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Research Article

Prevalence of low back pain among Irish radiographers

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ABSTRACT

BACKGROUND: According to the literature, low back pain (LBP) is one of the top ten diseases and injuries contributing to disability-adjusted life years worldwide. To the best of the authors' knowledge there are no studies investigating the prevalence of LBP among radiographers working in Ireland or have compared prevalence rates with the national population or other cohorts of radiographers or healthcare professionals. This study aimed to determine the prevalence of LBP among radiographers working or who have previously worked in Ireland and to identify any causative factors.

METHODS: A cross-sectional study in the form of an online questionnaire was developed. Participation was advertised online via social media platforms. Inclusion criteria included qualified radiographers working in Ireland or who had recently worked in Ireland. Section A of the questionnaire focussed on acquiring demographic data. Section B comprised eight questions relating to LBP, including current and previous experiences, causative factors and consequences.

Further details on any episodes of LBP in the previous year, whether work and leisure activities had been affected, whether any extracurricular activities caused LBP, and whether a participant sought professional advice. Section C (six questions) used a 5-point ordinal scale to collect information on the frequency of specific tasks performed by radiographers in their daily roles. Section D involved exploratory questions, including whether LBP has forced a career change if they knew anyone who has changed their career as a result of LBP, reaction to the amount of manual handling required for radiographers, whether they thought manual handling training was sufficient, thoughts on the availability of assistive transfer devices, reasons for not following correct patient transfer guidelines, and finally whether they were concerned about LBP affecting their future.

RESULTS: 151 radiographers participated in this study, and the point prevalence rate of LBP was 50%, with 12 months prevalence rate of 75%. Regarding activity levels, 25% (n=37) reported reduced work activity, and a further 43%(n=65) reduced leisure activities due to LBP. 37% (n=56) have sought medical advice from a doctor, physiotherapist, or other HCP concerning their LBP in the last year. 68% (n=104) of respondents who have LBP confirmed it was not a result of any extracurricular activities.

CONCLUSION: The prevalence of LBP among radiographers in Ireland was high and 4.7 times higher than the period prevalence rate recorded in the general population. LBP rates were similar to radiographers working in other jurisdictions. Data from this study may help manage LBP and monitor any interventions' effectiveness.

RÉSUMÈ

CONTEXTE: D'après la littérature, la lombalgie est l'une des dix maladies et blessures qui contribuent le plus aux années de vie corrigées de l'incapacité dans le monde. À la connaissance des auteurs, il n'existe aucune étude sur la prévalence de la lombalgie chez les radiographes travaillant en Irlande, ni de comparaison des taux de prévalence avec la population nationale ou d'autres cohortes de radiographes ou de professionnels de la santé. Cette étude avait pour but de déterminer la prévalence de la lombalgie chez les radiographes travaillant ou ayant travaillé en Irlande et d'identifier tout facteur causal.

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Ethical approval: Ethical approval for this study was obtained from the Social Research Ethics Committee (SREC) at University College Cork (dated 08-MARCH-2022).

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Méthodologie: Une étude transversale sous la forme d'un questionnaire en ligne a été élaborée. La participation a été annoncée en ligne via des plateformes de médias sociaux. Les critères d'inclusion comprenaient les radiographes qualifiés travaillant en Irlande ou ayant récemment travaillé en Irlande. La section A du questionnaire était consacrée à l'acquisition de données démographiques. La section B comprenait huit questions relatives à la lombalgie, y compris les expériences actuelles et antérieures, les facteurs de causalité et les conséquences. D'autres détails sur les épisodes de lombalgie au cours de l'année précédente, si les activités professionnelles et de loisirs avaient été affectées, si des activités extrascolaires étaient à l'origine de la lombalgie, et si un participant avait consulté un professionnel. La section C (six questions) utilisait une échelle ordinale en 5 points pour recueillir des renseignements sur la fréquence des tâches spécifiques effectuées par les radiographes dans leur rôle quotidien. La section D comportait des questions exploratoires, notamment pour savoir si la lombalgie les avait obligés à changer de carrière, s'ils connaissaient quelqu'un qui avait changé de carrière à cause de la lombalgie, leur réaction à la quantité de manutention manuelle requise pour les radiographes, s'ils pensaient que la formation à la manutention manuelle était suffisante, leur opinion sur la disponibilité des dispositifs d'aide au transfert, les raisons pour lesquelles ils ne suivaient pas les directives correctes pour le transfert des patients, et enfin s'ils étaient inquiets que la lombalgie affecte leur avenir.

RÉSULTATS: 151 radiographes ont participé à cette étude, et le taux de prévalence ponctuelle de la lombalgie était de 50%, avec un taux de prévalence sur 12 mois de 75%. En ce qui concerne les niveaux d'activité, 25% (n=37) ont déclaré avoir réduit leur activité professionnelle, et 43% (n=65) ont réduit leurs activités de loisirs en raison de la lombalgie. 37% (n=56) ont consulté un médecin, un physiothérapeute ou un autre professionnel de santé au sujet de leur lombalgie au cours de l'année écoulée. 68% (n=104) des répondants souffrant de lombalgie ont confirmé que cela ne résultait pas d'activités extraprofessionnelles.

CONCLUSION: La prévalence de la lombalgie chez les radiographes en Irlande était élevée et 4,7 fois plus élevée que le taux de prévalence périodique enregistré dans la population générale. Les taux de lombalgie étaient similaires à ceux des radiographes travaillant dans d'autres juridictions. Les données de cette étude peuvent aider à gérer la lombalgie et à surveiller l'efficacité de toute intervention

Keywords: Low back pain; Prevalence; Irish radiographers; Causative factors

Background

Low back pain (LBP) is defined as pain, muscle tension, or stiffness that occurs below the costal border and above the inferior gluteal folds, with or without the presence of sciatica.[1] It comes under three general classifications according to symptom duration; acute (<six weeks), sub-chronic (6 to 12 weeks) and chronic (> 12 weeks).[1,2] Sex, age, obesity, height, posture, lifestyle, extended periods of standing, physical demands of the workplace, social support, and pain perception, among others, are all risk factors for LBP.[3-5]

LBP is an issue that affects people of all ages but it is a more prevalent health problem among the working population.[6] According to the Global Burden of Disease Study in 2010, LBP arising from work-related factors accounts for one-third of all occupational-related disabilities.[7] It is the primary cause of reduced activity and work absenteeism worldwide, inflicting a significant financial strain on individuals, families, communities, businesses, and governments.

Radiographers are healthcare professionals (HCPs) who are employed to work in radiology services and in hospitals, where they are involved in carrying out diagnostic imaging examinations, such as radiography, computed tomography (CT), magnetic resonance imaging (MRI), ultrasound, mammography, interventional radiology/cardiology and nuclear medicine. A study by Kumar and colleagues (2010) reported that such tasks could induce excessive lumbosacral compression.[8] Manual handling is a significant contributor to occupational musculoskeletal disorders (MSD) among HCPs. Recent research has shown that workplace MSD are also a significant problem among radiographers, with a very high number (60-76%) reporting episodes of LBP.[9] Kumar and colleagues, in their study of 108 radiographers[8], reported that 89% of respondents experienced episodes of LBP within that past 12 months. Radiographers in this study reported that they assumed their LBP symptoms were exacerbated as a direct result of their work-related duties.

In Ireland, as of July 2021, there were 2,682 radiographers registered to work within in the profession.[10] Currently LBP prevalence data is only available for the wider Irish working population via the 2007 Department of Health commissioned the Survey of Lifestyle, Attitudes, and Nutrition (SLÁN) report.[11] This report aimed to gather baseline data to support the monitoring of Irish population health and lifestyle behaviours. The study included 10,364 participants, all were over eighteen years old, and 16% reported episodes of LBP, however data were not stratified according to individual work sectors or professions and thus implications specifically for Irish radiographers could not be determined.[11]

Historically, research on MSDs, including LBP, has tended to focus on nurses, physiotherapists, and dentists and not specifically radiographers. Research on LBP amongst the radiography community is limited, several studies have suggested radiographers typically suffer from work-related back and neck pain[9,12-15], but these did not specifically focus on radiographers working in Ireland where there are likely to be differences in health and safety standards, mandatory training and patient characteristics. To the authors' knowledge, there is currently no literature that investigates the prevalence of LBP among radiographers in Ireland or compares the prevalence rate to other cohorts. Such information could support trend analysis and provide a rationale for implementing interventions to help pro-

mote musculoskeletal health amongst radiographers. Discussion and further research on this subject would also benefit the wider radiography community outside Ireland, given the potential implications of work-related LBP across the global community and the need to maintain a safe work environment and also recruit and retain radiographers.

Methods

A quantitative research approach was adopted via an online questionnaire (*see* Supplementary Material) to obtain information on LBP from registered radiographers in Ireland. In Ireland, the term *radiographer* generally applies to those working in the diagnostic subspeciality of the profession. The term *radiation therapist* is used for colleagues working in radiation therapy and as such this survey focused on those working in diagnostics. A questionnaire was developed based on a previously validated survey instrument.[15] The questionnaire was uploaded to an online survey platform and then piloted by four members of the research team, all qualified radiographers. Piloting was used to check the format and layout of the online questionnaire together with the functionality of any question branching. Some minor editing, for example the correction of typographical errors, was undertaken before officially deploying the survey online.

Questionnaire design

The questionnaire was based on the previous work of Okeji and colleagues[15] and consisted of initial participant information and consent questions followed by four discrete sections. *Section A* focussed on questions relating to the personal and demographic data of the respondents. *Section B* comprised eight questions relating to the respondents' subjective experiences of LBP. This section sought information as to whether respondents were currently experiencing LBP, if they have ever experienced LBP, what caused it and if they have ever been hospitalised due to LBP, and if they have changed careers due to LBP. *Section C* (six questions) were constructed using a 5-point ordinal scale to collect information on the frequency of specific tasks performed by radiographers. Possible responses included never, less than once a week, once per day, more than once per day (<10) or multiple times per day (>10). *Section D* involved exploratory questions, including the effects of LBP on career changes, manual handling training and equipment and concerns about LBP affecting future lives.

Participants

Participants were diagnostic radiographers who were currently or who had recently (within the past two years) been on the Irish state register (CORU). Participants were required to have worked clinically within this time, and inclusion and exclusion criteria were specified within the participant information. Based on the following formula (Eq. (1)), a sample size of 93 was determined:

$$\begin{aligned} Z &= \text{z-score (95 \% confidence interval)} = 1.96 \\ p &= \text{standard of deviation} = 0.5 \\ e &= \text{margin of error (10\%)} = 0.1 \\ N &= \text{Population size (based on CORU registered radiographers in Ireland July 2021)} = 2682^{10} \\ &= 93 \end{aligned} \tag{1}$$

Procedures

The questionnaire was advertised and distributed online via the Social Media platforms of Facebook[16] and Twitter.[17] The questionnaire was first shared online and gained an initial number of respondents before being reshared on the same platforms and was finally closed after being available online for one month.

Ethical approval

Ethical approval for this study was obtained from the Social Research Ethics Committee (SREC) at University College Cork (dated 08-MARCH-2022).

Data collection and analysis

Fully anonymised responses were collated via Microsoft Forms (Microsoft Corp, Redmond, WA) before being exported to a Microsoft Excel spreadsheet (Microsoft Corp, Redmond, WA). In both instances data were stored securely and accessible only through Microsoft Office 365 and OneDrive (Microsoft Corp, Redmond, WA). Data obtained were tabulated and analysed to determine the prevalence of LBP and possible influencing factors. Analysis of potential causative factors used the Chi-squared test for independence.[18]

Results

A total of 151 radiographers completed the questionnaire, which was higher than the required sample size of 93. Information describing the demographic data of the respondents is presented in Table 1. Most respondents were female (130, 86%), while the remaining 21 (14%) were male. There was a mean (SD) age of 39 ($\pm$10) years for all respondents (range of 22 to 67 years). The mean (SD) weight of respondents was 73 ($\pm$14) kg with an average (SD) height of 1.69 ($\pm$0.78) m. The mean (SD) BMI was 25.8 ($\pm$4.1). Most respondents (123, 82%) worked in public hospitals, and the other 27 (18%) worked privately. The mean (SD) number of years of clinical experience was 16 ($\pm$10).

Detailed occupational characteristics of the respondents are displayed in Table 2. Senior radiographers were the most frequent respondents (57, 38%), while basic grade radiographers and clinical specialists made up 23% (n=34) and 25% (n=38)

Table 1
Summary of the key demographic data for the respondents (n=151).

Variable		*n (%)*		P value
LBP		*Yes*	No	
Sex	Female	68 (91)	62 (82)	0.107
	Male	7 (9)	14 (18)	
Age (Years)	21-30	20 (27)	20 (26)	0.922
	31-40	23 (31)	20 (26)	
	41-50	24 (32)	28 (37)	
	51-60	7 (9)	6 (8)	
	>60	1 (1)	2 (3)	
BMI	<18.5[a]	1 (1)	1 (1)	0.873
	18.5< x <25[b]	38 (51)	36 (47)	
	25< x <29.9[c]	25 (33)	30 (39)	
	30+[d]	11 (15)	9 (12)	
Clinical Experience (Years)	0-10	28 (38)	23 (30)	0.536
	11-20	19 (26)	24 (32)	
	21-30	24 (32)	22 (29)	
	31-40	3 (4)	6 (8)	
	>40	0 (0)	1 (3)	

[a] Underweight
[b] healthy
[c] overweight
[d] obese[19]

Table 2
Summary of the potential occupational factors.

Variable		*n (%)*		*P value*
LBP		*Yes*	*No*	
Grade (n=150)	Basic Grade	16 (21)	18 (24)	0.931
	Senior Radiographer	26 (35)	31 (41)	
	Clinical Specialist	22 (29)	17 (23)	
	RSM II	4 (5)	3 (4)	
	RSM I	5 (7)	5 (7)	
	Other	2 (3)	2 (3)	
Primary clinical work setting (n=150)	Public	63 (85)	60 (79)	0.593
	Private	10 (14)	15 (20)	
	Other	1 (1)	1 (1)	
Average additional hours per week (n=147)	0	0 (0)	2 (3)	0.283
	1-5	8 (12)	12 (20)	
	6-10	18 (28)	20 (33)	
	11-15	16 (25)	12 (20)	
	16+-20	13 (20)	10 (17)	
	20+	10 (15)	4 (7)	
The most common type of patient encountered (n=150)	Out-patient	17 (23)	18 (24)	0.759
	In-patient	13 (18)	12 (16)	
	Equal numbers of each	44 (59)	46 (60)	
The most common age group of patients encountered (n=151)	Paediatrics	2 (3)	5 (7)	0.492
	Adults	21 (28)	25 (33)	
	Geriatrics	4 (5)	3 (4)	
	Equal paediatrics, adults, and geriatrics	20 (27)	13 (17)	
		1 (1)	0 (0)	
	Equal paediatrics and adults	27 (36)	30 (39)	
	Equal adults and geriatrics			

of all responses, respectively. The mean (SD) number of additional hours worked per week was 11 (±9) hours. 60% (n=90) of respondents reported dealing with equal numbers of in-patients and out-patients within their practice. Amongst respondents, 38% (n=57) encountered an equal number of adult, and geriatric patients, 30% (n=45) dealt with mainly adult patients, and 22% (n=33) encountered similar numbers of paediatrics, adult, and geriatric patients.

Data relating to respondents' experience of LBP is outlined in Fig. 1. 75 (50%) of respondents reported experiencing LBP, and 76 (50%) did not report experiencing any LBP. During the previous twelve months, 75% (n=113) of respondents re-

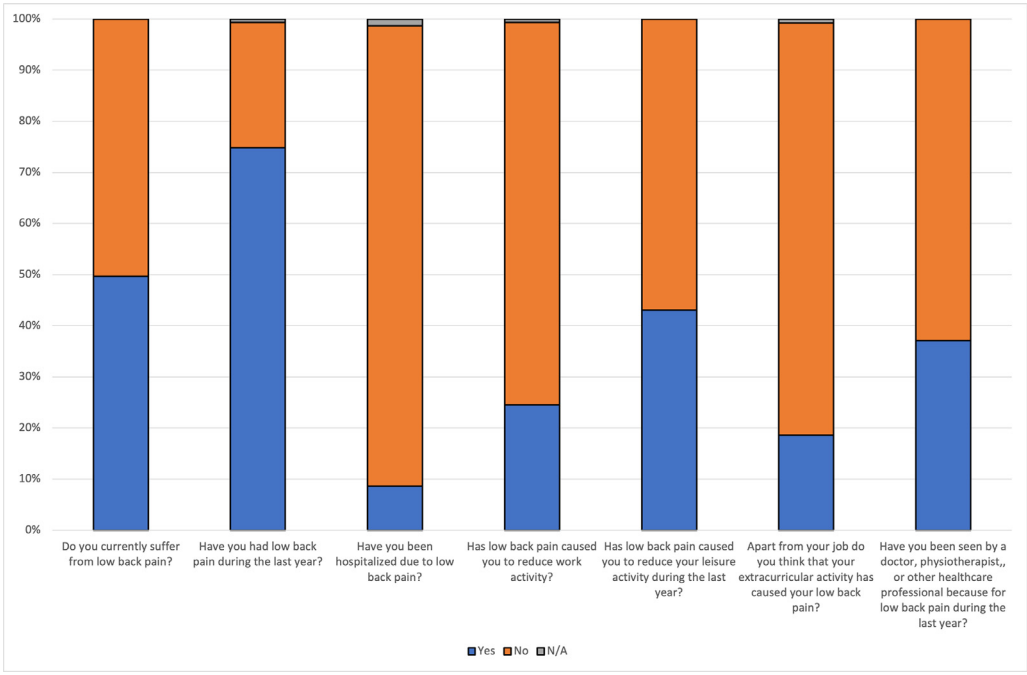

Fig. 1. Bar chart summarising respondents' experience of LBP.

ported having experienced LBP. As a result of their LBP, nine percent (n=13) report being hospitalised. Regarding activity levels, 25% (n=37) respondents reported reducing work activity, and 43%(n=65) reduced their leisure activities as a result of their LBP. Among respondents, 37% (n=56) have sought medical advice from a doctor, physiotherapist, or other healthcare professional about their LBP in the last year. 68% (n=104) of respondents who have LBP confirmed it was not a result of any extracurricular activities.

Fig. 2 illustrates the frequency of radiographers performing tasks while working. With 57% (n=86) report pulling or pushing equipment and bending over while carrying out examinations over ten times a day. 38% (n=55) wear a lead apron during an investigation less than once a week. 46% (n=68) are involved in repositioning detectors/patients during examinations. 36% (n=52) transfer patients to and from examination beds with or without aides multiple times per day. 40% (n=58) admit to twisting while carrying out examinations numerous times per day.

Responses to the exploratory questions (Table 3) and illustrate that 16% (n=24) of respondents have changed or considered changing career from radiography due to LBP, and a further 43% (n=64) confirmed they know someone who has changed career due to LBP. Among respondents, 24% (n=36) were either very or moderately surprised (34, 23%) by the amount of manual handling involved in the day-to-day role of a radiographer when they started working, while 30% (n=40) were not surprised at all. A total of 61% (n=91) reported that they had received sufficient manual handling training for their role as a radiographer; however, 63% (n=95) believed their manual handling training was somewhat (32%) or very unrealistic (31%) compared to the clinical environment. Regarding assistive transfer equipment, 39% (n=59) agreed there are sufficient assistive transfer devices available in their department, and 45% (n=74) agreed there is adequate use of assistive transfer devices when available. 66% (n=100) of respondents are concerned about the impact that LBP will have on their future careers, with 77% (n=116) being concerned about LBP affecting their future life.

When it came to years spent working in different modalities, there was a minimal deviation from the overall prevalence rate of all respondents of 50%, except when it came to mammography and interventional radiology. Those with 15-25 years of clinical experience working in mammography had a 100% prevalence rate of LBP. Respondents with 5-10 years of clinical experience working in interventional radiology had the second highest prevalence rate (87%). Surprisingly, the prevalence of LBP dropped back to 56% and 50%, respectively, with respondents who had 15-20 years and 20-25 years of experience working in interventional radiology.

Discussion

This is the first study to evaluate the prevalence of LBP amongst Irish diagnostic radiographers. Importantly, half of all respondents reported experiencing LBP. Ten percent of which had experienced this during the past 12 months; alarmingly nine percent reported being hospitalised and a third had consulted a doctor, nurse or other HCP. LBP is, therefore, a significant issue amongst Irish radiographers and related-LBP does result in adverse sequelae. Our study demonstrated a difference between genders. The point prevalence rate of LBP was 52% for female and 33% for male respondents (Table 1). However, it should be noted that there were only 14% male respondents

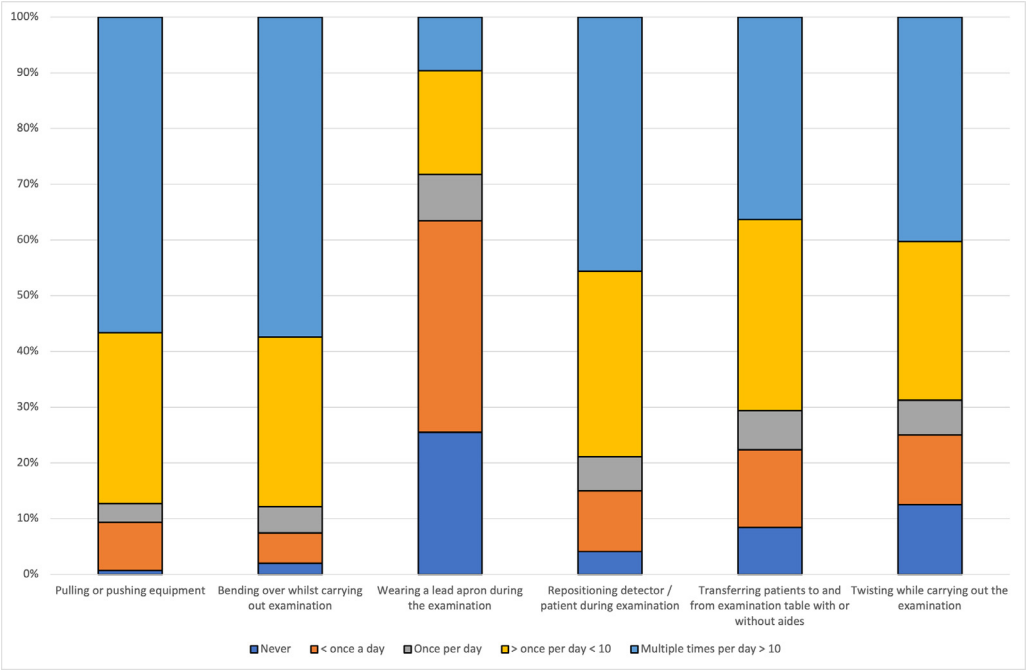

Fig. 2. Bar chart summarising the frequency of workplace tasks typically performed by radiographers.

compared to 86% females in total. A larger sample of male respondents could have resulted in similar point prevalence rates of LBP and should be considered in future studies. It is important to know that a 40:7 ratio of females to males does, however, represent the gender split typically encountered within the radiography profession as a whole.[20]

In our study the prevalence of LBP was investigated against possible known causative factors, for example LBP has always had a strong correlation with elevated BMI.[21] Interestingly, in our study those in the healthy weight category had the highest prevalence rate of LBP, with 57% reporting LBP compared to the 40% of the overweight category (Table 1). A possible explanation for this could be that the role of obesity in inducing LBP in the general population is less of a factor when compared to the physical demands of radiography, particularly patient moving and handling. Generally, the peak LBP prevalence rate within the general population is between the ages of 35-55 years.[22] In our study this was for radiographers aged between 51-55 years (63%). However, the second highest rate was found in radiographers aged 21-25 (59%) (Table 1). Reasons for these two peaks are likely to be multifactorial and could reflect a career of moving and handling, exposure to newer physical demands within the workplace or reflect that newly qualified radiographers are likely to have a greater involvement in direct patient care and less of a role in management and training.

Using years of clinical experience as an indicator of LBP risk (duration / amount of additional lumbar spine compression) highlighted that there was a lower prevalence rate (31%) in the respondents who had worked 30+ years in comparison to respondents who had worked for less than ten years (53%) (Table 1). Again, many radiographers would highlight that clinical workloads will vary considerably over the duration of a career and this would also include changes to the contribution of out of hours provision. Radiography Service Managers (Grade II) had the highest prevalence of LBP (67%) reported among the different grades of radiographers (Table 2). Reasons for this trend are again likely to be multifactorial and could 1) reflect the seating element of the role or 2) that there were only a small number of respondents within this category or 3) those opting to work within this area could do so because of prior LBP and a need to avoid the clinical environment. Respondents who had mainly worked in public hospital settings had a prevalence rate of 52% compared to those working privately, with a rate of 41%. This difference could reflect variations in working practices where public hospitals may accommodate a greater number of acutely unwell patients who place greater moving and handling requirements for radiology staff.

The period prevalence rate of LBP among all respondents over the last year was 75%. This rate is alarming but mirrors the results of studies conducted on radiographers and radiologic technologists in the United States of America, Canada, the Netherlands and Italy, where overall rates were shown to be 72-77%[12], 83%[13], 76%[9] and 60%[14], respectively. There are, however, contrasting results when compared to Irish-based studies (non-radiographers). A study containing 246 responses related to Irish healthcare services workers in a Dublin hospital found the annual prevalence rate of LBP across various professions, including doctors, nurses, general support staff, administration and allied professionals, was 30%. The point prevalence rate for this same study was found to be 15.5%.[23] This shows a 45% difference in the prevalence rate over a year and a 34.5% difference in the point prevalence rate. Study definitions, such

Table 3
Summary of the exploratory question results.

Exploratory Questions	Response	*n (%)*
Have you changed your career or considered changing your career from radiography because of LBP? (n=150)	Yes	24 (16)
	No	**108 (72)**
	Unsure	18 (12)
Do you know anyone who has changed career from radiography because of LBP? (n=150)	Yes	64 (43)
	No	**73 (49)**
	Unsure	13 (9)
How surprised were you by the amount of manual handling involved in the day-to-day role of a radiographer when you started working? (n=150)	Extremely Surprised	14 (9)
	Very Surprised	36 (24)
	Moderately Surprised	34 (23)
	Slightly Surprised	21 (14)
	Not Surprised at all	**45 (30)**
You have been provided with sufficient manual handling training for your role as a radiographer? (n=150)	Strongly Agree	24 (16)
	Agree	**67 (45)**
	Neither Agree nor Disagree	20 (13)
	Disagree	33 (22)
	Strongly Disagree	6 (4)
How realistic do you think you think manual handling training is compared to the clinical environment? (n=150)	Very realistic	6 (4)
	Somewhat realistic	43 (29)
	Neither realistic nor unrealistic	6 (4)
	Somewhat unrealistic	**48 (32)**
	Very unrealistic	47 (31)
There are sufficient assistive transfer devices available in your department. (n=150)	Strongly agree	16 (11)
	Agree	**59 (39)**
	Neither Agree nor Disagree	18 (12)
	Disagree	44 (29)
	Strongly disagree	13 (9)
There is adequate use of assistive transfer devices when available (n=148)	Strongly agree	16 (11)
	Agree	**63 (43)**
	Neither Agree nor Disagree	21 (14)
	Disagree	40 (27)
	Strongly disagree	8 (5)
Are you concerned that LBP may have an impact on your future career? (n=151)	**Yes**	**99 (66)**
	No	31 (21)
	Unsure	21 (14)
Are you concerned about the possibility of LBP effecting your life in the future? (n=151)	**Yes**	**116 (77)**
	No	20 (13)
	Unsure	15 (10)

as what constitutes LBP, could be a reason for such differences but it must also be acknowledged that there are differences in job roles when comparing different HCPs.

A study was carried out in 2016 (n=347) to determine the prevalence of LBP in Irish physiotherapists. This study's results showed a 49% prevalence rate over a year.[24] This rate is closer to the results obtained in our study; however, there is still a 26% discrepancy between the rates of LBP experienced over a year. Multiple factors are likely to influence the presence of LBP among HCPs as previously stated. Physiotherapists, by the nature of their profession, may have enhanced understanding of LBP and thus implement additional measures to prevent exacerbations.

Comparing the results of this study to those of the SLÁN 2007 survey,[11] which reported an annual prevalence rate of 16% and is considered representative of the national population, there is a 59% prevalence rate difference. Based on this, radiographers in Ireland are 4.7 times more likely to experience LBP than the national population and this must require urgent attention from employers and policy makers.[11]

Limitations

This cross-sectional study had limitations as it relied on self-reported data. No medical diagnosis was made on respondents reporting to have LBP, and there was no quantitative measure of the degree of LBP experienced. Therefore, the reported prevalence rates should be carefully considered, given the potential for recall and reporting bias.

Sampling bias is also a factor for consideration as this questionnaire was only posted online via social media platforms or Facebook and Twitter, which limited responses to individuals who would access these platforms. The term radiographer in Ireland generally focuses on those working in the diagnostic subspeciality of the profession. The term radiation therapist is used in reference to radiographers working in radiation therapy. It is likely that this survey entirely focuses on the diagnostic subspeciality but it is possibly that some radiation therapists, who would be nationally registered as a radiographer, may have participated. The likelihood of this is low but it should be considered, especially if repeating the survey nationally and internationally.

Conclusion

In conclusion, to the authors' knowledge, this is the first study to report the prevalence of LBP among radiographers working or who have previously worked in Ireland. From the findings of this study, LBP prevalence in radiographers in Ireland was found to be of a similar rate to radiographers and radiologic technologists working internationally. However, prevalence rates were significantly higher compared to the general Irish population. LBP is a global problem, and radiographers are at risk of moving and handling risks associated with the role. It is accepted that some radiographers will change roles or leave the profession as a result of LBP. Consequently, the prevalence of LBP should be monitored frequently alongside the efficacy of any interventions implemented to protect employees.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jmir.2023.01.006.

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