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# Motivations for choosing an allied health profession career: findings from a scoping review

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#### Abstract

Fourteen professions are recognised as Allied Health Professions (AHP) in England representing the third largest workforce in health and care. Although there is a need to significantly grow the AHP workforce in England, recruitment to many AHP courses is an issue. To increase course applications and encourage individuals to choose AHP careers, we need to understand the decision-making process in choosing an AHP career. The aim of this scoping review was to examine the nature and breadth of evidence internationally regarding the motivations for choosing an AHP career and to identify sources of influence and barriers. A comprehensive search identified 59 relevant studies. Findings revealed inconsistency in the evidence base and the literature focused on a select number of professions and countries. No relevant studies were found for three professions. Whilst many motivations and sources of influence were identified, barriers to entering an AHP career were explored less. The opportunity to help people was a key motivation with financially based motivations being less important. Personal influences, such as a relative working in healthcare, were the most influential sources to choosing this career pathway, media was the least. Lack of awareness of the profession was identified as the main barrier to choosing an AHP career. There is a need to further investigate career choice motivations and sources of influence and barriers for all AHPs. Gaining this knowledge will help tailor future healthcare career promotion and advice for each profession and assist with overall AHP recruitment.

#### Keywords: allied health profession; barriers; career choice; scoping review

#### Introduction

Allied health professionals (AHPs) are individuals who work in a 'wide range of professions aligned to medicine' (<u>Carrick-Sen et al.</u>, 2019, p.2). They represent the third largest workforce in health and care in

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England (<u>Chief Allied Health Professions Officer's Team</u>, 2017). Currently, there are 14 professions<sup>1</sup>. These are regulated by the Health and Care Professions Council (HCPC) and the General Osteopathic Council (<u>GOsC</u>), which is acquired through formal professional registration. There are 170, 000 AHPs (<u>NHS</u>, 2019) working in the UK across every sector of health and social care and all clinical specialities. The scope of each profession is unique (<u>Dorning & Bardsley</u>, 2014), however collectively the AHP role allows for extensive role autonomy. Their breadth of skills can increase the quality of patient and population health and wellbeing for the changing UK population (<u>Harris et al</u>., 2020; <u>Chief Allied Health Professions Officer's Team</u>, 2017).

There is a need to grow significantly the AHP workforce (<u>NHS</u>, 2019; <u>NHS</u>, <u>NHS</u> Improvement [<u>NHSI</u>] <u>& Health Education England [HEE]</u>, 2020). However, between 2014-2018 there was a 27% drop in applicants to healthcare programmes (<u>NHS & HEE</u>, 2018). This has led to concern surrounding recruitment for many AHP courses in the UK and the ability to form viable student cohorts. <u>Define and HEE</u> (2017) have recognised therapeutic radiography, prosthetics and orthotics, orthoptics and podiatry as vulnerable professions to university course recruitment. In the NHS Long Term Plan, addressing shortages for paramedics, podiatrists, radiographers and speech and language therapists, is a goal of the comprehensive new workforce implementation plan (<u>NHS</u>, 2019). A priority in the Interim NHS People Plan (<u>NHSI</u>, 2019) is to increase applications to undergraduate AHP education to meet the demand for AHPs.

As part of AHP pre-registration education programmes, students complete practice-based education. For example, for art therapy, which normally comprises a two-year MA/MSc in the UK, students are expected to undertake 120 days of placement (<u>HEE</u>, 2020a). Therefore, gaining an insight into why individuals have chosen their profession will help practice-based educators understand individuals' expectations of their journey to becoming an AHP. As highlighted by <u>Clarke et al.</u>, (2014) and <u>Ryan and Morris</u> (2016), placements form an 'integral' part of AHP education and are crucial preparation for becoming health professionals. A sustainable approach to high quality placements is essential to growing the number of AHPs (<u>HEE</u>, 2020b).

Much research has been conducted internationally about motivations for those joining the medical profession (e.g. <u>Pagnin et al.</u>, 2013; <u>Pruthi et al.</u>, 2013) and the nursing profession (e.g. <u>Price et al.</u>, 2013; <u>Wilkes et al.</u>, 2015). To increase applications to AHP courses and encourage individuals to choose AHP careers, it is crucial to understand the motivations for choosing an AHP course and career and any barriers to entering these professions. Individuals must be made aware of a profession in order to choose it. Consequently, sources of influence provide important knowledge regarding what impacts on AHP course and career choice. Sources of influence include individuals hearing about a profession through personal experience as a patient/service user or seeing the profession represented on television. As well as helping to inform how applications to relevant courses may be increased, understanding decision making processes can inform healthcare career promotion and advice, thereby helping policy makers and educators improve recruitment (Liaw et al., 2017). For each profession (Bonsaksen et al., 2016). This is especially the case in relation to diversity, and increased representation from people from ethnic minority backgrounds, which needs to be improved in the AHP workforce (<u>Rastrick</u>, 2020).

The aim of this scoping review was to examine the nature and breadth of evidence across all 14 AHPs regarding the motivations for choosing, sources of influence and barriers to entering an AHP career. Although this research is based on exploring the 14 AHPs as defined in England, this review is

<sup>&</sup>lt;sup>1</sup> These are: art therapists, dietitians, dramatherapists, music therapists, occupational therapists, operating department practitioners (ODPs), orthoptists, osteopaths, paramedics, physiotherapists, chiropodists and podiatrists, prosthetists and orthotists, diagnostic and therapeutic radiographers, and speech and language therapists.

international in scope. To the knowledge of the research team, there has not been a scoping review, or primary research, conducted investigating career choice decision making for all 14 AHPs.

#### Methods

Although there is not a universally agreed definition or process of a scoping review/study, it is defined by <u>O'Brien et al</u>. (2016, p.2) as a method to 'comprehensively synthesize evidence across a range of study designs'. For our research, a scoping review was appropriate for creating an overview of a large and diverse body of literature regarding a broad topic (<u>Pham et al</u>., 2014) whilst describing in more detail the research findings and identifying gaps in the literature (<u>Arksey & O'Malley</u>, 2005). This was to ensure the necessity and design of a proposed next stage, a national survey for AHP students.

For this scoping review, the framework by <u>Arksey and O'Malley</u> (2005) was utilised, to ensure a thorough and robust review, and is detailed as follows:

#### Stage 1: Identifying the research question

The first stage was to identify the research questions to inform the search. Our main aim was to explore AHP career choice motivation. To achieve this, it was necessary to also examine factors which may hinder individuals choosing or discovering an AHP career. Accordingly, our research questions were:

What are the motivations for choosing AHP careers? What are the sources of influence when choosing AHP careers? What are the barriers to participation in AHP careers?

#### Stage 2: Identifying relevant studies

In order to scope the field for appropriate literature, two electronic databases were used, ScienceDirect and PubMed. The search strategy was developed by the research team and incorporated key terms from the research questions. Boolean searching techniques were used, for example for the first research question: "career choice" OR "career motivation" AND (Osteopathy OR Osteopath).

Titles and abstracts were screened by the researcher. If the article looked relevant, the article was included in a table. The database searches produced a large number of irrelevant studies. The reference lists of identified studies were also checked for studies which may have been missed through the database search. Finally, the research team asked our existing networks (public bodies and representatives from professional bodies) for knowledge, mainly in terms of grey literature, of any relevant studies or reports. This literature was added to the table if appropriate. This process took place between May and July 2020.

All articles added to the table were read in full by the research team to assess relevance and check the article met the inclusion criteria (see below). Figure 1 illustrates the searching and screening results for each research question.

#### Figure 1:

#### Searching and Screening process



#### Stage 3: Study selection

The following inclusion/exclusion criteria was implemented:

- Subject: The study needed to focus on one or more of the 14 AHPs as recognised by the HCPC/ <u>GOsC</u> or on AHPs as a group. The study needed to explore one or more of the research questions.
- Career choice motivation: The study needed to look at motivations for choosing the profession as a whole and not a particular stream of the profession. For example, why individuals choose physiotherapy and not specifically cardiorespiratory physiotherapy.
- Date: Articles published between 1990 and 2020 were included. This relatively long timeframe was chosen owing to the paucity of literature for a number of professions, but also to ensure the literature was still relevant for AHPs today.
- Research methods: Studies implementing qualitative, quantitative and mixed methods were all included.
- Geographic origin: There was no restriction on location of the research study.
- Included evidence: Peer reviewed journal articles and grey literature were included. Masters or PhD theses were not.

#### Stage 4: Charting the data

This stage involved extracting a combination of general and specific information about a study (<u>Arksey &</u> <u>O'Malley</u>, 2005). In addition to the title, year of publication, author and journal information and aim of

the study, key information from the included studies was extracted using the SPIDER method (<u>Cooke et al.</u>, 2012). Although this method is intended to be used as a search tool in literature reviews, we found that the SPIDER components allowed us to gain a good oversight of the studies. We captured study detail against the five components of the SPIDER method: Sample (the group being looked at); Phenomenon of Interest (focusing on reasons for behaviours/decisions); Design (research method); Evaluation (outcome measures) and Research type (qualitative, quantitative or mixed methods).

#### Stage 5: Collating, summarising and reporting

The scoping review process was useful to gain an overview of the evidence available on the topic area. The information obtained from the literature was analysed in two ways. Firstly, we applied a numerical analysis of the studies found. This provided an insight into the dominant areas of research (<u>Arksey & O'Malley</u>, 2005) for example profession, and therefore also identified gaps in the literature. Secondly, a qualitative thematic analysis was conducted exploring the characteristics relating to the research questions. For example, motivations were sorted into themes to reflect the type of motivation (professional, intellectual or altruistic). Similarly, sources of influence were divided into themes (personal, educational and media). Whilst a source or motivation was recognised by a study, it was necessary to also determine how important that motivation or source was deemed. Barriers to entry were also identified.

#### Findings

In total 59 relevant publications were included, dating from 1990 to the most recent in 2020. The review included all available, and relevant, literature that met the search criteria. Only 15 relevant studies were published from 2015 onwards.

Table 1:

#### **Profile of studies (n = 59)**

Category	Number
Country	L
UK	16
USA	13
Australia	12
Canada	6
Poland	2
Australia and UK	1
Czech Republic, Latvia, Malta, Poland, Spain and the UK	1
Israel	1
Korea	1
Malaysia	1
New Zealand	1
Norway	1
Sweden	1
Switzerland	1
Zimbabwe	1
Profession	
Occupational therapy	13
Physiotherapy	13
Dietetics	10
Speech and language therapy	10
Radiography	6

Paramedic Science	3
Art therapy	2
Chiropody/podiatry	1
Multiple professions	4
Research Type	
Quantitative	37
Qualitative	15
Mixed Methods	7
Sample	
University students	34
Qualified professionals	10
Varied sample	8
School students	3
University and school students	3
Interns	1

<u>Table 1</u> presents the overall characteristics of the reviewed studies. Only two studies of the 59 included comparisons between two or more countries. Of the remaining 57 articles, the majority were undertaken in the UK, USA and Australia (41). The majority of literature focused only on one profession and only a small number compared AHPs. The professions most represented were occupational therapy (13) and physiotherapy (13). No relevant studies were found for dramatherapy, music therapy or osteopathy. Three UK studies included a number of professions and consequently operating department practice, orthoptics and orthotics/prosthetics were also represented. No literature was found which explored all 14 AHPs. Most studies were conducted at a single university, either focusing on one year group or looking at different year groups. Studies involving more than one university tended to be focused on one particular region, for example a USA state. There were very few nationwide studies and none of these looked at more than one professional group.

The majority of studies (41) employed a questionnaire as the main data collection technique, or as part of mixed methods research employing quantitative and qualitative approaches. Although we did not limit our studies to only primary research, none of the included studies were based solely on secondary research. The sample sizes ranged from 10 participants to 1695 participants. The samples comprised mainly university students (34) although other groups were also included.

Many motivations and sources of influence were identified in the literature. The findings from our thematic analysis focused only on a number which ranked consistently highly, lowly or produced a mixed response across the professions and countries. Barriers to entry were not examined as much in the literature, although a number were still highlighted.

#### Motivations

Motivations for entering AHP careers were explored the most in the literature. Motivations included choosing a satisfying career, an interest in healthcare, career progression, prestige, variety of the profession (including day to day variety of work but also the diversity of areas of practice available) and having a profession. Not all studies ranked the importance of different motivations, sometimes they only identified motivations. Furthermore, the importance of a motivation may have been dependent on only choosing one 'key' motivation. On the whole, helping people was identified as a key motivation to choosing an AHP career. Financially based motivations were less important.

<u>Table 2</u> shows the varying level of importance for three different motivations: choosing the profession to help people, job availability and financial motivations. Importance was measured by the ranking of a motivation in a study (for example, if a motivation/source was ranked as the top motivation/source or in the top half of a list of factors).

#### Table 2:

## The varying level of importance for three different motivations: choosing the profession to help people, job availability and financial motivations.

	Art therapy	Dietetics	Occupation al therapy	ODP	Paramedic science	Physiother apy	Radiograp hy	Speech and language therapy
Helping people		1	1	1		1	1	
An important motivation	Oppegard et al., 2005 (USA)	Hughes & Desbrow, 2005 (Australia ) Kimball et al., 1993; Kobel, 1997; Markley & Huyck, 1992; Whaley & Wright Hosig, 2000 (USA)	Cooperstein & Schwartz, 1992 (USA) Craik & Alderman, 1998 (UK) Fleming et al., 1997; Meredith et al., 2007; Roney et al., 2004 (Australia) <u>Tétreault et</u> al., 2020 (Switzerland)		Ross et al., 2016 (Australia) <u>Szarpak et</u> <u>al.</u> , 2013 (Poland)	Mkondo et al., 2007 (Zimbabwe) <u>Öhman et</u> al., 2001 (Sweden) <u>Park et al.,</u> 2003 (UK) <u>Yitt et al.,</u> 2019 (Malaysia)	Bamba et al., 2008 (Australia) <u>Vosper et</u> al., 2005 (UK)	Brodsky & Cooke, 2000; Lass et al., 1995; Veyvoda & Howerton -Fox, 2020 (USA) Byrne, 2007 (Australia) Whitehou se et al., 2007 (Australia and UK)
An unimportant motivation	-	-	-		-	-	-	-
Job availability		I	I		I		I	1
An important motivation	-	-	Cooperstein & Schwartz, 1992; Rozier et al., 1992 (USA) Fleming et al., 1997 (Australia)		-	Mkondo et al., 2007 (Zimbabwe) Öhman et al., 2002 (Canada) Park et al., 2003 (UK) Scutter, 1990 (Australia) Yitt et al., 2019 (Malaysia)	Vosper et al., 2005 (UK)	-
An unimportant motivation	Oppegard et al., 2005 (USA)	-	Craik & Alderman, 1998; Craik et al., 2001; Craik & Zaccaria, 2003 (UK) Roney et al.,		-	-	-	Whitehou se et al., 2007 (Australia and UK)
Financial			2004 (Australia)					

An important motivation	-	-	-		-	<u>Mkondo et</u> <u>al., 2007</u> (Zimbabwe) <u>Öhman et</u> <u>al., 2002</u> (Canada) <u>Scutter</u> , 1990 (Australia)	-	-
An unimportant motivation	Oppegard et al., 2005 (USA)	Kobel, 1997; Whaley & Wright Hosig, 2000 (USA)	Cooperstein, and Schwartz, 1992 (USA) Craik & Alderman, 1998; Craik et al., 2001; Craik & Zaccaria, 2003 (UK) Fleming et al., 1997; Roney et al., 2004 (Australia)	Wordswor th_(2015) (UK)	Ross et al., 2016 (Australia)	<u>Öhman et</u> <u>al.</u> , 2001 (Sweden) <u>Yitt et al.</u> , 2019 (Malaysia)	-	-

#### Altruistic motivations

The motivation of helping people was included in the majority of studies where participants ranked motivations or was mentioned by a number of participants in interviews or focus groups across the literature. Choosing a profession to help people was either considered the key motivation, or at least, was in the top three.

#### Professional motivations

The importance of job availability varied greatly between professions and countries, and between studies looking at the same professions (as can be seen in Table 2). In studies looking at physiotherapy, job availability frequently ranked highly as a key motivation. By way of contrast, in a USA study of art therapists' motivations (<u>Oppegard et al.</u>, 2005), no one chose job availability as a reason for career choice. This is likely to relate to the limited job market for this profession. Similarly, in an Australian and UK speech and language therapy study (<u>Whitehouse et al.</u>, 2007), only two out of 145 chose job availability as the main factor in choosing speech and language therapy.

Financial motivations for choosing an AHP career ranked low on lists of motivations and sometimes this was the least important factor for career choice. However, this was difficult to quantify because studies used different phrases and meanings. Interestingly, in an Australian study exploring career motivations for paramedics (Ross et al., 2016), although salary overall was not considered important, older respondents rated it higher than younger participants, and male participants rated it as more important than their female counterparts.

#### Intellectual motivations

These motivations included looking at combinations e.g., technical and people aspects (<u>Vosper et al.</u>, 2005) or a particular aspect of the profession e.g., close contact with cancer patients (<u>Wortley</u>, 2020) or a personal interest in nutrition (<u>Hughes & Desbrow</u>, 2005; <u>Kobel</u>, 1997). The notion of combining two aspects of the profession for occupational therapists was less important than an interest in one aspect (Cooperstein & Schwartz, 1992; <u>Craik et al.</u>, 2001; <u>Craik & Zaccaria</u>, 2003). In contrast, the combination of art and therapy or people was a key motivation for art therapists (<u>Jue & Jung</u>, 2018; <u>Oppegard et al.</u>, 2005) as was the relationship between health and nutrition for dietitians (<u>Kimball et al.</u>, 1993). For

physiotherapy, an interest in physiotherapy as a whole was a key motivation (<u>Gotlib et al.</u>, 2012) but the specific aspect of 'sports and athletic injuries' was less important (<u>Mkondo et al.</u>, 2007; <u>Öhman et al.</u>, 2001, <u>Öhman et al.</u>, 2002; <u>Yitt et al.</u>, 2019).

#### Sources of influence

Sources of influence were sometimes explored separately or explored as part of motivations. Sources of influence refers to individuals or experiences which affected the decision of an individual to choose their career. This includes teachers, previous employment in the healthcare setting, work experience and career fairs. Whilst it is important to note the relative age of literature, especially in relation to importance of media as a source of influence, personal influences were the most influential source and media the least.

#### Table 3:

The varying level of importance for three different sources of influence: Knowing someone in healthcare/the profession, career advisors or guidance counsellors and the media

	Art therapy	Dietetics	Occupational therapy	ODP	Paramedic science	Physiotherapy	Radiography	Speech and language therapy
Knowing someone in healthcare/the profession								
An important source	-	-	Bonsaksen et al., 2016 (Norway) Byrne, 2015 (Australia) Cooperstein & Schwartz, 1992 (USA) Craik et al., 2001; Craik & Zaccaria, 2003 (UK)		Ross et al., 2016 (Australia)	<u>Scutter</u> , 1990 (Australia)	-	<u>Byrne</u> , 2007 (Australia)
An unimportant source	-	-	-		-	-	-	-
Career advisors or guidance counsellors								
An important source	-	-	Cooperstein, and Schwartz, 1992 (USA) Craik & Zaccaria, 2003 (UK)		-	-	-	<u>Wordsworth</u> (2015) (UK)-
An unimportant source	-	Kobel, 1997 (USA) Lordly & Dube, 2012 (Canada) Markley and Huyck,	Fleming et al., 1997 (Australia)	Wordsworth (2015) (UK)	-	Scutter, 1990 (Australia) <u>Yitt et al.,</u> 2019 (Malaysia)	Bamba et al., 2008 (Australia)	Byrne, 2007 (Australia) Lass et al., 1995 (USA)

		1992 (USA)						
Media		•	•	•	•	•		•
An important source	-	Lordly & Dube, 2012 (Canada)	-		-	<u>Yitt et al.,</u> 2019 (Malaysia)	-	-
An unimportant source	-	-	<u>Cooperstein</u> <u>&amp; Schwartz</u> , 1992 (USA) <u>Craik et al.</u> , 2001 (UK)	Wordsworth (2015) (UK)	-	-	-	Lass et al., 1995 (USA) Wordsworth (2015) (UK)

#### Personal influences/experiences

The influence of a parent/family member/friend was not always explored. Consequently, it was difficult to determine whether these individuals were in the profession and played a role or if they had a more general influence on career choice. In this section, the focus is on influence on career choice from knowing someone in the profession, or healthcare more generally – either family members or friends. Across the studies, the numbers of participants who had a parent in their occupation was low (Byrne, 2015; Rozier et al., 1992). However, knowing a relative or friend working in the profession was a key factor in motivating participants to choose their profession (see Table 3).

Across the studies conducted, the influence from exposure to the profession through personal experience (self, relative or friend receiving care) had a mixed level of importance. Firstly, it was more common that a relative or friend had received care rather than the individual themselves (<u>Boyd & Hewlett</u>, 2001; <u>Byrne</u>, 2007). Secondly, the influence of the individual receiving care as a patient/service user in their career choice did not show high levels of disparity between the professions: it was low for art therapists in the USA (<u>Oppegard et al.</u>, 2005), physiotherapists in Zimbabwe (<u>Mkondo et al.</u>, 2007) and occupational therapists in the UK (<u>Craik & Zaccaria</u>, 2003). However, the influence on career choice of a relative/friend receiving care from the profession ranked more highly, for example, it was mid-range for paramedics in Australia (<u>Ross et al.</u>, 2016).

Educational and media influences

Career advisors or guidance counsellors were frequently identified as a source for both hearing about a profession or influencing career choice. However, although they were frequently identified, their impact was consistently reported as low. Media sources included radio, television, newspapers and websites. Noticeably, in studies from 2012 (dietetics) and 2019 (physiotherapy), 'media', including the internet as a source, ranked much higher (Lordly & Dube, 2012; Yitt et al., 2019).

#### Barriers

Barriers to entering an AHP career identified in the literature included a lack of positive role models (including those of the same ethnic background) (<u>Barfield et al.</u>, 2012), geographical location of courses (<u>Barfield et al.</u>, 2012), gender stereotypes (<u>Office for Students</u>, 2020) and culture/religious barriers (<u>Yeowell et al.</u>, 2013). However, the main barriers explored were financial, lack of awareness of the profession and status of the profession.

The financial costs of training were a potential barrier. For example, studying radiography as a mature student may involve financial disincentives including travelling to university, childcare costs, the loss of wages while undertaking training and the resulting debt or existing financial commitments (<u>Coombs et al.</u>, 2003). Many students felt a need to work alongside studying in order to cope financially making it a barrier to full-time study (<u>Office for Students</u>, 2019).

A lack of awareness about AHPs was highlighted in two studies conducted with school students around physiotherapy and speech and language therapy (<u>Greenwood & Bithell</u>, 2005; <u>Greenwood et al.</u>, 2006). Although physiotherapy is one of the better known AHPs, one sixth of the sample from the first study had

no knowledge about physiotherapists. In the second study, one third of the sample had no knowledge of speech and language therapy. In both studies, male participants were significantly less familiar with these professions than the female participants. In studies with existing professionals, a study focusing on occupational therapists (<u>Craik & Alderman</u>, 1998) found that one third of participants were unaware of the profession whilst at school. The literature highlighted that information about AHPs was rarely 'pushed' by influential sources at school/college, leading to an unawareness about AHPs beyond physiotherapists (<u>Define & HEE</u>, 2017), although awareness of physiotherapy is still low (<u>Greenwood & Bithell</u>, 2005). There was seen to be a reliance on individuals finding out about AHPs through chance personal/family experiences (<u>Define & HEE</u>, 2017). In the same study, it was recognised that awareness of AHPs also extends to representation in the media. However, participants highlighted that speech and language therapists, in particular from ethnic minority groups, were not represented in television programmes (<u>Greenwood et al.</u>, 2006).

The prestige or status of the profession was a barrier, especially for ethnic minority groups. In the same studies with school students (<u>Greenwood & Bithell</u>, 2005; <u>Greenwood et al.</u>, 2006), minority ethnic group participants were significantly less likely to know that physiotherapy and speech and language therapy were degree courses, compared to their white counterparts. However, the ethnic minority group participants placed more importance on doing a degree. In the physiotherapy study, ethnic minority group participants placed greater importance on choosing a profession which was prestigious than the white participants. Similarly, in <u>Yeowell</u> (2013), the status of a profession, and its familiarity, was especially important to university students of South Asian heritage in relation to their families. In Greenwood et al. (2006) there was an importance placed by ethnic minority group school students on a scientific career and speech and language therapy was not seen as this. Linked to this, is the barrier of certain AHPs (e.g., podiatry and orthoptics) being seen as 'narrow' implying the need for lower expertise which affects the perception of prestige associated with the profession (Define & HEE, 2017).

#### Discussion

Undertaking this scoping review has allowed for the examination of the body of international literature relating to career motivations, sources of influence and barriers to entry for AHPs (as recognised by the HCPC/<u>GOsC</u> in England). It was evident that there was inconsistency in the evidence base and literature focused on a select number of professions and countries; highlighting the research gaps.

Most of the literature included in this review was from the UK, USA, Australia and Canada (80%). This is likely to relate to AHPs being developed professionally in these countries. In contrast, it was highlighted in Szarapk et al. (2013) that paramedics, at the time of their study, were a relatively new profession in Poland. Similarly, <u>Yeowell</u> (2013) explained that a lack of knowledge about physiotherapy from South Asian participants related to the profession being relatively new in their country of birth. Occupational therapy, physiotherapy, dietetics and speech and language therapy formed the majority of AHP career motivation literature (74.2%). Three professions (dramatherapy, music therapy and osteopathy) had no literature and an additional three (operating department practice, orthoptics and orthotics/prosthetics) were only represented in multi-professions and there is a need to be mindful in drawing conclusions from the findings. Consequently, research is needed to explore motivations, sources of influence and barriers to entering all these careers. Further, no research was found to explore AHPs as a group. Whilst all the professions are unique, they belong to the AHP group and research would allow for interesting explorations into career motivations and assessing similarities and differences between the professions.

There was limited literature exploring professions between countries. It is important to highlight that the definition of 'allied health profession' and the individual professions are not universally agreed. For example, in Australia, AHPs include pharmacists, psychologists and oral health professionals (<u>Campbell</u> et al., 2012) and in Canada, a social worker is an AHP (<u>McKellips</u>, 2017). Although many aspects of an allied health profession are transferable, it is important to recognise that contexts in which student and qualified AHPs practise vary depending on the country in which they train and work. Roles differ between countries with different levels of autonomy, which affects motivations such as prestige and

salary. Gotlib et al. (2012) explored the perception of physiotherapy as a profession among students from different European countries. They highlighted the varying autonomy for physiotherapists. For example, in Belgium and Poland, a physiotherapist is reliant on a referral from a doctor to treat patients. In contrast, in the UK, France and Germany, a physiotherapist has autonomy to decide treatment. In terms of financial motivations, contrasting findings relating to importance of this motivation may have been because of the wording used. For example, 'financial security' (Oppegard et al., 2005), 'good salary' (Craik & Zaccaria, 2003) and 'potential for good salary' (Yitt et al., 2019) were all used in relation to financial motivations. There is a disparity between choosing a profession for the security achieved through a salary and choosing a profession to progress and earn a high salary. Some aspects of a profession *are* similar between countries, for example, altruistic motivations and the motivation of 'wanting to help people' is less susceptible to variation in questions. Altruistic motivations were identified as the most important across the professions.

This scoping review highlighted that personal sources of influence, for example, knowing someone in the profession, had more influence than educational and media influences. The reliance on personal experience suggests the need for a community awareness campaign to raise the profile of AHPs. Of note was the low level of influence from career advisors/guidance counsellors. The literature which explores the role of career advisors involves the more well-known professions (dietetics and speech and language therapy) and therefore, this low level of influence is problematic for the lesser known AHPs (for example orthoptics and dramatherapists). The interest in altruistic professions suggests school/college career advisors should be made more aware of health professions beyond nursing and medicine. This would allow for the involvement from university outreach programmes and enable school/college students to learn about AHPs. The influence of the media was limited, and this is likely to relate to the dates of the literature; the average date of publication was 2007. Future studies are more likely to explore in more detail the impact of the media, specifically the internet and social media, in order to understand whether this is a key source of influence for individuals choosing AHP careers today.

Barriers to entering AHP careers were not explored a great deal in the literature. More research in this area could help to gain an understanding to the background and contexts of would-be AHPs' decision making. A lack of awareness and misconceptions are key barriers. Awareness of the profession is likely to vary though between the better-known ones, such as physiotherapy and paramedic science and lesserknown professions such as ODPs or orthoptists. There is a lack of diversity in the AHP student population globally (Litosseliti & Leadbeater, 2013; Suarez & Shanklin, 2002; Yeowell, 2013) and in the UK, diversity is a key focus of the NHS People Plan (NHS, NHSI & HEE, 2020). Individuals from these backgrounds need visible role models to help raise awareness and the professions' profiles. Further, there needs to be quality and consistent information, to help address misconceptions and create opportunities for widening participation. Greenwood and Bithell (2005) recommended promoting physiotherapy as a profession with foundations in medical science in order to improve the prestige of the profession particularly for ethnic minority groups. They explained that parental approval plays a more important role for some ethnic groups and therefore improving understanding around a profession could help address misconceptions. Misconceptions about a role, for example, the focus of the profession being seen as narrow, can also be addressed through work experience. In a study with school students (Julka-Anderson et al., 2020), seeing the different roles available within the profession was identified as a key benefit of undertaking work experience in radiography. In 2016, the NHS bursary which covered university fees was removed for AHPs, to be replaced with tuition fees and loans; putting healthcare students studying in England in the same position as other students. Recently, an annual payment has been reinstated through the NHS Learning Support Fund, although this is not available for all AHPs. It is important to consider these changes when exploring AHP work around career choice motivations in England after 2016. Further, research into the impact of this change is important to determine whether lack of awareness of the Learning Support Fund, for example, is a barrier to choosing an AHP career.

This study has limitations. Firstly, only publications written in English were included. This means that literature written in other languages which may have involved the AHPs, was not included in our study and if included, may have altered our findings. Further, the studies were not examined for methodological rigour as this does not form part of the scoping review methodology. Finally, the scoping review highlighted the contrasting methods used for researching these topics. Consequently, it could be argued

that there is a lack of comparability between studies and the different ways in which questions were asked. The limitations are not detrimental to this scoping review, but they imply boundaries for interpreting the findings.

#### Conclusion

The aim of this scoping review was to describe the evidence base. The key findings of this scoping review (missing literature on professions, a lack of recent studies, limited comparisons between the professions) make it difficult to draw overarching conclusions on the content of the literature. However, it recommends further study looking at all fourteen AHPs. There is a need to capture all professions and explore motivations, sources of influence and barriers to entry, highlighting that these are not all the same as their professional profiles and attributes are different. Gaining this knowledge will help tailor healthcare career promotion and advice that is appropriate for each profession whilst assisting overall AHP recruitment.

There is a need to significantly grow the AHP workforce as a whole, with certain professions in particular, in need of increasing supply: podiatry, occupational therapy, ODPs and radiography. This will result in an increase in the number of clinical placements required to meet this demand. Understanding motivations for choosing AHP careers is likely to help bridge the gap between prior expectations and realities of the course which will be brought to light, especially during practice-based learning. In the long term, this will benefit patient care. It is likely that the effects of the COVID-19 pandemic will play a role in the choice of an allied health profession. More widely in healthcare, there has been a record number of applications to study nursing in the UK amid the pandemic. As shown in this scoping review, the altruistic motivation of wanting to help people was recognised as a key motivation for choosing an AHP career. This is likely to be a key motivation during and post pandemic, as well as job security. However, it is important to explore motivations in a greater capacity to ensure there is an understanding of the reality of the role.

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#### References

- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32. https://doi.org/10.1080/1364557032000119616
- Bamba, A., Bamba, V., Chen, Y., Deng, Y., Li, L., Ruan, W., Zhang, Y., & Caruana, E. (2008). Why do students choose the medical radiation science profession? *The Radiographer*, 55(2), 27-33. <u>https://doi.org/10.1002/j.2051-3909.2008.tb00084.x</u>
- Barfield, J. P., Cobler, D. C., Lam, E. T. C., Zhang, J., & Chitiyo, G. (2012). Differences between African-American and Caucasian students on enrolment influences and barriers in kinesiologybased allied health education programs. *Advances in Physiology Education*, 36(2), 164-169. https://doi.org/10.1152/advan.00129.2011
- Bonsaksen, T., Kvarsnes, H., & Dahl, M. (2016). Who wants to go to occupational therapy school? Characteristics of Norwegian occupational therapy students. *Scandinavian Journal of Occupational Therapy*, 23(4), 297-303. <u>http://doi.org/10.3109/11038128.2015.1105293</u>
- Boyd, S., & Hewlett, N. (2001). The gender imbalance among speech and language therapists and students. *International Journal of Language & Communication Disorders*, 36(s1), 167-172. https://doi.org/10.3109/13682820109177878
- Brodsky, M. B., & Cooke, P. A. (2000). Influences in the decision-making process for careers as a speech-language pathologist or an audiologist. *Journal of Employment Counseling*, 37(3), 178-189. <u>https://doi.org/10.1002/j.2161-1920.2000.tb00484.x</u>

- Byrne, N. (2007). Factors influencing the selection of speech pathology as a career: A qualitative analysis utilising the systems theory framework. *Australian Journal of Career Development*, 16(3), 11-18. https://doi.org/10.1177/103841620701600304
- Byrne, N. (2015). Exposure to occupational therapy as a factor influencing recruitment to the profession. *Australian Occupational Therapy Journal*, 62(4), 228-237. <u>https://doi.org/10.1111/1440-</u> 1630.12191
- Campbell, N., McAllister, L., & Eley, D. S. (2012). The influence of motivation in recruitment and retention of rural and remote allied health professionals: a literature review. *Rural and Remote Health*, 12(2), 1900. https://www.rrh.org.au/journal/article/1900
- Carrick-Sen, D., Moore, A., Davidson, P., Gendong, H., & Jackson, D. (2019). International perspectives of nurses, midwives and allied health professionals Clinical academic roles: Are we at tipping point? *International Journal of Practice-based Learning in Health and Social Care*, 7(2), 1-15. https://doi.org/10.18552/ijpblhsc.v7i2.639
- Chief Allied Health Professions Officer's Team. (2017). Allied health professionals into action: Using Allied health professionals to transform health care and wellbeing. NHS England. https://www.england.nhs.uk/wp-content/uploads/2017/01/ahp-action-transform-hlth.pdf
- Clarke, C., de Visser, R., Martin, M., & Sadlo, G. (2014). Role-emerging placements: A useful model for occupational therapy practice education? A review of the literature. *International Journal of Practice-based Learning in Health and Social Care*, 2(2), 14-26. https://doi.org/10.11120/pblh.2014.00020
- Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: The SPIDER Tool for Qualitative Evidence Synthesis. Qualitative Health Research, 22(10), 1435-1443. <u>https://doi.org/10.1177/1049732312452938</u>
- Coombs, C. R., Park, J. R., Loan-Clarke, J., Arnold, J., Preston, D., & Wilkinson, A. J. (2003). Perceptions of radiography and the National Health Service: a qualitative study. *Radiography*, 9(2), 109-122. <u>https://doi.org/10.1016/S1078-8174(03)00044-0</u>
- Cooperstein, K. R., & Schwartz, K. B. (1992). Reasons for choosing occupational therapy as a profession: Implications for recruitment. *The American Journal of Occupational Therapy*, 46(6), 534-539. <u>https://doi.org/10.5014/ajot.46.6.534</u>
- Craik, C., & Alderman, J. J. (1998). What attracts mature students to occupational therapy? *British Journal of Occupational Therapy*, 61(10), 473-477. https://doi.org/10.1177/030802269806101013
- Craik, C., Gissane, C., Douthwaite, J., & Philp, E. (2001). Factors influencing the career choice of firstyear occupational therapy students. *British Journal of Occupational Therapy*, 64(3), 114-120. <u>https://doi.org/10.1177/030802260106400302</u>
- Craik, C., & Zaccaria, J-M. (2003). The career choice of first-year occupational therapy students: A follow-up study. *British Journal of Occupational Therapy*, 66(11), 531-534. https://doi.org/10.1177/030802260306601107
- Define & Health Education England (2017). *Smaller and Specialist Allied Health Professions: Qualitative Research* [manuscript unpublished].
- Dorning, H., & Bardsley, M. (2014). Focus on: Allied health professionals can we measure quality of care? Quality Watch, September 2014. The Health Foundation and Nuffield Trust. <u>https://www.health.org.uk/sites/default/files/QualityWatch\_FocusOnAlliedHealthPRofessionals.</u> <u>pdf</u>
- Fleming, J., Gilbert, J., McKenna, K., & Heath, T. (1997). First year occupational therapy students: Profile and perceptions. *Australian Occupational Therapy Journal*, 44(3), 107-118. <u>https://doi.org/10.1111/j.1440-1630.1997.tb00763.x</u>
- Gotlib, J., Białoszewski, D., Opavsky, J., Garrodd, R., Fuertese, N. E., Pérez-Gallardo, L., Paz-Lourido, B., Monterde, S., Suárez-Serrano, C., Sacco, M., & Kunickak, I. (2012). Attitudes of European physiotherapy students towards their chosen career in the context of different educational systems and legal regulations pertaining to the practice of physiotherapy: Implications for university curricula. *Physiotherapy*, *98*(1), 76-85. <u>https://doi.org/10.1016/j.physio.2011.02.003</u>
- Greenwood, N., & Bithell, C. (2005). Perceptions of physiotherapy compared with nursing and medicine amongst minority ethnic and white UK students: Implications for recruitment. *Physiotherapy*, 91(2), 69-78. <u>https://doi.org/10.1016/j.physio.2004.07.011</u>

- Greenwood, N., Wright, J. A., & Bithell, C. (2006). Perceptions of speech and language therapy amongst UK school and college students: implications for recruitment. *The International Journal of Language & Communication Disorders*, 41(1), 83-94. <u>https://doi.org/10.1080/13682820500177604</u>
- Harris, J., Grafton, K., & Cooke, J. (2020). Developing a consolidated research framework for clinical allied health professionals practising in the UK. *BMC Health Services Research*, 20, Article 852. <u>https://doi.org/10.1186/s12913-020-05650-3</u>
- Health Education England. (2020a). Current placement expectations of AHP Regulators and Professional Bodies. Retrieved June 1, 2021, from <u>https://www.hee.nhs.uk/our-work/allied-health-</u> <u>professions/increase-capacity/ahp-practice-based-learning/current-placement-expectations-ahp-</u> <u>regulators-professional-bodies</u>
- Health Education England. (2020b). Helping to ensure an essential supply of Allied Health Professions

   (AHP) Practice Placements: challenges and solutions.

   <u>https://www.hee.nhs.uk/sites/default/files/documents/Ensuring%20an%20essential%20supply%20-%20Oct2020.pdf</u>
- Hughes, R., & Desbrow, B. (2005). Aspiring dietitians study: A pre-enrolment study of students motivations, awareness and expectations relating to careers in nutrition and dietetics. *Nutrition* and Dietetics, 62(2-3), 106-109. <u>https://doi.org/10.1111/j.1747-0080.2005.00015.x</u>
- Jue, J., & Ha, J. H. (2018). The professional identity, career commitment and subjective well-being of art therapy students. *The Arts in Psychotherapy*, 57(February), 27-33. https://doi.org/10.1016/j.aip.2017.10.007
- Julka-Anderson, N., Barker, E., Johnson, S., & Tuke, K. (2020). Inspiring the next generation of therapeutic radiographers – our story. *Radiography*, 26(1), S27. <u>https://doi.org/10.1016/j.radi.2019.11.067</u>
- Kimball, T., Roberts, L., & Hagan, D. W. (1993). Factors affecting a dietitian's career choice: What singles out dietetics over nursing or medicine? *Journal of the American Dietetic Association*, 93(9 Supplement 1), A82. <u>https://doi.org/10.1016/0002-8223(93)91278-X</u>
- Kobel, K. A. (1997). Influences on the selection of dietetics as a career. *Journal of the American Dietetic Association*, 97(3), 254-257. <u>https://doi.org/10.1016/S0002-8223(97)00066-7</u>
- Lass, N. J., Ruscello, D. M., Pannbacker, M. D., Middleton, G. F., Schmitt, J. F., & Scheuerle, J. F. (1995). Career selection and satisfaction in the professions. ASHA, 37(4), 48-51.
- Liaw, S. Y., Wu, L. T., Chow, Y. L., Lim, S., & Tan, K. K. (2017). Career choice and perceptions of nursing among healthcare students in higher educational institutions. *Nurse Education Today*, 52(May), 66-72. <u>https://doi.org/10.1016/j.nedt.2017.02.008</u>
- Litosseliti, L., & Leadbeater, C. (2013). Speech and language therapy/pathology: perspectives on a gendered profession. *The International Journal of Language & Communication Disorders*, 48(1), 90-101. <u>https://doi.org/10.1111/j.1460-6984.2012.00188.x</u>
- Lordly, D., & Dubé, N. (2012). The who, what, when, and how: Of choosing a dietetics career. Canadian Journal of Dietetic Practice and Research, 73(4), 169-175. <u>https://doi.org/10.3148/73.4.2012.169</u>
- Markley, E. J., & Huyck, N. I. (1992). Factors affecting a student's choice of dietetics as a profession. *Journal of the American Dietetic Association*, 92(8), 933-937. <u>https://doi.org/10.1016/S0002-8223(21)00829-4</u>
- McKellips, F., Keely, E., Afkham, A., & Liddy, C. (2017). Improving access to allied health professionals through the Champlain BASE<sup>TM</sup> eConsult service: a cross-sectional study in Canada. *British Journal of General Practice*, 67(664), e757-e763. https://doi.org/10.3399/bjgp17X693125
- Meredith, P., Merson, K., & Strong, J. (2007). Differences in adult attachment style, career choice and career satisfaction for occupational therapy and commerce students. *British Journal of Occupational Therapy*, 70(6), 235-242. https://doi.org/10.1177/030802260707000603
- Mkondo T., Mudzi, W., & Mbambo, N. P. (2007). Factors influencing Zimbabwean physiotherapy students in choosing physiotherapy as a career. *SA Journal of Physiotherapy*, *63*(3), 26-31. <u>https://doi.org/10.4102/sajp.v63i3.140</u>
- NHS. (2019). The NHS Long Term Plan. https://www.longtermplan.nhs.uk/publication/nhs-long-termplan/

NHS & HEE. (2018). Allied health professions: At the forefront of improving care - a year in review 2017/2018.

https://www.hee.nhs.uk/sites/default/files/documents/AHP%20National%20Report%202017-18.pdf

- NHS, NHS Improvement & HEE. (2020). We are the NHS: People Plan 2020/21 action for us all. <u>https://www.england.nhs.uk/wp-content/uploads/2020/07/We-Are-The-NHS-Action-For-All-Of-Us-FINAL-March-21.pdf</u>
- NHSI. (2019). Interim NHS People Plan. <u>https://www.longtermplan.nhs.uk/wp-</u>content/uploads/2019/05/Interim-NHS-People-Plan\_June2019.pdf
- O'Brien, K. K., Colquhoun, H., Levac, D., Baxter L., Tricco, A. C., Straus, S., Wickerson, L., Nayar, A. Moher, D., & O'Malley, L. (2016). Advancing scoping study methodology: a web-based survey and consultation of perceptions on terminology, definition and methodological steps. *BMC Health Services Research*, *16*, Article 305. <u>https://doi.org/10.1186/s12913-016-1579-z</u>
- Office for Students (2019). Recruitment of Mature Students to Nursing, Midwifery and Allied Health Courses – Research. https://www.officeforstudents.org.uk/media/14f84fe4-47c4-47c3-a125-559feed1f712/mature-students-and-nmah-courses-report.pdf
- Office for Students (2020). *Male participation in nursing and allied health higher education courses*. <u>https://www.officeforstudents.org.uk/publications/male-participation-in-nursing-and-allied-health-higher-education-courses/</u>
- Öhman, A., Stenlund, H., & Lars, D. (2001). Career choice, professional preferences and gender? The case of Swedish physiotherapy students. *Advances in physiotherapy*, *3*(3), 94-107. https://doi.org/10.1080/140381901750475348
- Öhman, A., Solomon, P., & Finch, E. (2002). Career choice and professional preferences in a group of Canadian physiotherapy students. *Advances in physiotherapy*, 4(1), 16-22. https://doi.org/10.1080/140381902317303177
- Oppegard, K. S., Elkins, D. E., Abbenante, J., & Bangley, B. B. (2005). Choosing art therapy as a career. *Art Therapy*, 22(2), 92-100. <u>https://doi.org/10.1080/07421656.2005.10129444</u>
- Pagnin, D., De Queiroz, V., De Oliveira Filho, M. A., Gonzalez, N. V. A., Salgado, A. E. T., Cordeiro Oliveira, B. C. E., Lodi, C. S., & Da Silva Melo, R. M. (2013). Burnout and career choice motivation in medical students. *Medical Teacher*, 35(5), 388-94. https://doi.org/10.3109/0142159X.2013.769673
- Park, J. R., Coombs, C., Wilkinson, A. J., Loan-Clarke, J., Arnold, J., & Preston, D. (2003). Attractiveness of physiotherapy in the National Health Service as a career choice: Qualitative study. *Physiotherapy*, 89(10), 575-583. <u>https://doi.org/10.1016/S0031-9406(05)60056-9</u>
- Pham, M. T., Rajić, A., Greig, J. D., Sargeant, J. M., Papadopoulos, A., & McEwen, S. A. (2014). A scoping review of scoping reviews: advancing the approach and enhancing the consistency. *Research Synthesis Methods*, 5(4), 371-385. <u>https://doi.org/10.1002/jrsm.1123</u>
- Price, S. L., McGillis Hall, L., Angus, J. E., & Peter, E. (2013). Choosing nursing as a career: a narrative analysis of millennial nurses' career choice of virtue. *Nursing Inquiry*, 20(4), 305-316. <u>https://doi.org/10.1111/nin.12027</u>
- Pruthi, S., Pandey, R., Singh, S., Aggarwal, A., Ramavat, A., & Goel, A. (2013). Why does an undergraduate student choose medicine as a career. *The National Medical Journal of India*, 26(3), 147-149. <u>http://archive.nmji.in/archives/Volume-26/Issue-3/Short-Report-Why-choosemedicine-as-career.pdf</u>
- Rastrick S. (2020). Allied health professional workforce diversity. https://www.england.nhs.uk/blog/allied-health-professional-workforce-diversity/
- Roney, A., Meredith, P., & Strong, J. (2004). Attachment styles and factors affecting career choice of occupational therapy students. *British Journal of Occupational Therapy*, 67(3), 133-141. https://doi.org/10.1177/030802260406700307
- Ross, L., Hannah, J., & Van Huizen, P. (2016). What motivates students to pursue a career in paramedicine? *Australasian Journal of Paramedicine*, 13(1). <u>https://doi.org/10.33151/ajp.13.1.484</u>
- Rozier, C. K., Gilkeson, G. E., & Hamilton, B. L., (1992). Why students choose occupational therapy as a career. *American Journal of Occupational Therapy*, 46(7), 626-632. <u>https://doi.org/10.5014/ajot.46.7.626</u>

- Ryan, S-J., & Morris, J. (2016). Physiotherapy students and practice-based educators' experiences of using placement passports during their practice-based education. *The 4th European Congress of the ER-WCPT / Physiotherapy 102*(S1), e231. <u>https://doi.org/10.1016/j.physio.2016.10.286</u>
- Scutter, S. (1990). Why do students enrol in the physiotherapy course? A study of students at SAIT. *Australian Journal of Physiotherapy*, 36(1), 23-28. <u>https://doi.org/10.1016/S0004-</u> 9514(14)60517-1
- Szarpak, L., Patynowska, A. M., Ziemba, R., Madziała, M., & Dec, M. (2013). The sense of orientation in life and reasons for choosing the profession of paramedic. *Military Pharmacy and Medicine*, *VI*(1), 53–58.
- Suarez, V. V., & Shanklin, C. W. (2002). Minority interns' experiences during their dietetics education and their recommendations for increasing diversity in dietetics: Findings from structured interviews. *Journal of the American Dietetic Association*, 102(11), 1674-1677. <u>https://doi.org/10.1016/S0002-8223(02)90357-3</u>
- Tétreault, S., Bétrisey, C., Gulfi, A., Brisset, C., Kühne, N., & Leanza, Y. (2020). Perceptions, competencies and motivation for study choice: Occupational therapy and social work student perspectives. *International Journal of Practice-based Learning in Health and Social Care*, 8(1), 15-30. <u>https://doi.org/10.18552/ijpblhsc.v8i1.519</u>
- Veyvoda, M., & Howerton-Fox, A. (2020). "I don't love language; I love children": Students' knowledge, attitudes, and beliefs about linguistics and their choice to major in speech-language pathology. *Excelsior: Leadership in Teaching and Learning*, 12(2), 80-114. <u>https://doi.org/10.14305/jn.19440413.2020.12.2.01</u>
- Vosper, M. R., Price, R. C., & Ashmore, L. A. (2005). Careers and destinations of radiography students from the University of Hertfordshire. *Radiography*, 11(2), 79-88. <u>https://doi.org/10.1016/j.radi.2004.10.001</u>
- Whaley, G. A., & Wright Hosig, K. (2000). Male dietitians in 5 Southern states: Some perspectives on the profession. *Journal of the American Dietetic Association*, 100(12), 1535-1537. https://doi.org/10.1016/s0002-8223(00)00425-9
- Whitehouse, A. J. O., Hird, K., & Cocks, N. (2007). The recruitment and retention of speech and language therapists: What do university students find important? *Journal of Allied Health*, 36(3), 131-136.

https://www.ingentaconnect.com/contentone/asahp/jah/2007/00000036/00000003/art00003

- Wilkes, L., Cowin, L., & Johnson, M. (2015). The reasons students choose to undertake a nursing degree. *Collegian*, 22(3), 259-265. <u>https://doi.org/10.1016/j.colegn.2014.01.003</u>
- Wordsworth, S. (2015). Student choice in operating department practice. *Journal of Operating Department Practitioners*, 3(2), 89-95. <u>https://doi.org/10.12968/jodp.2015.3.2.89</u>
- Wortley, J. (2020). Understanding perceptions and expectations of studying radiotherapy: mature students compared to school-leavers. *Radiography*, 26(S1), S6. <u>https://doi.org/10.1016/j.radi.2019.11.017</u>
- Yeowell, G. (2013). 'Oh my gosh I'm going to have to undress': potential barriers to greater ethnic diversity in the physiotherapy profession in the United Kingdom. *Physiotherapy*, 99(4), 323-327. https://doi.org/10.1016/j.physio.2013.03.002
- Yitt, H. S., Muthusamy, S., & Subramaniam, A. (2019). Why I Choose to Study Physiotherapy Course as My Career? An Asian Perspective. *Indian Journal of Physiotherapy and Occupational Therapy*, 13(3), 166-170.