exclusion of these indicators, see for example, Bradshaw *et al*. (2007b). As can be seen from Table 6-11, health quality was correlated, at significance level of 0.01, with all variables included in the index. Within the sub-domain 'Absence of illness/disease' the indicator for illness/disease was significantly correlated with its companion indicator in the sub-domain that an illness/disease hampers or is impactful on the child's life. In the sub-domain 'Physical Functionality' the two indicators were significantly correlated at the 0.01 significance level. Within the sub-domain of health behaviours, the four indicators were all significantly correlated with each other ($p < 0.01$). The scalability of the indicators included in the domain was assessed using Cronbach's alpha (α), the reliability coefficient was 0.497. While this is below is the recommended threshold of 0.70 for inter-item reliability, the choice of indicators was informed by the SMCW and it was considered important therefore to include all of the indicators. Moreover, little difference was made to the size of the reliability coefficient by dropping any of the indicators, For example, removing the number of injuries experienced by the child from the domain only marginally improved the reliability ($\alpha = 0.533$). Table 6-10 shows the correlations between indicators populating the four sub-domains of physical well-being.

Table 6-10 Spearman rho (r_s) Correlations between Indicators used in the Physical Well-being Domain of the Index

		1	2	3	4	5	6	7	8	9
1	Quality of Child's Health									
2	Illness/disease	0.335**								
3	Impact of Illness	0.254**	0.710**							
4	No. of injuries requiring hospital	0.065**	0.037**	0.057**						
5	No. conditions/ disabilities	0.116**	0.286**	0.303**	0.024**					
6	BMI	0.055**	0.050**	0.036**	0.004	0.044**				
7	Fruit Consumption	0.067**	0.017	0.024*	-0.020	0.007	0.032**			
8	Dental Hygiene	0.030*	0.014	0.009	0.006	-0.002	0.059**	0.177**		
9	Physical Exercise	0.076**	0.070**	0.087**	-0.068**	0.120**	0.140**	0.183**	0.038**	

** Correlation was significant at 0.01 level (2-tailed)

* Correlation was significant at 0.05 level (2-tailed)

6.2.2 Mental well-being

The GUI dataset was reviewed to assess whether there were data to support the identification of sub-domains and indicators compatible with the conceptualisation of mental well-being as articulated in the SMCW. As can be seen in Figure 6-2 the domain of mental well-being for this index was made up of four sub-domains: absence of disorders; emotional competence; cognitive development; and life satisfaction. A total of 10 indicators have been selected across the four sub-domains. Four indicators were included in the sub-domain of 'Absence of disorders'; one indicator in the emotional competence sub-domain, three indicators in the sub-domain 'cognitive development' and two indicators in the sub-domain 'life satisfaction'. The selection and treatment of data identified in the GUI dataset to represent each of the indicators is discussed in turn below.

Figure 6-2 Mental Well-being



6.2.2.1 Absence of disorders

Four indicators were included in the sub-domain 'Absence of disorders', these are behaviour/conduct disorder, hyperactivity, anxiety, and depression and low mood. The concepts and incidences of conduct disorder and hyperactivity among 13-year olds were measured in GUI using the Strengths and Difficulties Questionnaire (SDQ). The concept and incidence of anxiety was measured using the Piers-Harris Self-Concept Scale 2nd Edition (Piers-Harris 2). Depression

and low mood was measured using the Short Mood and Feelings Questionnaire (SMFQ).

The SDQ is a short behavioural screening questionnaire designed to assess overall behavioural and psycho-social adjustment (Murray *et al.*, 2010). A total difficulties score is calculated by aggregating scores from four sub-scales: emotional symptoms, conduct disorder, hyperactivity, peer problems. Scores from the pro-social behaviours sub-scale are not used to calculate the total difficulties score (Goodman, 1997). Two of the sub-scales from the SDQ, conduct problems and hyperactivity, were included in the 'absence of disorders' sub-domain of the mental well-being domain in this index. Two other studies have included these indicators and in both studies these data were obtained from the SDQ (Sanson *et al.*, 2010; Cheevers and O'Connell, 2013). In GUI, the parent was asked to complete the SDQ about the participating child. The SDQ total difficulties score is continuous data and ranges from 0 to 40; a lower score on the questionnaire indicates fewer behavioural and psycho-social adjustment problems. In addition, cut-off points have been established for each sub-scale ranging from scoring within the normal range to borderline and abnormal scores; these bandings are defined based on a population-based UK survey (Goodman, 1997). For the purposes of this study, continuous data were used to calculate the index; the sub-scale continuous scores were multiplied by -1 to ensure that a higher score indicated greater well-being. Table 6-11 shows the mean and median scores and standard deviation for conduct problems and hyperactivity, respectively.

Table 6-11 Mean, Median and Standard Deviation for Conduct Problems and Hyperactivity Sub-scales: Parent-reported SDQ

	Conduct Problems	Hyperactivity
Valid cases	7,524	7,524
Missing	1	1
Mean	-1.23*	-2.86*
Median	-1.00*	-2.00*
Standard deviation	1.47	2.47

* Scores were reverse coded so that higher scores indicated fewer difficulties

More than 83 per cent of all children scored in the normal range for conduct disorders and approximately 85 per cent of all children scored within the normal range on the hyperactivity sub-scale.

The Piers-Harris 2 is a self-completed measure to assess self-concept among children and young people aged between seven and 18 years. The questionnaire includes 60 items categorised into six sub-scales: behavioural adjustment, intellectual and school status, physical appearance and attributes, freedom from anxiety, popularity, and happiness and satisfaction (Murray *et al.*, 2010). The sub-scale freedom from anxiety was included in the 'absence of disorders' sub-domain of this index. The freedom from anxiety sub-scale is made up of 14 items exploring a variety of feelings including fear, unhappiness, nervousness, shyness and feeling left out of things (*ibid*). Like the SDQ, the Piers-Harris 2 scores are continuous, however, in contrast to the SDQ, the Piers-Harris 2 is scored so that a higher score indicates higher and more positive assessment of self-concept. Table 6-12 shows the mean and median scores and standard deviation for the freedom from anxiety sub-scale.

Table 6-12 Mean, Median and Standard Deviation for the Freedom from Anxiety Sub-scale: Child-reported Piers-Harris 2

	Freedom from Anxiety
Valid cases	7,388
Missing	137
Mean	10.75
Median	12.00
Standard deviation	3.00

The final indicator included in the sub-domain absence of disorders was derived from the SMFQ. The SMFQ is a short, easy-to-use, self-completed assessment of childhood and adolescent depression (Angold *et al.*, 1995). The questionnaire consists of 13 questions asking the child how he/she has been behaving or acting recently. The SMFQ yields a continuous score from 0 to 26. There are no prescribed cut-offs for the SMFQ, however, a score of 12 or more may indicate that a child is suffering from depression (*ibid*). The total scores were multiplied by -1 to ensure that a higher score indicated greater levels of well-being. Table 6-13 shows the mean and median scores and standard deviation for depression and low mood from the SMFQ.

Table 6-13 Mean, Median and Standard Deviation for Depression and Low Mood: Child-reported SMFQ

	Depression and Low Mood
Valid cases	7,393
Missing	132
Mean	-3.86*
Median	-3.00*
Standard deviation	4.38

* Scores were reverse coded so that higher scores indicated fewer difficulties

6.2.2.2 Emotional competence

The sub-scale for emotional problems from the SDQ was used to establish the indicator for emotional competence. As described above, the SDQ provides continuous sub-scale scores; a higher score indicates more emotional difficulties. Although cut-off points have been established for the sub-scales, for the purposes of this study, sub-scale continuous data were used to calculate the index. The sub-scale continuous scores were therefore multiplied by -1 to ensure that a higher score indicated greater well-being. Eighty-one (81) per cent of children scored within the normal range. Table 6-14 shows the mean and median scores and standard deviation for emotional symptoms from the SDQ.

Table 6-14 Mean, Median and Standard Deviation for Emotional Difficulties: Parent-reported SDQ

	Emotional Difficulties
Valid cases	7,524
Missing	1
Mean	-1.90*
Median	-1.00*
Standard deviation	2.015

* Scores were reverse coded so that higher scores indicated fewer difficulties

6.2.2.3 Cognitive development

Verbal and numerical reasoning assesses children's reading and numeracy competencies. Indicators for literacy and numeracy are widely used in index construction studies, as discussed in Chapter Five. The verbal and numerical reasoning indicator was derived from the Drumcondra Reasoning Test (DRT). The DRT is an aptitude test developed in Ireland for use with Irish children. It is a test of cognitive skills and is therefore well-suited for inclusion in this sub-domain. The test is made up of two sub-tests: verbal reasoning and numerical

reasoning. The verbal reasoning sub-test assesses the ability of students to understand, think and reason in, and with, words. For the numerical ability sub-test students are required to reason with numbers and to manipulate numerical relationships (Education Research Centre, 2015). Children completed the assessments at home. The GUI data file includes individual percentage correct scores for the verbal reasoning and numerical ability sub-tests, as well as a total score for percentage correct across the two sub-tests. The total score for the percentage correct was used in the construction of this index. The average percentage correct score was 55 per cent correct. A total of 46.7 per cent of children correctly answered less than 55 per cent of the questions on the DRT, or were below average in the number of items on the tests correctly answered. Table 6-15 shows the mean and median scores and standard deviation for the percentage of questions answered correctly on the DRT.

Table 6-15 Mean, Median and Standard Deviation for the Percentage of Questions Correctly Answered: Child-completed Drumcondra Reasoning Test (DRT)

	DRT
Valid cases	7,099
Missing	426
Mean	55.47
Median	55.00
Standard deviation	20.26

Extra help in school was also included in the sub-domain on cognitive development for a number of reasons. First, the requirement for additional help at school relates to the child's cognitive development as the question included in the survey is framed around the requirement for additional help for school subjects of maths, English/reading and Irish, and not in the context of additional physical support required as the result of a physical disability. Second, the SMCW acknowledges through its emphasis on subjective action,

the active role the child plays in contributing to his or her own well-being, and in its recognition of individual capabilities, how a child can contribute to their own well-being if resourced and supported to do so. In this context, scores from standardised assessment tests such as the DRT by themselves do not recognise the child's capacity to participate in or complete such assessments. Third, the question was answered directly by the child. Sixteen per cent of children reported receiving additional support.

The final indicator included in this sub-domain was a self-reported measure of intellectual and school status. The scores for intellectual and school status were derived from a sub-scale of the Piers-Harris 2. The Piers-Harris 2 measures children and young people's levels of self-concept (the measure was described in more detail in section 6.2.2.1). While the inclusion of scores from the DRT provided an objective assessment of the child's cognitive development, the use of a measure such as the Piers-Harris 2 provided information about how the child felt about their own intellectual capacity. Higher levels of self-concept can act as a protective factor for children, moderating feelings of inadequacy and/or failure thereby protecting and promoting mental well-being. The Piers-Harris 2 scores are continuous, and higher scores indicate a higher and more positive assessment of self-concept. Table 6-16 shows the mean and median scores and the standard deviation for intellectual and school status sub-scale of the Piers-Harris 2 in GUI.

Table 6-16 Mean, Median and Standard Deviation for the Intellectual and School Status Sub-scale: Child-reported Piers-Harris 2

	Intellectual and School Status
Valid cases	7,362
Missing	163
Mean	11.92
Median	13.00
Standard deviation	3.18

There are also established cut-off scores to indicate problematic levels of self-concept. Approximately 70 per cent of children self-assessed as 'average' or 'above average'.

6.2.2.4 Life satisfaction

The Piers-Harris 2 includes a subscale of 10 items reflecting feelings of happiness and satisfaction with life (Murray *et al.*, 2010). The Piers-Harris 2 scores are continuous, and higher scores indicate a higher and more positive assessment of self-concept. Table 6-17shows the mean and median scores and the standard deviation for the happiness and life satisfaction sub-scale of the Piers-Harris 2.

Table 6-17 Mean, Median and Standard Deviation for Happiness and Life Satisfaction Sub-scale: Child-reported Piers-Harris 2

	Happiness & Life Satisfaction
Valid cases	7,383
Missing	141
Mean	8.59
Median	9.00
Standard deviation	1.69

There are also established cut-off scores to indicate problematic levels of self-concept. Approximately 63 per cent of children self-assessed as 'average' or 'above average' on this assessment.

As part of the GUI study, children were asked how they felt about school. Children responded to a five-point scale, ranging from 'I like it very much' to 'I hate it'. This variable was re-coded in order to standardise the directionality of the scores so that a higher score represented greater enjoyment of school and therefore greater well-being. The majority of children reported that they liked school to a greater or lesser degree. Table 6-18 shows the range of responses to the question on how well the child liked school.

Table 6-18 Child-reported Rates of Liking School

Category of Response	Number	Percent
I hate it	243	3.3
I don't like it very much	611	8.1
I like it a bit	1,979	26.3
I like it quite a bit	2,392	31.8
I like it very much	2,121	28.2
Total	7,347	97.6
Missing	178	2.4

6.2.2.5 Validating the mental well-being domain

In summary, the domain of mental well-being was made up of four sub-domains: absence of disorders; emotional competence; cognitive development; and life satisfaction. The indicators populating the sub-domains were assessed for the strength of their relationships with each other. The majority of the indicators included in the domain of mental well-being were continuous; correlations were therefore analysed using Pearson product-moment

correlation (Field, 2005). The scalability of the items included in the mental well-being domain was assessed using Cronbach's alpha (α).

Table 6-19 shows that irrespective of sub-domain, all the indicators were correlated. Within sub-domains, Table 6-19 demonstrates that the four indicators selected to populate the sub-domain 'Absence of Disorders' were all correlated, at a significance level of 0.01. The sub-domain 'Emotional Competence' was populated with just one indicator; this indicator for emotional difficulties was statistically significantly correlated ($p<0.01$) with all other indicators included in the mental well-being domain. The indicators in the sub-domain 'Cognitive Development' were all significantly correlated ($p< 0.01$) with each other. The final sub-domain within the domain of mental well-being was life satisfaction; there was a significant positive correlation between the child's self-reported happiness and their enjoyment/liking of school ($p<0.01$). The scalability of the indicators included in the domain were assessed using Cronbach's alpha (α), the reliability coefficient was 0.754, which exceeds the recommended threshold of 0.70 for inter-item reliability. Moreover, all of the indicators were contributing to the domain and analysis of the Cronbach's alpha if items were deleted showed that deleting individual indicators did little to strengthen inter-item reliability.

Table 6-19 Pearson Product-Moment Correlations between Indicators Used in the Mental Well-being Domain of the Index

		1	2	3	4	5	6	7	8	9	10
1	Conduct Problems										
2	Hyperactivity	0.447**									
3	Freedom from Anxiety	0.111**	0.065**								
4	SMQF	0.185**	0.157**	0.506**							
5	Emotional Difficulties	0.310**	0.298**	0.257**	0.170**						
6	DRT % Correct	0.215**	0.319**	0.087**	0.041**	0.225**					
7	Extra Help at School	0.105**	0.258**	0.089**	0.105**	0.125**	0.318**				
8	Intellectual Score	0.167**	0.242**	0.495**	0.414**	0.198**	0.261**	0.175**			
9	Happiness Score	0.142**	0.098**	0.555**	0.389**	0.143**	0.053**	0.027*	0.466**		
10	Like School	0.130**	0.160**	0.142**	0.183**	0.081**	0.164**	0.078**	0.361**	0.202**	

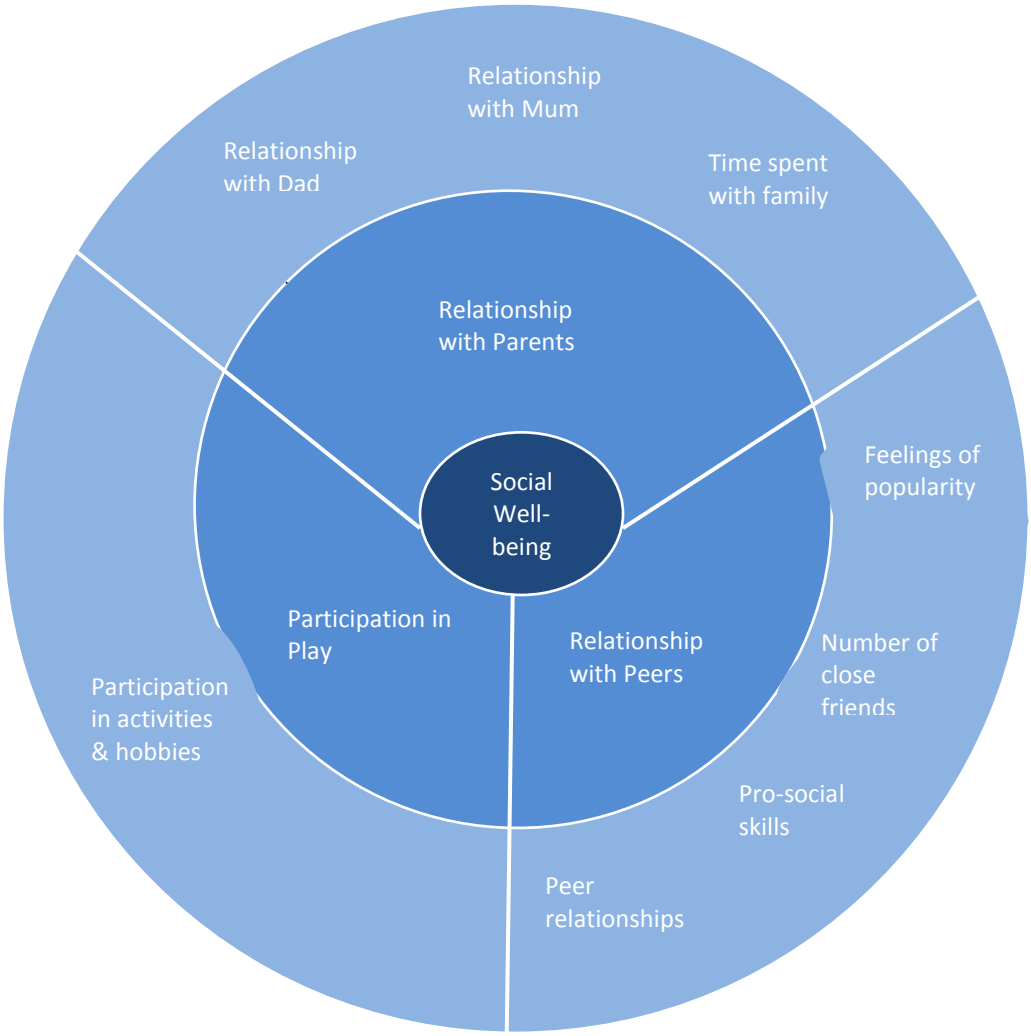
** Correlation was significant at the 0.01 level (2-tailed)

* Correlation was significant at the 0.05 level (2-tailed)

6.2.3 Social well-being

The GUI dataset was reviewed to assess whether there were data to support the identification of sub-domains and indicators compatible with the conceptualisation of social well-being as articulated in the SMCW. As can be seen in Figure 6-3, the domain of social well-being for this index was made up of three sub-domains: relationship with parents; relationship with peers; and participation in play. A total of eight indicators were selected across the three sub-domains. Three indicators were included in the sub-domain 'relationship with parents'; four indicators in the 'relationship with peers' sub-domain, and one indicator in the sub-domain of 'participation in play'. The selection and treatment of data identified in the GUI dataset to represent the indicators is discussed in turn below. Figure 6-3 visually depicts the sub-domains and indicators that represented social well-being.

Figure 6-3 Social Well-being



6.2.3.1 Relationship with parents

Three indicators were included in the sub-domain 'Relationship with Parents', these were relationship with Mum, relationship with Dad and time spent with family. Questions regarding the child's relationship with their Mum and Dad were asked directly of the children and so all responses are child-reported. The indicator time spent with family and friends was asked of the child's parent.

Children participating in GUI were asked to reflect on and rate their relationship with their mother, with the question *"How well do you get on with your Mum?"*

(Growing Up in Ireland Team, 2014: 82). This was a categorical/ordinal question with children able to choose from one of three options: 'You and your Mum do not get on', 'fairly well' and 'very well'. Three-quarters of all children reported that they got on very well with their Mum. The data were reverse coded in order to standardise the directionality of the scores so that children with a better relationship with their Mum had a higher score. Table 6-20 summarises children's responses to the relationship with Mum question.

Table 6-20 Child-reported Relationship with Mum

Category of Response	Number	Percent
You and your Mum do not get on	85	1.1
Fairly well	1,418	18.8
Very well	5,630	74.8
Total	7,133	94.7
Missing	391	5.2

While the neutral term 'secondary caregiver' is used in all GUI literature, the secondary caregiver was predominantly male, although not necessarily the child's father, as in 23.5 per cent of cases the secondary caregiver at Wave 2 was not the same person as the secondary caregiver at Wave 1. Therefore, the question posed to children in the context of their relationship with their Dad was *"How well do you get on with your Dad?"* (Growing Up in Ireland Team, 2014: 83). This was a categorical/ordinal question with children able to choose from one of three options: 'You and your Dad do not get on', 'fairly well' and 'very well'. Two-thirds of all children reported that they got on very well with their Dad. However, it should be noted that 11 per cent of responses were missing from the dataset. Less than one per cent responded '*don't know*' or refused to provide a response; and 10 per cent simply left their response blank. It is therefore not known if this 10 per cent of children left their answers blank because they do not have a relationship with their Dad due to paternal non-involvement in the child's life. The data were reverse coded in order to standardise the directionality of the scores so that children with better

relationships with their Dad's had a higher score. Table 6-21 summarises children's responses to the relationship with Dad question.

Table 6-21 Child-reported Relationship with Dad

Category of Response	Number	Percent
You and your Dad do not get on	174	2.3
Fairly well	1,596	21.2
Very well	4,946	65.7
Total	6,716	89.2
Missing	809	10.8

While the GUI dataset includes self-reported data on the how well the participating child gets on with their Mum and Dad there was still value to including at least one indicator on the time that children spend with their parents. The indicator selected for inclusion in this study was the number of times the parent and others eat together during the week with the participating child, as eating meals together is a "*ritual that strengthens family bonds and offers room for communication"* (Bradshaw *et al.*, 2007b: 157). The parent (in 97 per cent of cases the child's mother) was asked to indicate how often during the week she and others ate a meal (the type of meal was not specified) with the child; responses ranged from 'Every day/7 days per week' to 'Rarely or never'. The majority (64 per cent) of parents reported that they sat down and ate together with their child every day of the week. The data were reverse coded in order to standardise the directionality of the scores so that respondents who reported sitting down and eating together more frequently had a higher score. Table 6-22 summarises parents' responses to the question.

Table 6-22 Parent-reported Frequency of Sitting Down and Eating Together

Category of Response	Number	Percent
Rarely or never	83	1.1
1 to 2 times per month	32	0.4
1 to 2 days per week	475	6.3
3 to 6 days per week	2,107	28
Every day/7days per week	4,819	64
Total	7,516	99.8
Missing	9	0.2

6.2.3.2 Relationship with peers

Participating children's peer problems and pro-social behaviour were assessed by their primary caregiver using the SDQ. As described in section 6.2.2.1, the SDQ is a short behavioural screening questionnaire designed to assess overall behavioural and psycho-social adjustment in children aged from two years to 16 years. It is made up of five sub-scales including emotional symptoms, conduct disorder, hyperactivity, peer problems and pro-social behaviours. Two sub-scales of peer problems and pro-social behaviours were used in the calculation of the sub-domain of 'Relationship with Peers'. The SDQ total score is continuous data and ranges from 0 to 40. A lower score on the peer problems sub-scale indicates fewer peer problems, in contrast a higher score on the pro-social behaviour sub-scale indicates greater pro-social behaviours and a higher score is therefore desirable. Cut-off points have been established for each sub-scale ranging from scoring within the normal range to borderline and abnormal scores; and are based on a population-based UK survey (Goodman, 1997). For the purposes of this study, continuous data were used to calculate the index; the sub-scale continuous score for peer problems was multiplied by -1 to ensure that a higher score indicated greater well-being;. No reverse coding of the pro-social behaviour sub-scale was required. Table 6-23 shows the mean and median

scores and standard deviation for peer problems and pro-social behaviour respectively.

Table 6-23 Mean, Median and Standard Deviation for Peer Problems and Pro-social Behaviour Sub-scales: Parent-reported SDQ

	Peer Problems	Pro-Social Behaviour
Valid cases	7,524	7,524
Missing	1	1
Mean	-1.14*	8.81
Median	-1.00*	9.00
Standard deviation	1.49	1.53

* Scores were reverse coded so that higher scores indicated fewer difficulties

Analysis of the cut-off scores shows that 85 per cent of all children scored within the normal range for peer problems; that is they do not demonstrate problematic peer relationships. Almost 96 per cent of children scored within the normal range for pro-social behaviour.

As noted in previous chapters, research has indicated that the greater the number friends and the better the quality of those friendships, the greater children's social well-being (Waldrip *et al.*, 2008). The number of close friends was therefore included as an indicator of social well-being within this sub-domain. Participating children were asked to report how many close friends they had. Continuous data were returned for this question and a higher number indicated a greater number of close friends. Table 6-24 shows the mean and median scores and standard deviation for the number of close friends as reported by the child.

Table 6-24 Mean, Median and Standard Deviation for Child-reported Number of Close Friends

	Number of Close Friends
Valid cases	7,383
Missing	142
Mean	4.53
Median	4.00
Standard deviation	2.56

Analysis of the data shows that two per cent of children reported having no close friends while most children (65 per cent) reported having between two and five close friends.

The final indicator included in the sub-domain 'relationship with peers' is the child's self-rated feelings of popularity. Feelings of popularity were captured using the Piers-Harris 2 self-completion measure of self-concept. As noted in section 6.2.2.1 the questionnaire includes 60 items categorised into six domains, one of which concerns the child's feelings of popularity. This sub-scale was included as it points to how the child feels about themselves in the context of their relationships with peers. Like the question about the number of close friends, it is a child-reported measure and therefore provided balance the sub-domain's two parent-reported indicators (peer problems and pro-social behaviours). Like the SDQ, the Piers-Harris 2 scores are continuous, however, unlike the SDQ the Piers-Harris 2 is scored so that a higher score indicates higher and more positive assessment of self-concept. Table 6-25 shows the mean and median scores and standard deviation for the feelings of popularity sub-scale.

Table 6-25 Mean, Median and Standard Deviation for Feelings of Popularity Sub-scale: Child-reported Piers-Harris 2

	Feelings of Popularity
Valid cases	7,377
Missing	148
Mean	9.7359
Median	10.0000
Standard deviation	2.18361

There are established cut-off scores to indicate problematic levels of self-concept. More than 65 per cent of children scored in the average or above average range on this assessment.

6.2.3.3 Participation in play

The GUI dataset was reviewed to assess whether data for participation in hobbies, games or other organised activities could be computed to provide an indicator for participation in play in the index. The GUI questionnaire includes a series of questions, asked directly to children, about their involvement in a range of extra-curricular, organised and non-organised activities; these questions included:

- 'How often do you play sports or undertake physical activities without a coach or instructor?'
- 'How often do you play sports with a coach or instructor, or as part of an organised team?'
- 'How often do you take part in dance, drama or music lessons?'
- 'How often do you take part in clubs, or groups such as Guides or Scouts, youth club or community?' (Growing Up in Ireland Team, 2014: 68)

Responses to this series of questions were categorical, ranging from 'Never', 'Less than once a week', 'one-three times per week' to 'four or more times per

week'. In order to derive a single indicator for participation in hobbies, sports and other activities, responses to these questions were re-coded so that 'Never' responses were coded to one and all other responses were coded to two. A new variable was computed for participation in hobbies summing the responses to each of the four re-coded questions. Computation of the data showed that just less than five per cent of children did not take part in any of the group hobbies, sports or activities listed in the questionnaire; and nearly 10 per cent took part in all four of the activities and hobbies listed. The average number of hobbies and activities that children were reportedly involved in was 2.21. Table 6-26 summarises the number and percentage of children involved in these activities.

Table 6-26 Child-reported Involvement in Group Hobbies, Sports and Other Activities

Category of Response	Number	Percent
Not involved in any group hobbies or activities	355	4.7
Involved in at least one group hobby or activity	1,271	16.9
Involved in at least two group hobbies or activities	2,913	38.7
Involved in at least three group hobbies or activities	2,130	28.3
Involved in all four types of group hobbies or activities	713	9.5
Total	7,382	98.1
Missing	143	1.9

6.2.3.4 Validating the social well-being domain

In summary, the domain of social well-being was made up of three sub-domains and these sub-domains were in turn populated by three, four and one indicator respectively. The indicators were a mix of ordinal data, for example, relationship with Mum, relationship with Dad, number of times per week the family eats together, and the level of participation in hobbies and sports; and continuous data, for example, peer problem scores, pro-social scores, feelings of popularity, and number of close friends.

Table 6-27 shows the correlations between indicators in specific sub-domains and the level of correlation more generally across all the indicators included in the domain. Given the non-normal distribution and mix of ordinal and interval data Spearman's rho was used to assess whether the indicators were significantly correlated. All three indicators in the 'Relationship with Parents' sub-domain were positively and significantly correlated with each other at significance level of 0.01. The scalability of the items included in the domain was assessed using Cronbach's alpha.

The indicators included in the sub-domain 'Relationship with Peers' showed greater variation in terms of relationships, as not all of the indicators in the sub-domain were significantly correlated. Interestingly, whilst pro-social behaviour, as reported by the parent was not significantly correlated with the number of close friends that the child reported having (r_s = -0.005, p=*ns)*, the indicator number of close of friends was significantly correlated to the other indicators within that sub-domain. The Cronbach alpha reliability coefficient was low at 0.497, reflecting the presence of non-correlated items in the domain. Removal of the indicator 'sitting down and eating together as a family' improved the reliability coefficient somewhat to $\alpha = 0.517$. However, given that the selection of indicators was directly informed by the SMCW conceptualisation of this domain, all indicators were retained; a practice used elsewhere in the literature (see, for example, Bradshaw *et al*., 2007b).

Table 6-27 Spearman rho (r_s) Correlations between Indicators used in the Social Well-being Domain of the Index

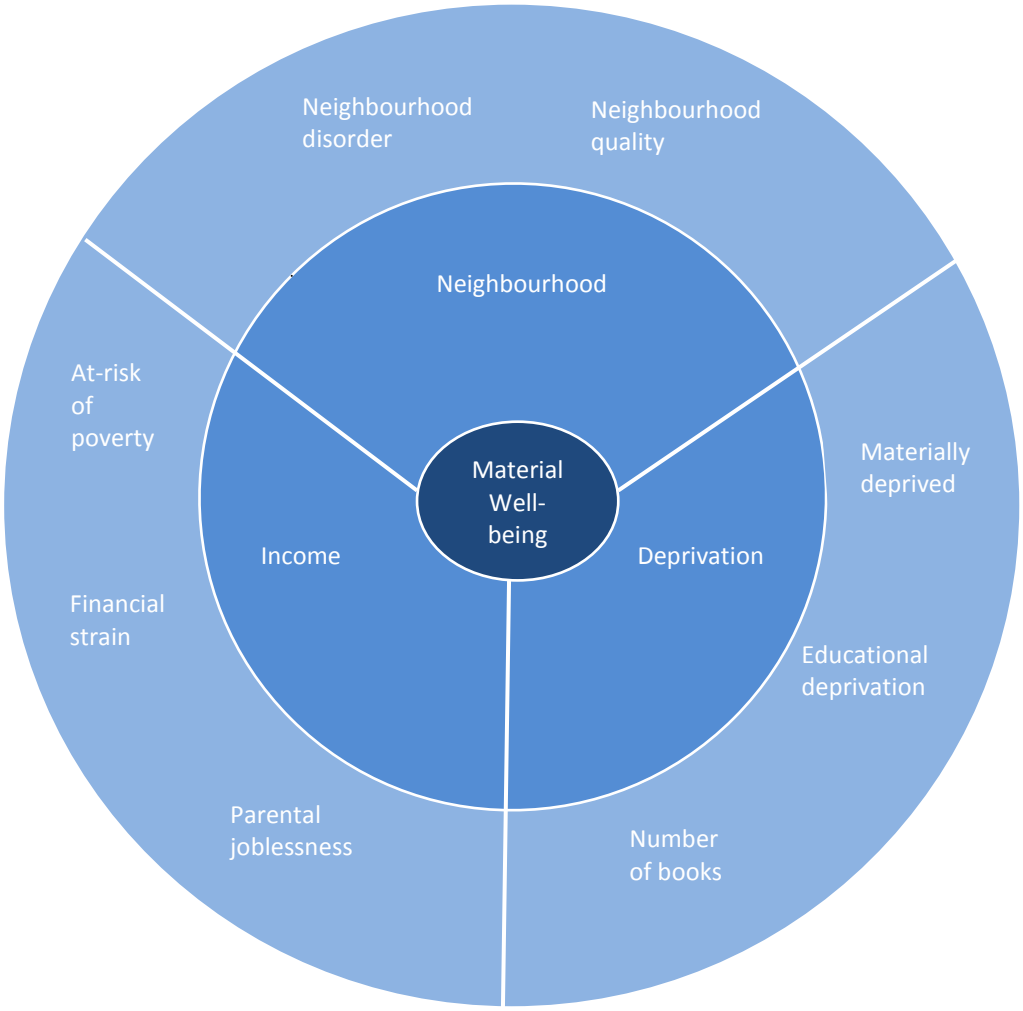
		1	2	3	4	5	6	7	8
1	Relationship with your Mum								
2	Relationship with your Dad	0.359**							
3	Sitting down and eating together	0.069**	0.051**						
4	Peer problem sub-scale score	0.061**	0.095**	0.015					
5	Pro-social sub-scale score	0.180**	0.106**	0.111**	0.155**				
6	Number of close friends	0.046**	0.092**	-0.005	0.190**	-0.005			
7	Piers Harris 2 feelings of popularity sub-scale score	0.136**	0.182**	0.006	0.278**	0.036**	0.266**		
8	Participation in hobbies and activities	0.070**	0.068**	0.021	0.112**	0.074**	0.078**	0.113**	

** Correlation was significant at the 0.01 level (2-tailed)

6.2.4 Material well-being

The GUI dataset was reviewed to assess the availability of data to adequately represent the conceptualisation of material well-being as articulated in the SMCW. As can be seen in Figure 6-4, the domain of material well-being for this index was made up of three sub-domains: income; deprivation; and neighbourhood. A total of eight indicators were selected across the three sub-domains. Three indicators were included in the sub-domain of income; three in the deprivation sub-domain, and two indicators in the sub-domain of neighbourhood. The selection and treatment of data identified in the GUI dataset to represent the different indicators is discussed in turn below. Figure 6-4 visually depicts the sub-domains and indicators that represented material well-being in this index.

Figure 6-4 Material Well-being



6.2.4.1 Income

Three indicators were included in the sub-domain income: children at-risk of poverty, parental joblessness and financial strain. An indicator for parental joblessness is not directly available from GUI; instead a new indicator was computed on the basis of data already available. The process of computing this indicator is discussed below. Meanwhile, the indicator for at-risk of poverty and the issue of financial strain are dealt with directly in GUI with parents asked to provide information on income levels and to rate their level of difficulty in 'making ends meet' respectively.

The number of children at-risk of poverty was based on assessing the number of children living in households where equivalised income is 60 per cent of median national income. With regard to household income for GUI respondents, parents were asked to indicate their household's net income after deductions of tax and pay related social insurance (PRSI). Respondents were asked to give an exact figure amount and if unable to give an exact amount were asked to indicate their income range in terms of weekly, monthly or annual income estimates. The bands provided ranged from under €230 to €1,851 or more per week, under €1,000 to €8,001 or more per month and under €12,000 to €96,001 or more annually. Once the band was selected, the respondent was then asked to consider more precisely how much their household's net income was, based on their previous response. Based on the responses to the income questions, the equivalised income for the household in which the participating child resided was calculated by the GUI team.

Income levels by themselves do not facilitate comparison of income across households due to variations in household structure and size. Equivalising income takes these differences into account. An equivalence scale was used to assign a weight to each household member; a weight of one was assigned to the first adult in the household, a weight of 0.66 for each other adult in the household (defined as any household member aged 14 years or more) and a weight of 0.33 for each child in the household (aged less than 14 years). The sum of the weights in each household yields the household's equivalised income. Household equivalised income is calculated as disposable household income divided by equivalised household size (Quail *et al.*, 2014b). Mean equivalised income was €15,974.20; median equivalised income was €14,000 with a standard deviation of €9,098.11. Table 6-28 illustrates the mean, median and standard deviation for equivalised income.

Table 6-28 Mean, Median and Standard Deviation for Equivalised Income Based on Parent Reports

	Equivalised Income
Valid cases	6,945
Missing	580
Mean	€15,974.20
Median	€14,000.00
Std. Deviation	€9,098.11

This analysis of equivalised income for participants in GUI showed that the average equivalised income is approximately 10 per cent lower than the median equivalised income identified in SILC (Central Statistics Office, 2014). In 2012 median income was €17,702, average income was €20,856 and the at-risk of poverty threshold income amount was €10,621 (*ibid*). The number of children at-risk of poverty is defined as 60 per cent of median equivalised income for the population. While the median equivalised income for GUI participants is €14,000 and 60 per cent of the median is €8,400; the cut-off point used to identify GUI children at-risk of poverty is the national median income poverty threshold of approximately €10,621. Continuous income data was used in the calculation of this study's index; however, analysis of the cut-off points shows that 28 per cent of children were living in households with an equivalised income of €10,000 or less. Table 6-29 summarises the findings with regard to relative poverty.

Table 6-29 Children Living in Households with Equivalised Household Income Below 60 Per cent of Median

Category of Response	Number	Percent
Experiencing relative poverty	2,143	28.4
Not experiencing poverty	4,802	63.8
Total	6,945	92.2
Missing	580	7.8

The 28 per cent of GUI children living in households experiencing relative poverty is higher than the 18 per cent relative poverty rate for the 0-17 year age group found in the 2013 EU-SILC (Central Statistics Office, 2013b). The difference in the median equivalised income between the GUI sample and the national population likely accounts for this difference. However, the figure of 28 per cent of children in the GUI sample at-risk of poverty reflects the finding from a recent UNICEF report which also identifies that a little over 28 per cent of children in Ireland are at-risk of poverty (UNICEF Office of Research, 2014).

The indicator 'parental joblessness' is not included *per se* in the GUI dataset. A new variable for parental joblessness was computed by combining the work situation for the child's primary and secondary caregiver. Data on parental work situation is collected in a household grid format at the front of the GUI questionnaire. The first step in computing this new variable was to split the file by household type to ensure that account was taken for children living in lone parent households and those living in two-parent households. The employment question for the primary caregiver in lone parent households was re-coded into a dichotomous variable for the mother's work situation, where responses for at school/education and at work or in training were given a value of one, and unemployed, retired or home duties were given a value of zero to denote joblessness. The same process was repeated for the primary and secondary

caregivers of children in two-parent households, thus creating an additional two new variables. The responses to the three new re-coded variables were summed so as to identify the number of children living in households where no parent was working, where one parent and where two parents were working. As can be seen from Table 6-30, approximately 15 per cent of all children lived in a household where no parent worked. More than one-third of children living in a household headed by a lone parent had a jobless parent; and 10 per cent of children were living in two-parent households where both parents were jobless. Table 6-30 shows the number of children living in households with parental joblessness by the type household.

Table 6-30 Number of Children Living in Parental Jobless Households by their Type of Household

	Lone Parent Households (per cent)	Two-parent Households (per cent)	All Households (per cent)
Jobless parent(s)	524 (36)	607 (10)	1,131 (15)
One parent working	926 (64)	2,369 (39)	3,295 (44)
Two parents working	0	3,099 (51)	3,099 (41)
Total	1,450 (100)	6,075 (100)	7,525(100)

The issue of financial strain is dealt with directly in GUI. Parents were asked to consider the degree to which they experienced difficulty in making ends meet on the basis of their weekly or monthly income. This question goes to income adequacy to meet household needs and was therefore considered to be a good fit with the sub-domain income. The majority (52 per cent) reported that their family/household experienced either some difficulty or great difficulty in making ends meet from their available weekly or monthly income. Table 6-31 shows the number of children for whom their parents reported that they were experiencing financial strain.

Table 6-31 Parent-reported Financial Strain

Category of Response	Number	Percent
With great difficulty	717	9.5
With difficulty	1021	13.6
With some difficulty	2838	37.7
Fairly easily	2023	26.9
Easily	669	8.9
Very easily	250	3.3
Total	7518	99.9
Missing	15	0.1

6.2.4.2 Deprivation

In GUI, parents were asked to indicate whether or not the household had or was able to purchase the range of items included in the basic deprivation list. Respondents were able to answer 'Yes', 'No, cannot afford' or 'No, other reason'. For the purposes of constructing this index these responses were converted into a dichotomous variable with 'Yes, or no, other reason' coded to 0 and 'No, cannot afford' coded to 1. A new variable was then computed which summed the responses to each of the individual items. The scores were then reverse coded so that a higher score indicted greater well-being; these continuous data was used in the calculation of this index. Table 6-32 shows the number of children living in households experiencing basic deprivation.

Table 6-32 Parent-reported Children Living in Households Experiencing Basic Deprivation

Deprivation	Number	Percent
Unable to afford 8 items	8	0.1
Unable to afford 7 items	10	0.1
Unable to afford 6 items	37	0.5
Unable to afford 5 items	62	0.8
Unable to afford 4 items	112	1.5
Unable to afford 3 items	244	3.2
Unable to afford 2 items	699	9.3
Unable to afford 1 item	4,620	61.4
Able to afford all items	1,720	22.9
Total	7,513	99.8
Missing	12	0.2

The cut-off point for experiencing basic deprivation is the inability to afford two or more items and on this basis 15.5 per cent of children were experiencing basic deprivation. It is, however, interesting to note that just over a fifth of children (23 per cent) lived in households able to afford all items from the basic deprivation list; 61 per cent of children lived in households unable to afford one item from the basic deprivation list.

This index included an indicator for educational deprivation; however, GUI did not ask either parents or children about educational deprivation directly. Only three questions, comparable to the items used in other index construction studies, and described in Chapter Five, were included in the GUI questionnaire. These were ownership of computer, an internet connection and having somewhere quiet to study. The question relating to having a place for study was included in the child-specific deprivation list and is therefore not available in the AMF. Therefore, the indicator for educational deprivation used in the construction of this index includes ownership of a computer and access to the internet. While this was a partial version of the indicator used in the studies

mentioned in Chapter Five, it provided a sense, albeit, more limited, of children's circumstances in this regard. In order to calculate educational deprivation, the questions regarding computer ownership and internet access at home were re-coded so that a 'no' response was given a value of zero and a 'yes' response was give a value of one. A new variable was computed summing the responses to these questions. Just a little of over one per cent of children had neither a computer nor the internet at home; Table 6-33 shows the number of children with a computer and the internet at home.

Table 6-33 Parent-reported Computer Ownership and Internet Access in the Home

Category of Response	Number	Percent
Neither computer nor internet	108	1.4
Computer or Internet, not both	206	2.7
Both computer and internet at home	7,108	94.5
Total	7,422	98.6
Missing	103	1.4

The parent was asked to indicate from a range of responses the number of the books the child had in their home. Analysis of GUI data shows that 19 per cent of children have 10 or fewer books; Table 6-34 shows the responses to the question on the number of books in the home.

Table 6-34 Parent-reported Number of Books Belonging to the Child

Category of Response	Number	Percent
10 or less books	1,422	18.9
11-30 books	1,855	24.6
31-50 books	1,293	17.2
51-100 books	1,315	17.5
More than 100 books	1,637	21.8
Total	7,522	100.0
Missing	3	0.0

6.2.4.3 Neighbourhood

The sub-domain neighbourhood was made up of two indicators, neighbourhood disorder/disorganisation and neighbourhood quality. Parent respondents in GUI were asked to indicate how common certain social disorganisation/disorder characteristics were in their neighbourhood. Parents were also asked to indicate how strongly they agreed or disagreed with a series of statements concerning the quality of their neighbourhood.

Four items relating to issues of neighbourhood disorganisation or disorder, as defined above were included in GUI; how common were:

- Rubbish and litter
- Homes and gardens in bad condition
- Vandalism and deliberate damage to property
- People being drunk or taking drugs in public

Respondents were asked to indicate on a scale from 'not at all common' to 'very common' if each of these issues were present in their neighbourhood. Rubbish and litter lying about the neighbourhood was the most commonly reported problem by parents, with a little over 26 per cent reporting that it was very common or fairly common in their neighbourhood. In contrast 12.6 per cent reported that public drunkenness and drug taking were very common or fairly common in their neighbourhood. Approximately 11 per cent reported that vandalism and deliberate property damage were very common or common, and 9.2 per cent reported that poorly maintained homes and gardens were very common or fairly common in their neighbourhood.

For the purpose of building the index a new indicator called 'Neighbourhood disorder' was computed which summed the responses from each of the four

variables. The resultant scores ranged from a minimum value of four which indicated that all four social disorder characteristics were very common in the respondents' neighbourhood to a maximum of 16 which indicated that all four social disorder characteristics were not at all common to their neighbourhood. The mean score was 13.10. Table 6-35 summarises the mean, median, standard deviation and minimum and maximum scores for the newly computed indicator 'Neighbourhood Disorder'.

Table 6-35 Mean, Median, Standard Deviation and Minimum and Maximum Scores for Neighbourhood Disorder

	Neighbourhood Disorder
Valid cases	7,514
Missing	11
Mean	13.11
Median	13.00
Std. Deviation	2.72
Minimum	4.00
Maximum	16.00

Six statements relating to issues of neighbourhood quality were put to respondents who were asked to indicate from a range the degree to which they agreed or disagreed with a series of statements. The following neighbourhood quality issues were explored:

- Safety of the neighbourhood for children
- Safety of the neighbourhood for adults
- If the family was happy living in the area
- If the family intended to remain living in the area
- If teenagers had places to 'hang-out' in
- If there were sufficient facilities in the area such as youth clubs, swimming clubs, sports clubs for teenagers

The statements for which there was most disagreement concerned the availability of facilities and amenities for teenagers; nine per cent of parent respondents strongly disagreed that there were sufficient facilities in their area for teenagers and 11 per cent strongly disagreed that there were safe places for teenagers to hang-out. In contrast, just 2.5 per cent of parents reported that they strongly disagreed with the statement 'This is a safe area for my 13-year old'. Approximately 63 per cent of parents strongly agreed that their family was happy living the area and 62.4 per cent strongly agreed that their family intended to remain living in the area. Approximately 49 per cent of parents strongly agreed that the neighbourhood was a safe place for their 13-year old but only 27.4 per cent strongly agreed that it was safe for an adult to walk alone in the area at night.

For the purpose of building the index a new indicator called 'Neighbourhood quality' was computed which summed the responses from each of the six data. The resultant scores ranged from a minimum value of six which indicated that respondents strongly disagreed that all six neighbourhood quality variables were characteristic of their neighbourhood to a maximum of 24 which indicated that respondents strongly agreed that all six neighbourhood quality variables were characteristic of their area. Table 6-36 summarises the mean, median, standard deviation and minimum and maximum scores for the newly computed indicator 'Neighbourhood Quality'.

Table 6-36 Mean, Median, Standard Deviation and Minimum and Maximum Scores for Neighbourhood Quality

	Neighbourhood Quality
Valid cases	7,421
Missing	104
Mean	19.27
Median	19.00

	Neighbourhood Quality
Std. Deviation	3.10
Minimum	6.00
Maximum	24.00

6.2.4.4 Validating the material well-being domain

The domain of material well-being was made up of three sub-domains, which in turn were made up of eight indicators. Table 6-37 shows the correlations between indicators in specific sub-domains and the levels of correlation more generally across all the indicators used to populate the domain. Given the non-normal distribution and ordinal nature of the variables, Spearman's rho was used to assess whether the indicators were significantly correlated and the scalability of the indicators included in the domain was assessed using Cronbach's alpha (α). Table 6-37 shows that there were significant correlations between the different indicators used to populate the material well-being domain, albeit that the correlation coefficients were small (Cohen, 1992).

The three indicators that made up the sub-domain 'Income' were all correlated with each other at a significance level of 0.01. The three indicators making up the sub-domain deprivation were also all statistically significantly correlated with each other at $p<0.01$, albeit with small correlations (Cohen, 1992). The indicators included in the sub-domain of neighbourhood quality were also significantly correlated with each other, at a significance level of 0.01. The scalability of the items included in the domain material well-being was assessed using Cronbach's alpha yielding a reliability coefficient of 0.593. Removing the indicator 'educational deprivation' increased the size of alpha to 0.601.

Table 6-37 Spearman's rho (r_s) Correlations between Indicators used in the Material Well-being Domain of the Index

		1	2	3	4	5	6	7	8
1	Relative poverty								
2	Parental joblessness	0.470**							
3	Financial strain	0.460**	0.339**						
4	Deprivation	0.039**	0.096**	0.159**					
5	Educational deprivation	0.094**	0.132**	0.126**	0.054**				
6	Number of books	0.224**	0.151**	0.128**	-0.026**	0.101**			
7	Neighbourhood quality	0.113**	0.140**	0.149**	0.094**	0.034**	0.063**		
8	Neighbourhood disorder	0.084**	0.082**	0.114**	0.031**	0.002	0.013	0.237**	

** Correlation is significant at the 0.01 level (2-tailed)

6.3 Calculating Sub-domain and Domain Scores

As described above, the data selected for inclusion in the index were standardised for directionality such that higher scores represented greater well-being; basic descriptive statistics were generated for each indicator included in the index; and the relationships between the indicators within a sub-domain and across the relevant domain were assessed for redundancy. Scores for each indicator in all the sub-domains were then standardised to generate a *z*-score in order that all scores had a mean of zero (0) and a standard deviation of one. The level of missing data across the various indicators was assessed. As described in Chapter Four, where data were missing, the resulting mean scores were skewed, as fewer scores were used to create the mean score and the standard deviation was larger. To correct for the level of 'missingness' for each sub-domain and domain and following methods used by Sanson *et al*. (2005) and Cheevers and O'Connell (2013), new variables were calculated to reflect the level of 'missingness' for each group of data. These new variables were used as grouping variables to split the file by the level of 'missingness' for each sub-domain and domain. A standard deviation score was then calculated for each level of 'missingness' which was used to divide the sub-domain and/or domain scores. Once the new mean scores were calculated according to the level of 'missingness', the scores were averaged to establish the new un-standardised sub-domain score taking account of 'missingness'. Further to this step, each sub-domain score was re-standardised to have a mean of zero and a standard deviation of one. (Details of the levels of 'missingness' for each indicator in each sub-domain are included Appendix 4).

Once the level of 'missingness' for each indicator was taken account of, the standardised scores for each indicator in each sub-domain were averaged, using

the compute function in SPSS V20, to establish the mean score for the relevant sub-domain:

$$\text{Sub-domain score} = \text{Mean } (z\text{Var}_1, z\text{Var}_2, ...z\text{Var}_n)$$

The level of 'missingness' in each sub-domain was assessed and the same procedure as used to account for 'missingness' at the indicator level was also used to account for 'missingness' at the sub-domain level. The sub-domains scores were standardised and averaged, using the compute function in SPSS V20, to create domain *z*-scores.

$$\text{Domain score} = \text{Mean } (z\text{Subdomain}_1, z\text{Subdomain}_2, ...z\text{Subdomain}_n)$$

The overall well-being score was created, using the compute function in SPSS V20, by averaging the domain-level *z*-scores.

$$\text{Overall wellbeing score} = \text{Mean } (z\text{domain}_1, z\text{domain}_2, z\text{domain}_3, z\text{domain}_4)$$

In order to improve the interpretability of the final index all the domain *z*-scores and the overall well-being score were standardised again to have a mean of 100 and standard deviation of 10. The compute function in SPSS V20 was used to create the new standardised mean and standard deviation:

$$\text{Domain}_1100 = 100 + (10*\text{domain}_1)$$

The above computation was repeated for each domain and for the overall well-being index score.

6.4 Sensitivity Analysis and Validation of the Index

The structure and sensitivity of the index and the relationships between domains was explored using Pearson's product-moment correlation. As Table 6-38 demonstrates, all of the domains of well-being were correlated with each other. Physical well-being was positively correlated with mental well-being (r = 0.367, p =0.01); with social well-being (r = 0.264, p=0.01); and with material well-being (r= 0.218, p=0.01). A statistically significant relationship was also observed between mental and social well-being (r = 0.489, p=0.01); and between mental and material well-being (r = 0.311, p=0.01). The positive relationship between individual domains, as indicated by the positive values of the correlations, suggests that as well-being increases in one domain, well-being in the other domains also increases. Finally, a statistically significant, albeit weaker, positive relationship was also observed between social and material well-being (r = 0.164, p=0.01). As can be seen from Table 6-38 the sizes of the correlations between domains were small to medium (Cohen, 1992); supporting the idea that the domains were conceptually distinct (Moore *et al*., 2012).

Table 6-38 Pearson Product-Moment Correlations between Well-being Domains

	Well-being Domain	1	2	3	4
1	Physical well-being domain				
2	Mental wellbeing domain	0.367**			
3	Social well-being domain	0.264**	0.489**		
4	Material well-being domain	0.218**	0.311**	0.164**	

** Correlation was significant at the 0.01 level (2-tailed)

Furthermore, the relationship between the individual domains of well-being and overall well-being was also tested. Table 6-39 demonstrates the

correlations between the individual domains and overall well-being. All well-being domains were statistically significantly correlated with overall well-being, mental well-being showed the strongest association (r = 0.785, p=0.01). Material well-being, while having the least strong association with overall well-being, was statistically significantly associated with it nonetheless (r = 0.613, p=0.01) and the correlation coefficient was large (Cohen, 1992). The positive relationship between individual domains and overall well-being, as indicated by positive values of the correlations, suggest that as well-being increases in one domain, overall well-being also increases.

Table 6-39 Pearson Product-Moment Correlations between Domains of Well-being and Overall Child Well-being

Domain of Well-being	Correlation to Overall Well-being
Physical well-being	0.670**
Mental well-being	0.785**
Social well-being	0.694**
Material well-being	0.613**

** Correlation was significant at the 0.01 level (2-tailed)

As noted by Richardson *et al*. (2008), subjective well-being (SWB) is often considered the ultimate indicator for well-being more generally, as it relates to how the individual rates their own assessment of well-being, rather than objective indicators which may or may not relate to the individual's own perspective. As a method of assessing the 'external validity' of indices, authors such as Richardson *et al*. (2008) and Land *et al*. (2007) constructed indices using objective indicators and then used subjective well-being indicators to assess for any differences in the resultant indices and the correlations between domains. In this index, the sub-domain 'life satisfaction' in the mental well-being domain, which included two indicators: happiness and enjoyment of school, aligns closely to what is typically understood as SWB. Table 6-40 shows the correlations between the individual domains and the overall well-being index

excluding the sub-domain 'life satisfaction'. The mental well-being domain was still correlated with physical well-being (r = 0.385, p=0.01), social well-being (r = 0.438, p=0.01) and material well-being (r = 0.335, p= 0.01) and was still strongly correlated to overall well-being, although the correlation coefficient is slightly smaller (r = 0.764, p = 0.01).

Table 6-40 Pearson Product-Moment Correlations between Domains of Well-being and Overall Child Well-being, excluding the Sub-domain 'Life Satisfaction'

	Domain of Well-being	1	2	3	4	5
1	Physical well-being					
2	Mental well-being	0.385**				
3	Social well-being	0.264**	0.438**			
4	Material well-being	0.218**	0.335**	0.164**		
5	Overall well-being	0.670**	0.764**	0.694**	0.613**	

** Correlation was significant at the 0.01 level (2-tailed)

Following Richardson *et al*. (2008), the sensitivity of the index was also assessed by running the analysis with only the life satisfaction sub-domain; that is correlations between well-being domains and overall well-being were assessed against life satisfaction only. Life satisfaction was only weakly associated with physical well-being (r = 0.174, p=0.01) and material well-being (r = 0.128, p=0.01). The sub-domain 'life satisfaction' was made up of two indicators, happiness and enjoyment of school; the analysis was repeated with only the indicator happiness. Happiness was only weakly associated with physical well-being (r = 0.128, p=0.01) and material well-being (r = 0.059, p=0.01). Table 6-41 shows the correlations between life satisfaction and the domains of well-being and overall well-being; and between happiness and the individual domains and overall well-being.

Table 6-41 Pearson Product-Moment Correlations between Life Satisfaction, Happiness and Domains of Well-being and Overall Child Well-being

Domain	Correlation Coefficient with Life Satisfaction**	Correlation Coefficient with Happiness**
Physical well-being	0.174	0.128
Mental well-being	0.444	0.380
Social well-being	0.407	0.315
Material well-being	0.128	0.059
Overall well-being	0.510	0.418

** All correlations were significant at p= 0.01

The above analysis shows that while the sub-domain 'life satisfaction' and the indicator 'happiness' contributed to the individual domain of mental well-being and were associated with overall child well-being, they did not unduly drive the final structure of the index. However, it is important to note that unlike Richardson *et al*. (2008) and Land *et al*. (2007), this study's index included a range of indicators that could be considered more subjective. For example, indicators for parental assessment of the child's quality of health, parental assessment of the financial strain experienced by the household and child-reported assessments of relationships, popularity, and mental health were all included and could be considered as less than objective indicators.

While this study's index contained close to the average number of indicators (35 compared to 33) found from my review of 13 indices (reported in Chapter Five and summarised in Appendix 6), analysis was conducted to assess whether an index could be constructed using fewer indicators. Correlations between individual indicators and overall child well-being were assessed and 13 indicators were identified with correlation coefficients close to or greater than

0.4[38]. The domains of mental well-being and social well-being were over-represented with nine out of the 13 indicators from these two domains; only one indicator from the physical well-being domain and three from material well-being were selected on the basis of this cut-off point. Table 6-42 shows the single indicators with the strongest correlations to overall well-being. The indicators emotional problems, intellectual score and at-risk of poverty demonstrated the largest correlations between single indicators and overall well-being. The remaining 10 indicators included four from the mental well-being domain: conduct disorder, hyperactivity, freedom from anxiety and low mood/depression. The indicators peer problems, popularity, and happiness were located in the social well-being domain. While the final two indicators identified were basic deprivation and financial strain from the material well-being domain.

Table 6-42 Pearson Product-Moment Correlations Greater than 0.4 between Single Indicators and Overall Child Well-being

Indicator	Correlation Coefficient with Overall Well-being**
Emotional problems	0.542
Intellectual score	0.501
At-risk of poverty	0.472
Peer problems	0.469
Conduct disorder	0.459
Hyperactivity	0.459
Freedom from anxiety	0.449
Popularity	0.445
Low mood/depression	0.440
Happiness	0.419
Absence of disability	0.418
Basic deprivation	0.406
Financial strain	0.394

** All correlations were significant at p=0.01

[38] Cohen (1992) suggests that values of between 0.3 and 0.5 are considered 'medium'.

Given that the above analysis yielded a set of indicators that were heavily weighted towards the mental and social well-being domains, further analysis was conducted to assess which single indicator from each domain might best represent the domain and therefore overall child well-being. In the physical well-being domain, the quality of the child's health was found to be most strongly correlated (r = 0.655, p=0.01). The child's self-rated intellectual score was found to have the strongest correlation with mental well-being (r = 0.677, p=0.01). Taking part in hobbies was strongly correlated to social well-being (r=0.632, p=0.01) and at-risk of poverty was the most strongly correlated individual indicator for the material well-being domain (r = 0.742, p=0.01). A positive relationship exists between the individual indicators and their corresponding domain, as indicated by positive values of the correlations. This suggests, for example, that as the quality of the child's health improves, so too does their physical well-being; as their perception of their own cognitive ability increases, so too does their mental well-being; as they participate more in hobbies and activities with their friends, their social well-being increases; and as household income increases, children's material well-being also increases. Table 6-43 shows the correlation coefficients for each of the indicators in the four domains of well-being.

Table 6-43 Single Indicators that Best Represent Individual Domains of Well-being

Domain	Indicator	Correlation with Domain**
Physical well-being	Quality of child's health	0.655
Mental well-being	Intellectual score	0.677
Social well-being	Taking part in hobbies	0.632
Material well-being	Income (at-risk of poverty)	0.742

** All correlations were significant at p=0.01, using Pearson product-moment correlations

The scalability of the index was assessed using Cronbach's alpha, a method used elsewhere in the literature (Martorano et al., 2014; Main and Bradshaw, 2012). Alpha was 0.634, slightly below the recommended threshold of 0.70 (Nunally and Bernstein, 1994). However, none of the domains were excluded from the final index for three reasons. First, their selection was informed by the conceptualisation of domains of well-being as articulated in the SMCW; physical, mental, social and material well-being are all understood to be underpin overall child well-being in the SMCW. Second, and as can be seen from the Table 6-44 the coefficient was only marginally improved by dropping the material well-being domain (the reliability coefficient increased to 0.641). On balance it was considered that the integrity of the conceptualisation of the well-being as articulated in the SMCW would be undermined if the domain was excluded. Third, as alpha is affected by the length of the scale, that is the shorter the scale, the greater the potential for alpha to be reduced (Tavakol and Dennick, 2011), and since this index was made up of only four items it was considered that an alpha of greater than 0.6 acceptable under the circumstances.

Table 6-44 Scalability of the Well-being Index for Children Living in Ireland

Domain	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Physical well-being	0.0000	4.928	0.382	0.156	0.587
Mental well-being	0.0001	4.293	0.563	0.337	0.452
Social well-being	0.0001	4.791	0.410	0.248	0.561
Material well-being	0.0001	5.239	0.297	0.106	0.641

Finally, and following validation procedures used elsewhere (see Cheevers and O'Connell, 2013), a forced one-factor Principal Components Analysis (PCA) was conducted to assess whether the four domains loaded adequately onto a single factor. The PCA also demonstrated the extent to which the domains explained the variance in the underlying factor (overall well-being). Table 6-45 shows the component matrix of the forced one-factor PCA. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.66, which is above the recommended value of 0.6; and the communalities were all greater than 0.3. Moreover, all the factor loadings were acceptable and the four variables explained 48 per cent of the variance, not dissimilar to findings elsewhere (see, for example, Cheevers and O'Connell, 2013).

Table 6-45 Component Matrix of Forced 1-Factor Principal Component Analysis

Domain	Component Matrix
Physical well-being	0.658
Mental well-being	0.822
Social well-being	0.717
Material well-being	0.555

6.5 Exploring the Index of Well-being

As noted above, the final domain scores and the overall well-being score were standardised to have a mean of 100 and a standard deviation of 10; this was done to aid in the interpretation and presentation of data regarding well-being emerging from the construction of the index. The following sections present the findings about children's well-being by individual domain and by overall well-being. The differences between well-being scores across domains and for total well-being for different children were explored in two ways. Firstly, by analysing and exploring continuous mean scores across different groups of children. Secondly, by analysing and exploring categorical scores by applying cut-off points to the top and bottom of the score distribution.

6.5.1 Continuous domain and overall mean scores for well-being

Descriptive statistics for each of the well-being domains showed that while the mean was 100 for each domain, the individual scores ranged from as little as 33.67 in the physical well-being domain to as high as 123.94 in the material well-being domain. The median score for physical well-being was slightly above the mean, at 102.67; while the median score for mental well-being was 101.93; the median score for social well-being was 101.16; and the median score for material well-being was 101.64. Finally, the median score for overall well-being was slightly above the mean at 101.60. The physical well-being domain showed the greatest spread of scores with 33.67 as the lowest physical well-being score recorded and 114.45 as the highest. Scores for overall well-being ranged from a minimum of 48.38 to a maximum of 124.80. Table 6-46 presents descriptive statistics for each of the well-being domains, as well as the overall well-being score.

Table 6-46 Descriptive Statistics for Domains of Well-being and Overall Well-being

	Physical well-being	Mental well-being	Social well-being	Material well-being	Overall child well-being score
Number cases	7,525	7,525	7,525	7,525	7,525
Missing cases	0	0	0	0	0
Mean	100.00	100.00	100.00	100.00	100.00
Median	102.67	101.94	101.16	101.64	101.60
Std. Deviation	10.00	10.00	10.00	10.00	10.00
Minimum	33.67	54.80	48.44	45.78	48.38
Maximum	114.45	118.70	123.06	125.37	124.80

The mean scores for each domain for different groups of children were explored to identify what, if any, differences existed in children's well-being

based on their different characteristics. Domain scores and overall well-being mean scores were explored by the following:

- Gender
- Household type
- Whether children's parents were Irish-born
- Maternal education
- School status, for example, DEIS or non-DEIS

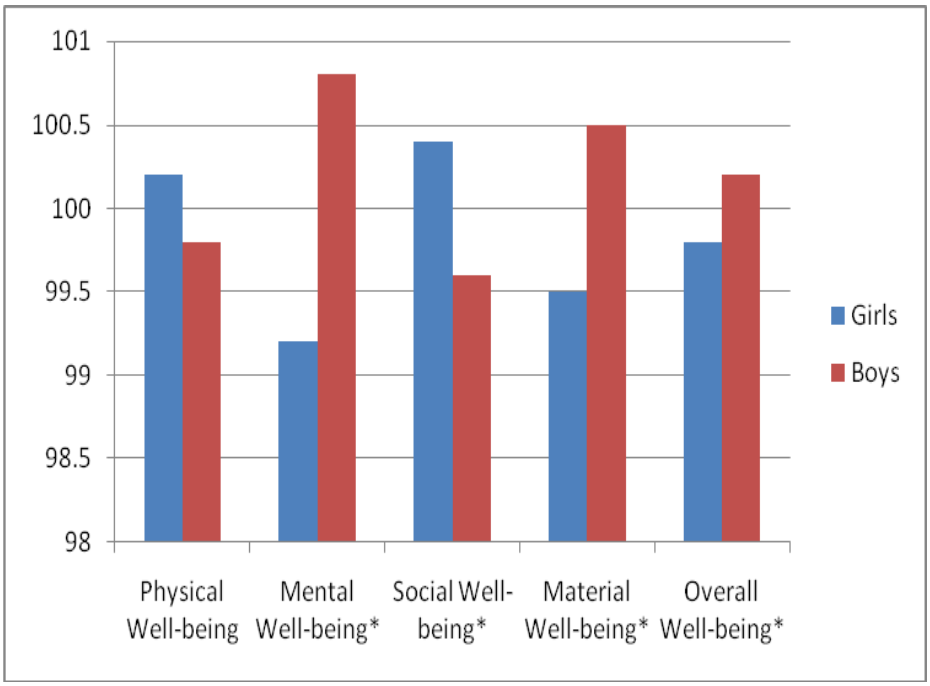
Differences in well-being associated with different characteristics were explored using Independent Samples T-tests and One-Way Analysis of Variance (ANOVA). It is important to note that the findings from the Independent samples T-tests and ANOVAs do not suggest a causal relationship between the characteristic and the mean score achieved, but do indicate that the differences in mean scores on each of the individual domains of well-being and overall well-being do not occur by chance, and are statistically significantly different. The findings with regard to the relationship between well-being and these various characteristics are discussed below.

6.5.1.1 Well-being differences by gender

An Independent Samples T-test was conducted to establish if there were statistically significant differences between the mean scores achieved by girls and boys in each of the well-being domains and in overall well-being mean scores. As can be seen from Figure 6-5, girls had higher physical and social well-being mean scores than boys; however, only the difference in mean scores for social well-being was statistically significant ($t(7523) = -3.974$, $p < 0.001$). Conversely boys had statistically significantly higher well-being mean scores than girls for mental and material well-being ($t(7523) = 7.069$, $p < 0.01$ and $t(7523) = 4.190$, $p < 0.001$, respectively). In terms of overall well-being, the

mean score for boys was statistically significantly higher than for girls (t(7523) = 2.007, $p < 0.05$).

Figure 6-5 Mean Scores for Girls and Boys in Each Well-being Domain and in Overall Well-being[39]



* Indicates scores were statistically significantly different

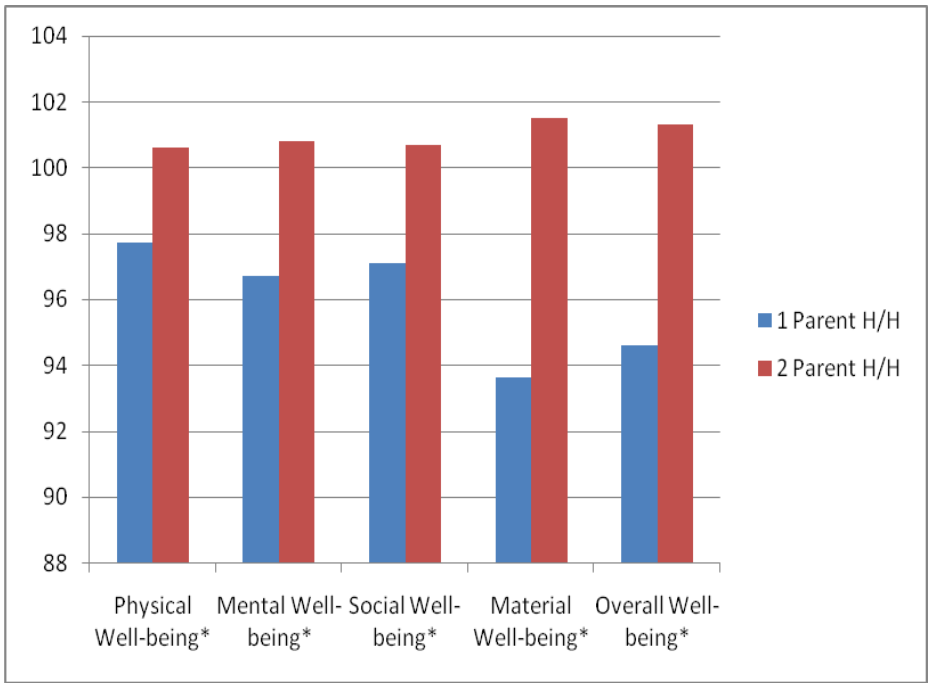
6.7.1.2 Well-being differences by household type

More than 6,000 children taking part in GUI were living with both parents, while another 1,450 were living in lone parent households. An Independent Samples T-test was conducted to establish if there were statistically significant differences between the mean scores for individual well-being domains and overall mean well-being scores achieved by children living in different types of households.

[39] As has been used elsewhere (see, Cheevers and O'Connell, 2013), the y-axis scale ranges from the lowest to highest mean scores achieved and not from zero; this was done to more clearly illustrate the differences in scores between groups of children across the individual domains of well-being and overall child well-being.

As can be seen from Figure 6-6, children living in lone parent households scored consistently lower mean well-being scores in each of the domains of well-being as well as in overall well-being. All of the differences were statistically significant: physical well-being $t(7523) = -9.978$, $p < 0.001$; mental well-being $t(7523) = -14.029$, $p < 0.001$; social well-being $t(7523) = -12.281$, $p < 0.001$; material well-being $t(7523) = -28.494$, $p < 0.001$; and overall well-being $t(7523) = -23.639$, $p < 0.001$.

Figure 6-6 Mean Scores in Each Well-being Domain and in Overall Child Well-being for Children Living in Different Types of Household



*Indicates scores were statistically significantly different

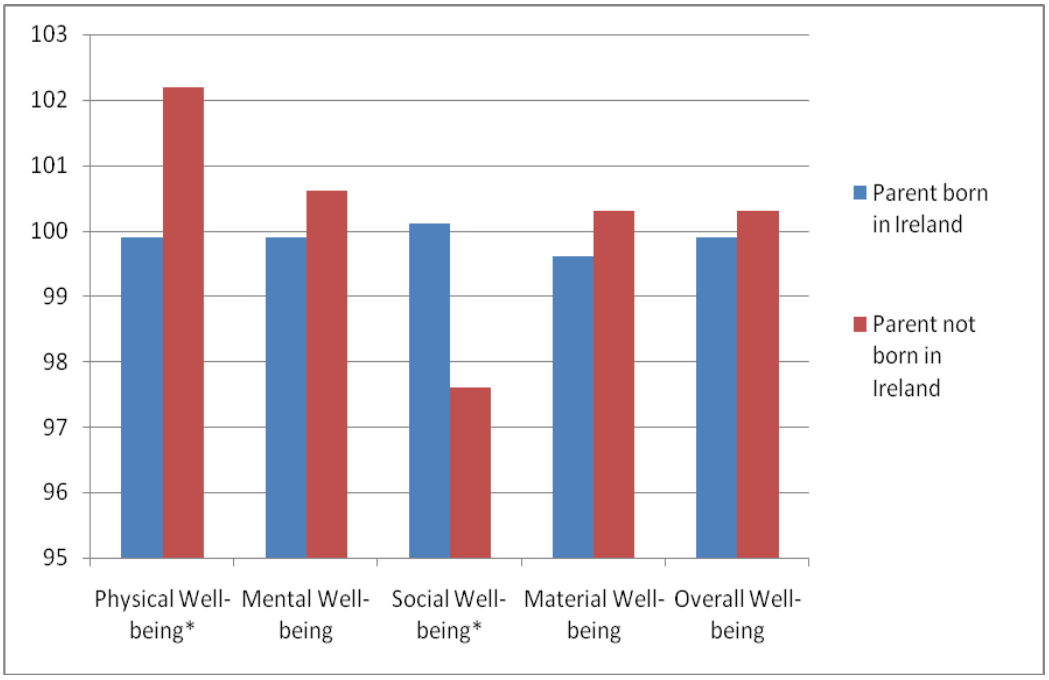
6.5.1.3 Well-being differences by parental nationality

Data on ethnicity was not collected as part of the GUI study, however, the primary caregiver was asked to indicate if she/he had been born in Ireland; 83 per cent of parent's reported that they were Irish-born and 15 per cent indicated that they were born outside of Ireland. The data available in the GUI AMF does not elaborate on where the primary caregiver was born.

An Independent Samples T-test was conducted to establish if there were statistically significant differences between the mean scores in the different well-being domains and overall mean well-being scores achieved by children whose parents were born in Ireland and those whose parents were not born in Ireland.

As can be seen from Figure 6-7, children whose primary caregiver was born in Ireland had statistically significant higher mean scores in social well-being ($t(7420) = 3.829$, $p < 0.001$). Conversely, children whose primary caregiver was not born in Ireland had higher mean scores for physical, mental and overall well-being; however the differences were statistically significant for physical well-being only ($t(7420) = -4.198$, $p < 0.001$).

Figure 6-7 Mean Scores in Each Well-being Domain and in Overall Well-being for Children Based on Parental Nationality



* Indicates scores were statistically significantly different

6.5.1.4 Well-being differences by maternal education level

Primary caregivers (overwhelmingly mothers) were asked to indicate the highest education level they had attained. Four per cent of mothers reported having no or primary school education only; 17 per cent reported that they had attained lower secondary education; 29 per cent had completed secondary school or vocational school equivalent; 19 per cent were educated to non-degree level; while another 13 per cent and nine per cent had been educated to primary degree and post-graduate degree respectively.

A One-Way Analysis of Variance (ANOVA) was carried out to test whether any observed differences in the domain mean scores and in the overall well-being mean scores, between groups of children where maternal education attainment differed, were statistically significant. As can be seen from Figure 6-8, Figure 6-9 and Figure 6-11 below, children whose mothers had lower education attainment levels consistently achieved lower mean scores in physical, mental and material well-being respectively than those children whose mothers had higher education levels; these differences were statistically significant (physical well-being $F(5,7516) = 143.56$, $p < 0.001$; mental well-being $F(5,7516) = 43.77$, $p < 0.001$; material well-being $F(5,7516) = 288.76$, $p < 0.001$) . However, as Figure 6-10 demonstrates, the findings were more mixed with regard to social well-being; children whose mothers had no or primary school education achieved a higher mean score than children whose mothers had lower secondary education level. Furthermore, children whose mothers had a primary degree had lower mean scores in the social well-being domain than children whose mothers were educated to non-degree level. A statistically significant relationship was observed between social well-being and maternal education ($F(5,7516) = 7.19$, $p < 0.01$).

Figure 6-8 Physical Well-being Mean Scores by Maternal Education

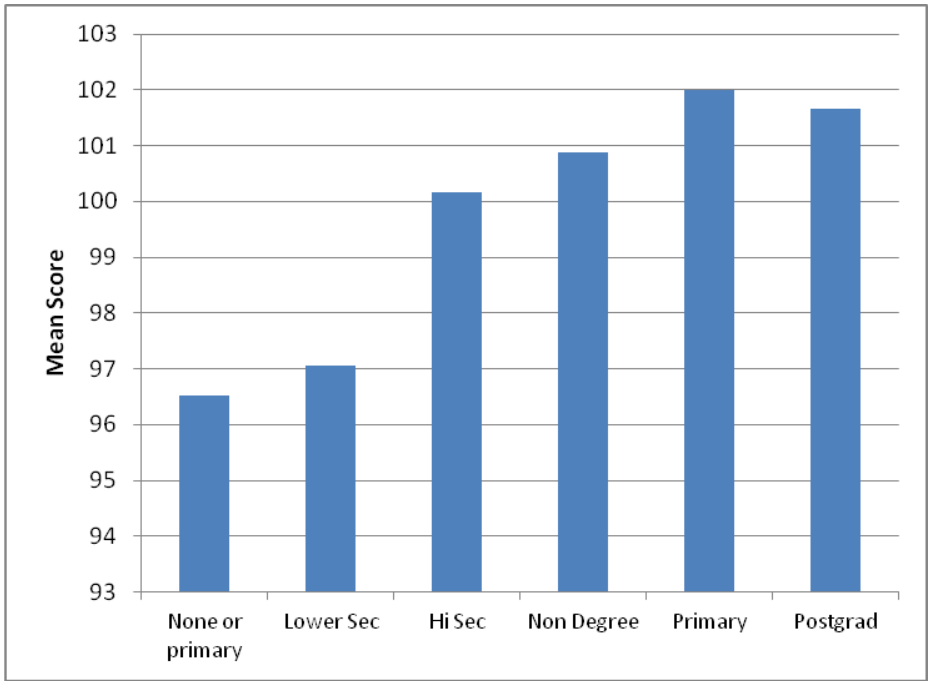


Figure 6-9 Mental Well-being Mean Scores by Maternal Education

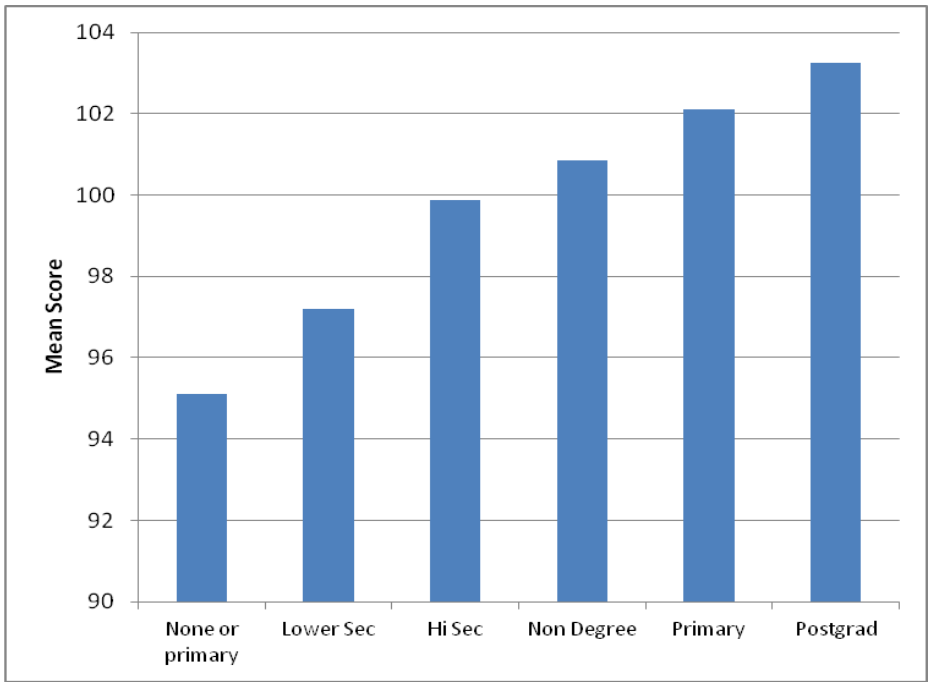


Figure 6-10 Social Well-being Mean Scores by Maternal Education

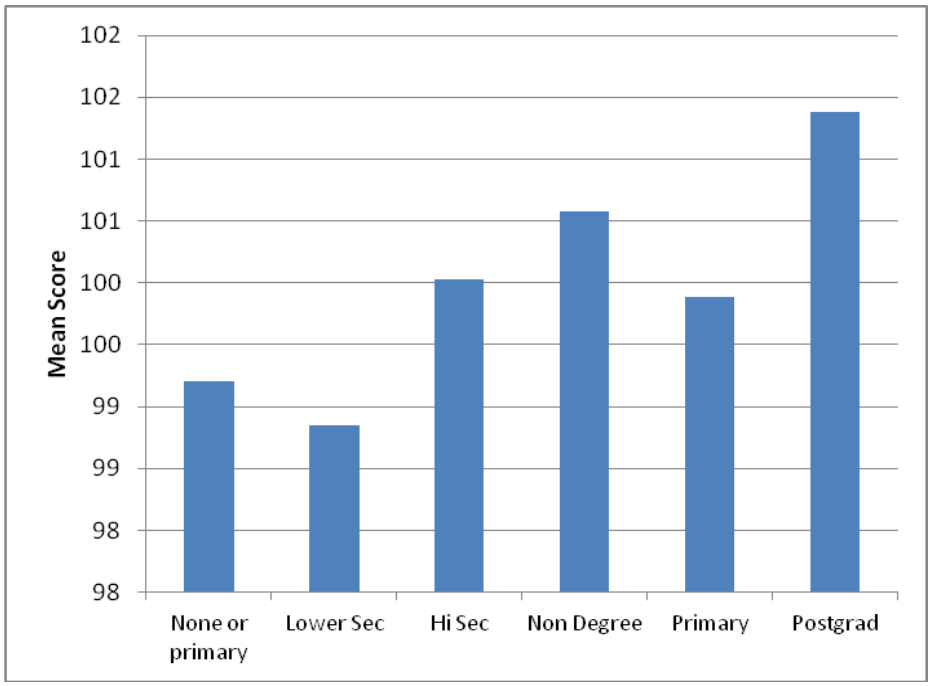
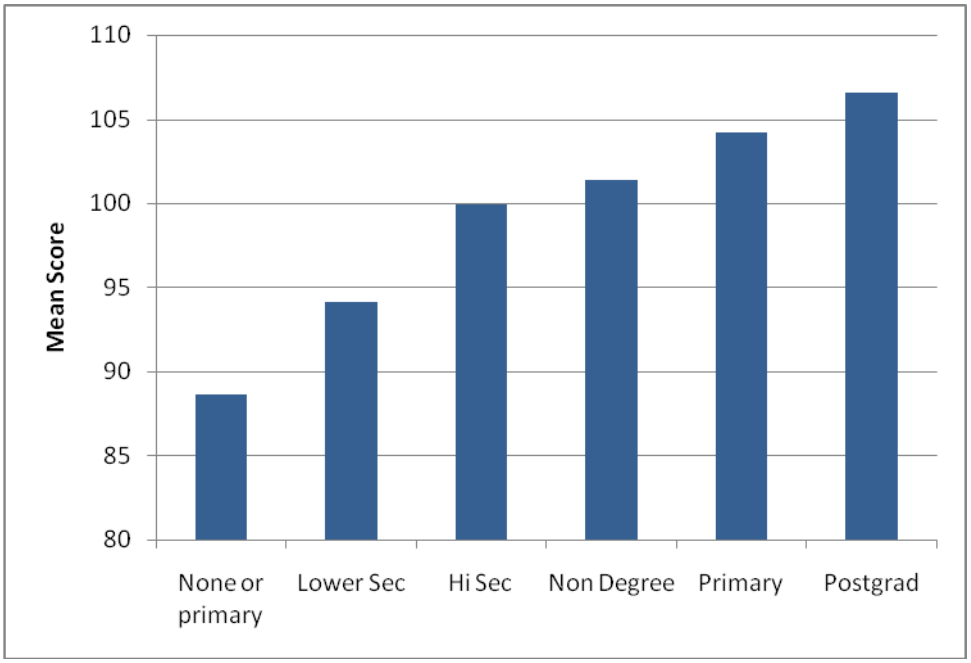
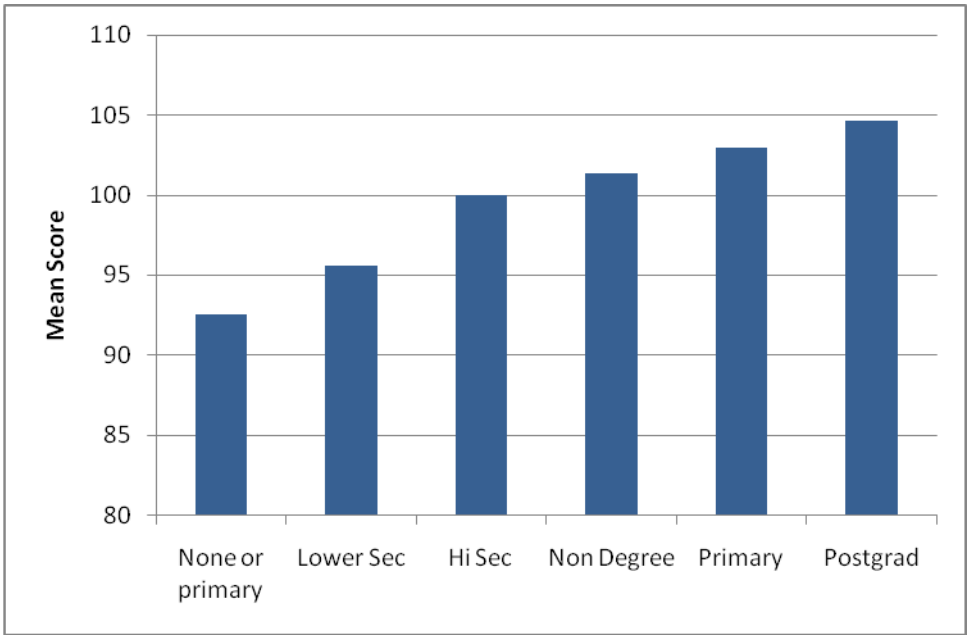


Figure 6-11 Material Well-being Mean Scores by Maternal Education



Finally, as can be seen from Figure 6-12, mean scores for overall well-being also increased as maternal educational attainment increased; the relationship between overall well-being and maternal education was statistically significant ($F(5,7516) = 144.11$, $p < 0.001$). Tukey post-hoc comparison tests indicated that the scores at each of the education levels were statistically significantly different.

Figure 6-12 Overall Well-being Mean Scores for Children by Maternal Education



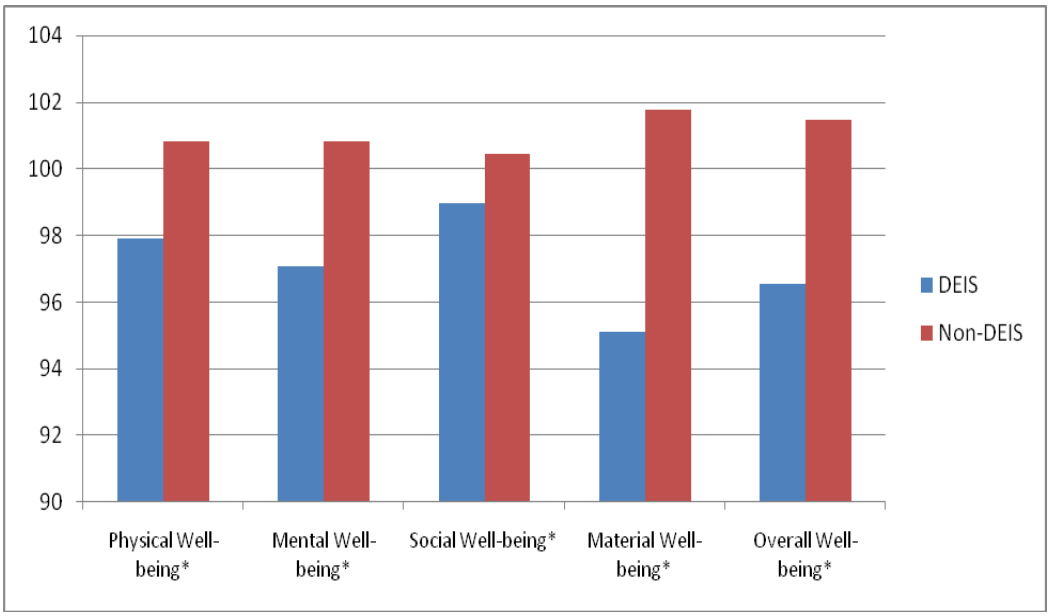
6.5.1.5 Well-being differences by school-status

As noted in Chapter Four, school principals were also required to complete a questionnaire as part of the GUI study. Principals were asked to provide information about the school that the participating child attended including the size of the school, the number of teachers employed, the type of school, for example, fee paying, voluntary secondary, vocational school and so on, and on their school's DEIS status. As noted previously, DEIS is the acronym for the Delivering Equality of Opportunity in Schools action plan implemented by the Department of Education and Skills to tackle educational disadvantage

(Department of Education and Skills, 2015). In this regard, assessing well-being by whether or not a child attended a DEIS school is a useful proxy for social disadvantage more broadly. Approximately 17 per cent of children were attending DEIS schools and 75 per cent were attending non-DEIS schools; data were missing in almost 8 per cent of cases.

An Independent Samples T-test was conducted to establish if there were statistically significant differences between the mean scores in the different well-being domains and overall well-being mean scores achieved by children based on the status of the school the child attended. As can be seen from Figure 6-13, children attending DEIS schools consistently had lower mean scores across all well-being domains and in overall well-being than children attending non-DEIS schools. All of the differences were statistically significant (physical well-being $t(6945) = -9.897$, $p < 0.001$; mental well-being $t(6945) = -12.394$, $p < 0.001$; social well-being $t(6945) = -4.901$, $p < 0.001$; material well-being $t(6945) = -22.439$, $p < 0.001$; overall well-being $t(6945) = -18.146$, $p < 0.001$).

Figure 6-13 Mean Scores in Each Well-being Domain and in Overall Well-being for Children Based on School Status



* Indicates scores were statistically significantly different

6.5.1.6 Summary of key findings from the continuous index of children's well-being

In summary, the continuous index of well-being for 13-year old children living in Ireland, constructed using data from GUI, showed that:

- Median scores for children's well-being in each of the domains were slightly above the mean
- There was variation in scores within each of the domains and in overall well-being. For example, scores in physical well-being ranged from 33.67 to 114.45, mental well-being scores ranged from 54.80 to 118.70, social well-being scores ranged from 48.44 to 123.06, material well-being scores ranged from 45.78 to 125.37; and overall well-being scores ranged from 48.38 to 124.80
- Boys did better on mental and material well-being than girls; these differences were statistically significant, $t(7523) = 7.069$, $p < 0.01$ and $t(7523) = 4.190$, $p < 0.001$, respectively
- Girls had higher social well-being mean scores than boys and the differences were statistically significant, $t(7523) = -3.974$, $p < 0.001$
- Overall well-being for boys was statistically significantly higher than for girls, $t(7523) = 2.007$, $p < 0.05$
- Household type made a difference in well-being across the domains and in overall well-being. Children living in lone parent households scored consistently lower mean well-being scores in each of the domains of well-being, as well as in overall well-being: physical well-being $t(7523) = -9.978$, $p < 0.001$; mental well-being $t(7523) = -14.029$, $p < 0.001$; social well-being $t(7523) = -12.281$, $p < 0.001$; material well-being $t(7523) = -28.494$, $p < 0.001$; and overall well-being $t(7523) = -23.639$, $p < 0.001$
- Children whose mothers had lower education attainment consistently achieved lower mean scores in physical, mental and material well-being respectively than those children whose mothers had higher education

levels; these differences were statistically significant (physical well-being $F(5,7516) = 143.56$, $p < 0.001$; mental well-being $F(5,7516) = 43.77$, $p<0.001$; material well-being $F(5,7516) = 288.76$, $p < 0.001$)

- A statistically significant relationship was also observed between social well-being and maternal education (F (5,7516) = 7.19, $p < 0.01$)
- School status, as a proxy for social disadvantage, made a difference to children's well-being scores. Children attending DEIS schools consistently had statistically significantly lower mean scores across all well-being domains and in overall well-being than children attending non-DEIS schools: physical well-being $t(6945) = -9.897$, $p < 0.001$; mental well-being $t(6945) = -12.394$, $p < 0.001$; social well-being $t(6945) = -4.901$, $p < 0.001$; material well-being t(-22.439, $p < 0.001$; overall well-being $t(6945)=-18.146$, $p < 0.001$

6.5.2 Profiles of children in the bottom and top 15th percentile of the index

The index of children's well-being was explored to identify which children scored in the lowest 15 per cent and which scored in the highest 15 per cent of the overall index and individual well-being domains. Just less than one per cent (0.9 per cent) of children were in the lowest 15th percentile in all the individual domains of well-being: physical, mental, social and material. Approximately 61 per cent of children did not score in the bottom 15th percentile on any of the domains. Nearly one-quarter (24.1 per cent) of children scored in the bottom 15 per cent of the distribution in at least one of the four domains; 10 per cent scored in the bottom 15 per cent on two domains, while another four per cent scored in the bottom 15 per cent on three domains.

The number of children in the upper 15th percentile for all individual domains of well-being was negligible (0.3 per cent). In contrast, 58 per cent of children did

not score in the top 15 per cent in any of the individual domains of well-being. Approximately 28 per cent of children were in the top 15 per cent in at least one of the four domains; 11 per cent of children scored in the top 15 per cent for at least two of the domains, while almost three per cent scored in the top 15 per cent of the distribution in three out of four of the individual domains of well-being.

Twenty-eight per cent (2,072 children) did not score in either the upper or lower 15th percentile for any of the well-being domains; of this group the majority were boys (53 per cent).

Correlation analysis was carried out to ascertain if child, parental or socioeconomic characteristics were statistically significantly associated with placement in the lowest or highest 15th percentile. Point biserial correlation (r) was carried out to assess the strength of the relationship between children scoring in the lowest 15th percentile and ordinal variables e.g. maternal education; a phi-value (ϕ) was calculated to show the strength of the relationship between two dichotomous variables.

6.5.2.1 Children scoring in the lowest and highest 15th percentile in the physical well-being domain

A total of 1,129 children scored in the lowest 15th percentile in the physical well-being domain. There were more boys than girls in the lowest 15th percentile; this group also had more children from two-parent families. More of these children had a mother born in Ireland and more children attending DEIS schools were in the lowest 15th percentile than the expected count.

Of the children who scored in the lowest 15th percentile for physical well-being, 34 per cent also scored in the lowest 15th percentile for mental well-being; 28 per cent also scored in the lowest 15th percentile for social well-being; and 25 per cent scored in the bottom 15th percentile for material well-being. Of the 1,129 children in the bottom 15th percentile of the distribution for physical well-being 55 per cent also scored in the bottom 15th percentile for overall well-being.

A total of 1,129 children scored in the highest 15th percentile. The group had more boys than girls; the majority were from two-parent families. These children typically attended a non-DEIS school.

Of the children who scored in the highest 15th percentile for physical well-being 27 per cent also scored in the highest 15th percentile for mental well-being; 22 per cent scored in the highest 15th percentile for social well-being; and 22 per cent scored in the top 15th percentile for material well-being. Approximately 43 per cent of children in the top 15th percentile for physical well-being also scored in the top 15th percentile for overall well-being. Table 6-47 summarises the results for the upper and lower 15 per cent on the physical well-being domain for different groups of children.

Table 6-47 Profile of Children in the Lowest and Highest 15th Percentile in the Physical Well-Being Domain

		Bottom 15 %		Total sample		Top 15 %	
		N	%	N	%	N	%
Gender	Male	628	56	3,833	51	610	57
	Female	501	44	3,692	49	455	43
	Total	1,129	100	7,525	100	1,065	100
Household type	Lone parent	325	29	1,450	19	144	14
	Two parents	804	71	6,075	81	920	87
	Total	1,129	100	7,525	100	1,060	101
Maternal education	None/Primary only	64	6	278	4	19	2
	Low secondary	278	25	1,281	17	100	10
	High secondary/vocational	411	36	2,929	39	363	34
	Non-degree	199	18	1,425	19	241	23
	Primary degree	107	10	963	13	201	19
	Post-graduate degree	71	6	647	9	141	13
	Total	1,130	100	7,243	100	1,065	100
Irish-born Parent	Yes	996	89	6,269	85	868	82
	No	123	11	1,153	16	187	18
		1,119	100	7,422	100	1,055	100
School status	DEIS	247	25	1,304	19	110	11
	Non-DEIS	750	75	5,642	81	894	89
	Total	997	100	6,946	100	1,004	100

While correlation analysis demonstrated a statistically significant relationship between being in the lowest 15th percentile or the highest 15th percentile for physical well-being and different individual, parental and socio-demographic characteristics, at p-values between 0.05 and 0.01, the size of the correlations were negligible to small. Table 6-48 presents the findings including phi-values (ϕ) and r-values (r).

Table 6-48 Correlations between Individual, Parental and Socio-demographic Characteristics and Being in the Lowest and Highest 15th Percentile in the Physical Well-being Domain

	Lowest 15th Percentile	Highest 15th Percentile
Gender	-0.039**	-0.051**
Household type	0.101**	0.059**
Maternal education	0.089**	0.133**
Irish-born parent	-0.053**	0.025*
School status	0.063**	0.082**

** Correlation is significant at the 0.01 level (2-tailed);
* Correlation is significant at the 0.05 level (2-tailed)
ns = Non-significant

6.5.2.2 Children scoring in the lowest and highest 15th percentile in the mental well-being domain

A total of 1,129 children scored in the lowest 15th percentile in the mental well-being domain. There were more girls in this group; the majority of children were from two-parent families; had a mother born in Ireland; and attended a non-DEIS school.

Of the children who scored in the lowest 15th percentile for mental well-being, 44 per cent also scored in the lowest 15th percentile for social well-being; and 31 per cent scored in the bottom 15th percentile for material well-being. Of the 1,129 children in the bottom 15th percentile of the distribution for mental well-being 64 per cent also scored in the bottom 15th percentile for overall well-being and none of them scored in the top 15th percentile for overall well-being.

There were more boys than girls in the highest 15th percentile; the vast majority of children were from two-parent families; had a parent born in Ireland; and

attended a non-DEIS school. Of the children who scored in the highest 15th percentile for mental well-being 32 per cent also scored in the highest 15th percentile for social well-being; and 23 per cent also scored in the top 15th percentile for material well-being. Approximately 54 per cent of children in the top 15th percentile for mental well-being also scored in the top 15th percentile for overall well-being. Table 6-49 summarises the results for the upper and lower 15 per cent for the mental well-being domain for different groups of children.

Table 6-49 Profile of Children in the Lowest and Highest 15th Percentile in the Mental Well-Being Domain

		Bottom 15 %		Total sample		Top 15 %	
		N	%	N	%	N	%
Gender	Male	473	42	3,833	51	589	52
	Female	656	58	3,692	49	539	48
	Total	1,129	100	7,525	100	1,128	100
Household type	Lone parent	363	32	1,450	19	115	10
	Two parents	766	68	6,075	81	1,013	90
	Total	1,129	100	7,525	100	1,128	100
Maternal education	None/Primary only	70	6	278	4	13	1
	Low secondary	267	24	1,281	17	121	11
	High secondary/vocational	458	41	2,929	39	433	39
	Non-degree	189	17	1,425	19	224	20
	Primary degree	95	8	963	13	189	17
	Post-graduate degree	50	4	647	9	146	13
	Total	1,129	100	7,243	100	1,126	100
Irish-born Parent	Yes	950	85	6,269	85	920	84
	No	171	15	1,153	16	176	16
	Total	1,121	100	7,422	100	1,096	100
School status	DEIS	288	28	1,304	19	140	13
	Non-DEIS	726	72	5,642	81	909	87
	Total	1,014	100	6,946	100	1,049	100

While correlation analysis demonstrated a statistically significant relationship between being in the lowest 15th percentile for mental well-being and gender, household type, maternal education and school status, at p-values =0.01, the size of the correlations were negligible to small. Likewise, a statistically significant association was found between being in the highest 15th percentile for mental well-being and household type, maternal education and school status, at p-values =0.01, the sizes of the correlations were negligible to small. Table 6-50 presents the findings including phi-values (ϕ) and r-values (r).

Table 6-50 Correlations between Individual, Parental and Socio-demographic Characteristics and Being in the Lowest and Highest 15th Percentile in the Mental Well-being Domain

	Lowest 15th Percentile	Highest 15th Percentile
Gender	-0.076**	*ns*
Household type	0.137**	0.096**
Maternal education	0.118**	0.111**
Irish-born parent	*ns*	*ns*
School status	0.102**	0.059**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

ns = non-significant

6.5.2.3 Children scoring in the lowest and highest 15th percentile in the social well-being domain

There were 1,129 children in the lowest 15th percentile in the social well-being domain, and the group was nearly evenly split between boys and girls. The majority of children were from two-parent families; had a mother born in Ireland; and attended a non-DEIS school.

Of the children who scored in the lowest 15th percentile for social well-being, 24 per cent scored in the bottom 15th percentile for material well-being. Of the 1,129 children in the bottom 15th percentile of the distribution for social well-being 54 per cent also scored in the bottom 15th percentile for overall well-being and none of them scored in the top 15th percentile for overall well-being.

More girls than boys scored in the highest 15th percentile of the social well-being domain. The majority of the group were from two-parent families; had a parent born in Ireland; and attended a non-DEIS school.

Of the children who scored in the highest 15th percentile for social well-being, 19 per cent also scored in the top 15th percentile for material well-being. Approximately 48 per cent of children in the top 15th percentile for social well-being also scored in the top 15th percentile for overall well-being. Table 6-51 summarises the results for the upper and lower 15 per cent of children on the social well-being domain for different groups of children.

Table 6-51 Profile of Children in the Lowest and Highest 15th Percentile in the Social Well-Being Domain

		Bottom 15 %		Total sample		Top 15 %	
		N	%	N	%	N	%
Gender	Male	574	51	3,833	51	433	38
	Female	554	49	3,692	49	695	62
	Total	1,128	100	7,525	100	1,128	100
Household type	Lone parent	340	30	1,450	19	159	14
	Two parents	788	70	6,075	81	969	86
	Total	1,128	100	7,525	100	1,128	100
Maternal education	None/Primary only	39	4	278	4	44	4
	Low secondary	226	20	1,281	17	159	14
	High secondary/vocational	444	39	2,929	39	434	38
	Non-degree	179	16	1,425	19	221	20
	Primary degree	153	14	963	13	150	13
	Post-graduate degree	87	8	647	9	121	11
	Total	1,128	100	7,243	100	1,129	100
Irish-born Parent	Yes	915	82	6,269	85	950	86
	No	195	18	1,153	16	158	14
	Total	1,110	100	7,422	100	1,108	100
School status	DEIS	222	22	1,304	19	181	17
	Non-DEIS	804	78	5,642	81	885	83
	Total	1,026	100	6,946	100	1,066	100

While correlation analysis demonstrated a statistically significant relationship between being in the lowest 15th percentile for social well-being and household type, having an Irish-born parent and school status, at p-values between 0.05 and 0.01, the size of the correlations were negligible to small. Similarly, although a statistically significant correlation was found between social well-being and being in the highest 15th percent for social well-being and gender, household type and maternal education, at p-values between 0.05 and 0.01,

the size of the correlations were negligible to small. Table 6-52 presents the findings from the correlation analysis, including phi-values (ϕ) and r-values (*r*).

Table 6-52 Correlations between Individual, Parental and Socio-demographic Characteristics and Being in the Lowest and Highest 15th Percentile in the Social Well-being Domain

	Lowest 15th Percentile	Highest 15th Percentile
Gender	*ns*	0.105**
Household type	0.116**	0.055**
Maternal education	*ns*	0.035**
Irish-born parent	0.024*	*ns*
School status	0.030*	*ns*

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

ns = non-significant

6.5.2.4 Children scoring in the lowest and highest 15th percentile in the material well-being domain

Of the 1,129 children in the lowest 15th percentile in the material well-being domain, more were girls. The majority of children were from two-parent families; had a mother born in Ireland; and attended a non-DEIS school.

There were more boys in the highest 15th percentile of the material well-being domain than girls. The vast majority of children were from two-parent families; had a parent born in Ireland; and attended a non-DEIS school. Table 6-53 summarises the results for the upper and lower 15 per cent of children on the material well-being domain for different groups of children.

Table 6-53 Profile of Children in the Lowest and Highest 15th Percentile in the Material Well-Being Domain

		Bottom 15 %		Total sample		Top 15 %	
		N	%	N	%	N	%
Gender	Male	527	47	3,833	51	615	55
	Female	602	53	3,692	49	513	45
	Total	1,129	100	7,525	100	1,128	100
Household type	Lone parent	466	41	1,450	19	25	2
	Two parents	664	59	6,075	81	1,103	98
	Total	1,130	100	7,525	100	1,128	100
Maternal education	None/Primary only	142	13	278	4	1	0
	Low secondary	385	34	1,281	17	56	5
	High secondary/vocational	343	30	2,929	39	343	31
	Non-degree	156	14	1,425	19	223	20
	Primary degree	61	5	963	13	249	22
	Post-graduate degree	42	4	647	9	254	23
	Total	1,129	100	7,243	100	1,126	100
Irish-born Parent	Yes	930	84	6,269	85	927	84
	No	174	16	1,153	16	179	16
	Total	1,104	100	7,422	100	1,106	100
School status	DEIS	379	37	1,304	19	71	7
	Non-DEIS	649	63	5,642	81	963	93
	Total	1,028	100	6,946	100	1,034	100

While correlation analysis demonstrated a statistically significant relationship between being in the lowest 15th percentile for material well-being and gender, household type, maternal education and school status, at p-values =0.01, the sizes of the correlations were negligible to small. Table 6-54 presents the findings, including phi-values (ϕ) and r-values (r). Correlation analysis demonstrated a statistically significant relationship between being in the highest 15th percentile for material well-being and gender, household type, maternal education and school status, at p-values =0.01, however, the sizes of

the correlations were negligible to small. Table 6-54 summarises the results, including phi-values (ϕ) and r-values (r).

Table 6-54 Correlations between Individual, Parental and Socio-demographic Characteristics and Being in the Lowest and Highest 15th Percentile in the Material Well-being Domain

	Lowest 15th Percentile	Highest 15th Percentile
Gender	-0.036**	-0.030**
Household type	-0.234**	0.182**
Maternal education	0.232**	0.269**
Irish-born parent	*ns*	*ns*
School status	0.193**	0.127**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

ns = non-significant

6.5.2.5 Children scoring in the lowest and highest 15th percentile for overall well-being

More girls than boys were in the lowest 15th percentile in overall child well-being. The majority of children in the lowest 15th percentile were from two-parent families; had a mother born in Ireland; and attended a non-DEIS school.

More girls than boys also scored in top 15th percentile of overall well-being. More of these children were from two-parent families; had a parent born in Ireland; and attended a non-DEIS school. Table 6-55 summarises the results for the upper and lower 15 per cent of children in overall well-being for different groups of children.

Table 6-55 Profile of Children in the Lowest and Highest 15th Percentile for Overall Well-Being

		Bottom 15 %		Total sample		Top 15 %	
		N	%	N	%	N	%
Gender	Male	519	46	3,833	51	519	46
	Female	610	54	3,692	49	609	54
	Total	1,129	100	7,525	100	1,128	100
Household type	Lone parent	444	39	1,450	19	69	6
	Two parents	686	61	6,075	81	1,060	94
	Total	1,130	100	7,525	100	1,129	100
Maternal education	None/Primary only	96	9	278	4	6	1
	Low secondary	331	29	1,281	17	9	5
	High secondary/vocational	402	36	2,929	39	457	36
	Non-degree	159	14	1,425	19	230	20
	Primary degree	93	8	963	13	225	20
	Post-graduate degree	45	4	647	9	200	18
	Total	1,126	100	7,243	100	1,127	100
Irish-born Parent	Yes	964	86	6,269	85	953	86
	No	155	14	1,153	16	153	14
	Total	1,119	100	7,422	100	1,106	100
School status	DEIS	310	31	1,304	19	104	10
	Non-DEIS	680	69	5,642	81	953	90
	Total	990	100	6,946	100	1,057	100

While correlation analysis demonstrated a statistically significant relationship between being in the lowest 15th percentile for overall well-being and gender, household type, maternal education and school status, at p-values =0.01, the size of the correlations were small. Table 6-56 presents findings from the correlation analysis, including phi-values (ϕ) and r-values (r).

Table 6-56 Correlations between Individual, Parental and Socio-demographic Characteristics and Being in the Lowest and Highest 15th Percentile for Overall Well-being

	Lowest 15th Percentile	Highest 15th Percentile
Gender	0.042**	0.041**
Household type	-0.231**	0.141**
Maternal education	-0.168**	0.205**
Irish-born parent	*ns*	*ns*
School status	-0.140**	0.107**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

ns = Non-significant

6.5.2.6 Summary findings for children scoring in the lowest and highest 15th percentile in each well-being domain and for overall child well-being

In summary, the categorical index of well-being for 13-year old children living in Ireland, constructed using data from the GUI study, showed that

- Just less than one per cent of children scored in the lowest 15th percentile in all domains of well-being
- A negligible number of children (0.03 per cent) scored in the highest 15th percentile in all domains of well-being
- Twenty-eight per cent of children scored in neither the top or bottom 15th percentile for any of the domains
- More children from lone parent households were in the lowest 15th percentile of overall well-being scores: 31 per cent of children from lone parent families compared with 11 per cent from two-parent families; while a statistically significant relationship was observed between household type and being in the lowest 15th percentile, the size of the correlation was small (phi = -0.231)

- More children whose mothers had lower educational attainment were in the lowest 15th percentile for overall well-being: 35 per cent of children whose mother had no or primary education were in the lowest 15th percentile compared to 10 per cent of children whose mother was educated to primary degree; however, while a statistically significant relationship was observed between maternal education and being in the lowest 15th percentile, the correlation coefficient was small (*r* =-0.168)
- More children attending DEIS schools were in the lowest 15th percentile for overall well-being: 24 per cent of children attending DEIS schools were in the lowest 15th percentile compared with 12 per cent of children who were attending non-DEIS schools; while a statistically significant relationship was observed between school status and being in the lowest 15th percentile of overall well-being, the size of the correlation was small (phi=-0.140)

6.6 Discussion of the Findings from the Child Well-being Index

In contrast to population-level international indices, the use of micro-data enables the researcher to explore well-being for individual children. The characteristics chosen to compare well-being between groups were informed by the wider literature on well-being. Other within-country indices have examined continuous well-being scores by characteristics such as gender (O'Hare *et al*., 2013; Moore *et al*., 2012; Cheevers and O'Connell, 2013; Sanson *et al*., 2010; Moore *et al*., 2008; Land *et al*., 2007); maternal educational level (O'Hare *et al*., 2013; Moore *et al*., 2012; Cheevers and O'Connell; 2013); household type (Cheevers and O'Connell, 2013); and ethnicity/place of birth (O'Hare *et al*., 2013; Moore *et al*., 2012; Cheevers and O'Connell, 2013; Moore *et al*., 2008). Furthermore, a proxy for social disadvantage was also used in

exploring the index in this study; the proxy used here was whether or not the child attended a DEIS school.

Girls had statistically significant higher mean scores than boys in social well-being but boys had statistically significant higher mean scores for mental and material well-being. In the context of overall well-being, boys scored statistically significantly higher mean scores than girls. Comparison with international studies of gender differences to establish or identify if these differences were typical was difficult given that the domains of my index were populated by different sub-domains and indicators. However, Cheevers and O'Connell (2013) show that boys do better in their domains of physical and education well-being while girls do better in their social-emotional functioning domain. Both the mental well-being domain and the social well-being domain in this index were not dissimilar to the education and social-emotional functioning domains respectively in the Cheevers and O'Connell (2013) index. However, there were differences in how these domains were conceptualised which makes direct comparisons problematic. In contrast, Moore *et al*. (2012) found that gender differences in their index favour girls and this is particularly evident in the domains of educational achievement and cognitive development.

Household type was also correlated to well-being; children living in lone parent households had statistically significant lower mean well-being scores in each of the domains and overall well-being.

While children whose parents were born in Ireland had statistically significantly higher mean scores for social well-being, children whose parents were not born in Ireland had statistically significantly higher mean scores in physical well-being. However, no statistically significant differences were found in overall well-being mean scores between the two groups. Two studies from the USA

(O'Hare *et al*., 2013; Moore *et al*., 2012) analyse well-being by ethnicity and/or minority status, the closest comparable variable to the variable used in this study. Both studies found that children from minority ethnic groups experience less well-being (*ibid*). These findings contrast with the findings from this index which showed that there was no statistically significant difference between the well-being of children whose parents were born in Ireland and those whose parents were not.

Maternal education was statistically significantly related to well-being, with mean overall well-being scores related to maternal education at each of the education levels, such that mean well-being scores were higher for children whose mothers achieved higher educational attainment ($F(5,7516) = 144.11$, $p < 0.001$). These findings echoed the findings from both Moore *et al*. (2012) and O'Hare *et al*. (2013). The former study shows that parental education level is statistically significantly correlated with physical health, education, psychological health and social health and behaviour (Moore *et al*., 2012). The latter study found that parental education is statistically significantly correlated with overall well-being such that higher parental educational attainment is associated with higher well-being (O'Hare *et al*., 2013).

Finally, school status, as a proxy for social disadvantage, was statistically significantly correlated to all domains of well-being and overall well-being, such that children attending DEIS schools had statistically significantly lower mean scores in each of the well-being domains and in overall well-being than children attending non-DEIS schools. Analysis of the mean scores in each of the domains of well-being and in overall well-being demonstrated a clear social gradient for scores of well-being; findings echoed elsewhere in the literature (O'Hare *et al*., 2013; Moore *et al*., 2012; Cheevers and O'Connell, 2013). The exception to this appeared in relation to children whose parents were not born in Ireland, where

there was no statistically significant difference between the groups in overall well-being.

It is interesting to note the differences between what this well-being study says about the well-being of different groups of children and what studies from other jurisdictions say about similar sub-groups of children. However, it is not possible to identify what might be driving the differences in the findings. For example, it is not possible to state that the differences in the findings regarding gender and well-being between this study and the Moore *et al*. (2012) study is because girls in the USA have higher well-being than girls in Ireland. The lack of a common theory of well-being and the use of micro datasets means that any comparisons are for illustrative purposes only. While this study, and some of the other studies noted above, share some similarities in the indicators that have been used, the underlying theoretical frameworks are quite different. For example, Moore *et al*. (2012), Cheevers and O'Connell (2013) and Sanson *et al*. (2010) all conceptualise well-being in terms of child development/child functioning only. In other words, they adopt a wholly different understanding of well-being and one that is conceptually at odds with the understanding of well-being that underpins this study. While the use of micro-data may lead to differences in indicator choice due to differences in the available data, the absence of a unifying theory of well-being adds to the lack of comparability. Consistency across domain and sub-domain selection could go some way to facilitating between-country comparisons even where indicators differ. Moreover, consistency in domain and sub-domain use, even where microdata is used, could enable researchers to explore if observed differences between different countries and sub-groups of children are being driven by indicator selection or by some underlying policy or structural context, particular to the country or jurisdiction being studied.

As has been demonstrated, the continuous form of the index can be analysed to explore differences in well-being across different groups of children. The types of sub-group analysis and the different characteristics that can be explored are clearly dependent on the availability of such data from the data source from which the index data is drawn. Notwithstanding the limitations noted in the previous section, the GUI dataset does include a wide range of data which facilitated the exploration of both family level characteristics, such as family type and maternal education, and wider structural characteristics such social disadvantage, access to services and other characteristics that point to the structural inequalities. The SMCW facilitates the inclusion of material and other environmental characteristics in our understanding of well-being. Indeed, material well-being which included community and neighbourhood quality was a core dimension of well-being and material well-being was understood to be inherent to well-being, in contrast to a number of other index construction studies which conceptualise well-being in terms of individual functioning only. The inclusion of material well-being as inherent to overall well-being was therefore critical. However, it also important that any sub-group analyses of indices also consider the structural characteristics of the sample, so as to avoid policy responses that assume inherently individualistic conceptualisations of well-being or individualistic determinants of well-being. In other words, it is not enough to accept that child well-being is more than child development, it is also critical that in exploring the determinants of well-being that structural factors are included in any analysis of the index.

7.4.1.2 Illustrative uses of categorical scores

Cut-off points were applied at the top and bottom 15th percentile of the score distribution. The cut-off points of the upper and lower 15th percentile as groupings for children were not intended to be clinically significant. Instead they were based on the statistical view that scoring more than one standard deviation below the sample mean, which equates to approximately 15 per cent

of the sample, indicates a difficulty (Sanson *et al*., 2005; Cheevers and O'Connell, 2013). The profile of children in the bottom 15th percentile and children in the top 15th percentile were compared across the following the characteristics: gender, household type, maternal education, parental place of birth and DEIS status. Children from lone parent households, children whose mothers had lower educational attainment and children who attended DEIS schools were over-represented in the bottom 15th percentile in each of the domains of well-being as well as in the bottom 15th percentile for overall well-being. While a number of these characteristics were statistically significantly associated with being in the lower or upper 15th percentile across each of the domains and overall well-being, for example, household type, maternal education and school status, at *p*-values between 0.05 and 0.01, the size of the correlations were small or negligible (Cohen, 1992), suggesting only a very weak or weak relationship.

Analysis of the number of children scoring in the top or bottom 15th percentile in each of the domains, and in overall well-being, also provided another perspective from which to interpret well-being. Just less than one per cent of children were in the lowest 15th percentile for all individual domains of well-being. However, nearly one-quarter (24.1 per cent) of children scored in the bottom 15 per cent of the distribution in at least one of the four domains, 10 per cent scored in the bottom 15th percentile on two domains, while another 4 per cent scored in the bottom 15th percentile on three domains. As the domains were significantly correlated with each other this means that difficulties experienced in one domain may escalate and begin to impact on children's well-being in other areas. The number of children scoring in the upper 15th percentile for all domains of well-being was negligible. Meanwhile, 28 per cent of children did not score in either the upper or lower 15th percentile for any of the well-being domains. Further exploration of the index and examination of the different combinations of children doing well and

performing less well, would be beneficial to identify a more complete picture of how all children are faring.

6.7 Conclusion

This chapter discussed the selection, treatment and analysis of variables from the GUI dataset in the compilation of an index of well-being for children living in Ireland. The final index was made up of four domains, 14 sub-domains and 35 indicators. The index was validated and a series of sensitivity tests were carried out. The correlations between the four individual domains of well-being were found to be small to medium in size (Cohen, 1992); and the correlations between the individual domains and overall well-being were medium to large, were positive and had *p*-values of <0.01. While the inter-item correlations between the individual domains and overall well-being was slightly below the recommended acceptable range (Cronbach's α =0.632), none of the domains were excluded from the final index, as their selection was informed by the conceptualisation of domains of well-being as articulated in the SMCW.

The chapter also considered illustrative findings emerging from the compilation of the index. Two forms of the index were constructed: a continuous form and a categorical form. The continuous form of the index presented mean scores for each of the domains and for overall well-being; this facilitated the comparison of mean scores across, and between, different groups of children for each of the individual domains of well-being and for overall well-being. Independent Samples T-tests and ANOVAs were conducted on the data to assess differences in mean domain well-being scores and overall well-being. The continuous form of the index is useful to chart changes over time in well-being scores and given that two waves of data are available for the child cohort with a further two to follow, this cohort of children's well-being can be tracked from middle childhood into adolescence and early adulthood. This continuous

form of the index facilitates the exploration of predictors of well-being among this cohort over time. In this regard, the SMCW can be used not only to inform the identification and selection of domains, sub-domains and indicators but to also theorise the determinants of well-being that could modelled in future research.

The categorical form of the index identified children who were scoring in the lowest and highest 15th percentile of the overall index and in individual well-being domains, a particular advantage of using micro-data. The categorical form of the index facilitated the exploration of the achievement of well-being for individual children across domains and in overall well-being. The categorical form of the index was used to identify which children were scoring in the lowest 15th percentile across multiple domains. This enabled the analysis of which children were scoring poorest and in what domains. The findings from the analysis of the categorical form of the index suggested that well-being was not experienced evenly across the domains; instead some children were doing less well in some domains than others. Further research on what is driving these uneven patterns of well-being at the individual domain level would be helpful in the longer term for policy formulation.

The following chapter considers the conceptual and measurement issues arising from the compilation of this index on Irish social policy for children and families. The chapter also summarises the key aspects of this study and considers the key learning and the potential for future research.

Chapter 7 Conclusion

7.1 Introduction

In this final chapter I conclude the thesis by briefly summarising the main aspects of the study and discuss some of the key challenges and issues that I encountered while carrying out this research. I then go on to consider how the use of the Structural Model of Child Well-being (SMCW) in constructing an index and its emerging findings can be used to inform policy for children and young people, with particular reference to *Better Outcomes, Brighter Futures*, the national policy framework for children and young people 2014-2020. Finally, the chapter concludes by considering some opportunities for future research emerging from this study, including opportunities to empirically validate the SMCW and to apply this index's domains, sub-domains and indicators of well-being to other datasets available from the GUI study's multiple waves of data collection.

7.2 Summary of the Study

In this section, I briefly summarise the study, starting by re-stating my research questions. I then provide a brief overview of the SMCW and describe how it was used to inform my understanding and approach to the measurement of well-being. The section concludes by briefly describing my methods of constructing the index of well-being for children living in Ireland and summarising the key findings from my index.

This study had two main aims. The first was to develop an index of well-being for children explicitly informed by theory. The second aim of the study was to

develop an index of well-being that attempted to reflect the complexity of children's lives. Given the aims of the study, I identified four research questions:

1. What is child well-being and how has the concept been theorised and measured?
2. What is the Structural Model of Child Well-being and can it be meaningfully applied to the construction of a composite index of well-being for children living in Ireland?
3. What does the resulting composite index tell us about the well-being of 13 year old children living in Ireland?
4. What are the implications for policy of using a theoretically-informed approach to conceptualising and measuring children's well-being?

The SMCW was selected as the theoretical framework for this study as it attempts to counter the tendency to understand well-being in wholly individual terms. While the child well-being literature has been informed by a number of theories from a range of disciplines including psychology, sociology and economics, such as Bronfenbrenner's bioecological model, the 'new' sociology of childhood, Sen's Capability Approach, respectively, and the rights-based framework of the UNCRC, these theories and frameworks individually do not explain well-being. In contrast, the SMCW is a multi-disciplinary unifying theory of children's well-being that takes account of the individual and societal conditions inherent to and necessary for well-being. Adopting the SMCW as the conceptual framework for this study, within which the domains, sub-domains and indicators of well-being were selected, ensured that a more complete understanding of well-being was applied to the creation of the index of well-being for children living in Ireland.

The selection of the indicators of well-being, identified for inclusion in the index, was directly informed by the theoretical orientation of the SMCW. For example, the dimensions of well-being in the SMCW were understood as

equivalent to domains of well-being; the components of well-being were understood to represent sub-domains in the index building process; and the internal and external pre-requisites articulated in the model represented indicators of well-being in this index. Data from the Growing Up in Ireland study, the national longitudinal survey of children, were used to build the index. The treatment of the data and the methods used to construct this study's index were informed by the methods used in the wider child well-being indices literature, and in particular, the literature on constructing indices using micro-data. The validation and sensitivity of the final index were also appraised using methods identified from the literature. The index was found to be robust and the validity and sensitivity findings were in line with the wider child well-being indices literature. A continuous index and a categorical index were created; and explored using a variety of statistical tests.

The findings from the continuous index of well-being showed that overall well-being was statistically significantly higher for boys than for girls. Household type made a difference to well-being, as children from lone parent households experienced lower levels of well-being across domains and for overall well-being. A statistically significant relationship was observed between maternal education levels and children's well-being such that children whose mothers had higher levels of educational attainment had higher levels of well-being. Finally, school status, as a proxy for social disadvantage, made a difference in children's well-being, as children attending DEIS schools had statistically significantly lower mean scores across all well-being domains and in overall well-being than children attending non-DEIS schools.

The categorical form of the index demonstrated that children did not experience well-being evenly. That is few children experienced poor well-being across all the domains of well-being and few children experienced high levels of

well-being across all domains. As the domains were significantly correlated with each other this could mean that difficulties experienced in one domain may escalate and begin to impact on children's well-being in other areas. The characteristics of children in the lower and upper tails of the distribution were also explored. While a number of these characteristics, such as household type, social disadvantage and maternal education, were statistically significantly associated, at *p*-values between 0.05 and 0.01, with being in the lower or upper 15^{th} percentile across each of the domains and overall well-being, the size of the correlations were small or negligible, suggesting only a very weak or weak relationship.

7.3 Issues and Challenges in Conducting this Study

As this study has demonstrated, the SMCW is a useful theoretical framework for conceptualising and measuring children's well-being. The theory is compatible with previous efforts to conceptualise well-being. It offers a comprehensive understanding of well-being that moves beyond the narrow focus on child development that has been adopted in some recent studies of children's well-being. Furthermore, the SMCW provides a conceptualisation of well-being that can be applied to the index building process and that is compatible with the typical conventions of index building. Notwithstanding, what I consider to be a robust conceptual framework with which to develop an index of well-being that adequately represents the complexity of children's lives and takes account of the agency-structure dynamic, challenges remain in conceptualising and measuring well-being.

7.3.1 What is well-being?

Answering the question 'what ***is*** well-being' as opposed to conceptualising well-being in terms of its determinants is a critical first step in constructing an index

of children's well-being, yet it remains a thorny and to some extent unresolved issue. The challenge of differentiating between what is well-being and its determinants is critical to conceptual clarity; and yet the very complexity of the concept challenges our ability to differentiate between these two constructs. This challenge of differentiation is not unique to the SMCW, but it was nonetheless a constant question that I struggled to resolve in the context of this study. Well-being in the SMCW is understood as both an outcome and as process, therefore differentiating between what is well-being and what contributes to well-being is complex, not least because well-being in one domain contributes to well-being in another. Being clear on what constituted well-being and not conflating the components of well-being with the determinants of well-being occupied much of my decision-making with regard to the selection of indicators of well-being for children. The SMCW articulates this difficulty well, insofar as the components of well-being in one domain may well be the determinants of well-being in another. This distinction was critically important in order to counteract the individualised and self-responsibilising articulation of well-being in a series of recent Irish social policy documents. At all times I wanted to ensure that the indicators chosen would adequately represent both the individual dimensions, as well as the wider economic and social dimensions of well-being. The implications of not including material and social circumstances in the final index are, in my view, far-reaching. Conceptualising well-being in wholly individual terms, based exclusively on individual functioning, locates the responsibility for the achievement of well-being with the individual child or attributes the success or failure to achieve well-being to the behaviours of parents. Within this construct of well-being, the individual becomes the focus of action; notwithstanding the analysis of the well-being status of different groups of children by different economic characteristics. Distinguishing between the components of well-being and the determinants of well-being remains a key issue. This is particularly pertinent for the process of indicator selection, given that the

national set of well-being indicators for children are under review and my own role on the expert panel in reviewing indicators for the proposed new set of well-being indicators.

7.3.2 Researcher judgement

The SMCW provides a useful framework for justifying and explaining the selection and inclusion of domains and sub-domains. However, the SMCW in acknowledging and articulating well-being as both a process and outcome does not provide a prescriptive list of indicators to be included in the index of well-being. In this regard the use of a theoretical framework did not preclude the requirement for researcher judgement in the identification and selection of indicators for inclusion in the index. The GUI dataset provided a rich array of data and I was faced with many hundreds of variables from which to choose. While the SMCW provided a very explicit framework within which to begin the process of selecting variables to represent indicators, and statistical methods, such as correlation analysis and Cronbach's alpha were used to assess for redundancy and inter-item reliability between variables, respectively, I still had to make multiple choices about what to include and what indicators to reject. While correlation analysis is helpful, and the wider children's well-being literature provided some useful advice about the general criteria that should be considered when selecting indicators, there was little guidance in the literature as to what constituted 'too' highly correlated. The findings from other indices provided some indication of the decisions that other researchers have made, but there is great variation in the findings with regard to the size of correlation coefficients between variables to be able to state with any certainty what the cut-off points might be in this regard. Moreover, this study utilised a combination of dichotomous, categorical and continuous data, and while such combinations of different data types have been used elsewhere, the combination of such data in the same sub-domains and domains of well-being presented analytical challenges that I found were not well-considered in the

literature. For example, other indices studies analysed their data using parametric statistical tests with little explanation as to why or how the studies dealt with violations in normal distribution or how the combination of categorical and continuous data were dealt with in the statistical analysis. Consequently, I conducted both parametric and non-parametric analysis of the data to verify the findings and ensure, what I considered to be, the robustness of the final index.

Even with a well-articulated model such as the SMCW, researcher judgement and the availability of data remained important factors in shaping the content of the final index.

Notwithstanding, the issues of conceptual and measurement clarity and researcher judgement discussed above, the SMCW was found to provide a robust and unifying theoretical framework with which to conceptualise and measure the well-being of children living in Ireland. In the following section, the applicability of using the SMCW to inform Irish social policy, concerned with the well-being of children and their families, is considered.

7.4 Conceptual and Measurement Considerations of Well-being for Policy Development for Children and Families

The child well-being indices literature emphasises the importance of ensuring that indices are, amongst other things, composed of domains, sub-domains and indicators that are policy relevant and that will have an impact beyond just the generation of new knowledge (Ben-Arieh *et al*., 2008a; Ben-Arieh *et al*., 2008b; Ben-Arieh and Frones, 2011). In this context, the theoretical orientation of

what is understood as well-being is critically important. It is my contention that contemporary Irish social policy for children and families locates well-being within a highly individualised and self-responsibilising agenda. While Irish social policy has always displayed an individualisation and self-responsibilisation agenda, I believe that the reasons behind this agenda have changed over time. Between independence and the 1980s the individualisation agenda was largely driven by Catholic social teachings and state policy responses were driven by subsidiarity, such that services and interventions were provided at the most local level possible with little reason for the state intervene. While the principal of subsidiarity continues to underpin the social policy agenda in Ireland, the rationale for subsidiarity and individualisation has shifted. The individualisation and self-responsibilising approach, as articulated in the ideology of neo-liberalism and operationalised in recent Irish social policy concerned with children's well-being, equates the challenges facing parents in supporting their children's well-being as requiring lifestyle changes, not structurally embedded obstacles that require a comprehensive and holistic response (Ferguson, 2007). Three key social policy areas discussed in this thesis typify this approach: *Better Outcomes, Brighter Futures*, the national policy framework for children and young people (Department of Children and Youth Affairs, 2014); the Tusla parenting support strategy (Child and Family Agency, 2013); and the *Healthy Ireland* Framework (Department of Health, 2013). These documents, in their consideration of children's well-being, locate the issue of well-being in the individual.

These three key policy areas taken together also demonstrate the contradiction at the heart of Irish social policy for children and families. On the one hand, the policies and strategy documents emphasise parental responsibility and role of individual parenting behaviours in the achievement of children's well-being, with little reference to their wider social and economic circumstances or the role of the state in supporting, securing or promoting children's well-being. On

the other, the state has inserted itself into the very heart of family life, articulating a set of idealised parental behaviours where parents are encouraged to seek guidance from 'experts' to achieve said behaviours. In this confused, and confusing, policy landscape parenting is subject to control and regulation from experts mandated by the state to advise, guide, admonish or sanction, while also emphasising the individualised nature of parenting and the achievement of well-being more generally. The challenge therefore in conceptualising and measuring children's well-being in the context of such state policies and strategies is to ensure that what constitutes children's well-being is understood as more than individual child behaviours and includes some measures of economic, cultural, social and personal resources, even if such policies and strategies foreground parental determinants for the achievement of well-being.

The issue of how well-being is conceptualised and measured is particularly pertinent to the current Irish policy context, where there is significant interest in developing indicator sets for both child and adult well-being among policy makers in Ireland. For example, DCYA is in the process of revising the national set of child well-being indicators to align with *Better Outcomes, Brighter Futures,* its national policy framework for children and young people, 2014-2020. It is the first overarching policy framework for children and young people published by Government, the purpose of which is to direct and inform the coordination of policy across Government to achieve better outcomes. The national policy framework identifies five national outcome areas such that children and young people: are active and healthy; are achieving in all areas of learning and development; are safe and protected from harm; have economic security and opportunity; and are connected, respected and contributing (*ibid*: 4). The five national outcomes have been further disaggregated into specific aims that map onto these five discrete outcomes. The national outcomes and their associated aims are presented in Table 7-1.

Table 7-1 ***Better Outcomes, Brighter Futures*: National Outcomes and Aims**

National Outcomes				
Active and healthy; physical and mental well-being	Achieving full potential in all areas of learning and development	Safe and protected from harm	Economic security and opportunity	Connected, respected and contributing to their world
Aims: Children and young people are or have....				
1.1 Physically healthy and make positive health choices	**2.1** Learning and developing from birth	**3.1** Secure, stable, caring home environment	**4.1** Protected from poverty and social exclusion	**5.1** Sense of own identity, free from discrimination
1.2 Good mental health	**2.2** Social and emotional well-being	**3.2** Safe from abuse, neglect and exploitation	**4.2** Living in child/youth-friendly, sustainable communities	**5.2** Part of positive networks of friends, family and community
1.3 Positive and respectful approach to relationships and sexual health	**2.3** Engaged in learning	**3.3** Protected from bullying and discrimination	**4.3** Opportunities for ongoing education and training	**5.3** Civically engaged, socially and environmentally conscious
1.4 Enjoying play, recreation, sport, arts, culture and nature	**2.4** Achieving in education	**3.4** Safe from crime and anti-social behaviour	**4.4** Pathways to economic participation and independent living	**5.4** Aware of rights, responsible and respectful of the law

The application of the SMCW to the national policy framework is useful both conceptually and analytically. As discussed in Chapter Three, *Better Outcomes, Brighter Futures* places significant emphasis on the role of parents in securing and achieving their children's well-being; what parents *do* is more important than who parents are (Department of Children and Youth Affairs, 2014). This articulation of well-being as *"solely within the individual"* (Barnes *et al*., 2013: 454) and *"chosen"* (Sointu, 2005: 255) reflects what I contend is the individualisation and responsibilisation of parents for the well-being of their children, thus distancing the state from its important responsibilities to support and promote the well-being of children through effective social policies. The SMCW has the potential to be used to counter this individualised interpretation of well-being.

The SMCW is a structural model of well-being and therefore this theoretical orientation suggests that more than individual functioning be considered in our understanding of well-being. Using the SMCW to inform the selection of indicators that are policy relevant to *Better Outcomes, Brighter Futures* suggests that a highly individualised articulation of children's well-being can be mitigated. The SMCW theorises a societal frame of well-being that considers the structures of society and how they are both inherent to and determine well-being. The SMCW's focus on the structures of society builds on and strengthens ecological models of human development which theorise the *relationships* (my emphasis) between the different elements of the child's world, rather than the structures *per se*.

The societal frame of well-being articulated in the SMCW mandates that more than individual characteristics be considered both in conceptualising what is meant by well-being, but also in what are understood to be the determinants of well-being; thus moderating the emphasis on parental responsibility and

introducing important issues of structural and systemic inequalities. In this regard, applying the SMCW to the identification of indicators of well-being for the national policy framework requires the consideration of indicators that represent the structural elements of well-being. Therefore the conceptualisation and measurement of well-being extends beyond an individualistic understanding of what constitutes well-being and requires a more complete interpretation of the concept. While the use of the SMCW may not eliminate the tendency of contemporary policy makers to explain well-being in individualistic and self-responsibilising terms, it may ameliorate the very narrow focus on individualised conceptions of well-being and make inherent to the measurement of well-being a wider understanding of the term.

As can be seen from Table 7-1, the national outcomes identified in *Better Outcomes, Brighter Futures* demonstrate a measure of compatibility with the domains of well-being identified in the SMCW, such that the final index could be meaningfully used to represent the well-being status of children relevant to the national policy framework. Conceptually the SMCW does map onto the national outcomes, notwithstanding that some of the domains of well-being cut across the national outcomes categorisation. Outcome one which aspires that children and young people are active and healthy aligns with the domain of physical well-being in the SMCW. The national outcome that children are achieving in all areas of learning and development is not conceptually dissimilar to the domain of mental well-being in the SMCW, given its focus on cognitive development. The national outcome of economic security and opportunity also closely aligns to the domain of material well-being in the SMCW. Finally, elements of the social well-being and mental well-being domains in the SMCW are conceptually compatible with the third national outcome that children and young people are safe and protected from harm. Likewise, some but not all aspects of the fifth national outcome that children and young people are connected, respected and contributing to their world can be found in the

domain of social well-being of the SMCW. In order to calculate an index that reflects both the strategic priorities of *Better Outcomes, Brighter Futures* and the theoretical foundations of the SMCW, the four domains of well-being articulated in the SMCW could be retained and outcome five, which is concerned with children and young people's connectedness with, respect for, and contribution to their community, could be incorporated as a sub-domain into the domain of social well-being.

In much the same way as the outcomes identified in *Better Outcomes, Brighter Futures* could be interpreted as domains; the aims can be construed as sub-domains which can, in turn, be populated by a series of appropriate and relevant indicators. There is some congruity between the strategic aims of *Better Outcomes, Brighter Futures* and the conceptualisation of sub-domains in the SMCW. For example, outcome one maps onto the physical well-being domain of the SMCW, and the aims of physically healthy and positive choices align well with the sub-domains of health status and health behaviours respectively. However, there is also some discontinuity, as the aim of good mental health is coupled with physical health in outcome one, whereas social and emotional well-being is located in outcome two, which is concerned with children's learning and development. This typology is also in contrast to the wider child well-being literature where psychological well-being is typically understood as conceptually distinct from physical health (Pollard and Lee, 2003; O'Hare and Gutierrez, 2012). These challenges can be ameliorated by constructing a three-tier hierarchical index which enables the disaggregation of index findings from an overall composite well-being single score to individual domain and sub-domain scores. A three-tier structure facilitates more granular analysis, such that index findings can be explicitly mapped onto the *Better Outcomes, Brighter Futures* schematic.

The SMCW provides a meaningful framework with which to develop a three-tier index that can be used to report on progress towards the achievement of the national outcomes. The outcomes identified in *Better Outcomes, Brighter Futures* are universal across the age ranges however, the specific aims cut across ages and phases of development. For example, positive and respectful approaches to relationships and sexual health are more appropriate to adolescents and young adults than children in early or middle childhood. This is not necessarily problematic, many international indices are compiled using indicators from across childhood (see, for example, Bradshaw *et al*., 2007a; Bradshaw *et al*., 2007b; Richardson *et al*., 2008; Bradshaw and Richardson, 2008; OECD, 2009; Lau and Bradshaw, 2010; UNICEF, 2013). However, with the public availability of multiple waves of GUI data, and more waves of data collection to follow, more nuanced age-specific indices, using the SMCW, can be developed. At present, GUI data is publically available for two age cohorts at two different time points each; cohort one at age nine months and at three years and cohort two at age nine years and at 13 years. A third wave of data has already been collected for the infant cohort at age five, although not yet publically available. Furthermore, the Minister for Children and Youth Affairs recently announced funding for phase two of the GUI study. During phase two the original infant cohort will be interviewed again at age nine; while the original child cohort will be interviewed again at age 17 and at age 20 (Department of Children and Youth Affairs, 2015). These micro-data will provide a rich source of information with which to develop theoretically-informed and age appropriate indices of well-being. Furthermore, the availability of longitudinal data enables the further and more detailed analysis of the predictors of well-being, thus providing the opportunity to test and validate the SMCW.

The SMCW provides a useful theoretical framework with which to conceptualise indicators of well-being that are compatible with *Better Outcomes, Brighter*

Futures. The use of a common unifying theory, such as the SMCW, can go some way to minimising the significant variation in the use of disparate domains, sub-domains and indicators in the construction of well-being indices for children. Moreover, given the structural orientation of the SMCW, its application to the selection of indicators and the construction of an index of well-being for children may balance the emphasis on parental responsibility that is evident in *Better Outcomes, Brighter Futures* and contribute to a more complete understanding of children's well-being in the policy context.

7.5 Future Research about Children's Well-being

This study has shown that the SMCW can be satisfactorily operationalised so as to inform the development of a composite index of well-being for children living in Ireland; future research could focus on validating the model. The SMCW is a new unifying theory of children's well-being, first published in English in 2013 in the journal '*Child Indicators Research*'. The SMCW provides a coherent fusion and integration of the variety of theories that contribute to its conceptual framework. However, empirical research to explore and validate the model would provide support for its future use in other index construction studies. Methods such as confirmatory factor analysis (CFA) and Structural Equation Modelling (SEM) could be used to explore its underlying theoretical construct. This type of analysis is particularly useful as "*it is able to represent unobserved (latent) concepts in the analysis of dependence relationships*" (Ho, 2006: 282). A latent variable is one which is hypothesised or theorised and cannot be measured or observed directly (ibid), well-being is a latent construct (Vandivere and McPhee, 2008). SEM is theory-driven, insofar as theory provides the justification for the dependence relationships (Ho, 2006). The SMCW suggests a complex set of interactive and interconnected dimensions, components and prerequisites that are both constituent elements of well-being and determinants of well-being. Validating such a complex concept requires the use of complex methods such as CFA and SEM.

This research has demonstrated that the SMCW can be satisfactorily and usefully applied to the construction of an index of well-being for children aged 13 years living in Ireland. The data used in this study represents Wave 2 of the national longitudinal study of children's lives, the SMCW could therefore be applied to the Wave 1 dataset which was collected in 2008 for children then aged nine years. Applying the SMCW to the construction of an index for nine-year olds and replicating the choice of domains, sub-domains and indicators would facilitate the exploration of trends and changes to children's well-being over time. Wave 1 data were collected in 2008 just before the full effects of the economic downturn were felt. In contrast, Wave 2 data were collected in 2012 at the height of the recession. Analysing differences in well-being, using the SMCW as the theoretical construct, could yield some important information on what structural and individual characteristics drive well-being for children in Ireland. Moreover, Government have recently committed to carrying out Wave 3 and Wave 4 data collection with the original child cohort at age 17 and age 20 respectively. The SMCW could be applied to this data as it becomes available, thus providing researchers with an opportunity to explore trends in well-being over time and to explore the predictors of well-being from one cohort to the next. As was noted in the findings described in Chapter Six children did not experience well-being evenly across the domains; that is children did not do uniformly well or uniformly badly, instead some children experienced poor well-being in only one or two individual domains. The availability of longitudinal data means that Wave 1 data for children at age nine could be utilised to model the predictors of well-being at age 13. While this would undoubtedly provide useful information about predictors of well-being it would be equally important to ensure that not just individual child characteristics are modelled in order to avoid applying an individualistic understanding of well-being to the statistical modelling process.

The GUI study also includes multiple waves of data collection for the original infant cohort, aged nine months at Wave 1 in 2009; Waves 2 and 3 followed for this cohort at age three and five years and another wave of data collection will take place when the children are aged nine. The SMCW could be usefully applied to the different waves of data for the infant cohort and the differences between age specific composite indices could be explored as well as differences in well-being between the infant cohort and the child cohort. Applying a common and unifying theory such as the SMCW brings consistency and comparability to the range of indicators included in the composite index, thereby facilitating comparison over time.

Finally, this index was developed using an equal weighting approach; that is each domain, sub-domain and indicator were given equal weighting in the final index. While this is the most commonly used method for the construction of composite indices, it is also one of the main weaknesses. Future research might consider using methods such as SEM to explore the relative contribution of different indicators, sub-domains and domains to the latent concept that is well-being. Advances in statistical modelling and the software available to carry out such modelling could facilitate a more nuanced approach to the weighting of the index than has previously been possible.

7.6 Conclusion

This study was concerned with how children's well-being is conceptualised and measured, and my concern that social policy for children and families is increasingly relying on a conceptualisation of well-being as a set of idealised, individualised behaviours that locate well-being as chosen, subject to individual action and responsibility. This growing emphasis on an individualised and self-responsibilising agenda in social policy suggests that the state has little or no role to play in providing welfare measures or social services to improve its

citizens' well-being. This emphasis is particularly problematic for child well-being as there is a risk that parents will be held responsible for the well-being of their children, irrespective of economic or social circumstances.

Irish social policy development more generally and three recent Irish social policy initiatives for children and families specifically were reviewed to assess the prevalence of the individualisation and self-responsibilising agenda in an Irish context. My review found that while notions of individualisation and self-responsibilisation are not new to Irish social policy, the rationale for this focus has shifted over time. In the decades after independence, this individualisation and self-responsibilisation agenda was tied to Catholic social teaching which considered the family a private domain, outside the scope of state intervention. More recently, the individualisation agenda apparent in social policy emerges from a neo-liberal paradigm. This focus on individualisation in relation to the well-being of children locates the issue of well-being in the individual and their parents. What has emerged in Irish social policy discourse is an understanding that child well-being is mediated by parental behaviours, skills and attitudes and parents behaving or parenting outside of these established normative parameters are framed as failing their children. This conceptualisation of children's well-being equates the challenges facing parents in supporting their children's well-being as requiring lifestyle changes, not as structurally embedded obstacles that require a comprehensive and holistic response.

My review of the social policy landscape for children and families also demonstrated that the notion of well-being is embedded and will likely continue to underpin key social policy responses for children and their families. Therefore, in this context it is important to ensure that the concept of well-being employed and understood in social policy documents embraces an understanding of well-being that moves beyond narrow and individualised

conceptualisations of well-being. I therefore, endeavoured to employ as comprehensive an understanding of well-being as possible in my conceptualisation and measurement of children's well-being. My review of the child well-being literature demonstrated that while many important theories have contributed to studies of children's well-being, such as bioecological theories of child development, sociological theories of childhood, theories concerned with individual capabilities and functioning and normative rights frameworks, none described or articulated a theory of children's well-being. These aforementioned theories and frameworks described aspects of well-being, but did not fully articulate a comprehensive and unifying theory of well-being. The SMCW was identified as a promising unifying theory with which to conceptualise and measure children's well-being in Ireland.

In applying the SMCW to the process of developing an index of well-being for children living in Ireland and considering the findings emerging from the subsequent index, I have demonstrated that the SMCW is suitable to the task, both theoretically and operationally. The SMCW articulates well-being as a process and an outcome, this distinction takes account of both current well-being and future well-becoming, a key concern in the literature. The SMCW theorises the constituent elements of well-being, i.e. what well-being is, as well as theorising the determinants of well-being. The SMCW also recognises that the constituent elements of well-being and the determinants of well-being are not mutually exclusive, thereby underscoring the complexity of the concept. Children are considered to be active agents in the achievement of well-being. However, the SMCW also recognises the agency-structure dynamic; it recognises that agency does not occur in a vacuum and an individual's potential to act is mediated by their social, cultural, economic and political contexts. This understanding that well-being is more than an individual choice and that well-being is not inherently individualistic is critically important and demonstrated why the SMCW was chosen as the theoretical framework for this study.

The resulting index, made up of four domains of well-being, 14 sub-domains and 35 indicators, explored well-being across physical, mental, social and material domains. Two forms of the index were calculated, a continuous index and a categorical one, and each demonstrated how such a theoretically-informed index could be used to identify groups of children who were experiencing poorer or better levels of well-being. The continuous form of the index demonstrated that a clear social gradient is associated with well-being, such that children experiencing social disadvantage also experience poorer social well-being. This finding suggested that well-being is predicated on more than individual factors and that parental behaviours alone are not sufficient to change the well-being trajectories of children. The categorical form of the index showed that well-being is not experienced evenly across domains as only 10 per cent of children scored in the lowest 15th percentile in two or more domains. The reasons why are something that should be explored in future research.

Finally, this study has shown that a theoretically-informed index of children's well-being can be applied to the social policy context. Conceptually, the theoretical pluralism of the SMCW goes some way to challenge the tendencies of contemporary social policies to emphasise individual parental behaviours in achieving and maintaining children's well-being. Operationally and analytically, the SMCW maps well onto the five national outcomes and provides an opportunity to track and monitor progress in this regard in a more holistic and comprehensive way.

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Appendix 1 GUI Study Sample, Wave 1

Status	Number of Children	As Percent of Final Sample*
Region		
Border	968	11
Dublin	2,182	25
Mid-East	1,122	13
Midlands	577	6
Mid-West	691	8
South-East	1,006	12
South-West	1,360	16
West	749	9
Disadvantaged Status		
Non-disadvantaged status	7,663	89
Disadvantaged status	884	10
Unspecified disadvantaged status	108	1
Type of School		
Private school	67	1
Special school	41	<0.5
Mainstream school	8,547	99
Co-education Status		
All boys	1,217	14
All girls	772	9
Mixed	6,666	77
Religious Denomination		
Roman Catholic	8,175	93
Other specified religion	413	5
Unspecified	67	1
Total Number of Children in the Sample	***8,665***	
Total Number of Children in the Data File	***8,568***	

** Percentages have been rounded*

Source: Adapted from the Growing Up in Ireland Team (2010a)

Appendix 2 Subject Matter Covered in Primary and Secondary Caregiver GUI Questionnaires

Subject Area	Primary Caregiver	Secondary Caregiver
Main Questionnaire		
Household information	✓	
Child's health	✓	
Respondents health	✓	✓
Child's emotional health and well-being	✓	
Child's education: past and present	✓	
Family context	✓	✓
Socio-demographics	✓	✓
About you	✓	✓
Neighbourhood and community	✓	
Sensitive Questionnaire		
Reasons why people have left the household since Wave 1	✓	✓
Relationship to child	✓	✓
Current marital status	✓	✓
Relationship with partner	✓	✓
Parental stressors scale	✓	✓
Currently pregnant	✓	✓
Current smoking and drinking	✓	✓
Use of drugs	✓	✓
Mental health	✓	✓
Contact with criminal justice system	✓	✓
Information about non-resident parent where relevant	✓	✓
Direct Measurements		
Height and weight	✓	✓

Source: Adapted from Quail et al., 2014

Appendix 3 Subject Matter of Children's GUI Questionnaires

Main Questionnaire	• School • Activities • Exercise and sport • Food • Friends • Bullying • Body image and dieting • Parental discipline • Self-concept (Piers-Harris)
Sensitive Questionnaire	• Relationships and sexuality education • Maturation questions • Delinquency and ever been in trouble with the Gardaí • Psychotic experience • Smoking, alcohol and drug use • Parenting style
Sensitive Supplementary Questionnaire	• Getting along with the caregiver • Parenting Style Inventory II
Direct Measurements	• Height and weight • DRT tests • BAS matrices tests

Source: Adapted from Quail et al., 2014

Appendix 4 Levels of Missing Data in the Index

	0 Indicators Missing	1 Indicator Missing	2 Indicators Missing	3 Indicators Missing	4 Indicators Missing
Physical Health Domain					
Health status	7,525	n/a*	n/a	n/a	n/a
Absence of illness/ disease	7,523	1	n/a	n/a	n/a
Physical functioning	7,516	9	n/a	n/a	n/a
Health behaviours	7,204	204	4	58	55
Mental Well-being Domain					
Absence of Disorders	7,383	16	126	0	0
Emotional Problems	7,524	1	n/a	n/a	n/a
Cognitive Development	7,052	349	18	106	n/a
Life satisfaction	7,318	94	113	n/a	n/a
Social Well-being Domain					
Relationship with parents	6,644	555	325	1	n/a
Relationship with peers	7,353	54	118	0	0
Participation in play/ group hobbies	7,377	148	n/a	n/a	n/a
Material Well-being Domain					
Income	6,945	574	6	0	n/a
Deprivation	7,410	113	2	0	n/a
Neighbourhood	7,414	108	3	n/a	n/a

* n/a shows that the sub-domain did not have that number of indicators included

Appendix 5 Distribution of Scores for Each Domain of Well-being and Overall Well-being

The following series of figures, starting with physical well-being, graphically demonstrates the range of scores achieved in each of the well-being domains and the distribution of these scores.

As can be seen from Figure A5-1 physical well-being scores are not normally distributed. There is a small cluster of scores at the bottom end of the distribution; more cases are found at the top end of the distribution, indicating a negative skew to the data[40]. As can be seen from Figure A5-2 mental well-being scores are more evenly distributed, but with a tendency to cluster at the top end of the distribution. Social well-being is more normally distributed (Figure A5-3); while material well-being is not normally distributed, with a cluster of scores at the top end of the distribution (Figure A5-4).

As can be seen in Figure A5-5, the scores for overall well-being are more evenly distributed with a tendency to cluster towards the top end of the frequency distribution.

[40] Skew is a measure of the symmetry of a frequency distribution; symmetrical distributions have a skew of 0. When the frequency scores are clustered around the lower end of the distribution, the value of the skew is positive; when frequency scores are clustered at the higher end of the distribution, the value of the skew is negative (Field, 2005).

Figure A5-1 Physical Well-being Scores

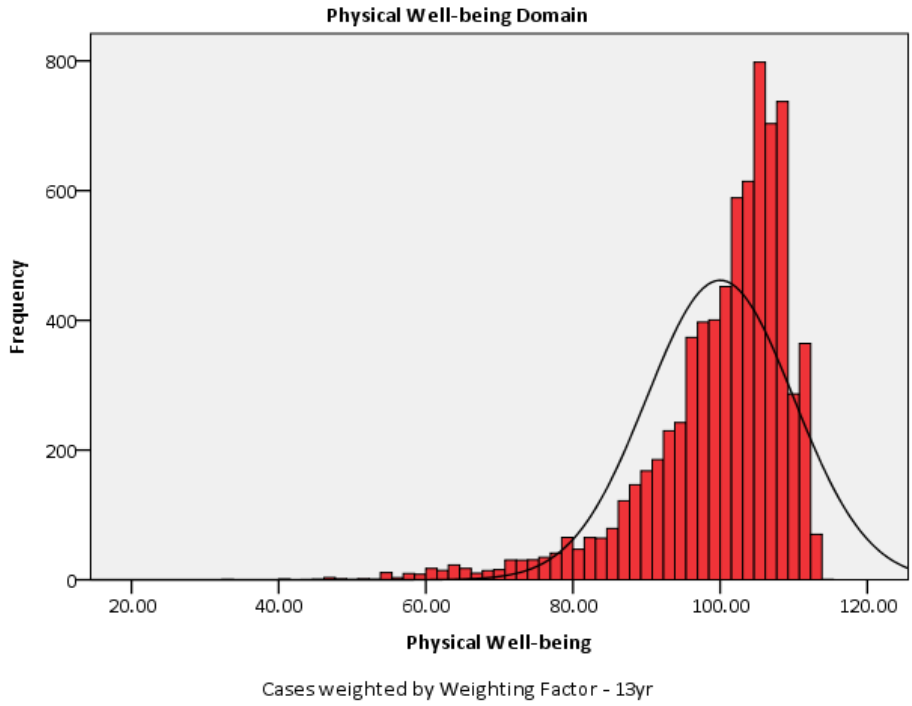


Figure A5-2 Mental Well-being Scores

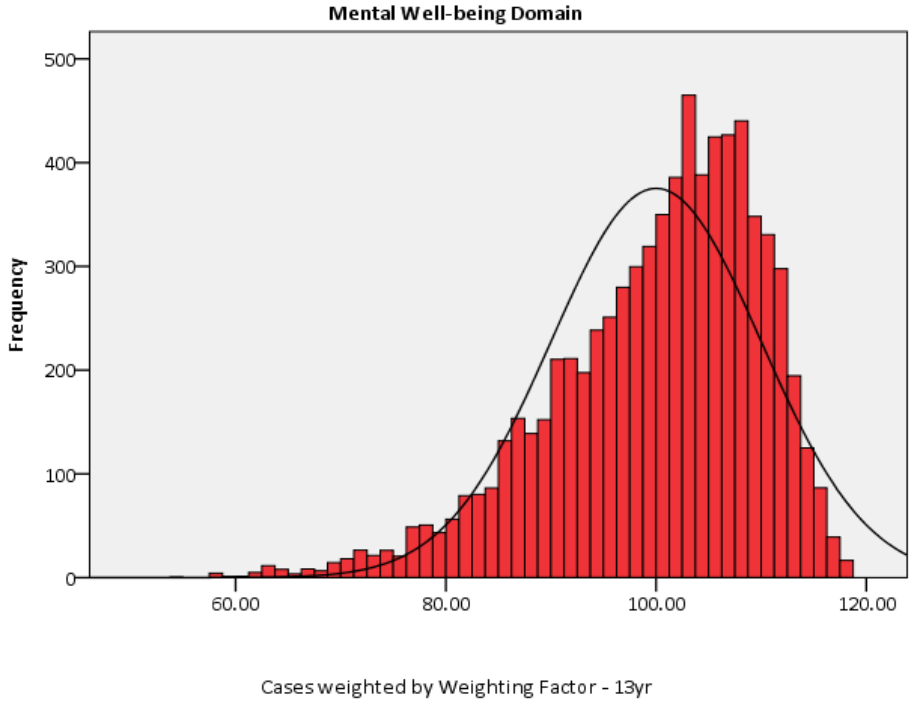


Figure A5-3 Social Well-being Scores

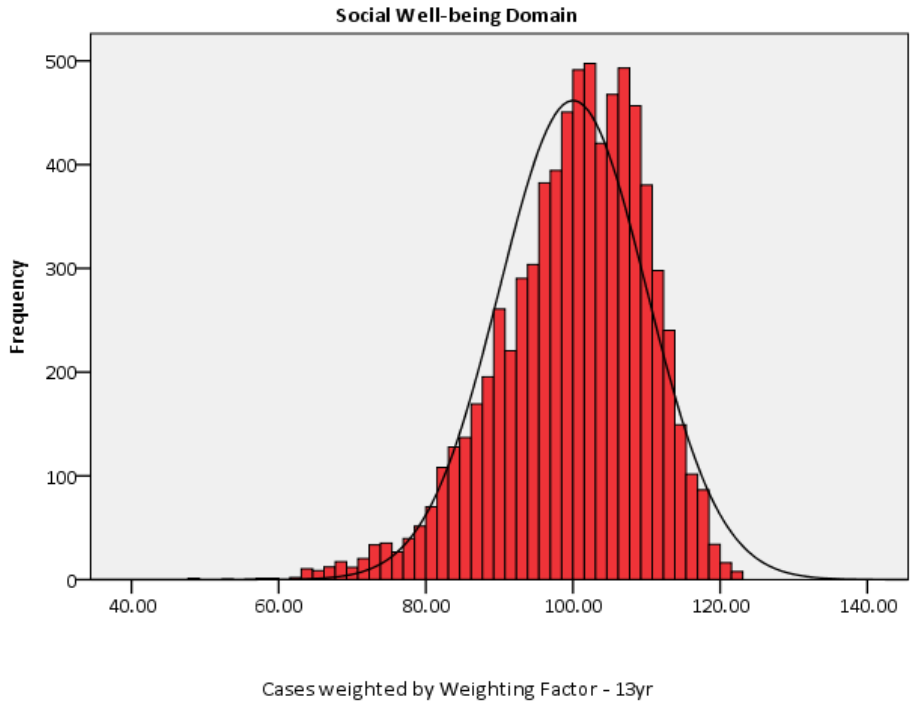


Figure A5-4 Material Well-being Scores

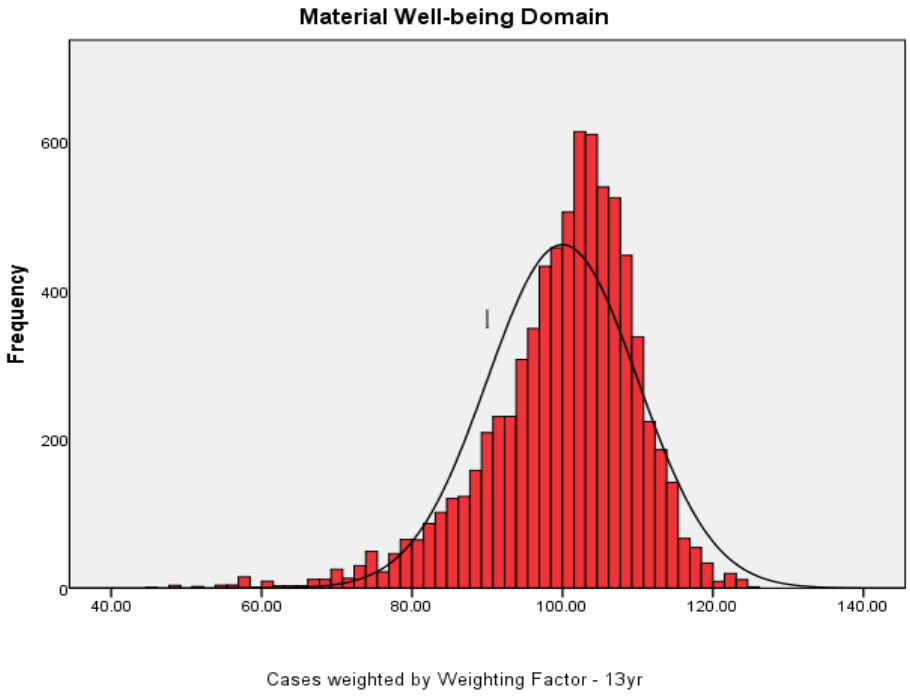
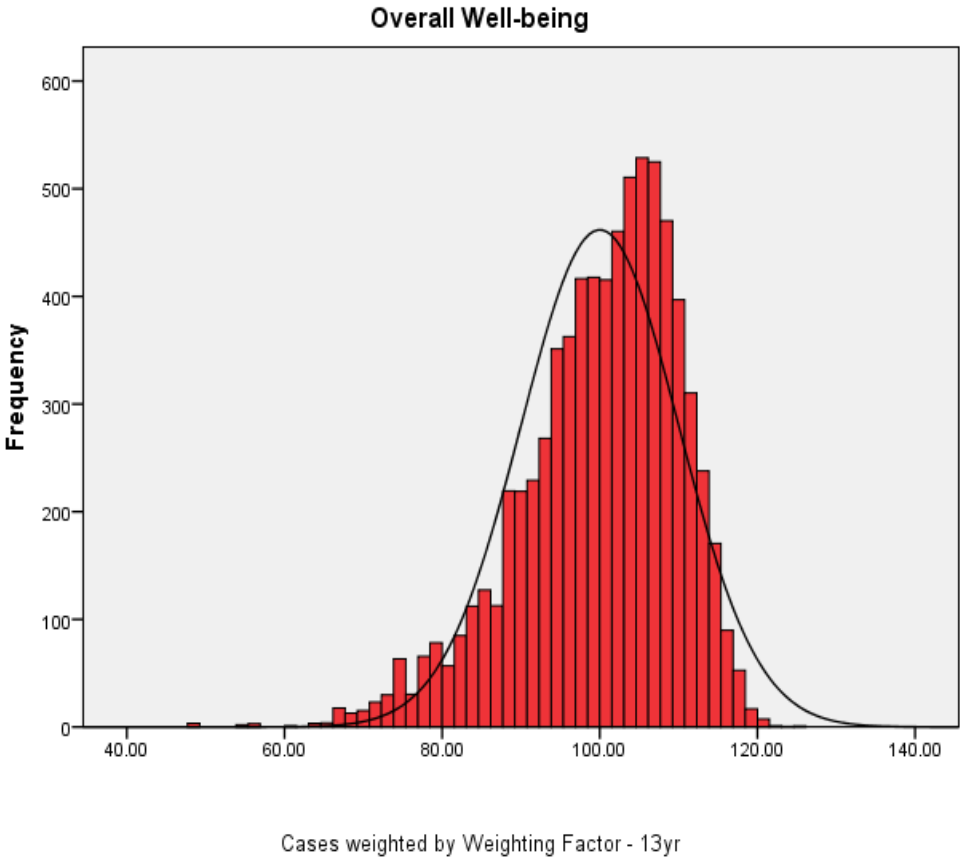


Figure A5-5 Overall Well-being Scores



Appendix 6 Child Well-being Index Studies Reviewed

Thirteen child well-being studies were reviewed as part of this study. The purpose of the review was to assess how well an index developed, and informed, by the Structural Model of Child Well-being demonstrated congruity with the wider child well-being indices literature. The review considered indices of well-being developed in the last 10 years and only assessed indices that employed a multi-dimensional understanding of well-being across a wide range of children. For example, studies that focused on only dimension of well-being such as subjective well-being (for example, indices by developed by Klocke *et al*., 2014; Martorano *et al*., 2014 and Bradshaw et al., 2013) or material well-being (for example studies by Main and Bradshaw, 2012; Bastos and Machodo, 2009; Bastos *et al*., 2004); as were studies that focused on only population of children such as children in care, asylum seeking or refugee children . A short description of each study is provided below.

Author, Year and Title of Study	**Study Description**
Bradshaw, J., Hoelscher, P. & Richardson, D. (2007). Comparing child well-being in OECD Countries: concepts and methods.	The report describes what, and how, indicators were selected in order to measure and compare well-being across OECD countries. The indicators selected to represent well-being are derived from a variety of population level surveys and are combined to produce an index of well-being. The index is made of six dimensions, 18 components and 40 indicators.
Land, K., Lamb, V., Meadows, S. & Taylor, A. (2007). Measuring Trends in Child Well-being: An	The paper describes the approach used and process for developing the Child and Youth Well-being Index (CWI) for the United States of America. The findings from the index are reported, as are trends in the index over time.

Author, Year and Title of Study	Study Description
evidence-based approach	The index comprises seven domains and 28 indicators.
Bradshaw, J., Hoelscher, P. & Richardson, D. (2007). An Index of Child Well-being in the European Union	The paper describes the approach used and process of calculating an EU-wide index of well-being for children. The index is informed by a rights-based approach, where well-being is understood as a multi-dimensional concept. The resulting index compares how well different EU states are performing in terms of the well-being of their children. The index comprises eight clusters, 23 domains and 51 indicators.
Richardson, D., Hoelscher, P. & Bradshaw, J. (2008). Child Well-being in Central and Eastern European Countries (CEE) and the Commonwealth of Independent States (CIS)	The paper describes attempts to calculate the first multi-dimensional index of children's well-being living in CEE and CIS. Indicators were sourced from existing population level surveys. The index comprises 52 indicators, 24 components and seven dimensions of well-being.
Bradshaw, J. & Richardson, D. (2009). An Index of Child Well-being in Europe	The paper describes a European index of children's well-being, which extends the authors' previous EU-wide index to include Norway and Iceland. The underlying conceptual approach remains the same as that used in the authors' 2007 EU-wide index. However, this new index comprises seven domains, 19 components and 43 indicators of well-being.
Bradshaw, J., Noble, M., Bloor, K., Huby, M., McLennan, D., Rhodes, D., Sinclair, I. & Wilkinson, K. (2009). A Child Well-being Index at Small Area Level in England	The article describes the approach to, and methods used in, developing an area-level index for children's well-being in England. Seven domains and 31 indicators populate the final index.

Author, Year and Title of Study	Study Description
OECD (2009). Doing Better for Children	The report provides an overview of children's well-being across six dimensions and 21 indicators of well-being. The report presents the theory behind the selection of the dimensions and indicators; the methods used to create composite dimensions; and the data sources for each indicator used in the study.
Sanson, A., Misson, S., Hawkins, M., Berthelsen, D. & the LSAC Research Consortium. (2010). The Development and Validation of Australian Indices of Child Development – Part 1: Conceptualisation and Development	The article describes the development of summary outcomes indices for child development in Australia, using the Longitudinal Study of Australian Children micro dataset. The index comprises three domains and 16 indicators of well-being. The study adopts a child development focus. The paper reflects on the benefits and challenges of using micro-data to compile composite indices.
Lau, M. & Bradshaw, J. (2010). Child Well-being in the Pacific Rim	The article describes efforts to develop a composite index of well-being for children living in countries in the Pacific Rim. The index is developed using the methods described elsewhere in the literature and data is sourced from a range of international population-level surveys. The index is comprised of six domains, 21 components and 46 indicators.
Moore, K., Murphey, D. & Bandy, T. (2012). Positive Child Well-being: An Index Based on Data for Individual Children	The paper describes efforts to compile an index of well-being for children living in the USA, using data from the National Survey of Children's Health. The study conceptualises well-being in terms of children's individual functioning. A total of four domains, 12 sub-domains and 30 indicators are included in the index for children aged 6-11 years; 32 indicators are included in another index for

Author, Year and Title of Study	Study Description
	children and young people aged 12-17 years.
Cheevers, C. & O'Connell, M. (2012). Developing an Index of Well-being for Nine-Year-Old Irish Children	The article describes the approach and methods used to develop a composite index of well-being for children aged nine years, using data from the Irish national longitudinal study of children's lives. The index describes well-being in terms of child development only and comprises three domains, six sub-domains and 14 indicators of children's well-being.
O'Hare, W., Mather, M., Dupuis, G., Land, K., Lamb, V. & Fu, Q. (2013). Analysing Differences in Child Well-being Among U.S. States	The article describes the process of developing a composite state-level index of child well-being modelled on the CWI. The index comprises of 25 indicators clustered into seven domains of well-being.
UNICEF Office of Research (2013). Child Well-being in Rich Countries: A comparative overview, Innocenti Report Card 11	The report describes the findings from an international comparison of child well-being across countries. Well-being is conceptualised across five dimensions, 12 components and 26 indicators.