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Title	Is physical activity and sport participation equal for all adolescents in Ireland?
Authors	Ng, Kwok;O'Brien, Wesley;Woods, Catherine
Publication date	2026-06-10
Original Citation	Ng, K, O'Brien, W & Woods, C 2026, 'Is physical activity and sport participation equal for all adolescents in Ireland?', Journal of Science and Medicine in Sport, vol. 29, no. 12, pp. 1356-1363. https://doi.org/10.1016/j.jsams.2026.06.003
Type of publication	Article (peer-reviewed)
Link to publisher's version	https://www.scopus.com/pages/publications/105042730767 - 10.1016/j.jsams.2026.06.003
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Download date	2026-11-06 17:27:29
Item downloaded from	https://hdl.handle.net/10468/19561

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Journal of Science and Medicine in Sport 29 (2026) 1356–1363

Contents lists available at ScienceDirect

Journal of Science and Medicine in Sport

journal homepage: www.elsevier.com/locate/jsams

Original research

Is physical activity and sport participation equal for all adolescents in Ireland?

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ARTICLE INFO

Article history:
Received 14 May 2025
Received in revised form 18 March 2026
Accepted 5 June 2026
Available online 10 June 2026

Keywords:
Traditional games
Immigration
Migration
Social integration
Organised Leisure

ABSTRACT

Objectives: Physical activity and sport participation is seen as a vehicle for social integration in a changing and rapidly advancing society. Physical activity and sport participation rates among immigrants are low, but less is known about how the rates differ by nationality groups. The aims of this study were to examine the levels of physical activity and sport participation through school and community sport activities by nationality groups and how they differ to Irish adolescents.
Design: Secondary data analyses on the Children's Sport Participation and Physical Activity 2022 study were carried out, with disaggregation by eight nationality groups (Irish/Northern Irish, Eastern European, Western European, South Asian, East Asian, North American, African, and Other).
Methods: Extracurricular sports, community sports by type, school representation, and overall physical activity were measured. Logistic regression analyses were carried out with Irish adolescents as the reference category.
Results: Of the 8881 adolescents, 14% were from non-Irish nationality groups. Lower levels of school and community sport participation were reported, particularly for Eastern European (school odds ratio = 0.6, confidence interval = 0.5–0.9; community odds ratio = 0.5, confidence interval = 0.4–0.7) and East Asian (school odds ratio = 0.5, confidence interval = 0.4–0.8; community odds ratio = 0.2, confidence interval = 0.2–0.4) nationality groups. Daily physical activity was also lower for non-Irish adolescents than their Irish peers.
Conclusions: With these findings, sporting authorities have a baseline of findings that can inform how well the current and future policies on diversity and inclusion have been on physical activity and sport participation of adolescents.
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Practical implications

- Monitoring the participation of sports by nationality group is important for identifying inequalities in access to physical activity and sport among adolescents.
- Current diversity and inclusion policies need to be evaluated against participation outcomes, especially since substantial disparities remain between Irish and non-Irish adolescents.
- Sport is deeply cultural, and immigration may create barriers to participation in sports linked to national identity and tradition, highlighting the need for inclusive pathways across schools, clubs, and sporting organisations.

1. Introduction

1.1. Background/rationale

Participation in physical activity and sport (PAS) is highly encouraged in many policy documents. For example, in the attempt to reduce discrimination and promote social inclusion in the European Union (EU), the Treaty of Lisbon[1] promoted sport as a social and educational activity. Diversity in PAS is championed in the Australia Sport 2030 policy where individuals should be "able to undertake the exercise they need and want in a safe, fun and inclusive way".[2] The House of Lords enquiry from the United Kingdom found that sport is a "vehicle to promote social inclusion of minorities".[3] In a comprehensive approach to inclusion of diversity in sport policy in Ireland, consultations with stakeholders led to the creation of five strategic pillars (change, communication, access, capacity, leadership) to demonstrate a commitment to address the barriers of underrepresented groups.[4] Despite the

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https://doi.org/10.1016/j.jsams.2026.06.003
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presence of diversity in these documents, there is a lack of evidence that has demonstrated whether any of these policies addressing PAS promotion for minority groups actually improve provisions and rates of PAS. As such, an original study is much needed to outline existing estimates of PAS participation from a representative sample.

Many EU citizens have the freedom to live and work in Ireland, leading to greater diversity in communities.[5] According to the 2022 census, approximately 12% of the Irish population are non-Irish citizens, up by around 10,000 people since 2016,[6] with up to 26% of non-Irish citizens in the capital, Dublin.[7] The largest non-Irish groups include people from Poland, UK, India, Romania, and Lithuania.[6] Entry into Ireland varies, leading to different backgrounds among the immigrant community. In addition to the cultural, religious and race related issues, to reside in Ireland, non-EU citizens need work permits that require specialised skills and high levels of education qualifications.[8] Non-Irish people, particularly among adolescents, have been known to experience anti-immigrant attitudes, discrimination, stigma, and social isolation.[9]

In Ireland, the sporting culture is deeply rooted and dependent on volunteer participation; for example, data from the recent Irish Sports Monitor in 2024 illustrates that over 250,000 coaches volunteer 1 million h a week in Irish sport,[10] leading to immigrant individuals needing to fit into society through sport,[7] or be at risk of being left out. This phenomenon is not just experienced in Ireland; for example, interviewees with migrant backgrounds in a community sport programme in Australia still experienced feelings of exclusion in these activities.[11] As outlined in the report to support diversity and inclusion in sport, there is a fear of discrimination among ethnic minorities and few ethnic minorities act as sporting role models.[4] Yet, it can be challenging for ethnic minorities to feel comfortable to take on such roles. Early experiences of PAS come from physical education (PE), yet racial prejudices by PE teachers were present by non-Caucasian students in England.[12] It is therefore not surprising that fewer non-Irish, than Irish, children participated in team (48% v 69%) or individual (53% v 62%) sports[13] with similar participation rate differences found around the world.[14]

Through a social integration framework,[15] sport participation facilitates the citizen's rights to participation, enriches understanding of different cultures, and enhances social connections.[16] Sport participation is recognised as an important tool for adolescents to adapt to a new society[17] and can bring several health benefits to immigrants.[18] Yet, participation in sports by immigrants is not always straightforward.[19]

Challenges may include placing additional efforts due to language difficulties,[7] or conflicting cultural attributes in sport participation that make game play less enjoyable.[20] Researchers conducted a two-year follow up study that involved immigrants in society and found individuals who participated in sport had more friends when compared to their immigrant peers who did not take up sport.[16] There are several challenges to conducting research on immigrant groups, such as access and willingness to participate, or fear of being identified by taking part in research,[21] leading to a lack of evidence available on PAS participation of immigrant groups.[22] As such, it would be important to find ways to ensure anonymity through surveys by different nationality groups when examining the rates of PAS participation. The aims of this study were to report the rates of PAS participation in both the school and the community environments, and to report how these rates among different nationality groups may differ from Irish adolescents, after controlling for potential confounders such as individual factors and place of school and dwelling.

2. Methods

2.1. Study design

Secondary data analyses from the Children's Sport Participation and Physical Activity (CSPPA) 2022 study were carried out. The CSPPA 2022 study is an All-Island monitoring study in Ireland, collected in the first half of 2022, based on a national representative sample comprised of students in schools aged between 10 and 19 y old. School characteristics based on urban/rural environments, small, medium and large schools, and school sex (boys, girls, mixed) were considered in the sampling frame. In the Republic of Ireland (ROI), the ratio of schools with a 'delivering equality in schools' (DEIS) was also considered in the sampling frame. Schools were selected so that the target number of students would be 3000 from ROI to account for design effects, with the intention that schools would offer all students in a year group to participate in data collection. Due to collection through teacher administered surveys using an online link, a 50% oversampling strategy was used. Midway through data collection (March 2022), adjustments to sampling were sought, as there was an underrepresentation of students in examination years (ROI: 3rd year, ≈15 y olds, 6th year, ≈19 y olds; NI: year 14 ≈ 18 y olds), and recruitment was then focused on collecting data from these year groups. Similarly, in Northern Ireland, the recruitment of schools continued, based on the sampling structure, although no strata on DEIS were used, as these schools do not exist. National statistics on gender and year groups, provided by the Departments of Education were then used to form weights on the data to account for the over- and under-representativeness of data. More details of the study sampling strategy can be found on the CSSPA webpage (https://csppa.ie/). Details of the research questions for this study have been registered and available on the OSF page (https://10.17605/OSF.IO/U4XAY).

2.2. Participants

Schools were given letters for parents to inform them of the study. Schools were given their authority to decide on how consent would be managed. In the majority of schools, the usual opt-out consent process for children and minors were used as the study was based on a within class-time survey completed on electronic devices. Upon starting the survey, students were asked to confirm their parents were informed of the study, that they had permission to be involved in the study, and were also asked for their agreement to participate in the study. The students were informed that participation is voluntarily, they could withdraw from the study at any time by quitting the survey, and it would be without any penalty or consequences. The study was approved by the Research Ethics Committees by the University of Limerick Education and Health Sciences' research ethics committee (2017_11_19_EHS).

2.3. Variables

The main disaggregation variable was a single item used on nationality. Students were asked, "What is your nationality?" There were 16 examples of common nationalities in Ireland, and an option for 'Other', which was then an open text box. For analyses, students in ROI who reported Irish or Northern Irish were coded as Irish. For students in NI, students who reported Irish, Northern Irish, or British were coded as 'Irish'. Eastern European countries were grouped by those who reported, Latvian, Lithuanian, Polish, Romanian, Slovakian, and any European country written down that was in the East of Europe, i.e. Estonia. Western European nationalities were grouped by those who reported, British (only in ROI), French, German, Italian, Spanish, and any Western European country written in the open text box, i.e. Portuguese. South Asians were grouped by Indian, or open text responses such as Pakistani, Bangladeshi, and nearby places. East Asians were grouped by Chinese, or open text responses such as Japanese, Korean and nearby nationalities. North American were grouped by American and Canadian. Open text responses of African nationalities were grouped together. All others, including Brazilian, were grouped as 'other nationalities'. Students who did not answer this question (n = 801) were treated as missing, and their data were removed from the analysed datasheet.

Other background variables included gender, age, disability, and family affluence. Gender was asked by "I identify myself …" with the

following options, "male", "female", "non-binary", "other", and "I rather not say". Age was asked by, "How old were you on your last birthday?" For the analyses, age was grouped into 10–11 y old, 12–13 y old, 14–15 y old, and 16–18 y old. Ages outside of 10–18 y were recoded as missing. Disability was measured through the self-report version of the Child Functional Module.[23] In short, this measure is an 11-item scale about difficulties in core functions for children, with responses of "no difficulty", "some difficulty", "a lot of difficulty", and "cannot do". The cut off for disability was at "a lot of difficulty" on any function to be considered as a student with disability.[24] The Family Affluence Scale (FAS) is a proxy measure of social economic status used for self-report surveys.[25] There are six items of family material wealth. Summation of the six items was then ranked using Rankit function in SPSS. Then quintiles were created, with the lowest 20% grouped as low FAS, highest 20% as high FAS, and in the middle as medium FAS.[26]

2.4. Quantitative variables

Students were given a definition of physical activity (PA), different intensity levels and examples before asked the number of days in the past 7 days and in a typical week where they did at least 60 min of moderate-to-vigorous intensity physical activity (MVPA). For each item, there were 8 response options from 0 days to 7 days, with one day as a unit. The mean score was derived from the two items and then recoded into 0–2 days, 3–4 days, 5–6 days and 7 days. Previous studies have shown acceptable validity when compared with triaxial accelerometers,[27] and retest–test reliability when the items are grouped into four categories.[28]

Sport participation was measured by a checklist. The first column was activities the students did "before school, at lunchtime, or after school with the help of a teacher". In the second column, students selected the activities they "play with sports or activity clubs (not school club)". Column 3 referred to "played in timetabled P.E. or Games classes". There was a list of 27 sports and physical activities, in alphabetical order ranging from "adventure activities" through to "weight training". There was the option to report 'other' with an open text box for the student to describe. For analyses, only the top six activities in each of the three settings, 1. extracurricular sport and physical activity, 2. community sport and physical activity, and 3. physical education were used for analyses.

In addition, students reported the frequency of participation in extracurricular and community sport settings, with response options ranging from never to 4 or more days (for school), or 6 or more days for community. The data were dichotomised into 'at least one day a week' or more frequently were together with the value of 1, and less often was coded as 0.

Finally, students were asked if they represented their "school in a competition or match against another school". Response options were yes, no and don't know. All "don't knows" were recoded as 'no', as it would be expected that if students were involved in an interschool competition, they would know about it. Items of the full questionnaire can be found on the OSF project metadata (https://osf.io/9bkam/files/osfstorage/646b0e7fab65b31b06a2e58d).

2.5. Statistical methods

The overall statistical plan on the OSF was followed without deviation. All data were entered into the complex samples programme in SPSS 27.0, with sample weights taken from each jurisdiction separately and then combined, and clusters at the school level and year group created to account for the sampling structure. Level of confidence was set at 95% confidence intervals, with $p < .05$ as the level of significance in all of the analyses. Where possible, Bonferroni adjustments were included to account for multiple tests.

Jurisdiction of the sample was tested by the Chi-square test for independence to demonstrate sample distribution differences in Northern Ireland and the Republic of Ireland. Repeated binary logistic regressions in complex samples were performed for weekly extracurricular sport, weekly community sport, participation in interschool sport, and each of the six most participated activities in the three settings outlined above. Non-weekly and non-participation were the reference categories. For analysing differences in MVPA, a multinominal approach in complex samples was used, with 0–2 days as the reference category. Nationality groups pooled as 'non Irish' were the independent variable in the first analyses, and then different nationality groups in separate analyses, with Irish nationality as the reference category. All analyses were adjusted for by gender, age group, disabilities, family affluence, jurisdiction of the school, and if the school is urban or rural.

3. Results

3.1. Participants

From the unweighted sample (n = 8881), the majority of respondents were from the Republic of Ireland (72%) and the remainder from Northern Ireland (28%). The majority of adolescents were Irish (86%), and the largest non-Irish nationality group came from Eastern Europe (7%) and then Western Europe (3%). South and East Asians combined made up 2% of the sample. Details of the (unweighted) breakdown of nationality groups by jurisdiction are in Table 1. Further breakdown of participant characteristics by nationality is in Supplementary Table 1.

3.2. Participation in sport activities

Approximately three quarters of adolescents took part in weekly extracurricular school sports (78%) or weekly community sport activities (74%). Students with Irish nationality reported taking part in weekly extracurricular sport activities one and half times more than non-Irish students combined, specifically students with Eastern and Western European nationalities and over two times for weekly community sport for non-Irish students, specifically, Eastern European, South Asian and African nationalities (Table 2). Half of Irish students reported

Table 1
Sample (unweighted) characteristics by jurisdiction.

	Northern Ireland	Republic of Ireland	CSPPA 2022	χ^2	Cramer's V
N	2523	6358	8881	p	
Gender				.084	0.006
Female	46.7%	49.3%	48.6%		
Male	49.9%	47.3%	48.0%		
Other	3.4%	3.4%	3.4%		
Age group				<.001	0.158
10 − 11 y	25.0%	10.0%	14.3%		
12–13 y	27.4%	35.6%	33.3%		
14–15 y	35.5%	24.9%	27.9%		
16–20 y	12.1%	29.5%	24.5%		
Disabilities				.02	0.024[a]
Without	70.5%	73.1%	72.3%		
Disabled	29.5%	26.9%	27.7%		
FAS				.399	0.024
Low FAS	23.2%	22.0%	22.3%		
Medium FAS	54.3%	55.8%	55.4%		
High FAS	22.6%	22.2%	22.3%		
Nationality				<.001	0.107
Irish	91.1%	83.5%	85.7%		
Eastern European	4.7%	7.3%	6.5%		
Western European	1.0%	3.2%	2.6%		
South Asian	0.7%	1.5%	1.3%		
East Asian	1.0%	1.2%	1.1%		
North American	0.3%	0.5%	0.5%		
Africa	0.6%	1.2%	1.0%		
Other	0.6%	1.6%	1.3%		

Note: For purposes of analyses: Irish is made of Irish and Northern Irish in Republic of Ireland, and Northern Irish or British in Northern Ireland.
[a] Phi was used for 2 × 2 effect size test.

Table 2
Association with weekly school sport, community sport or interschool competition participation by nationality groups.

Nationality group	Weekly extracurricular sport ($N^2 = 0.128$)			Weekly community sport ($N^2 = 0.098$)			Interschool competitions ($N^2 = 0.111$)		
Irish (rates)	78.30%			73.70%			49.00%		
	OR	LCI	UCI	OR	LCI	UCI	OR	LCI	UCI
Irish nationality	1			1			1		
Non-Irish	0.68	0.57	0.81	0.48	0.39	0.58	0.33	0.26	0.43
Eastern European	0.68	0.54	0.86	0.51	0.39	0.67	0.29	0.21	0.39
Western European	0.66	0.49	0.91	0.67	0.44	1.02	0.36	0.21	0.61
South Asian	0.90	0.46	1.78	0.32	0.18	0.55	0.37	0.19	0.74
East Asian	0.55	0.36	0.84	0.24	0.15	0.39	0.25	0.17	0.38
North American	0.67	0.34	1.34	1.17	0.32	4.26	1.49	0.72	3.10
African	0.63	0.35	1.15	0.44	0.26	0.75	0.40	0.18	0.89
Other	0.68	0.39	1.19	0.39	0.25	0.63	0.25	0.15	0.41

Note: N^2 = Nagelkere^2; OR = odds ratio; LCI = 95% lower confidence interval; UCI = 95% upper confidence interval.

to have participated in interschool competitions (49%). There were greater disparities in interschool competition participation based on non-Irish nationalities.

3.3. Common extracurricular activities

The most popular extracurricular sporting activity was soccer (35%), followed by Gaelic football (27%) and basketball (25%). Popular community sports were Gaelic football (34%), swimming (32%) and soccer (30%). Common sports played in physical education included basketball (63%), soccer (60%) and baseball (59%).

3.3.1. Participation in popular sports

Across the six most popular extracurricular sports, irrespective of nationality group, the odds ratios ranged between 0.12 (East Asian; CI = 0.04–0.39) and 0.49 (South Asian; CI = 0.26–0.92) for participation in Gaelic football, when compared to Irish nationality (Fig. 1). Statistically significant low rates of playing hurling/camogie were also noted among different nationality groups, except South Asian and North American groups. When compared to Irish nationality, Eastern and Western Europeans, East Asians, and Africans had statistically significant lower ORs for playing soccer. Yet, both Eastern Europeans (OR = 1.7, CI = 1.2–2.2) and Western Europeans (OR = 1.7, CI = 1.6–2.5) had higher reported odds ratios for cycling than their Irish nationality counterparts. There were no statistically significant differences across nationality groups and Irish nationality for athletics and basketball. Exact adjusted odds ratios and confidence intervals are available in Supplementary Table 2.

There were also statistically significantly more Irish who participated in the weekly community sport of Gaelic football (ladies Gaelic football) than all the non-Irish nationality groups (Fig. 2). Similarly, there were low rates of weekly community sport participation in hurling or camogie by European, Asian and other nationality groups compared to Irish nationality. Despite that a third of adolescents reported to attend weekly community swimming, only European and Other

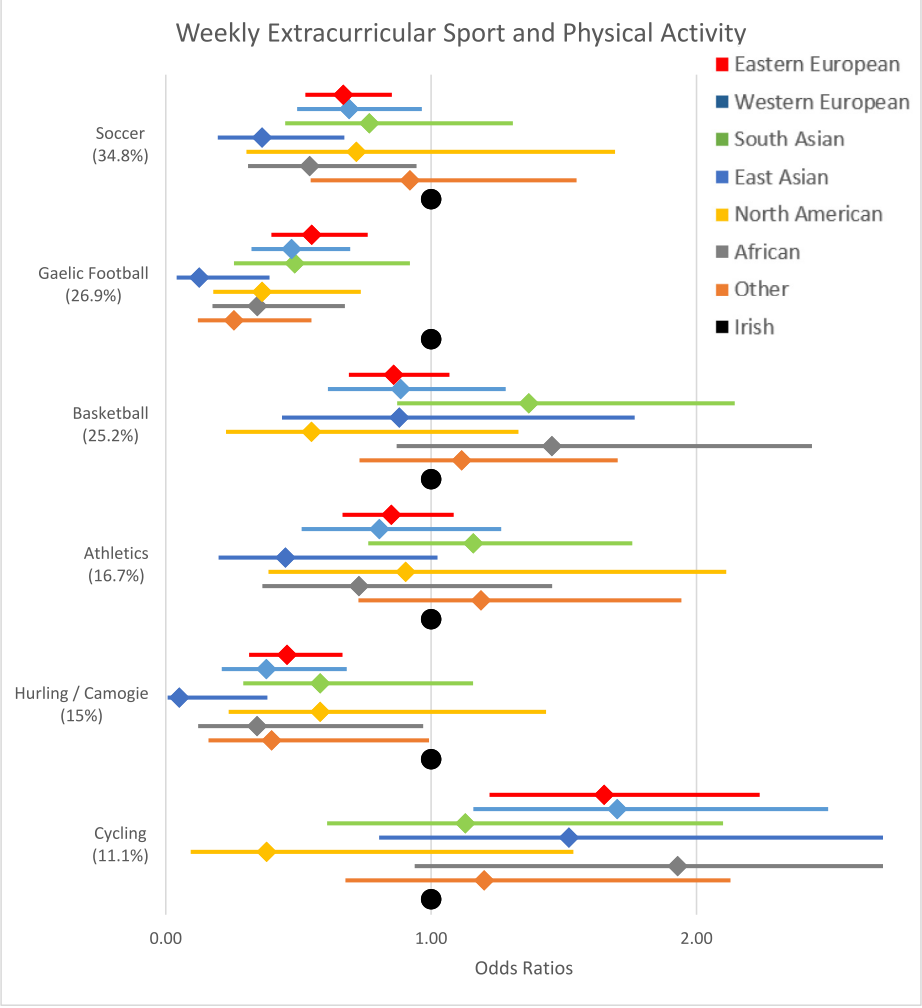


Fig. 1. Adjusted odds ratios and confidence interval lines for popular weekly extracurricular sports and physical activity, by nationality groups.

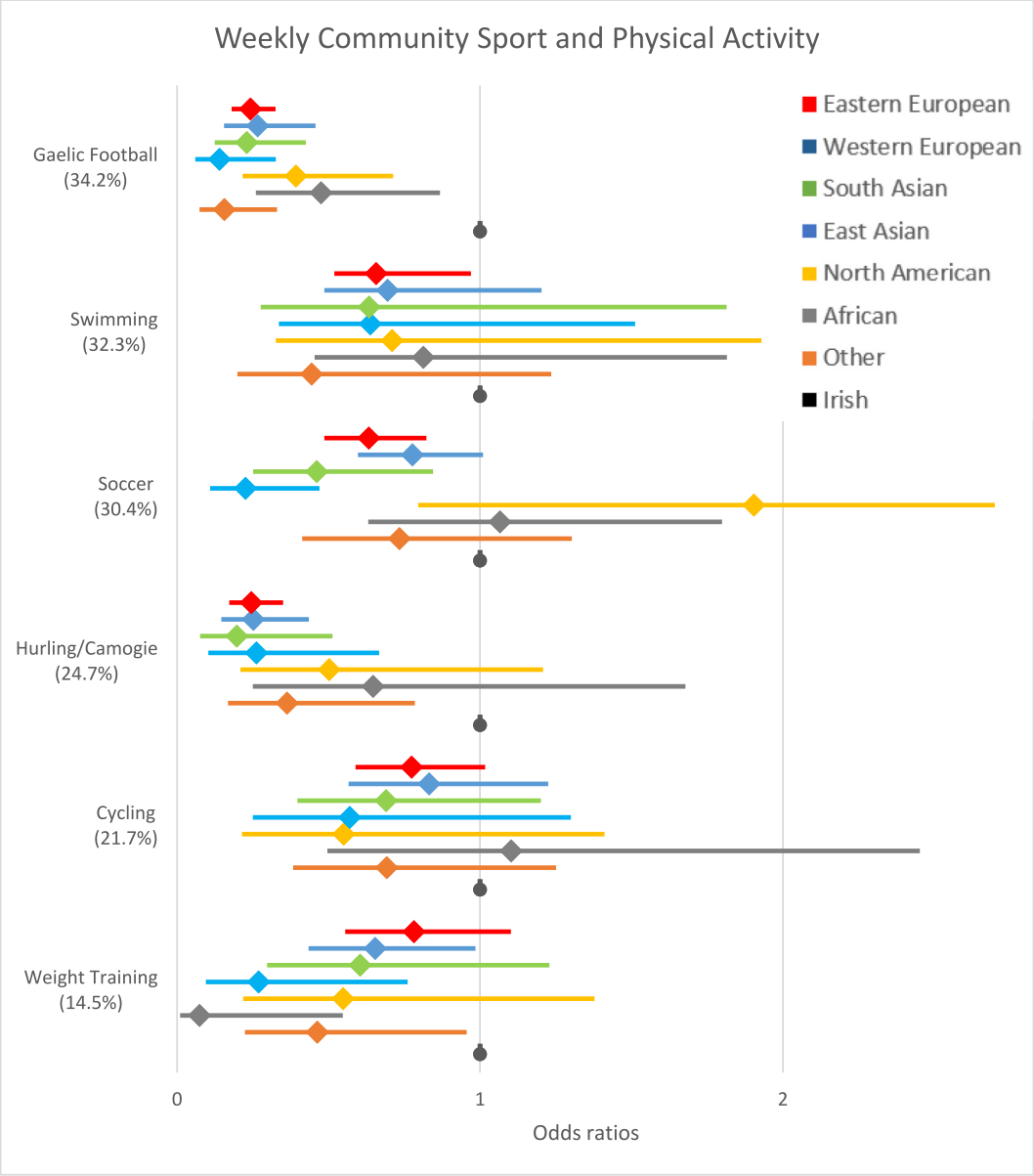


Fig. 2. Adjusted odds ratios and confidence interval lines for popular weekly community sport and physical activity, by nationality groups.

nationalities reported lower odds ratios compared to Irish nationality. Weekly community soccer participation was lower among Eastern and Western Europeans as well as Asians than Irish nationality. Weight training was the 6th most popular community physical activity and sport with 15% of Irish reported to do it at least weekly. Yet statistically significant lower rates were reported by Western European, East Asian, African and Other nationalities, when compared to Irish nationality. All adjusted odds ratios and 95% confidence intervals are in Supplementary Table 3.

The six most common sports in physical education across Ireland were basketball (62%), soccer (60%), baseball (59%), athletics (50%), badminton (45%), and volleyball (28%). There were few differences in rates of participation in these sports in physical education by nationality groups, when compared to Irish nationality. Details of the associations are in Supplementary Table 4.

3.3.2. Levels of moderate-to-vigorous physical activity

Participation in 0–2 days of MVPA was the least (15%), 3–4 days was double (34%), 5–6 days of MVPA was slightly more (35%), and 16% of Irish adolescents reported daily MVPA. There were no statistically significant differences between any separate nationality groups and Irish nationality in 3–4 days of MVPA, when compared to 0–2 days (Fig. 3). Fewer adolescents in Eastern European, Western European, and East Asian nationality groups reported 5–6 days and 7 days, when compared to Irish nationality and 0–2 days. Exact estimates of the adjusted odds ratios are in Supplementary Table 5.

4. Discussion

From these population-level analyses, we revealed substantial within nationality group variation in participation rates in PAS and school representation in sports. With approximately one in six adolescents in Ireland with non-Irish nationalities, participation in PAS was non-uniform among different national groups. Generally, levels of PA among adolescents in Ireland are high compared to the rest of European regions,[29] which makes the context in Ireland a worthy context to examine. The rates of non-Irish nationality were slightly higher in the CSPPA 2022 study than the national population of 12%,[7] which

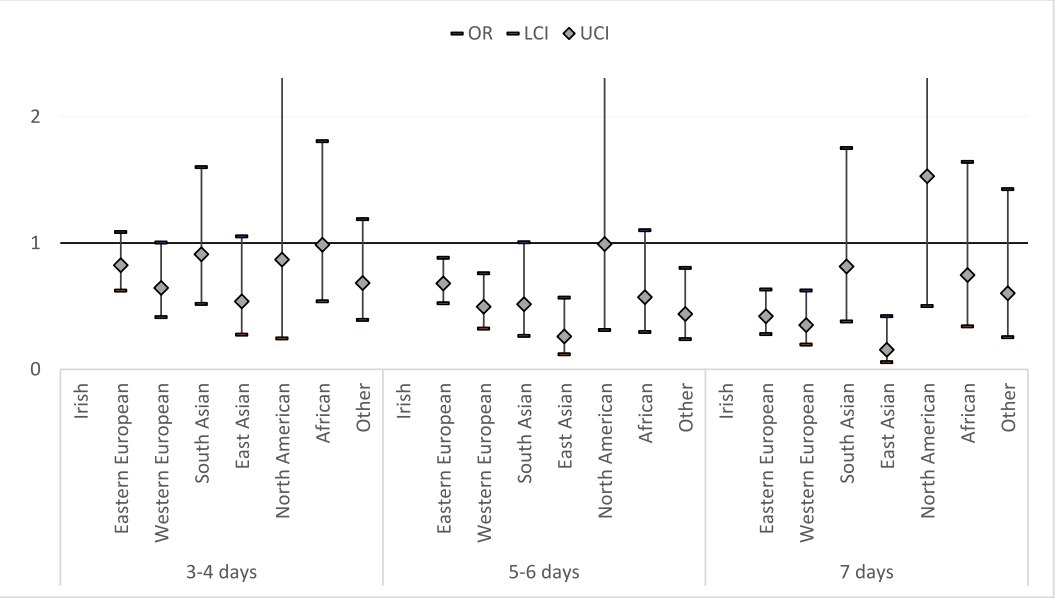


Fig. 3. Associations between nationality groups and MVPA groups. Reference 0–2 days; Irish.

could be expected due to low rates of older age non-Irish and higher rates of younger non-Irish populations.[6] These results offer valuable insights into PAS participation among diverse adolescent groups by nationalities.[19] Such information could inform targeted interventions, often used to promote social inclusion through PAS.[18]

Schools are an excellent setting to encourage all adolescents to participate in the same activities,[17,22] and this was supported by the results. Rates of participation in extracurricular activities in international sports like basketball and athletics were similar among all adolescents, irrespective of their nationality group. There is potential for activities like these to be the stepping stone for social integration between Irish and other nationalities adolescents, where cultural exchange takes place.[20] Yet, large discrepancies in rates of weekly extracurricular and community sport participation were observed. Notably, Irish traditional sports like Gaelic football and hurling, for males, or camogie, for females, are deep rooted traditions and national identity[7,30] and can be culturally distanced by other nationality groups.[17] Furthermore, family values, income, and language issues may reduce opportunities to further participation.[7] It is therefore not surprising that participation by non-Irish nationalities in traditional sport extra-curriculum activities is low and possibly non-existent.[22]

Another example of exclusion visible from almost all non-Irish nationalities was in interschool sport representation. With selection of school team members based on interschool competitions, performance, availability, and choice by the school teacher, the low representation rates may reflect the low participation in extracurricular and community sport where adolescents are not getting enough practice time to make the team.[31] A large proportion of the non-Irish nationality participants did not represent their school within regional, provincial and national sport competitions. On the island of Ireland, it is important to note that the qualified physical education (PE) specialist(s) is often delegated with additional posts of responsibility relating to the management (and coaching) of individual and team interschool sport competitions.[32] Previous research by Flintoff[12] observed that the PE teaching profession consists of minimal ethnic minority representation in terms of diversity. Given the existing lack of ethnic minority representation within the PE teaching profession, there are a lack of relatable PE role models, and this may play a role in low participate rates in traditional interschool sport competitions. Family support to give permission to perform might be challenging, as some immigrant cultures do not value sport representation over time spent studying.[33] Intersport competitions may need to be more inclusive, expanding possibilities to demonstrate capabilities to encourage grander participation.[19] Among several possibilities for tackling this dilemma, one method is the festival approach for intra- and inter-school activities, which could help celebrate cultures, build identities,[34] and thus make sport activities be a fun activity whilst being with friends.[35] Successful running of inclusive competitions most likely requires whole-of-school approaches to promote PAS, where implementation is reliant on well-designed intervention designs, organisational factors, and interpersonal factors at the school.[36]

There is much diversity in the communities around Ireland,[17] with equitable PAS participation often dictated by nearby and accessible facilities. With approximately a third of Irish adolescents participating in a Gaelic sport on a weekly basis, it is the most popular community sport activity, as reported elsewhere.[30] Similar to extracurricular sport participation in Gaelic sports, there were extremely low rates by non-Irish nationalities, with similar reasons cited earlier are likely reasons for this phenomenon.[7,17,20] A supply and demand gap has appeared and addressing this is one of the areas of focus the national sporting authority, Sport Ireland, has outlined.[4] This could lead to more resources to a variety of sports.

The common community sport activities were half team and half individual sports, and differences in participation were evident in both. This may suggest the need to examine factors beyond the type of sport, but more of the culture within community sports. For example, Spaaij et al.[37] reported several barriers to enable diversity in sport clubs, largely related to cultural aspects of sport and socialisation[20] and this can create a resistance to diversity and building inclusive environments.[37] Without overcoming such resistance areas, lower levels of participation are likely to continue for each activity for all non-Irish nationality groups. Commonly reported barriers to participate include too much homework, not enough time, and lack of suitable activities available, which are common to adolescents without knowing their nationality status.[31] The same barriers were reported among migrant adolescents,[20] particularly lack of family and peer support to participate in physical activities.[33] To embrace the social integration framework,[15] the concept of human rights lens may be purposeful, and measures of availability, accessibility, acceptability and quality have been suggested.[38] Furthermore, with the known challenges with in-depth research with immigrant population groups,[21] it would be worthwhile to continue pursuing large scale survey based studies to ensure the voice of children and PAS participation are included in future research.[39]

4.1. Limitations

There are a few study limitations for readers to consider when interpreting the current study results. Examining differences by nationalities is only one aspect of diversity in sport research. Nationalities were grouped, yet different cultures, values, and PAS backgrounds exist and not accounted for. The North American group was relatively small, and confidence of those results was lower than other nationality groups. Although the results were adjusted for by gender, age, school sex, disabilities, family affluence and urban or rural dwellings, the disparities by each of these subgroups were not reported, nor the intersection between these confounders. Data on the availability of sport opportunities were not collected. The data were from a cross-sectional self-report survey administered in a classroom and response bias may have occurred, although these biases were the same across the sample. We do not have information about non-respondents and their nationalities. It is likely non-response bias is the same across the study, and not specific to nationality groups. Furthermore, the associations between nationality groups, and PAS could be bi-directional and is not causally inferred from the results. The measure of nationality was based on what the student reported by country, yet it does not account for second generation ethnicity, race or religion.

4.2. Interpretation

Adolescents with non-Irish nationalities took part in less extracurricular sport, community sport and health enhancing levels of PA, compared to their Irish descendent peers, and within-nationality group differences exist. With rates of immigration increasing over time, PAS participation is vital for individual health, a sense of belonging and societal integration.[40] Traditional Irish sports are popular among adolescents, and Gaelic sports have a national heritage, yet in general, it appears that non-Irish adolescents have yet to find a pathway to get more involved. These findings are similar to what other studies have found in terms of inequities within PAS participation; hence, knowledge of different nationality groups offers insights for tailored programmes to promote PA among adolescents.

4.3. Generalisability

The CSPPA study is based on a national representative sample, with margin of errors between 1.5 and 2.0%.[32] There is moderate confidence that these results are generalisable to the Irish adolescent population. Yet, internationally, these results may have limitations, as national traditions for sports in country to country vary. Sport policy systems across differing jurisdictions and countries vary, offering unique insights that could be transferable to others. These results are meaningful to wider audiences and leisure time behaviours, going beyond health outcomes where societal impact of sport for all requires more discussions and discoveries to reduce the inequalities that currently exist.

CRediT authorship contribution statement

KN: data curator; data analysis; writing original draft; writing review
WOB: writing original draft; writing review
CW: funding acquisition; writing original draft; writing review.

Confirmation of ethical compliance

The study received ethical approval from the University of Limerick Education and Health Sciences' research ethics committee (2017_11_19_EHS) and was conducted in accordance with the Declaration of Helsinki. All procedures were in compliance with research principles outlined by local ethical committees. All participants provided informed consent and assent for the study.

Funding information

Sport Ireland and Sport Northern Ireland funded this data collection. The funders were not involved with the data analyses or interpretation of the results.

Declaration of interest statement

Authors have no conflict of interest.

Acknowledgement

CSPPA research members and participants.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jsams.2026.06.003.

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