

Journal Article

Understanding the 'Preparedness' of Physiotherapy Graduates in Wales: A Pilot Qualitative Study

Bellis, C.

This article is published by Wrexham University. The definitive version of this article is available at: <https://wrexham.ac.uk/research/our-research/research-services/wrexham-nexus-journal-of-research/>

Articles are distributed under the Creative Commons Attribution 4.0 International licence, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.

Recommended citation:

Bellis, C. (2026). Understanding the 'Preparedness' of Physiotherapy Graduates in Wales: A Pilot Qualitative Study. *Wrexham Nexus: Journal of Research* 1(1), 27-52.

Understanding the ‘Preparedness’ of Physiotherapy Graduates in Wales: A Pilot Qualitative Study

Christopher Bellis

Physiotherapy, Faculty of Social and Life Sciences, Wrexham University, Wrexham

Christopher.bellis@wrexham.ac.uk

ORCID: 0009-0005-7731-9970

Abstract

This paper presents a pilot study of three experienced physiotherapists who supervise recent graduates in musculoskeletal settings in Wales. It was conducted to explore the level of ‘preparedness’ of recent physiotherapy graduates by seeking their perspectives and of those who work alongside or supervise physiotherapy graduates in Wales. Following a literature review, questions were developed to undertake semi-structured interviews. The interviews were analysed through a Reflexive Thematic Analysis. The three themes identified during the process of the Reflexive Thematic Analysis were Prepared for practice, Bridging the gap, and Welcome to the real world! The findings of this study have been contextualized within the body of literature and will help to inform the design of larger scale research on this topic which could also be performed longitudinally to evaluate the preparedness of physiotherapy graduates as well as graduates of other Allied Health Professions.

Keywords: Preparedness, Physiotherapy, Graduates, Placement

Crynodeb

Mae'r papur hwn yn cyflwyno astudiaeth beilot o dri ffisiotherapyddion profiadol sy'n goruchwylio graddedigion diweddar mewn lleoliadau cyhyrsgerbydol yng Nghymru. Fe'i cynhaliwyd er mwyn archwilio lefel o 'fod yn barod' ymysg graddedigion ffisiotherapi drwy geisio cael eu safbwyntiau a safbwyntiau rhai sy'n gweithio ochr yn ochr â graddedigion ffisiotherapi yng Nghymru, neu sy'n eu goruchwylio. Yn dilyn adolygiad llenyddiaeth, cafodd cwestiynau eu datblygu er mwyn ymgymryd â

chyfweiliadau lled-strwythuredig. Dadansoddwyd y cyfweiliadau drwy Ddadansoddiad Thematig Adfyfyrgar. Y tair thema gafodd eu hadnabod yn ystod y broses o Ddadansoddiad Thematig Adfyfyrgar oedd, Yn barod i ymarfer, Yn pontio'r bwlch, ac yn Croesawu i'r byd go iawn! Mae canfyddiadau'r astudiaeth hon wedi eu cyd-destunoli o fewn corff y llenyddiaeth a bydd yn helpu i fod yn sail i ddyluniad ymchwil ar raddfa fwy ar y pwnc hwn a allai hefyd gael ei berfformio'n yn hydredol er mwyn gwerthuso pa mor barod yw graddedigion ffisiotherapi, yn ogystal â graddedigion o Broffesiynau Iechyd Perthynol eraill.

Geiriau Allweddol: Bod yn Barod, Ffisiotherapi, Graddedigion, Lleoliad

Introduction

In the UK, physiotherapists graduate from Higher Education Institutions (HEI) which have met the requirements of the Health and Care Professions Council (HCPC) and Chartered Society of Physiotherapists (CSP). HEIs must align physiotherapy courses to HCPC Standards of Proficiency (SoP), which provide assurances that graduates will be safe and effective clinicians upon qualification (HCPC, 2023a). Although graduates may be considered to have met the SoP through the academic processes, they may still report a lack of confidence and varying levels of ‘preparedness’ for clinical practice (Merga, 2016). ‘Preparedness’ has been described as a combination of knowledge, skills and behaviour, professional values, personal attributes and contextual factors required at the point of entering a profession (Brennan et al., 2024).

The transition from a student to a qualified physiotherapist can be a stressful experience and cause physiotherapists to leave the profession in the early stages of their career (HCPC, 2023b). In Wales 4.2% of the 358 who completed their training programmes during 2014-2018 left the profession by four years (HCPC, 2023b).

Aim

To explore the level of ‘preparedness’ for clinical practice of new physiotherapy graduates by seeking the perspectives of physiotherapy graduates in Wales as well as the views of experienced physiotherapists who supervise or work alongside new physiotherapy graduates in Wales.

Objectives

1. Perform a literature review to ascertain the current level of knowledge and themes in the literature on this topic.

2. Develop interview questions to allow participants to discuss the knowledge and skills they perceive as being important to develop as a newly qualified physiotherapist.

3. Design and conduct semi-structured interviews, collecting qualitative data.
4. Analyse qualitative data to develop themes to address the research aim.

Literature review

A review of the literature was conducted to establish an understanding of the current literature on the topic of 'preparedness' of physiotherapy graduates and to develop appropriate questions for the qualitative part of this study.

Search method

A university 'Resource Finder' and NHS Wales e-library were searched on the 4th of June 2024. The keywords Physiotherap* AND graduate OR "newly qualified" AND prepared* OR read* were used. Filters applied were: Full text, peer reviewed articles in the English language, date from 1st June 2019 to 1st June 2024.

Science Direct database was searched separately on the same date. The key words were (Physiotherapy OR Physiotherapist) AND (graduate OR newly qualified) AND (Preparedness OR Readiness) as this database does not support truncation. Filters applied were Articles, Nursing & Health Professions. Date range applied was 2019-2024.

Following the identification, screening and selection process 14 studies were included in the review and can be seen in Figure 1.

Literature search

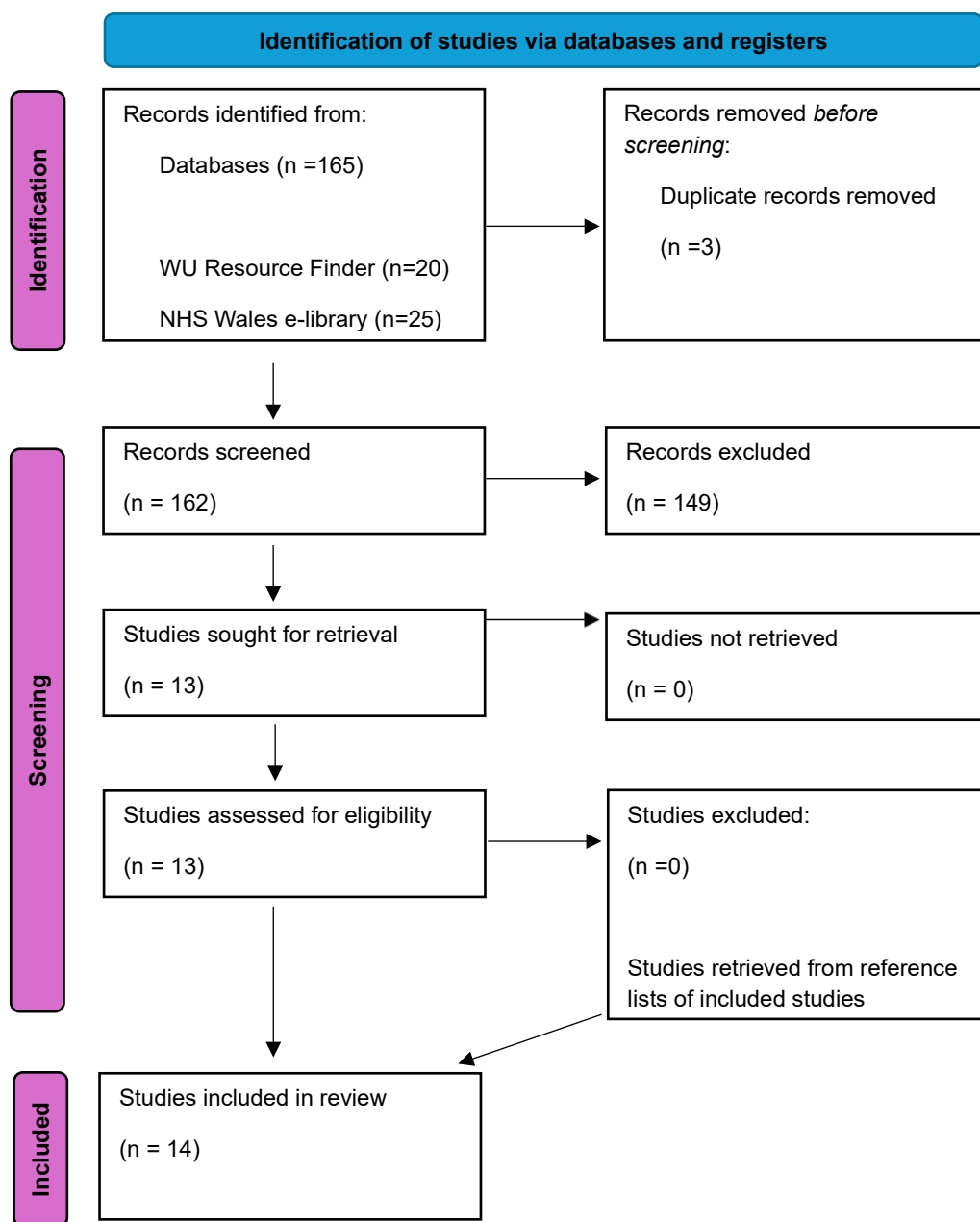


Figure 1

PRISMA diagram of search strategy adapted from Page et al. (2021).

Literature Review - Findings

From performing the review of the literature there is evidently a lack of research into the 'preparedness' of recently graduated physiotherapists (Brennan et al., 2024). The themes identified in the literature were student placement, job satisfaction, workload, complexity and uncertainty, pre-registration curricula and self-efficacy for inter-professional working. These themes formed the basis for the questions which would later be used in the interview schedule.

Student placement was found to play an essential role in preparing graduates with the transition from student to professional (Stoikov et al., 2021; Chesterton et al., 2023). Placements provided the opportunity to apply theoretical principles to practice, and students began to develop a caseload, developing an understanding of the clinical environment whilst under the supervision of a clinical educator (Stoikov et al., 2021). Allied Health Professions (AHP) graduates can feel unprepared for working autonomously and the workload management of new graduates has been identified as an issue by new graduates and employers alike (Stoikov et al., 2021; Brennan et al., 2024). Clinical placement caseloads must offer sufficient volume and complexity to prepare them adequately for autonomous practice (Stoikov et al., 2021; Stoikov et al., 2022). Managing a complex caseload of patients who have greater psychosocial factors is one of the differences encountered when compared to student placements (Stoikov et al., 2022). Recent graduate physiotherapists cited complexity, self-doubt and expectations of the profession contributing to "burnout" (Evans et al., 2022; Stoikov et al., 2022). They also reported a lack of self-efficacy, citing a lack of exposure to complex and confrontational experiences as a student (Jones et al., 2021).

The views of experienced physiotherapists, working alongside and supervising recent graduates have also been sought to provide their insights into how well-prepared recent graduates are for clinical practice (Wells et al. 2021; Stoikov et al., 2022, Brennan et al., 2024; Wilesmith et al., 2024). Chesterton et al. (2023) conducted a UK-based survey to collect quantitative and qualitative data, which enabled them to achieve breadth with 365 participants. However, it is proposed that the use of interviews or focus groups, capturing qualitative data would establish a greater depth of

data than could be achieved through surveys and provides a richer understanding of the lived experience of participants (Braun & Clarke, 2013).

Methodology

A qualitative approach was chosen to provide the depth of information about human experiences which can be gained through words and languages (Taylor & Francis, 2013). Some researchers in this field of research have conducted focus groups rather than individual interviews (Stoikov et al., 2022). Focus groups are particularly helpful when researching populations who may feel threatened within an individual interview or who may benefit from the more informal conversational style that focus groups can provide (Barbour, 2010). Logistically, it was deemed less likely that several participants would be able to attend at the same time and date making organisation of a focus group a less viable option.

Semi-structured interviews were chosen as a way of eliciting accounts of the individual's lived experience, by providing some structure and guiding questions to retain focus (Taylor & Francis, 2013). A deductive approach was taken by using themes identified within the literature review to form the basis for interview questions with the view of establishing greater depth of knowledge of the identified themes (Terry & Hayfield, 2021). Some inductive elements were achieved using open questions within the interview schedule which would provide the opportunity for participants to add new themes (Terry & Hayfield, 2021).

The researcher has a clinical role in physiotherapy practice as well as a teaching role within a HEI as an educator on an undergraduate physiotherapy programme. The ability to combine a researcher and practitioner role, is however favourable as the experiential knowledge of practitioners is considered vital to improving the significance and outcomes of research (Daniels et al., 2021). Braun and Clarke (2022a) emphasise the importance of researchers demonstrating reflexivity in their personal and theoretical perspectives, which is of particular importance when using a framework of contextualism where there is an element of co-production of knowledge (Braun & Clarke, 2022b). The ontology underpinning the work was based in critical realism with the researcher's previous knowledge and experience considered as inseparable from

the research process and the experiences conveyed through the language of the participants are socially constructed (Braun & Clarke, 2022b).

Method

Ethical approval was granted by the University's Faculty of Social and Life Sciences Research Ethics Committee, and the project was completed in accordance with ethical principles (Beauchamp & Childress, 1979). The level of risk for this study was considered low as there was no discussion of sensitive or distressing topics and did not involve any vulnerable groups. A distress protocol was developed to deal with any potential concerns regarding wellbeing expressed during interviews. Prior to participation, all participants were provided with a participant information sheet and subsequently signed a consent form prior to arranging a date for the online interviews. Part of the consent process involved acknowledging that any disclosure of any behaviours calling into question the participant's 'fitness to practice' would be passed to appropriate agencies.

Purposive sampling was the sampling strategy of choice as it helps provide rich data in qualitative research (Braun & Clarke, 2013). Advertisements were posted via gatekeepers, on the social media account of a Welsh university Physiotherapy Society as well as the social media account of the Allied Health Professions Principal Lecturer at a Welsh University to recruit new graduates. An invitation via email was sent via a gatekeeper to the physiotherapy graduates of one Welsh university who qualified from a BSc (Hons) Physiotherapy course in the years 2022 and 2023. An advertisement was posted on the CSP network Interactive CSP (iCSP) which was a platform utilised successfully to recruit participants in the study by Chesterton et al. (2023) for graduates and experienced physiotherapists. A retail voucher was offered as an acknowledgement of the role of the participants in the study. A 'snowballing' approach was also used at the time of the interviews, which involved asking participants at the end of their interview if they would be happy to ask any eligible colleagues to contact the researcher regarding the study (Barradell et al., 2018; Braun & Clarke, 2013). Eligibility criteria can be found in Table 1.

Table 1*Eligibility Criteria*

Recent physiotherapy graduates	Experienced physiotherapists
Completed a BSc (Hons) Physiotherapy degree	Worked in Wales as a physiotherapist for a minimum of 5 years
Worked in Wales between 6-30 months as a physiotherapist	Work alongside or supervise recent physiotherapy graduates
Access to Microsoft Teams	Access to Microsoft Teams

The desired number of participants was 5-10 as the workload associated with conducting and transcribing the interviews would be achievable within the time constraints of this study. It was recognised that due to this, saturation may not be achieved in what is a broad topic as 10-15 participants have been identified as the likely number to achieve data saturation in previous studies using interviews (Braun & Clarke, 2013). Three participants consented to participate in the study. No recent graduates were recruited. All participants were experienced physiotherapists who happened to work in musculoskeletal (MSK) clinical settings, no participants were from any other clinical settings. Interviews were conducted during March and April 2025 and duration ranged from 24 to 30 minutes. Semi-structured interviews were conducted online using the Microsoft Teams format. The use of visual recording was not used in the interviews, and this was achieved by asking the participant to turn off their camera at the commencement of the interview. Transcripts were anonymised and retained on the secure university OneDrive account, whilst all audio recordings were deleted following transcription.

Interviews were transcribed initially through the Microsoft Teams function but then edited for accuracy through reviewing the audio recordings and transcribed verbatim. This process of reviewing the recordings through transcription helped the author to achieve familiarisation with the data (Braun & Clarke, 2022b). All coding and theme development was conducted by a single author, using the six-stage approach identified by Braun and Clarke (2022a) and advocated by Terry and Hayfield (2021). Coding was conducted manually by using the *comment* function on Microsoft Word. Codes and themes were subsequently refined and developed using Microsoft Excel and

an online whiteboard function. Themes continued to be developed and refined through iterative and recursive familiarisation with the data as previously described by Braun and Clarke (2022a; Saunders et al., 2023).

Results

Themes

Three themes were identified during the process of Reflexive Thematic Analysis (RTA), with sub-themes also identified (Table 2).

Table 2

Themes and Sub-Themes

Theme	Sub-theme
Prepared for practice	
Bridging the gap	Placement is pivotal Helping hand
Welcome to the real world!	

Theme 1: Prepared for practice

Participants all considered that recent physiotherapy graduates were well prepared for clinical practice through their HEI training. One participant reflected that he felt recent graduates were better prepared than he was upon graduating because of some of the practical skills they possessed, "I think that they were better prepared and have some more practical skills than we were when, well, I was when I came out of university" (P1).

The MSK setting can be seen as more daunting to some recent graduates in view of a more isolated environment and a more autonomous caseload than other clinical settings. Challenges identified in the recent graduate literature associated with MSK practice have been managing chronic pain, communication skills required to create

behaviour change and diagnostic uncertainty (Almond et al., 2021; Forbes & Ingram, 2021; Leung et al., 2023):

You need to have more skills and more awareness to manage the caseload than you would do on a ward where you've got a lot more multidisciplinary team to help you as well as more sort of physios around to help (P3)

There was acknowledgement that recent graduates had fundamental skills for this setting, but other aspects require time and exposure to patients: "time and patient mileage I'm going to say for a musculoskeletal point of view" (P2). Knowledge of red flag pathologies is required to help differentiate MSK conditions from non MSK conditions and has previously been identified as a challenge for recent graduate physiotherapists (Almond et al., 2021). Performing a clinical assessment is a fundamental skill for MSK physiotherapists which includes subjective and objective components (Lin et al., 2020). Participants felt that the recent graduates had appropriate competence when performing clinical assessments: "They're assessing appropriately. And they're escalating appropriately" (P2); "generally speaking I think the diagnosis side and the objective testing is usually pretty good" (P3)

The use of outcome measures and methods of assessing psychosocial factors are recommended in MSK care and graduates were recognised to be comfortable in doing so: "using STarT Back, which I would say they're very prepared at using things like that... outcome measures, they're very good at that" (P2). Good communication skills and the use of the biopsychosocial model were identified by participants and considered to be advantageous to the physiotherapists and to their patients and align with the best practice recommendations for MSK care (Lin et al., 2020): "they're very good communicators...they're really empathetic " (P3); "from the side of the looking after the patients, what the patient needs and patient wants, I think they're really prepared for that " (P3).

Leung et al. (2023) identified that advanced communication skills to implement behaviour change, and skills to help manage complex chronic pain conditions were seen as advantageous to recent graduates. Some advanced communication skills and behaviour change approaches, like those used in motivational interviewing have been identified within the physiotherapy graduates: "I hear them talking about things like

motivational interviewing” (P1). It was felt that graduates were able to utilise the biopsychosocial model and assess their patients from a holistic point of view which is in line with the profession’s paradigm shift from a biomedical model to a biopsychosocial model (Purcell & Langridge, 2025). Chesterton et al. (2023) have previously identified the importance of graduates having psychologically informed practice to provide them with some of the skills to cope within the clinical setting: “I can see the psychosocial approach more in the graduates now than I have done in the past” (P1).

Participants reported that seeking advice and guidance and actively collaborating with others was seen as a desirable attribute in recent graduate physiotherapists: "They're not afraid to go and chat to people and not afraid to speak up" (P3); “the more confident ones who were kind of kind of, ‘can I watch you do this?’, ‘have I done this right?’, almost asking for that feedback [erm] helps them I think” (P2). This is important as Stoikov et al. (2022) identified that as graduates, there is no clinical educator to directly supervise and therefore the onus is on the individuals to seek support more proactively. This reflects the notion that graduates must develop the ability to understand their development needs through a lifelong learning approach (Leung et al., 2023).

The ability to make sense of the assessment findings to develop treatment ideas were thought to be a challenge for recent graduates, however this is a skill that is associated with higher levels of clinical reasoning seen in more experienced clinicians (Jensen et al., 2019): "there's a little bit of interpreting the subjective and the objective system to come to a diagnosis and to lead to a treatment option but I think that's something where you develop that as a clinician" (P3). Leung et al. (2023) have previously identified that some graduates felt unprepared in terms of their knowledge of exercise plan development and exercise progressions. Knowledge of exercise prescription was identified as a particular aspect of treatment that recent graduates could develop greater skills in: "more sort of standardised practises on exercise prescription or S&C (Strength & conditioning) principles would be really helpful for a musculoskeletal point of view" (P3).

It appears that physiotherapy graduates were perceived by experienced physiotherapists to be well prepared for clinical practice. There were some elements

whereby experienced physiotherapists believe they could develop further, however there is acknowledgement that some aspects of knowledge and development only come through clinical practice and exposure.

Theme 2: Bridging the gap

The transition from student to graduate physiotherapist has previously been identified as a difficult transition. There has been discussion in the literature regarding how best to ease the transition from student to graduate as it is recognised that students are provided with high levels of support, supervision and reduced caseload, however once qualified this support reduces and the caseloads increase (Stoikov et al., 2022).

Placement is pivotal. Placements have been identified as a key factor in preparing students for the clinical setting. The CSP mandate that 1000 hours of clinical placement hours are a requirement on physiotherapy courses in the UK (Minns Lowe et al., 2024). All participants agreed that clinical placements were critical for students: "There's no better experience than being in it and practical and hands on and living it rather than being told, you know, it's that bridge in that gap between theory and practise, isn't it?" (P2).

Diversity of placement experience was also recognised as being an important consideration as the range of placement clinical experiences were identified as providing students with a more rounded experience: "So the more placements, the more diverse the placements are, the better" (P1). Participant 2 was able to compare the recent graduates to those who completed their clinical placements during the Covid pandemic: "It did feel like that lack of experience really affected them...hands on experience was lacking... we had to put a lot more into them rather than hitting the ground running as they often do now" (P2).

The balance of providing sufficient support for students and providing them with sufficient exposure whilst on placement was related to how well graduates are prepared. Stoikov et al. (2022) previously identified the caseload of recently qualified graduates was more than double compared to their clinical activity as students (Stoikov

et al., 2022): “they’re only a student we can’t ask them to do that’, but actually it's getting the balance, isn't it not overloading them as a student but also making sure that they are prepared" (P2).

Reflecting on this, Participant 2 identified that some activities were deemed to be beyond the scope of a student, yet once they have graduated and starting out as a physiotherapist those tasks would be expected to be part of their role:

I would say they normally need support with those certainly initially because they often haven't had to do anything like that as a student, potentially, I wonder whether those kind of things are.....not taken from them when they're a student, but I wonder whether they're protected from that a little bit as a student (P2)

This supports the notion suggested by Stoikov et al. (2022) that student placements should offer a supportive learning environment, rather than a protective learning environment, as placements which replicate the clinical world of a recent graduate are more likely to sufficiently prepare students for independent practice. Clinical placement caseloads should offer sufficient volume and complexity to prepare students adequately for autonomous practice (Stoikov et al., 2021; Stoikov et al., 2022). Jones et al. (2021) reported that recent physiotherapy graduates reported they lacked exposure to complex and confrontational experiences as students: "when you're a student, I think you are protected a little bit because you got the educator to fall back on" (P3).

One method of addressing the transition from student to graduate is longer student placements. They provide students with less variety of placements but longer time to fully develop within a particular setting and allowing more familiarity with the clinical setting with potentially more exposure to some of the work activities and complexities required of a recently graduated physiotherapist (Stoikov et al., 2022; Chesterton et al., 2023): "from a longer placement point of view that definitely helps to prepare them more for a band 5 [recent graduate] situation" (P3). However, Participant 2 identified logistical issues which can restrict the ability of physiotherapists to accommodate longer student placements. Lack of rehabilitation space for physiotherapists is an acknowledged issue within the NHS and has been highlighted by

the CSP (CSP, 2023): "Our space issues limit that at the moment with us with our students " (P2).

Clinical placement is highly regarded by experienced physiotherapists, and this aligns to the views of recent graduates in the literature (Chesterton et al., 2023). Placements can provide clinical exposure whilst under an appropriate level of supervision, however attaining the balance between sufficient exposure and sufficient support is a challenge, however the use of longer clinical placements may help achieve the balance.

Helping hand. Whilst student placements are considered a vital aspect of the preparedness of graduates, it was also recognised that the graduates should also be provided with appropriate support at the outset of their careers to transition from student to autonomous clinician. It was acknowledged by all participants that providing support for recent graduates is vital in helping the transition period from student to autonomous practitioner: "there are support structures put in place for new band 5s [recent graduates]" (P3).

It was expected that recent graduates would not be able to practice with a full MSK caseload from the outset and that some adjustments in the work setting and regular supervision and support are appropriate in the initial stages of their career. Stoikov et al. (2022) have previously identified that graduates compared their clinical activity to more experienced members of staff, whereas experienced staff reported that they did not expect recent graduates to achieve the same clinical activity levels as themselves (Stoikov et al., 2022). This was echoed by Participant 3: "giving them the time to develop those skills rather than throw people in the deep end" (P3).

The environment and culture of the clinical settings was identified as being an important factor in creating a culture which was open to learning opportunities and asking questions for all staff, not just the recently qualified staff: "you've gotta have an environment where you're allowed to ask questions and not to be felt as if you're a bit of a failure if you don't know" (P1).

This is something that graduate physiotherapists were concerned about in a study by Phua et al. (2024) with some recent graduates expressing they were reluctant to reveal their uncertainty to their supervisors in case they were viewed as being

incompetent (Phua et al., 2024). Supervision and mentorship have previously been identified as important to recently qualified physiotherapists at the outset of their clinical careers (Leung et al., 2023). Peer support from other new or inexperienced staff has also been identified as a factor which helps enable graduates to transition into clinical practice (Stoikov et al., 2022). This supports the notion of developing environments within education and healthcare settings which foster resilience through strong mentorship and peer support (Wells et al., 2025).

Stoikov et al. (2022) identified that as graduates, there is no clinical educator to supervise which is a significant change to being a student and means that they must be more autonomous with directing their own learning. The ability to seek support from others was identified as a vital method of learning in the role: "it's essential, isn't it, to sort of getting on and working out solutions together rather than just trying to be on your own and isolated" (P3).

Graduates in the study by Leung et al. (2023) recognised the need to initiate their own ongoing learning throughout their careers. However, Chesterton et al. (2023) reported that respondents rated learning about research skills as part of their physiotherapy training to be less relevant to clinical practice, even though research skills are paramount to keeping abreast of evidence-based practice approaches. Participants in this study considered that graduates had the ability to become lifelong learners: "I think they are prepared to be lifelong learners" (P3).

One participant observed the characteristics of the individuals which are the most important factor as to whether graduates can develop their knowledge and understanding throughout their careers: "it's gotta come from within...you get graduates that are more interested in what they're doing than others that you know, feel as if they've achieved it and [sic] by securing the post" (P1).

Patient exposure was considered as one of the most important factors in the development and preparedness of physiotherapists. It was acknowledged that in the early part of one's career there is limited experience to draw upon. This reflects the notion that clinicians do not expect graduates to come into the clinical setting with extensive clinical knowledge and that development continues throughout one's career which requires real-life patient experience to draw upon. Jensen et al. (2019) would support this notion that through reflection, meta-cognition and critical thinking,

clinicians can journey through various stages from novice to an expert clinical reasoning: "learning by your mistakes and learning by experience and patient numbers" (P1).

Participants observed that being able to provide support to recent graduates in the work-setting had become more complicated due to an apparent change in work culture: "I'm seeing in MSK, there's more doing private work than there ever was before... we've had more new graduates than ever that don't work five days a week in the NHS" (P2). It was identified that many recent graduates often combine their NHS role with private work, thereby reducing the time spent working alongside colleagues in the department and ability to schedule supervision and training. It was acknowledged that experience in other settings also had potential benefits for the development of graduates through exposure to other aspects of clinical practice and other learning opportunities: "clinical practice is inherently different in private practise because of the patient caseload [erm] but equally you could argue it helps them with confidence in things in other ways" (P2).

Adequate support for clinicians at the beginning of their careers is vital to help provide support and assist the transition from student to autonomous practitioner. Mechanisms are in place to help support this process, however the type of support may vary. It is also important to embed within the graduates the appetite and skills for lifelong learning as graduates who are self-aware and able to identify their own learning needs are the ones who are likely to thrive within the profession.

Theme 3: Welcome to the real world!

Making the change from student to independent clinician has been recognised as a significant step to make (Stoikov et al., 2022). Challenges like work volume, complexity and autonomy can make recent graduates feel unprepared for their clinical roles (Stoikov et al., 2022). Recent physiotherapy graduates identified that managing an increasingly complex caseload with patients who have greater psychosocial factors is one of the differences that they encountered when compared to their student placements (Stoikov et al., 2022). Participant 2 highlighted that MSK patients presenting to clinics appear to have increasingly complex presentations: "post COVID and this is

what I'm hearing back from all the clinicians, you know patients are just so much more complex now" (P2).

Participant 3 highlighted that recent graduates were not always prepared to deal with complexity, however there is some expectation that this would be normal for someone in the early stages of their career. Higher order clinical reasoning skills are required to manage complexity; however, it was stated that graduates were able to identify complexity and would seek support to help with the next steps: "They do struggle with if something goes wrong, what to do next? They can recognise that it is complex but it's that next step, isn't it? Of knowing where to go after that" (P3).

Despite previously recognising that graduates had holistic views and worked within a biopsychosocial model when assessing patients, Participant 3 reported that they continue to have a more simplistic approach to treatment: "I think they have that reductionist view where things are just linear or they're single factors into why we get conditions or single thoughts about treatment options rather than thinking, actually these conditions are multifactorial in nature" (P3).

Forbes & Ingram (2021) identified how recently graduated physiotherapists have reported difficulties in utilising cognitive, psychological, and social factors in the management of chronic pain. It was deemed that practical exposure to complex cases as students as well opportunities to practice methods of engaging and motivating patients were beneficial (Forbes & Ingram, 2021). Participant 3 identified the role of case-based learning and simulation in preparing students for complex situations: "...from a complex management point of view...knowing how to manage certain scenarios ... with scenario training or simulation training" (P3).

The ability to navigate the biopsychosocial complexity was considered by all participants as being an area that recent graduates would benefit from further skills in. This has also been reported by Chesterton et al. (2023) and Leung et al. (2023) with psychological principles and methods of educating patients about pain management being highlighted: "those higher level skills and the kind of the psychosocial issues and the expertise...something like that would be good to give them confidence and reassurance in what they're saying" (P3). Psychological treatment principles, psychosocial aspects of patient management, general mental health comprehension and pain education were all areas that recent physiotherapy graduates identified as

areas that they would have liked further knowledge and skills in (Chesterton et al., 2023).

Uncertainty has been identified as a challenge to recently graduated physiotherapists working in clinical practice (Almond et al., 2021). However, uncertainty is prevalent throughout clinical practice at all stages of a professional career: "there is so much uncertainty within what we do" (P1). The challenge of this uncertainty is particularly challenging to recent graduates, however according to the Dunning-Kruger effect novice practitioners might alternatively demonstrate high levels of confidence despite limited knowledge (Rahmani, 2020). This was identified by Participant 1:

The ones that do feel uncertain are the ones that are going to be end up being the better physios because they're the ones that are going to spend time and find out and carry on their learning...the ones that I feel more nervous about are the ones that are very set in their mind that they know everything (P1)

This statement also suggests that an individual's approach to navigating uncertainty and complexity is vital: "uncertainty is good in my mind because it makes people carry on learning and seek advice" (P1).

Participant 1 appeared to allude to features of resilience in this statement, suggesting it is the ability to learn from mistakes and the ability to learn, grow and develop through being adaptable and embracing challenges that will best develop the graduates as clinicians (Zeng et al., 2016). Resilience has been identified as an attribute which can help recent graduates to cope with the increasing demands of complexity and uncertainty in clinical practice (Stoikov et al., 2022). Evans et al. (2022) found a correlation between resilience and job satisfaction in physiotherapy graduates, however, they found no such correlation between resilience and burnout or performance measures. In a dynamic health-setting with ever-changing political and social circumstances with fast-paced technological advances, it is crucial that physiotherapists are prepared to navigate uncertainty and complexity.

Discussion

This study has enabled a depth of understanding to be developed from a small number of experienced physiotherapists regarding how prepared they feel recent physiotherapy graduates are in MSK settings in Wales. The findings of this study have been contextualised within the body of literature on the topic of ‘preparedness’ of recently qualified physiotherapists. There is a limited amount of research into the ‘preparedness’ of physiotherapy graduates working in the UK and this study has demonstrated the feasibility of this type of research.

A review of the literature was conducted to establish an understanding of the current literature on the topic. Themes identified from the literature were student placement, job satisfaction, complexity, uncertainty, pre-registration curriculum and self-efficacy for inter-professional working. These themes were then explored during semi-structured online interviews with three experienced MSK physiotherapists who supervise or work alongside recently graduated physiotherapists.

Three themes were identified during the process of RTA, Prepared for practice, Bridging the gap, and Welcome to the real world! Graduates were considered to be prepared for clinical practice. It was considered that they embraced the biopsychosocial framework and had communication and assessment skills which were commended by the participants. It was identified that MSK settings do bring challenges of autonomy and complexity that graduates can struggle to navigate and that greater knowledge and skills pertaining to exercise prescription and chronic pain management would be beneficial.

Student placements were regarded by the experienced physiotherapists as critical to developing the preparedness of recent graduates, which was highlighted by some of the lack of hands-on skills of new graduates who had their student placements during the pandemic. Placements should offer high degrees of challenge and high degrees of support, with a supportive rather than protective learning environment. Longer student placements may be beneficial, but it is also vital that support is provided for recent graduates in the workplace as they transition from being a student to an autonomous practitioner.

Complexity and uncertainty are realities of a clinical environment, and these are challenges for recent graduates to navigate. However, through the ability to develop attributes and skills of resilience, navigating complexity can be seen as part of the development process of a clinician rather than challenges to fear.

Results from a pilot study should be interpreted with caution and this study has significant limitations (In, 2017). Recruiting participants proved to be challenging. In fact, no recent physiotherapy graduates were recruited to the study and as such, their views are not included within the data. Despite being open to all physiotherapists, the participants who were recruited to the study all had a similar clinical background within MSK care which limits the transferability of the findings from this study. The researcher's combined clinical role in physiotherapy practice as well as a teaching role within a HEI as an educator on an undergraduate physiotherapy programme was acknowledged. All the participants were known to the researcher through physiotherapy clinical practice and all participants were aware of the researcher's role within a HEI. This may have caused acquiescence bias whereby information provided was deemed to be what would please the researcher rather than their true feelings (Lelkes & Weiss, 2015). However, it could also be stated that the familiarity with the researcher provided an environment more amenable to honest and open discussion.

Future research can look to scope participants from a wider range of physiotherapy settings and specialities as well as different regions across the UK. The views of graduates as well as students at the point of entering the profession should be sought through longitudinal studies. The views on preparedness of other AHPs could also be sought to provide a broader understanding of how HEIs prepare graduates for clinical practice in healthcare.

Conclusion

Despite the low numbers recruited to the study, the three participants have provided valuable insights into the perception of the 'preparedness' of recent graduates. This pilot study is important in helping to establish the feasibility of a methodology which can provide a platform for developing larger scale research on this topic.

Future research can look to scope participants, including new graduates, from a wider range of physiotherapy settings and regions across the UK to increase transferability of findings. A broader approach would be to develop an understanding of the 'preparedness' of AHPs rather than just physiotherapists. Longitudinal studies could also be considered in future study designs to track changes in levels of 'preparedness' of students as they transition into autonomous clinicians.

Acknowledgement

Funding for the project was provided by Research Capacity Building Collaboration (RCBC) Wales through the First into Research Fellowship.

References

- Almond, A., Zou, Y., & Forbes, R. (2021). Navigating diagnostic uncertainty in musculoskeletal practice: The perspectives and experiences of new graduate physiotherapists. *Musculoskeletal Science and Practice*, 52, 102354. <https://doi.org/10.1016/j.msksp.2021.102354>
- Barbour, R. S. (2010). Focus groups. In I. Bourgeault, R. Dingwall, & R. de Vries (Eds.), *The SAGE handbook of qualitative methods in health research* (pp. 307–352). SAGE Publications.
- Barradell, S. (2023). From passenger to citizen—portraits of learning to be a physiotherapist. *Physiotherapy Research International*, 28(1), e1977.
- Barradell, S., Peseta, T., & Barrie, S. (2018). There's so much to it: The ways physiotherapy students and recent graduates experience practice. *Advances in Health Sciences Education*, 23, 387–406. <https://doi.org/10.1007/s10459-017-9804-z>
- Beauchamp, T. L., & Childress, J. F. (1979). *Principles of biomedical ethics*. Oxford University Press.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. SAGE Publications.
- Braun, V., & Clarke, V. (2022a). Toward good practice in thematic analysis: Avoiding common problems and be(com)ing a knowing researcher. *International Journal of Transgender Health*, 24(1), 1–6. <https://doi.org/10.1080/26895269.2022.2129597>
- Braun, V., & Clarke, V. (2022b). *Thematic analysis: A practical guide*. SAGE Publications.
- Brennan, N., Burns, L., Mattick, K., Mitchell, A., Henderson, T., Walker, K., & Gale, T. (2024). How prepared are newly qualified allied health professionals for practice in the UK? A systematic review. *BMJ Open*, 14(5), e081518.
- Chartered Society of Physiotherapy. (2023). Government 'backsliding' on rehab space promises, says CSP. <https://www.csp.org.uk/news/2023-05-25-government-backsliding-rehab-space-promises-says-csp>

- Chesterton, P., Chesterton, J., & Alexanders, J. (2023). New graduate physiotherapists' perceived preparedness for clinical practice: A cross-sectional survey. *European Journal of Physiotherapy, 25*(1), 33–42.
<https://doi.org/10.1080/21679169.2021.1958007>
- Daniels, N., Gallen, P., & Casson, K. (2021). Researcher practitioner engagement in health research: The development of a new concept. *Research in Nursing & Health, 44*, 534–547.
- Evans, K., Papinniemi, A., Vuvan, V., Nicholson, V., Dafny, H., Levy, T., & Chipchase, L. (2022). The first year of private practice—new graduate physiotherapists are highly engaged and satisfied but edging toward burnout. *Physiotherapy Theory and Practice, 40*(2), 262–275. <https://doi.org/10.1080/09593985.2022.2113005>
- Forbes, R., & Ingram, M. (2021). New-graduate physiotherapists' readiness for practice and experiences of managing chronic pain: A qualitative study. *Physiotherapy Theory and Practice, 37*(11), 1177–1184.
- Health and Care Professions Council. (2023a). *Standards of proficiency: Physiotherapists*. <https://www.hcpc-uk.org/standards/standards-of-proficiency/physiotherapists/>
- Health and Care Professions Council. (2023b). *New registrant retention rates 2014–2018*. [new-registrant-retention-rates-2014-2018---physiotherapists.pdf](https://www.hcpc-uk.org/standards/new-registrant-retention-rates-2014-2018---physiotherapists.pdf)
- In, J. (2017). Introduction of a pilot study. *Korean Journal of Anesthesiology, 70*(6), 601–605. <https://doi.org/10.4097/kjae.2017.70.6.601>
- Jensen, G. M., Resnik, L. J., & Haddad, A. M. (2019). Expertise and clinical reasoning. In J. Higgs, G. M. Jensen, S. Loftus, & N. Christensen (Eds.), *Clinical reasoning in the health professions* (4th ed., pp. 67–76). Elsevier.
- Jones, A., Ingram, M. E., & Forbes, R. (2021). Physiotherapy new graduate self-efficacy and readiness for interprofessional collaboration: A mixed methods study. *Journal of Interprofessional Care, 35*(1), 64–73.
- Lelkes, Y., & Weiss, R. (2015). Much ado about acquiescence: The relative validity and reliability of construct-specific and agree–disagree questions. *Research & Politics, 2*(3). <https://doi.org/10.1177/2053168015604173>
- Leung, L., Mandrusiak, A., Martin, R., & Forbes, R. (2023). Prescribing exercise therapy for the management of musculoskeletal pain: New-graduate physiotherapists'

- perceptions and training needs. *Physiotherapy Theory and Practice*, 1–10.
<https://doi.org/10.1080/09593985.2023.2242461>
- Lin, I., Wiles, L., Waller, R., Goucke, R., Nagree, Y., Gibberd, M., Straker, L., Maher, C. G., & O’Sullivan, P. P. B. (2020). What does best practice care for musculoskeletal pain look like? *British Journal of Sports Medicine*, 54(2), 79–86.
<https://doi.org/10.1136/bjsports-2018-099878>
- Merga, M. (2016). Gaps in work readiness of graduate health professionals. *Focus on Health Professional Education*, 17(3), 14–29.
- Minns Lowe, C. J., Clements, B., Heneghan, N., Atkinson, K., Patel, R., & Beeton, K. (2024). Content analysis of Band 5 physiotherapy roles. *Physiotherapy*, 101421.
<https://doi.org/10.1016/j.physio.2024.101421>
- Page, M. J. (2021). The PRISMA 2020 statement. *BMJ*, 372, n71.
<https://doi.org/10.1136/bmj.n71>
- Phua, R., Mandrusiak, A., Singh, L., Martin, R., & Forbes, R. (2024). Identifying and navigating suspected serious pathologies. *Musculoskeletal Science and Practice*, 71, 102944.
- Purcell, K., & Langridge, N. (2025). Redefining the role of physiotherapy. *Physiotherapy*, 128, 101783.
- Rahmani, M. (2020). Medical trainees and the Dunning–Kruger effect. *Journal of Graduate Medical Education*, 12(5), 532–534. <https://doi.org/10.4300/JGME-D-20-00134.1>
- Saunders, C. H., Sierpe, A., Von Plessen, C., Kennedy, A. M., Leviton, L. C., Bernstein, S. L., ... & Leyenaar, J. K. (2023). Practical thematic analysis: a guide for multidisciplinary health services research teams engaging in qualitative analysis. *BMJ*, 381. e074256.
- Stoikov, S., Maxwell, L., Butler, J., Shardlow, K., Gooding, M., & Kuys, S. (2021). Changes in direct patient care. *Physiotherapy Theory and Practice*, 37(2), 323–330.
- Stoikov, S., Maxwell, L., Butler, J., Shardlow, K., Gooding, M., & Kuys, S. (2022). Transition from student to new graduate. *Physiotherapy Theory and Practice*, 38(1), 101–111. <https://doi.org/10.1080/09593985.2020.1744206>
- Taylor, B., & Francis, K. (2013). *Qualitative research in health sciences*. Taylor & Francis.
- Terry, G., & Hayfield, N. (2021). *Thematic analysis*. American Psychological Association.

- Wells, L. K., Bullock, A. F., & Killingback, C. (2025). Educational interventions to promote resilience. *Journal of Further and Higher Education*, 1–19.
<https://doi.org/10.1080/0309877X.2025.2501599>
- Wells, C., Olson, R., Bialocerkowski, A., Carroll, S., Chipchase, L., Reubenson, A., ... & Kent, F. (2021). Work readiness of new graduate physical therapists for private practice in Australia: academic faculty, employer, and graduate perspectives. *Physical Therapy*, 101(6), <https://doi.org/10.1093/ptj/pzab078>
- Wilesmith, S., Mandrusiak, A., Martin, R., Lu, A., & Forbes, R. (2024). Writing for the role. *Physiotherapy Theory and Practice*, 1–13.
- Zeng, G., Hou, H., & Peng, K. (2016). Effect of growth mindset. *Frontiers in Psychology*, 7, 1873. <https://doi.org/10.3389/fpsyg.2016.01873>