Prosthetics & Orthotics Career Choice Factsheet

Background

This study forms part of a wider project between Health Education England and the University of Winchester exploring Allied Health Professions (AHP) career choices.

An online questionnaire was disseminated to current AHP students in England (undergraduate and postgraduate) for four weeks between February and March 2021. The aim was to explore and understand key motivations, sources of influence and barriers to choosing their specific profession.

The information and findings from the questionnaire will be shared via profession specific factsheets to help shape targeted careers information and guidance. This factsheet focuses on prosthetics and orthotics as a career of choice.

Prosthetics and Orthotics is an area of healthcare that provide patients with artificial limbs (prostheses) and external supports and braces (orthoses) that improve patients lives. Prosthetics and Orthotics Technicians mainly work on the manufacture and production of prostheses and orthoses and Prosthetists and Orthotists are registered clinicians who assess the patients, work with patients to understand their individual needs and design prosthetics and orthotics solutions. These vital roles combine skills of care, inventiveness and engineering with an understanding of the human body. Recognised training routes include a level 3 apprenticeship in Prosthetics and Orthotics to become a Prosthetic and Orthotic Technician and degree level courses (both apprenticeship routes and university-based routes) in Prosthetics and Orthotics which enable graduates to become registered with the Health Care Professions Council (HCPC) as Prosthetists and Orthotists.

Prosthetics and orthotics student population in England

In 2020/2021 there were approximately 135 active students on prosthetics and orthotics courses in England (multiple cohorts). In 2021/2022 this has risen to approximately 167 active students (multiple cohorts).

Survey sample

- 27 prosthetic and orthotic students completed the questionnaire. It is acknowledged that this represents only 20% of the student population in 2020/2021.
- 80.8% of the participants were female and 19.2% were male.
- This finding differs from national statistics from NHS England, who found that females comprised 52% of the number of qualified prosthetists working for the NHS in England in August 2021 with 48% being male (NHS Digital, 2021).

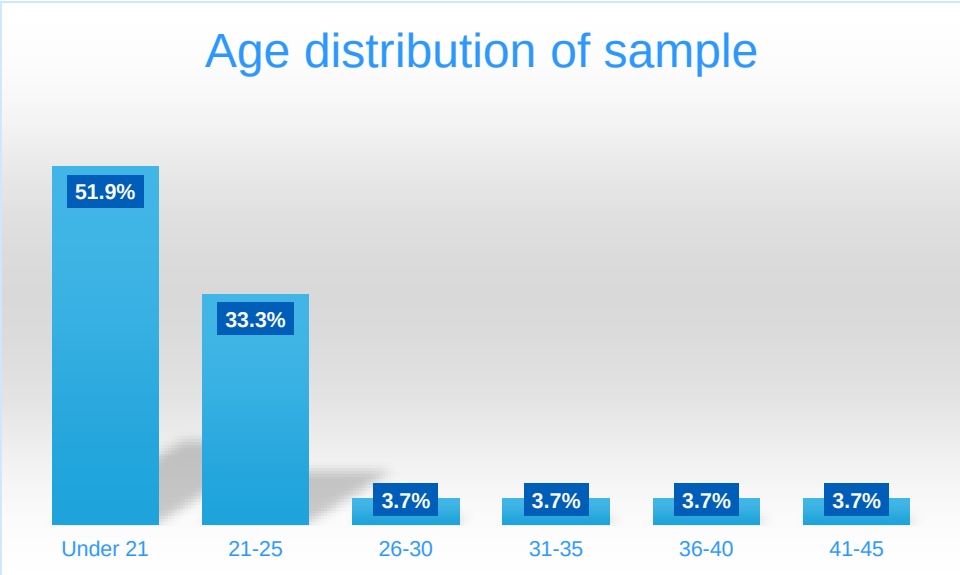
Ethnicity

Ethnicity	Percentage of sample
White background	81.5%
Mixed or multiple ethnic background	3.7%
Asian background	3.7%
Black, African and Caribbean background	3.7%
Arab	7.4%

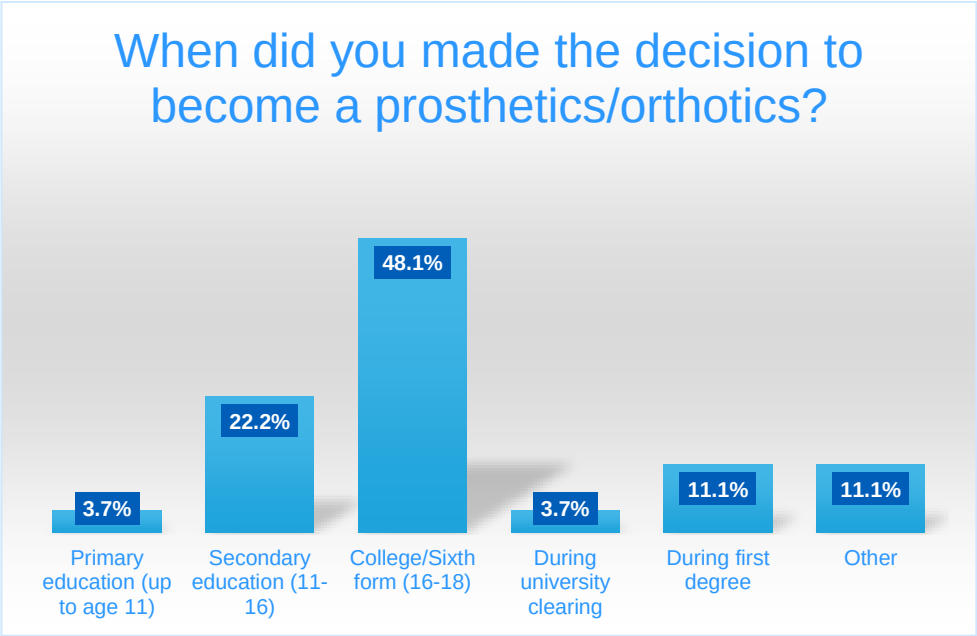
The findings from our sample (shown in the table above) are aligned with those from NHS England, who found that individuals from a white background comprised 81% of the total number of qualified prosthetists for the NHS in England in August 2021 (NHS Digital, 2021). There were no participants from 'other' background in our sample.

Age and stage at which participants made the decision to become a prosthetists

- In our sample 51.9% of students were under 21 years of age.
- 33.3% of the sample were aged between 21-25 years of age, and 14.8% aged over 25 years.
- No students were aged over 51 years of age.



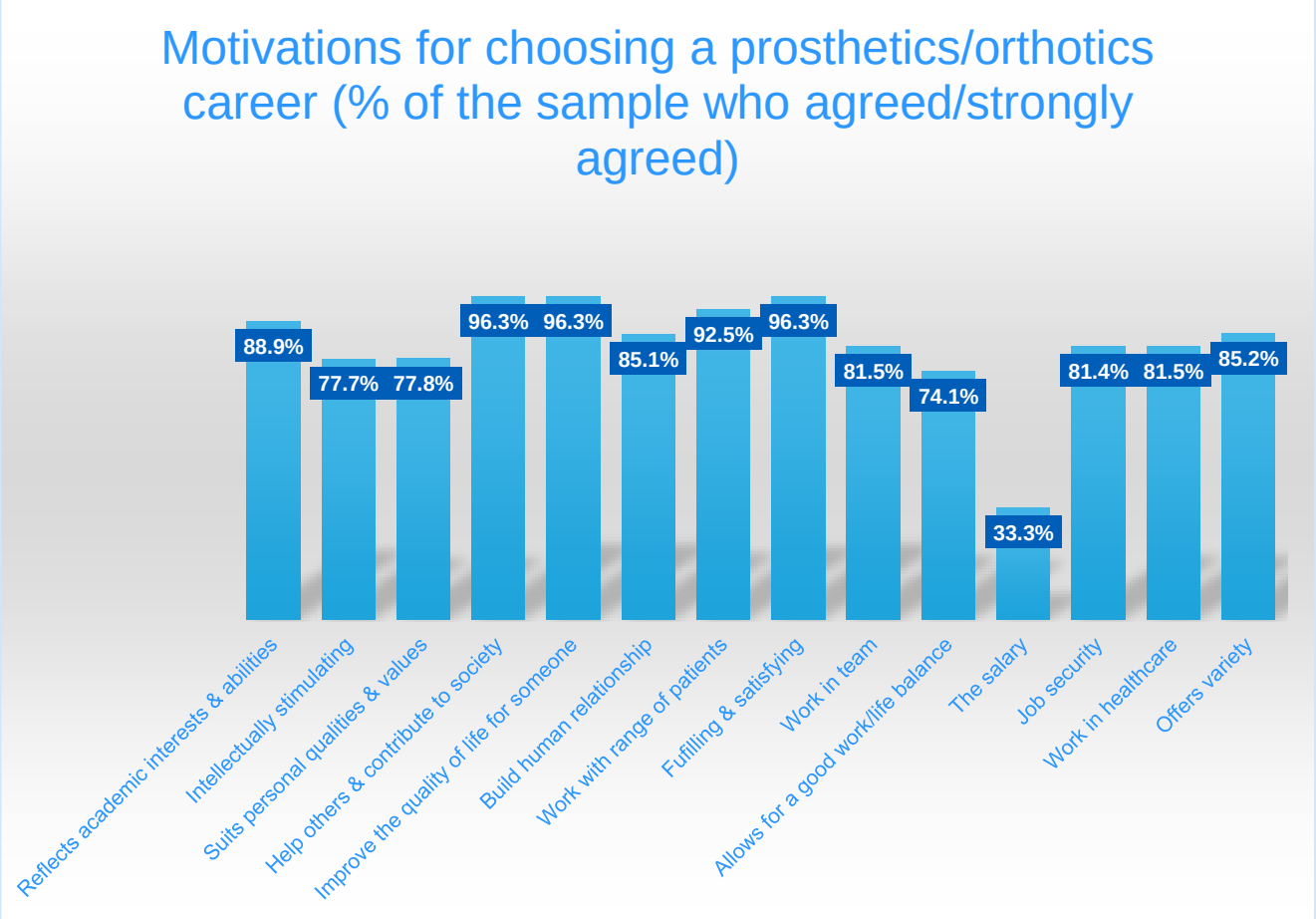
Almost three quarters of the sample (74%) chose prosthetics and orthotics during their school education. 3.7% during university clearing and 22.2% during first degree or 'other'.



Motivations

Participants were asked to what extent different motivations impacted their career choice in prosthetics and orthotics.

- Altruistic reasons had the highest percentages of responses, nevertheless professional motivations were also important.
- A selection of the most cited motivations is shown in the figure below.
- Choosing a career 'where I can use my skills to improve the quality of life for a patient/service user', 'where I can help others and make a contribution to society' and 'that is fulfilling and satisfying' were three most popular motivations for choosing prosthetics and orthotics (96.3% of the sample agreed/strongly agreed with all statements).
- Across the 35 motivations in the questionnaire, only seven had less than 50% agreeing/strongly agreeing with the importance of the motivation.
- The perception of the nature and variety associated with the job was valued for a large percentage of the sample, e.g. choosing a job which 'offers variety' (85.2%), 'working in a team' (81.5%), 'working with a range of patients' (92.5%), as well as 'future job security' (81.4%). A third (33.3%) agreed or strongly agreed that salary was a motivating factor.
- Choosing a career which 'reflects academic interest and abilities' (88.9%) and is 'intellectually stimulating' (77.7%) were also influential motivations for a majority of the sample.
- Participants were asked about the influence of the opportunity to work in the public and private sector. The public sector scored higher, 70.3% compared to 44.4%. Interestingly, 81.5% agreed/strongly agreed working in healthcare was a motivation, however only 51.8% agreed/strongly agreed that working in the NHS had motivated their decision.

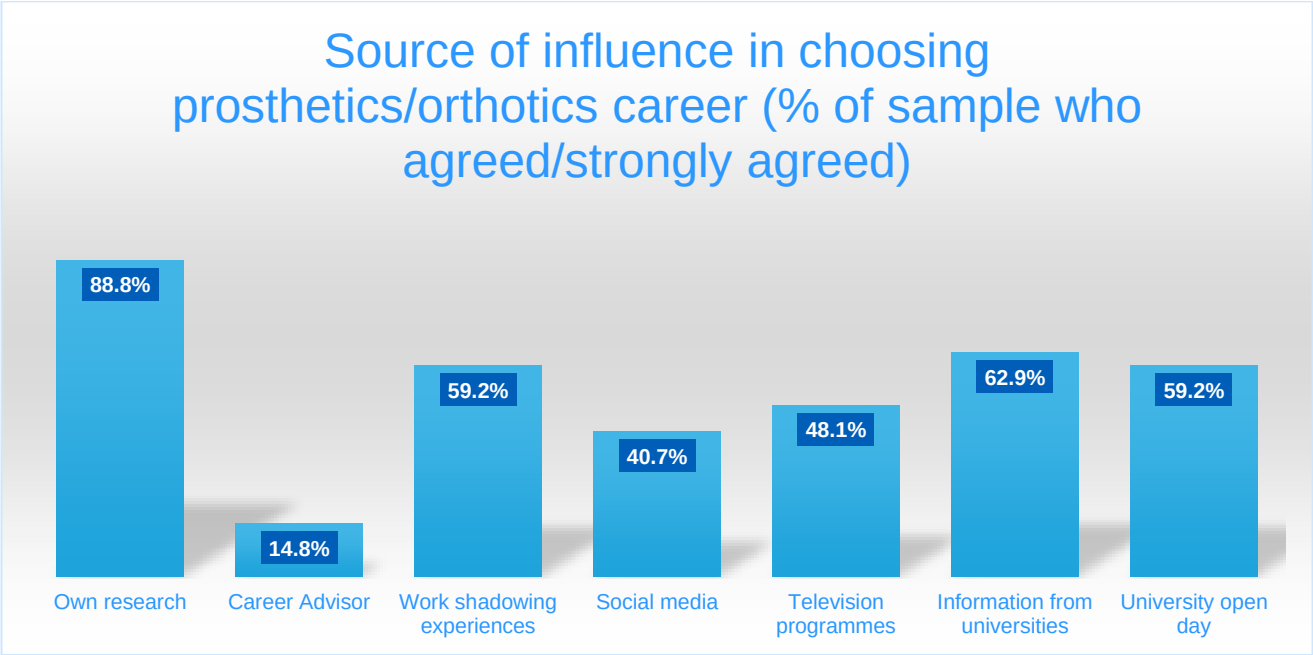


Sources of Influence

Participants were asked about the sources that influenced their prosthetics and orthotics career choice.

- The most influential factors were ‘conducting my own research’ (88.8% of the sample agreed/strongly agreed) and ‘information I got from university’ (62.9%).
- Selected sources of influence are shown in the figure below. These were selected either as the most cited influences or as an important recommended marketing opportunity (e.g. careers advisors and social media).
- Universities play a key marketing role: 62.9% of the sample were influenced by information they received from universities and 59.2% from attending university open days. This emphasises the key role universities can play in encouraging prosthetics and orthotics course applications. This could take the form of, for example, school outreach work. 14.8% of the sample were influenced by career advisors, which is generally higher than for other allied health professions.
- The importance of work shadowing was highlighted by 59.2% participants as being an important influence for choosing prosthetics and orthotics.
- Interestingly, 40.7% of the sample had been influenced by social media and 48.1% by television programmes, such as for example the Paralympics and Channel 4 ‘The Last Leg’. This suggests that social media and television shows are also important methods of information gathering and are influential in choosing a prosthetics and orthotics career and this is a platform which could be utilised even further.

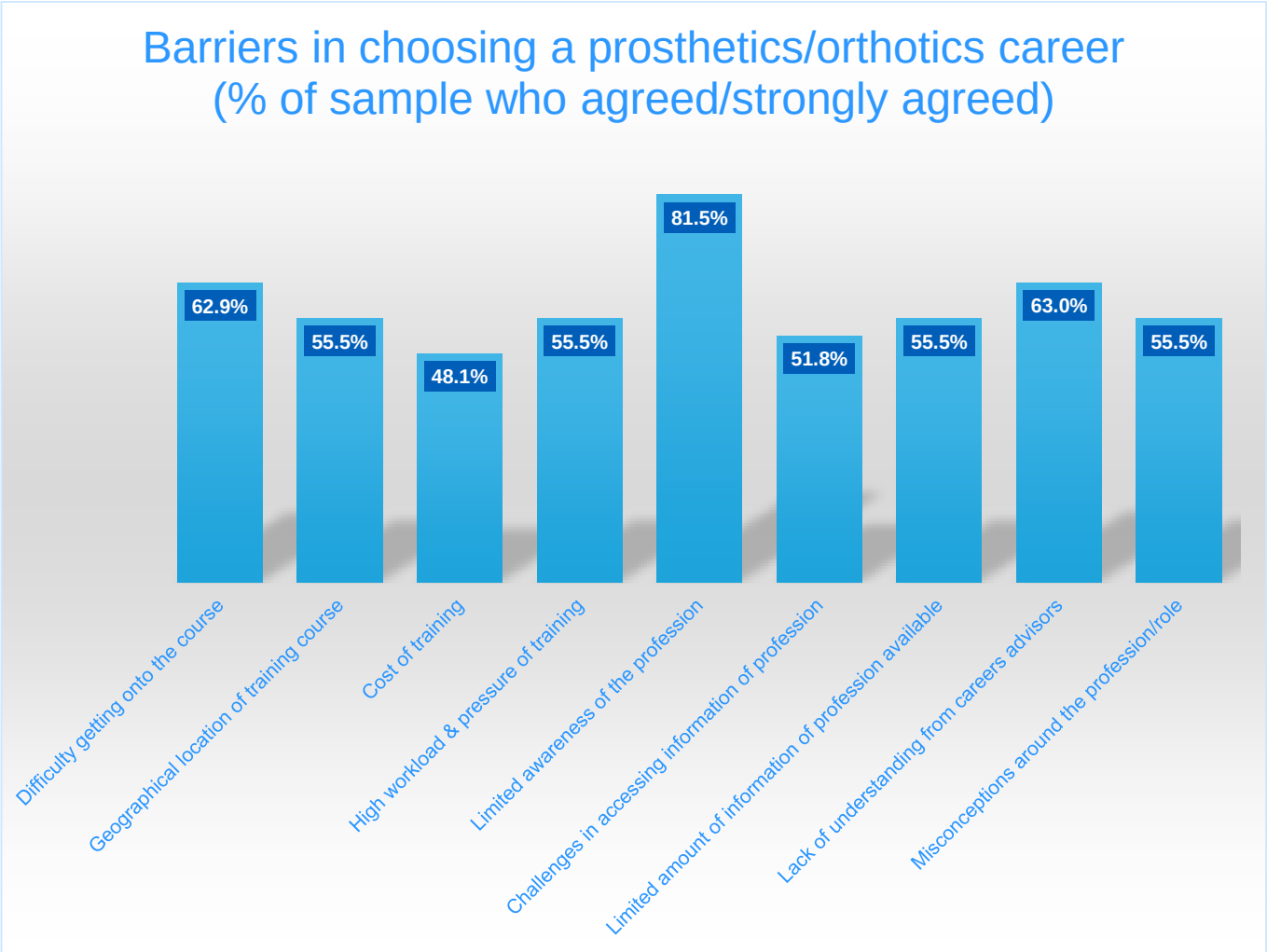
- It was clear that the overall highest influential factor was doing their own research, which suggest that more could be done to highlight and market prosthetics and orthotics as a career.



Barriers to entering prosthetics and orthotics

Participants were asked how their career choice had been affected by potential barriers to entering a prosthetics and orthotics career. The participants recognised the barriers and overcame them to still choose this profession.

- The most influential barrier was ‘limited awareness of the existence of the profession’ (81.5% of the sample agreed/strongly agreed with this statement). Followed by ‘lack of understanding about the profession from careers advisors at school/college’, a barrier identified by 63%. In our sample 74% made their decision to study prosthetics and orthotics during their school education. These findings combined strongly to suggest the need to raise awareness of prosthetics and orthotics as a career, particular among career advisors.
- Most common cited barriers are shown in the figure below.
- Moreover, challenges in accessing information of the profession and limited amount of information about the profession were also barriers for many, 51.8% and 55.5% respectively. ‘Misconceptions around the profession and what the role involves’ was seen as a barrier by 55.5% of the sample, as well as the ‘cost of the training whilst undertaking the training’ (48.1% of the sample agreed/strongly agreed).



Additional findings

Participants were asked what they thought the public perception was of prosthetics and orthotics. The question was answered by 56% of respondents. Overall public perception was seen as having little understanding or knowledge of the profession, however once explained they found it very interesting and were positive about the career. The media's role in portraying the profession was mentioned with some positivity such as the Paralympics, but also negative for example film characters portraying a bad person often missed a limb.

Key findings

- **81% of the participants were female and 19% were male.**
- **74% of participants had chosen prosthetics and orthotics during their school/college education degree and 22% during their first degree or at 'other' stages.**
- **52% of the sample were aged under 21 years of age and only 15% were aged over 25 years, reflecting that a career choice decision was made early on in participants' lives.**
- **Altruistic reasons such as using skills to improve someone's quality of life and making a contribution to society were the key motivations for choosing prosthetics and orthotics.**
- **Doing their own research was by far the most impactful source for influencing the career choice (89% of participants agreed/strongly agreed), but also information obtained from universities played an important role (63%). Almost, 41% and 48%**

agreed/strongly agreed that social media and television programmes, respectively, had influenced their career choice, which is much higher than seen for other AHPs.

- **The public perception of the profession was seen to be positive once the profession had been explained. It was felt that there was a lack of awareness of what prosthetists and orthotists do.**

Recommendations

- 74% of our sample chose prosthetics and orthotics during their time at school/college. Most students were influenced in the decision from doing their own research and information received from universities. For the students, their own lack of awareness of the profession, as well as lack of awareness amongst career advisors acted as barriers for many. The challenges in accessing information about a prosthetics and orthotics career and a limited amount of available information of prosthetics and orthotics noted by many is concerning. It is therefore of the **upmost important to increase the availability of information and to utilise sources of influence at school/college, such as career advisors, to promote the profession accurately to ensure clear understanding of the role.**
- Work shadowing experiences with a prosthetist was an important source of influence for 60% of the sample, however 33% of the sample identified 'poor access to work shadowing' as a barrier to choosing this profession. This highlights the importance of continuing to **upscale work shadowing specifically in prosthetics and orthotics to help prospective students learn about the profession but also it is important to increase the promotion of work experience.**
- A lack of awareness of the profession, as well as the media portrayal of prosthetics and orthotics were the focus of the responses to the question of 'what do you think the public perception of the profession is?' **It would therefore be beneficial to raise awareness of the work prosthetists and orthotists undertake when promoting the profession.**
- Altruistic reasons were overwhelmingly the most influential motivations for choosing prosthetics and orthotics. Therefore, when promoting the profession, **the altruistic aspects of the profession should be emphasised.** However, it is **also important to highlight other motivations, such as self-development and fulfilment, as well as the variety of the work of prosthetists and orthotists.**
- A surprising 41% and 48% of the sample agreed/strongly agreed that social media and television programmes had been a source of influence, which is very high compared to other professions. This finding suggests an **opportunity to continue to utilise marketing via social media and provide accurate representations of what the role comprises to increase awareness and uptake of the career.**

Acknowledgements

This factsheet was produced by Dr Maja Fuglsang Palmer from the University of Winchester utilising the data responses from the Motivations for choosing an Allied Health Profession career questionnaire 2020. Maja was assisted by Dr Rachel Locke, Dr Lucy Wallis, Juliet Sturgess, Professor Beverley Harden and Carrie Biddle. For more details, please contact Dr Maja Fuglsang Palmer: Maja.Palmer@winchester.ac.uk

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