Bridging Student Placements and Professional Practice: Collaborative Education as a Driver of Professional Identity and Workforce Readiness in Prosthetics and Orthotics

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Introduction and Aim

Student placements allow theoretical knowledge to be applied in clinical settings, which is integral for workforce sustainability as it builds foundational practical skills and collaboration opportunities (1).
Smaller professions such as prosthetics and orthotics where there are recruitment pressures require early support and work integration within the clinical field to strengthen the gap between students and clinicians, supporting professional skill development.

Aim: To systematically review and determine how the role of structured placements and mentorship by clinicians influence students' professional identities, confidence and safe practices globally.

Method

Databases and Search Focus

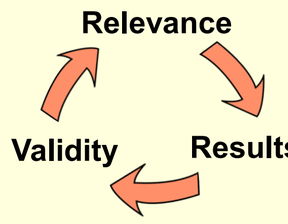
Data bases included:
- PubMed
- Sage Journals
- Google Scholar

Study Focus:
Prosthetic & orthotic students, clinical & manufacturing placements, mentorship, workforce identity, preparedness and professional practice.

Study Selection Criteria and Quality Appraisal

Study Designs:
- Mixed-method
- Qualitative studies

Quality Appraisal:
CASP checklists.



Exclusion Criteria and Data Analysis

Exclusion Criteria:
- Purely theoretical teaching only
- Students/clinicians from different professions (prosthetics and orthotics used only)

Data Analysis:
A thematic and qualitative analysis. Comparing affects of/not having placements during employment.

Results

Six studies were selected which fit the criteria. Thematic and qualitative analysis used.

Focus: Affect of clinical student placements on future work and safe, confident practices.

Countries included: UK, Australia, USA, Pakistan and Iran.

Recruitment: 100% purposive sampling.

CASP checklist used: qualitative, cross-sectional and systematic reviews. All studies scored between 75% to 90%.

Figure 1. Summary of the Six Studies - Usefulness of Clinical Placements

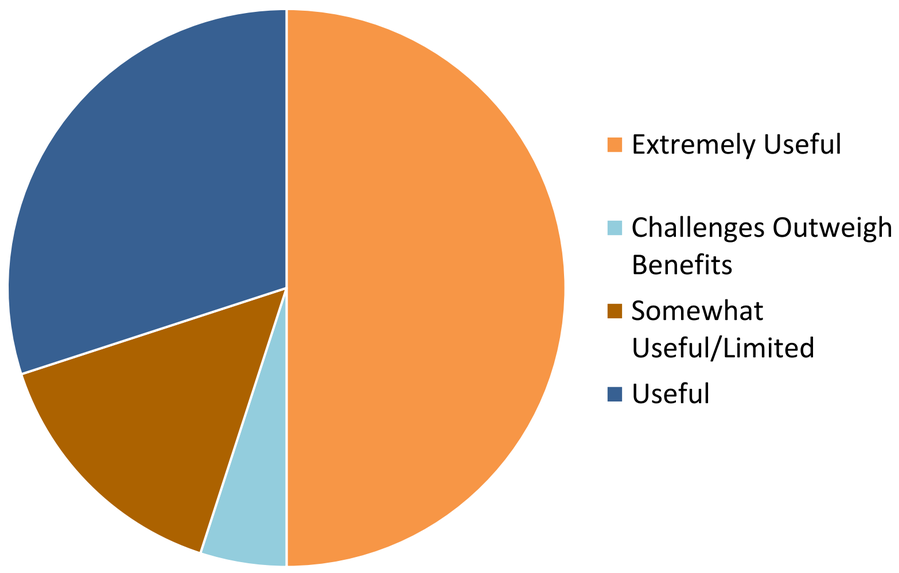


Figure 1 - This pie chart is derived thematically (not using quantitative data) by weighing how strongly each of the six studies value clinical placements for students' professional development; a synthesised representation.

The mentorship models during placement include one-to-one mentorship as well as group mentorship, which are associated with increased clinical and teamwork skills, thus enhancing self-efficacy leading to an increased commitment to the profession and greater adaptability in diverse clinical settings due to the exposure to different clinics and patient scenarios.

Discussion

The results of this study further supports existing literature as it portrays the effectiveness of applying theoretical knowledge to real-life settings as placements provide students with the opportunity to be physical and kinetically learn to conduct safe practices under supervision.
There is a positive correlation for mentorship during placement and hands-on learning, as working together from an early stage reinforces safe patient care and continuous professional development due to the collaboration and sharing of knowledge.
Students found that practicing professional communication and working alongside the multidisciplinary team such as podiatrists and physiotherapists assisted in building a strong foundation of professional skills which positively developed their professional identity, allowing them to feel more confident to start working safely after graduating (2).

Strengths:
- Clearly aligned with existing clinical challenges - relevance.
- Appropriate methodologies used – qualitative and thematic analysis (interviews, focus groups and surveys used in the six studies).
- CASP provided consistency of quality research across different study designs.
- Contribution to an under-researched and under-represented profession - growing evidence/research base.

Limitations:
- Geographical bias - majority of studies are from high-income countries where they may be able to afford more hands-on patient contact time/learning programmes/equipment and therefore cannot be generalised to all low-income countries (3).
- Lack of standardised outcome measures - less quantitative which may risk bias.
- Lack of longitudinal outcome data - limited information on graduates' long-term competence, employability or professional identity.
- Small sample sizes - limited diversity and global generalisability.

Conclusion

- Student placements are vital for developing workforce readiness and professional identity.
- Improves communication skills through conveyance.
- Exposure deepens ethical values and understanding of the profession.

Future Research:
- Educational inequalities, resource availability and placement structures globally in prosthetics and orthotics with a focus on low-income countries.

References

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