

# PROJECT REPORT FOR THE CHARTERED SOCIETY OF PHYSIOTHERAPY



**KNOWBEST: The KNOWledge, BEhaviours and Skills required of the modern physioTherapy graduate including the future role of practice based learning**

## Report Summary

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## Acknowledgements

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# Executive summary and recommendations

## I - Purpose

This project examined the knowledge, skills and behaviours required of the modern physiotherapy graduate including the future role of practice based learning (PBL). The sequential design included a range of methods to allow the project team to engage maximally with key stakeholders. Methods used included: a project website with data capture, a review of empirical and documentary data, data acquired through crowdsourcing and interrogation of all of the findings in detail through stakeholder meetings, working groups, focus groups, and webinars/interviews. Recommendations are specific to physiotherapy.

## II - Research team

The project was completed by physiotherapy academic and research leads in the Department of Allied Health Professions, Midwifery and Social Work, School of Health and Social Work, University of Hertfordshire (Herts) between August 2021 and March 2022 and was funded by the Chartered Society of Physiotherapy (CSP).

## III - Background

### III.i - Summary from call

In 2020 the CSP invited tenders for a project to review and refresh physiotherapy education guidance and its appropriateness to prepare a physiotherapy workforce fit for the future. The CSP call included the following quotations:

*The demand for physiotherapy is growing and the future workforce needs to have the knowledge, skills and behaviours required for delivering effective health and social care over the next 50 years and beyond.*

*PBL is a central part of physiotherapy education and demands on placement capacity are high. A condition of CSP pre-registration programme accreditation is that physiotherapy students gain at least 1000 hours of PBL. There is a call from stakeholders to review the current requirements and models of PBL to ensure it strikes the balance to diversify, and maximise capacity, quality and utilisation of technology such as high fidelity simulated learning.*

The team were awarded the tender with the six month project commencing on Monday 27<sup>th</sup> September 2021.

## IV - Aim and Objectives

### IV.i - Aim

**To explore the knowledge, skills, behaviours and attributes required of the modern physiotherapy graduate including the future role of PBL**

### IV.ii - Objectives

- 1) To conduct a scoping review of contemporary approaches to PBL, including learning through simulation **(work package 1)**.
- 2) To undertake a content analysis of current role descriptors and map to the knowledge, skills, behaviours and attributes required for contemporary physiotherapy practice **(work package 2)**.
- 3) To conduct 'crowdsourcing' data collection with key stakeholders [Public Health England, CSP, Higher Education Institutes (HEIs), physiotherapy graduates, managers, service users/patients etc)] to evaluate the perceived needs (knowledge, skills, behaviours and attributes) of contemporary physiotherapy graduates **(work package 3)**.
- 4) To conduct focus groups of key stakeholders including academic staff in HEIs, practice educators and students to further explore and analyse data from work packages 2 and 3; informing recommendations and implementation **(work package 4)**.
- 5) To synthesise data from work packages 1-4, finalise recommendations and complete project report **(work package 5)**.

## V - Design and Methods

A five-stage sequential design was utilised to fulfil the project's objectives.

**Work package 1.** A scoping review of contemporary approaches (methods, required resources, experiences and outcomes etc.) to PBL in pre-registration education. This specifically focused on simulation and use of digital technologies and with a main focus on physiotherapy education.

**Work package 2.** Content analysis of role descriptors from three sources was conducted (KNOWBEST website, NHS jobs website, direct approach). Data extraction and mapping of data against HCPC and CSP standards for knowledge, skills, behaviours and attributes was then undertaken.

**Work package 3.** Crowdsourcing data collection in the form of the KNOWBEST website and data capture forms, social media, webinars, discussion fora and vPUK conference was undertaken over 3 months.

**Work package 4.** Focus groups with key stakeholders and one specifically for service users/patients informed final recommendations. Data summaries were provided from the work packages and a facilitated discussion shaped and prioritised draft recommendations.

**Work package 5.** Data synthesis of findings from work packages 1-4, finalisation of recommendations and project report drafted, revised and finalised.

**Student research placements.** Five BSc (Hons) physiotherapy students each undertook a 5-week research placement during KNOWBEST.

**Ethical approval:** Approval from Ethics Committee at the University of Hertfordshire  
Ref: HSK/SF/UH/04680.

**Data storage:** Pseudo anonymised data is stored in a document library within a Herts private SharePoint site. Any data requests should be emailed to Catherine Minns Lowe (c.j.minnslowe@herts.ac.uk).

## VI - Outcomes

### VI.i - Work package 1 outcomes

There is body of empirical evidence (n=30 studies) exploring the use of simulation in pre-registration physiotherapy education. Findings reveal that simulation based learning (SBL) (e.g. role play, standardised or expert patients etc.) can usefully prepare students for clinical/hospital based placements; substituting 25-50% of clinical placement hours. Studies revealed improved student confidence and high levels of acceptability and satisfaction (students, educators and clinicians) where adjunctive SBL had been completed prior to clinical placements.

### VI.ii - Work package 2 outcomes:

Nineteen role descriptors (RDs) were purposively selected for representativeness; UK home countries, role types, professional specialities, healthcare settings and rural/urban areas. Data mapping revealed that HCPC and CSP Standards were not all included. Specifically, omissions relating to digital learning and skills, research, and equality, diversity and inclusivity (EDI) were noted.

### VI.iii - Work package 3 outcomes:

Data were acquired from the KNOWBEST website (n=168), vPUK congress (n=40), webinars (n=81), student Instagram (n=239), discussion fora (n=37), support worker meeting (n=9) plus individual stakeholder meetings and via email correspondence. Overall, respondents valued the available diversity of student placements but two main concerns centred on students' and employers' expectations regarding placement completion and the value of different placements. Key findings included:

- Experience in core areas (musculoskeletal (MSK), cardiorespiratory, neurology, older adults) across settings (primary, secondary, tertiary, sport, social care, etc.) was important.
- Exposure to other specialities, these included: mental health, complex and long term conditions, pelvic health, balance/vestibular, trauma, frailty, rehabilitation.
- Whilst 1000 hours is just a number, it is helpful; many respondents were supportive of including adjunctive approaches (i.e. simulation, telehealth, virtual placements) within the 1000 hours, reducing the pressure for traditional hospital/clinic based placements.

- Achieving competence was considered important as was a high quality student PBL experience.
- Experience within other pillars of practice (research, leadership) in preparation for professional practice was important (and to cease referring to them as innovative).
- There is a need for professional upskilling in SBL and provision of knowledge and skills around digital learning and remote healthcare delivery.

#### VI.iv - Work package 4 outcomes:

Findings from work packages 1-3 were shared at two stakeholder focus groups (n=10) and one service user focus group (n=5). Project findings and draft recommendations were discussed and agreed upon. Discussions regarding the wording of recommendations enhanced clarity and afforded further insights to inform definitive recommendations. In terms of priority, HEI respondents highlighted the need for resources in the form of a SBL library, with clinical respondents whilst supporting this, prioritising the need for a standardised Band 5 or new qualified physiotherapist RD template. Additional to these, service user respondents supported prioritised EDI and the importance of personalised care.

#### VI.v - Work package 5 outcomes:

Main findings from across work packages 1-4 were synthesised to provide an overview of key project findings regarding the future of PBL in the UK, preparing student physiotherapists for future professional practice. Findings support retention of the 1000 hours of PBL, along with an expansion of what are considered 'core' placements. Clinical – patient facing learning was considered extremely important although support was evident for other PBL, including SBL and Leadership, Research and Education PBL. See [Figure 1](#).

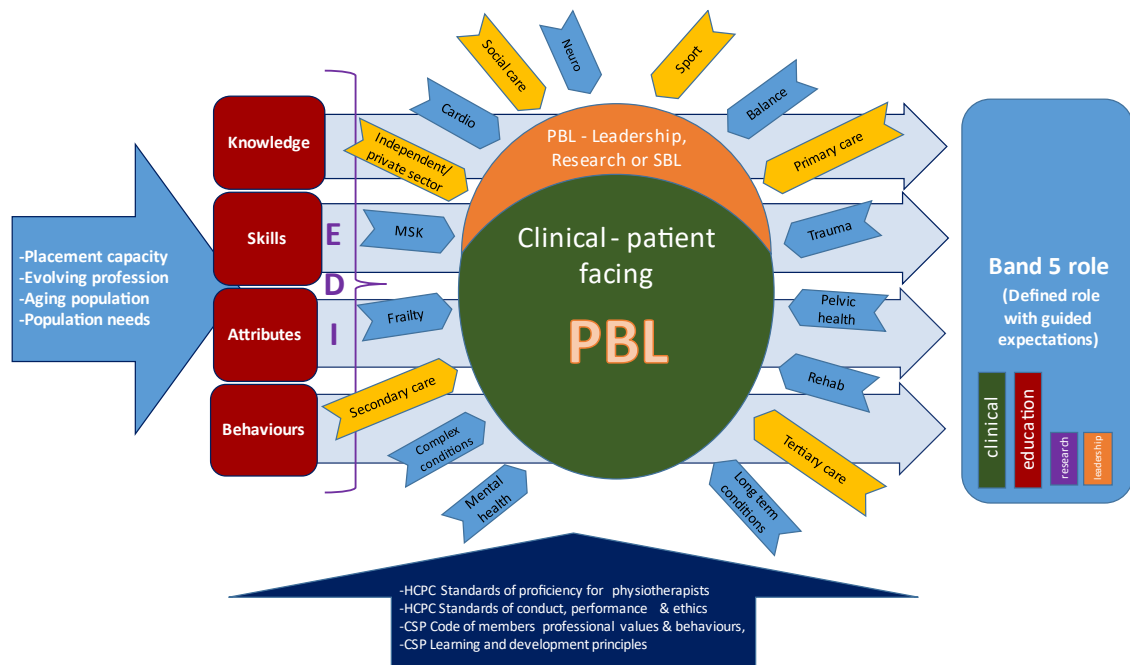


Figure 1. Summary of the findings from work packages 1-4

*NB. Please remember that people chose to take part in KNOWBEST, the findings may not be fully representative of the profession and key stakeholders. Also the figure summarizes key findings; it is not to be taken as prescriptive, other settings, conditions etc. are included in the data.*

#### VI.vi - Student research placement:

Across the life course of the project, 5 BSc (Hons) physiotherapy students undertook 5-week research placements. Students were from years 2 and 3 of the programme and either paired or joined individually. Whilst gaining substantial experience of and in research, students contributed considerably to work packages 1-3, taking a lead on discrete elements with oversight from a member of the project team. The fifth student completed an evaluation of the KNOWBEST research placement experience; using semi structured interviews to explore students' views and experiences.



## VII - Recommendations from the KNOWBEST project

The following section outlines the definitive KNOWBEST recommendations. The recommendations are presented first followed by a narrative section which provides some underpinning.

Subsequent sections of the report detail the aim/s, methods, findings, analysis and summary for each work package thus underpinning the derived recommendations. Timescales for each recommendation are provided, with short term being within 6 months, medium term being 6 months to 3 years and long term 3-5 years.

**Terminology:** For the purpose of reporting,

- Clinical - patient facing PBL\* refers to learning taking place in a clinical health care setting with patient/client interaction either in person or virtually (e.g. ward, outpatients, community, school, occupational health, telehealth, virtual wards/consultation).

- Other PBL includes learning via adjunctive and/or substitution approaches (e.g. SBL with student role play) and learning in other settings (e.g. research or leadership).

\*Virtual assessments and treatments (e.g. a tele-rehabilitation placement) are only considered clinical - patient facing if student/s manage a clinical caseload; observation of tele-rehabilitation placement would not constitute clinical - patient facing PBL.

### **KNOWBEST PROJECT RECOMMENDATIONS**

**It is recommended that the CSP should:**

- 1. Retain a notional 1000 hours of pre-registration PBL, where 75% or more hours should comprise clinical - patient facing PBL and up to 25% for other PBL including SBL and/or other PBL opportunities e.g. Leadership and Research (short term).**
- 2. Champion the use of simulation as an evidence based approach to students applying knowledge and skills to the benefit of patients and carers (short term).**
- 3. Commission a simulation toolkit to expedite the adoption of models of practice involving simulation and related activities through rapid dissemination (short term).**
- 4. Invest in a co-produced authentic 'simulation library' of expert patient or actor videos/resources (different settings, specialities, presentations) to reflect**

contemporary practice and improve understanding regarding diversity. This library should be retained and managed by the CSP (medium term).

5. Consider commissioning research to i) generate evidence to further inform the use of simulation in HEI settings ii) explore consensus regarding outcomes to evaluate student development of knowledge, skills, behaviours and attributes and iii) explore how adjuncts to PBL across HEIs and clinical settings might be resourced and shared within the profession (medium to longer term).

6. Explore how other large health care providers (such as the independent/private sectors) can offer more opportunities for PBL and promote the benefits of placements across health care sectors and settings (medium term).

7. Promote clear guidance regarding the role of all Bands for the profession to promote equity: KNOWBEST findings offer guidance for Band 5/newly qualified physiotherapist roles to be developed, and has started to identify knowledge, skills, behaviours and attributes commensurate for Band 6 roles to assist their development in the near term (medium term).

8. Generate a template role descriptor for a Band 5/newly qualified physiotherapist, which meets the professional standards for practice and legislation regarding equality, diversity and inclusivity (EDI) (short term).

9. As part of the CSP's commitment to improvements in EDI, promote inclusivity in tone of Band 5/newly qualified physiotherapist role descriptors (short term).

10. Require pre-registration physiotherapy programmes to map the curriculum to the four pillars of practice when they apply for accreditation/re-accreditation. EDI and digital skills and learning should be demonstrably woven throughout the curriculum (medium to long term).

11. Advocate inclusive curricula involving relevant experience of person-centred healthcare delivery, ensuring students obtain knowledge and experience in a broader set of core specialities, across key health care settings (community, primary, secondary etc) and with different patient populations (e.g. those with dementia, learning disabilities, mental health, people from a wide range of socio-economic and diverse ethnic backgrounds) (short to long term).

12. Proactively collaborate with managers/employers and the profession as the nature of physiotherapy practice continues to evolve (short to medium term).

**Recommendation 1:** There was general agreement to retain an hours based approach to PBL and that adjunctive approaches (including SBL) be included in PBL hours. Due to COVID-19, changes within the current 1000 hours of PBL, such as virtual placements, have been established and these changes should be retained and made more overt for the profession. The need for SBL as a substitution for clinical - patient facing PBL was highlighted for patient safety in future professional practice (e.g. students may not encounter a patient with cauda equina syndrome but the requisite knowledge and skills could be developed using SBL). Furthermore, PBL to support learning across all four pillars of practice (i.e. research, education, leadership and management,) and in other areas of health and social care (i.e. virtual care/tele rehabilitation, public health) should be included.

**Recommendations 2-6:** Specific areas of additional knowledge and skills are required by contemporary physiotherapists (e.g. clinical negligence and litigation). Digital learning knowledge and skills have already been identified as important for Band 5/newly qualified physiotherapists, and HEIs should further integrate these within the core curriculum. Knowledge and awareness of adjuncts to PBL could be enhanced to benefit pre-registration physiotherapists' education; this would require additional resource. It is recommended that HEIs identify Digital/Simulation Lead roles or similar to lead on the integration of SBL in the curriculum. With the increasing demand for NHS placements, extending opportunities for PBL with other health care providers (i.e. independent/private sectors/occupational health) promotes profession-wide shared responsibility for training the next generation of physiotherapists. Practice educators want HEIs to contribute more to PBL (e.g. simulation, virtual placements). Integration or enhanced use of SBL in HEIs may improve students' preparedness for hospital based PBL. HEI respondents voiced concerns about the resources required to support SBL and highlighted the need for upskilling, time and resources. Respondents commented that diversity in existing case scenarios and learning materials requires improvement, co-production to enhance EDI and further engagement of expert patients/actors in PBL. Some HEIs have already successfully developed such inclusive scenarios so enhancing and decolonising the curriculum. Profession specific SBL resources should be centrally developed (for cost efficiency), maintained (for security) and updated (for currency); accessible only to HEIs, students and practice educators.

*NB: The CSP is also developing the Physiotherapy Health Informatics Strategy to inform the further development of the knowledge, skills and tools needed to collect, manage, use and share information and thus support healthcare delivery and promote health and wellbeing.*

**Recommendations 7-9:** Work packages 2 and 3 identified concerns regarding equity and the experiences (level and scope) expected for a Band 5/newly qualified physiotherapist post; some RDs required significant post registration experience and expertise, exceeding that normally expected of a Band 5/newly qualified physiotherapist. Clarification of requirements across physiotherapy bands is needed to promote equity; establishing the expectations of Band 6 posts would help to establish the distinctiveness of a Band 5/newly qualified physiotherapist. Some RDs specified pre-requisite placements/settings thus disadvantaging those students who had not had these opportunities. Some RDs were clearly indirectly discriminatory e.g. requiring individuals to undertake sustained moderate/strenuous physical activity and to be able to drive +/- own a car. Whilst certain roles may have pre-requisites, the RDs were largely not inclusive in tone. When mapped to the CSP Code of members' professional values and behaviour, many gaps were evident.

**Recommendation 10:** Work packages 2 and 3 evidenced differences in the weighting of pillars of practice in RDs and practice. Whilst clinical practice is key to the pre-registration education of physiotherapists, greater consideration of the weighting of the knowledge and skills related to the other pillars of practice is warranted as these are integral for the development of physiotherapists and the profession with its expanding roles and opportunities. Recognition and acknowledgment of opportunities to develop knowledge, skills and attributes pertaining to research and leadership (i.e. non-clinical skills) during clinical - patient facing PBL is needed. EDI and digital skills and learning also need to be woven throughout curricula.

**Recommendations 11-12:** There are already many excellent PBL opportunities in pre-registration education and the on-going striving for improvement is acknowledged.

Work packages 2 and 3 revealed though that not all PBL opportunities are currently considered equally by stakeholders. Acknowledging the aging UK population, more community based care, an increased demand for physiotherapists and PBL placements and divergent career pathways necessitates further evolving in physiotherapy professional practice. Whilst previously students would complete standard placements, (i.e. MSK outpatients, acute cardiorespiratory and neurology) this has become less feasible over time, and is not reflective of current physiotherapy provision with the shift to primary and community care, person-centred care, the aging population and interventions with discrete populations (e.g. mental health). For example, respondents reported the need for students to gain experience and knowledge treating people with cardiorespiratory conditions. Traditionally this may have been achieved on hospital wards, but now may also be gained via PBL in the community setting or primary care. Indirect PBL (e.g. research, leadership etc.) should usefully complement and be valued equally to clinical - patient facing PBL. Expansion of core placements reflecting all health care settings and the needs of the UK population is underway and these should be regarded equally by stakeholders. Keeping in mind that students have always qualified with varying amounts of experience, that which is considered essential by employers and clinicians should be specifically identified with a focus on key transferable skills. If some students are unable to access this experience through their clinical - patient facing PBL, HEIs should endeavour to provide this via alternative means e.g. SBL.