
2020

Professional Identity of Undergraduate Occupational Therapy Students

Harrison Gray

The University of Queensland, Australia

Kay Colthorpe

The University of Queensland, Australia

Hardy Ernst

The University of Queensland, Australia

Louise Ainscough

The University of Queensland, Australia

Follow this and additional works at: <https://encompass.eku.edu/jote>



Part of the [Occupational Therapy Commons](#), and the [Scholarship of Teaching and Learning Commons](#)

Recommended Citation

Gray, H., Colthorpe, K., Ernst, H., & Ainscough, L. (2020). Professional Identity of Undergraduate Occupational Therapy Students. *Journal of Occupational Therapy Education*, 4 (1). <https://doi.org/10.26681/jote.2020.040102>

This Original Research is brought to you for free and open access by the Journals at Encompass. It has been accepted for inclusion in Journal of Occupational Therapy Education by an authorized editor of Encompass. For more information, please contact Linda.Sizemore@eku.edu.

Professional Identity of Undergraduate Occupational Therapy Students

Abstract

Throughout the development of an individual, their identity, or how they see themselves, frequently changes. An important part of identity formation in adolescents is the development of professional identity, which is how they perceive themselves in a professional context. The establishment of a strong professional identity has been linked to life satisfaction, psychological well-being and success in one's chosen career. The aim of this study was to identify the extent of professional identity development in second year undergraduate occupational therapy students. As part of an assessment task, students were asked to describe why they chose occupational therapy, how they saw themselves as occupational therapists, and to describe their role models. A thematic analysis of consenting students' (n=59) responses was performed and each student ranked based on the strength of their professional identity. The results indicated that the stage of professional identity development of second year occupational therapy students varied considerably, despite them being at the same stage of their program. A quarter of students had advanced professional identity, while almost two-thirds were still developing. Students also provided detailed insights regarding the factors influencing their professional identity. Students with strong, positive influences regarding their choice to study occupational therapy were likely to have strong role models. Given its impact on well-being and career success, it is essential to identify students who may be at risk of poor professional identity. The methods developed here could be used to identify such students and to evaluate the success of educational interventions aimed at them.

Keywords

Professional identity, occupational therapy, role models, career choice

Creative Commons License



This work is licensed under a [Creative Commons Attribution-Noncommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).

Acknowledgements

The authors wish to thank the occupational therapy students who participated in this study for their generosity in sharing their thoughts and experiences. The authors also acknowledge Dr Liz Springfield for her helpful insights into the study design.

JOTE

Journal of Occupational
Therapy Education

Volume 4, Issue 1

Professional Identity of Undergraduate Occupational Therapy Students

Harrison Gray, BSc (Hons)

Kay Colthorpe, PhD, Dip.App.Sc. (Ag), G.Dip.Ag.St., G.Cert.Ed. (HE)

Hardy Ernst, PhD, BSc, G.Cert.Ed. (HE)

Louise Ainscough, PhD, BA, BSc (Hons), G.Cert.Ed. (HE)

University of Queensland

ABSTRACT

Throughout the development of an individual, their identity, or how they see themselves, frequently changes. An important part of identity formation in adolescents is the development of professional identity, which is how they perceive themselves in a professional context. The establishment of a strong professional identity has been linked to life satisfaction, psychological well-being and success in one's chosen career. The aim of this study was to identify the extent of professional identity development in second year undergraduate occupational therapy students. As part of an assessment task, students were asked to describe why they chose occupational therapy, how they saw themselves as occupational therapists, and to describe their role models. A thematic analysis of consenting students' (n=59) responses was performed and each student ranked based on the strength of their professional identity. The results indicated that the stage of professional identity development of second year occupational therapy students varied considerably, despite them being at the same stage of their program. A quarter of students had advanced professional identity, while almost two-thirds were still developing. Students also provided detailed insights regarding the factors influencing their professional identity. Students with strong, positive influences regarding their choice to study occupational therapy were likely to have strong role models. Given its impact on well-being and career success, it is essential to identify students who may be at risk of poor professional identity. The methods developed here could be used to identify such students and to evaluate the success of educational interventions aimed at them.

INTRODUCTION

The development of identity, or how an individual sees themselves, is a dynamic process that evolves throughout one's life (Skorikov, 2008). In late adolescence, individuals develop a sense of professional identity as they consider their role in the adult world, manifesting itself as a career (Erikson, 1968). As part of this process, individuals begin to link their competencies and motivations with suitable career roles (Kirpal, Brown, & Dif, 2007). For adolescents contemplating a career in the health professions, exposure to a health practitioner such as an occupational therapist, whether through family relationships, work experience or in a health care setting, can initiate early identification with that profession (Ashby, Adler, & Herbert, 2016). Ultimately, an individual's professional identity represents an integrative, central element of their identity that serves as a determining factor in vocational choice and attainment, and gives structure and meaning to their life (Erikson 1968; Marcia, 1993).

Once developed, the possession of a strong professional identity contributes to well-being, psychosocial adjustment, and life satisfaction (Skorikov, 2008). Schiller (1998) and Skorikov (2008) demonstrated that in young, working adults, professional identity strength was a reliable predictor of emotional well-being, as it was associated with low levels of anxiety and depression. They also found a strong association between professional identity and life satisfaction, even after controlling for occupational status, education, income, and self-esteem (Schiller, 1998; Skorikov, 2008). Conversely, a poor sense of professional identity has been associated with stress and 'burnout', particularly among health professionals (Edwards & Durette, 2010). In a study of 300 practising occupational therapists, Edwards and Durette (2010) found that occupational therapists with poor professional identity were more likely to suffer from emotional exhaustion, depersonalization and a sense of lacking personal accomplishment. These results suggest that it is beneficial for health professional students to develop their professional identity while at university, so they are equipped with the emotional wellbeing and life satisfaction associated with strong professional identity when they enter the workforce. Indeed, students in the early stages of health programs at university already possess a degree of professional identity, with differences in the strength of this initial professional identity observed across professions (Adams, Hean, Sturgis, & Clark, 2006). Importantly, Boehm and colleagues (2015) found that this early development of professional identity was influential in a student's persistence in studying for their chosen profession. Consequently, fostering the development of a strong professional identity among university students is of great importance, to both encourage them to persist with their studies and support them as they enter the workforce (Boehm et al., 2015; Smith & Hatmaker, 2009).

To establish a strong professional identity, students must first develop a preference for their intended profession, and then develop confidence in seeing themselves as part of that profession (Tan, Van der Molen, & Schmidt, 2017). University students need to undergo professional socialization, which involves acquiring the knowledge and skills of

a profession, and adopting its culture, norms and values (Cornelissen & van Wyk, 2007; Lankau & Scandura, 2007). For students of the health professions, changing behaviors and beliefs via professional socialization is a vital element in their development from student to health professional (Adams et al., 2006). Professional socialization occurs in orientation sessions, training, mentoring and work placements, and is enhanced by relationships with peers and academics (Ashby et al., 2016; Cornelissen & van Wyk, 2007). Active preparation for and participation in a professional role through socialization activities such as these are critical for students to obtain insights into professional attitudes, ideology and motives (Cornelissen & van Wyk, 2007). However, the strength of professional identity of university students at a given stage in their studies may vary markedly, with those that have had strong positive influences and experiences likely to be at a more advanced stage of professional identity development (Boehm et al., 2015).

Given its impact on well-being, professional longevity and life satisfaction both generally and for occupational therapists specifically (Skorikov, 2008; Edwards & Durette, 2010), it is essential to identify students who may be at risk of poor professional identity. Quantitative measures of professional identity have been developed for students of health professions in general, but at the time of this study, not for occupational therapy specifically (Adams et al., 2006; Ashby et al., 2016). As the focus of each health profession varies, it is possible that the factors influencing the development of professional identity are career specific within the health professions. This study aims to address this knowledge gap by identifying the extent of professional identity development in second year undergraduate occupational therapy students, gaining insight into the factors which shape their identity. The study uses a qualitative approach to allow a more comprehensive understanding of factors affecting professional identity in occupational therapy students specifically. It is hypothesized that the study will reveal a large degree of variation in the professional identity stages of students.

METHODOLOGY

Context

Participants were in the second year of a four-year Bachelor of Occupational Therapy program at the University of Queensland, which is a large, research-intensive university in Australia. Ethics approval (#2013000898) was received from the University of Queensland Human Research Ethics Committee prior to the beginning of this study. Students were recruited as a convenience sample, being recruited face-to-face during their practical classes. They were provided with a participant information sheet detailing the rationale for this study, including its voluntary nature and that they were not required to do any additional activities beyond their normal course tasks. Students were then asked to consent to the use of their demographic and assessment data for this study, with 59 students (50% of the cohort) doing so. In addition, consenting students were invited to participate in a semi-structured, individual interview. Five students (8.5% of

participants) agreed to be interviewed, and each provided specific consent to do so. The interviewees were all female Australian students with an average age of 21 years. All consenting students' data was assigned a de-identified code prior to analysis, which allowed matching of all data sources. The consenting students (n=59) were all undertaking a course 'Human Function in Health and Disease II' in semester 2, 2016. They had an average age of 20.5 years, 93% were female, and 12% were international students. A Student's t-test was used to evaluate the examination performance in this course of students who had consented (mean of 72.7% +/- a standard deviation of 12.8) and the entire cohort (74.5% +/-11.6; $p=0.37$); as no difference existed it can be assumed that participating students were academically representative of the cohort.

Measuring Professional Identity

The course students were undertaking included an online 'meta-learning' assessment task, consisting of six open-ended questions, which all students were required to complete. The purpose of meta-learning tasks is to heighten students' awareness of themselves as learners; their use has been described in detail elsewhere (Colthorpe et al., 2018). Within the task these students completed, there were four questions designed to elicit student responses pertaining to their professional identity (see Table 1). Topics covered by these four meta-learning questions included the primary influences on students' choice of study, their comfort in describing themselves as occupational therapists, their role models, and the extent to which they saw themselves as members of the profession. The questions were synthesized by drawing on items identified as having high factor loadings for professional identity in the Professional Identity Scale questionnaire developed by Adams and colleagues (2006), and the topics identified as critical for students' professional identity development by Tan and colleagues (2017). These questionnaires have been used and validated on students from a variety of healthcare professions, so were chosen due to their similar context (Adams et al., 2006; Tan et al., 2017). However, these questionnaires utilized a Likert scale, which provide only numeric responses. The decision to use open-ended questions for this study was deliberate. Open-ended questions are more likely to elicit thoughtful, detailed responses (Jackson & Trochim, 2002), which can describe the ways in which a specific factor influences a student. For example, while students can report the strength of their agreement or disagreement with a Likert-scale question regarding role models, an open-ended question allows them to both identify who their role models are and describe why they value them.

Analysis of consenting students' responses to the meta-learning questions was performed using the following procedure:

1. Students' responses were initially subjected to thematic analysis following the six-step process described by Braun and Clarke (2006) and Nowell, Norris, White, and Moules (2017). For each meta-learning question, this process included the steps of: familiarization with data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; and producing a

report. This provided insight into how students identified with their profession. Coding was performed in the data management software NVivo 11™ (QSR International, MA, USA).

2. A rubric was created to aid classification of responses indicative of differing levels of professional identity (see Table 1), based on subthemes identified in the initial thematic analysis and informed by the available literature (Tan et al., 2017; Trede, Macklin, & Bridges, 2012). For each question, a description of responses indicating 'advanced,' 'developing,' or 'poor' professional identity was generated (Crossley & Vivekananda-Schmidt, 2009; Danielsen, Lorem, & Kroger, 2000; Skorikov & Vondracek, 1997; Trede et al., 2012).
3. Using this rubric (see Table 1), the responses each student gave for each question were initially categorized into advanced, developing, or poor professional identity. However, the richness and depth of responses from students meant that many included elements at differing levels of these categories (see Table 2). To more accurately describe responses, the advanced, developing, and poor categories were further refined by including high, intermediate, and low rankings within each category. Together, this resulted in a nine-tier ranking system.
4. The responses each student gave for each question were further classified into these nine tiers based on balance of advanced, developing, and poor elements they contained. Examples of this refined classification are shown in Table 2.
5. To ensure categorization was performed reliably, a second researcher independently coded the entire dataset. The initial agreement between coders was 95%. For discrepant responses, the two coders discussed and reached consensus, and then revised the coding accordingly.
6. To quantify the analysis, a numerical value of 1-9 was allocated to each tier, with 1 being 'poor professional identity of low standard' and 9 being 'advanced professional identity of high standard.'
7. Each student was given an overall rank score for the strength of their professional identity, calculated as an average of their responses to each of the four questions.

Table 1

Thematic Classification of Professional Identity from Students' Responses to Meta-learning Questions (Crossley & Vivekananda-Schmidt, 2009; Danielsen et al., 2000; Skorikov & Vondracek, 1997; Trede et al., 2012)

| Meta-learning questions | Advanced | Developing | Poor |
|---|---|--|---|
| Primary influence: 1. What was the most influential factor in your decision to study occupational therapy? Why? | Responses display personal desire to be an occupational therapist. Responses may refer to positive familial/social support. May also mention own research or personal experience of profession. | Responses display personal desire to be a health professional to help people. Some knowledge / experience of profession but little exploration of it. Suggested as potential profession by others. | Responses display no specific personal desire to be an occupational therapist. Responses may refer to familial pressure against/in lieu of own wishes; largely financial or employability justification. No direct experience. |
| Occupational therapist self-description: 2. How comfortable are you to describe yourself as a member of the occupational therapy profession? Why? | Responses display high levels of comfort, pride and confidence. Additionally, there is no reference to an 'occupational therapy student' – only 'occupational therapist', implying professionalism. | Responses refer to their position as an 'occupational therapy student' or 'rookie' but imply that they <u>will</u> develop into a professional occupational therapist as time goes on. | Responses indicate low levels of comfort, pride and confidence, and include no indication of development into a professional occupational therapist. |
| Occupational therapy role models: 3. Do you have any role models in occupational therapy that you would like to aspire to? Describe how these role models have influenced your identity as an occupational therapist. | Mentions specific individuals as role models; describe why they find those individuals inspiring as occupational therapists. | No mention of specific individuals but mentions multiple lecturers or occupational therapists; value them for professional skills / knowledge. | No specific role models in occupational therapy. May mention lecturers generally for their content knowledge, but not as occupational therapists. |

| | | | |
|---|--|---|--|
| <p>Profession membership: 4. How strongly do you feel that you are a member of the occupational therapy profession? Why?</p> | <p>Responses express strong feeling of membership of profession, with recognition that they are still developing skills and knowledge.</p> | <p>Responses express moderate feeling of membership of profession, imply developing increasing membership as they progress.</p> | <p>Responses don't express feelings of membership of profession or explicitly state they don't feel a member, imply lack of knowledge or skills.</p> |
|---|--|---|--|

Table 2

Examples of Classification of Responses (Italics) to the Question Regarding Occupational Therapist Self-Description

Note: All responses in the examples were initially categorized as advanced. Further analysis of each element within them (indicated in square brackets) allowed classification as high, intermediate or low within the advanced category based on the balance of these elements.

| Professional Identity - Advanced | | |
|--|---|--|
| High | Intermediate | Low |
| <p><i>I'm very comfortable with it. I'm very proud of the field I'm going into and I always enjoy talking about it with other people and explaining exactly what it is I'm going to do. I think what Occupational Therapists do is totally unique and important part of the health care system. It provides clients with a new outlook on their illness or injury that is not totally clinical and provides them with much needed support and hope. [advanced]</i></p> | <p><i>I am very comfortable describing myself as an OT student because the definition of the career has been a recurring theme throughout my degree so far. I think I have learned to explain the purpose of the profession clearly and succinctly, so that clients and laypeople can understand. I am happy to identify myself as an OT among friends and strangers, and happy to clarify what the job entails if asked. [advanced] As a student, my 'membership' in the profession is probably not as strong as it will be, but in future I will be able to successfully identify myself as an OT. [developing]</i></p> | <p><i>I am adequately comfortable. [developing] Before experiencing some of the practical assessments this semester I am not have felt this way but being in situations where clients treated me not as just a student OT but a real OT was very eye-opening and exciting. [advanced] I also feel that attending professional development seminars within and independent of the university would further this feeling. [developing]</i></p> |

Quantitative Analysis

The quantitative rankings were subjected to an exploratory factor analysis test using the program XLSTAT (Addinsoft, New York, NY, USA) to describe how much variability existed among the observed variables and to validate the measurement process. In addition, a Spearman's rank correlation test was performed to identify relationships between the questions pertaining to professional identity. Finally, a Spearman's rank correlation test was performed to identify if any relationship existed between students' professional identity rank and their academic achievement in the course. Results were considered significant where $p < 0.05$.

Interviews

The semi-structured interviews contained questions on the same four topics as those within the meta-learning task. However, as the aim of a semi-structured interview is to facilitate discussion by combining pre-determined questions with an opportunity for the experimenter to investigate specific responses or themes further, the questions were adapted and expanded upon within the interview to encourage more detailed responses. The interviews were conducted face-to-face by a trained researcher who was not involved in the teaching or assessment of the students. Each interview went for approximately 15 minutes and were conducted by the same individual. The interview recordings were transcribed verbatim and used to validate the analysis of the meta-learning responses. This was performed by thematically analyzing an interviewee's verbal responses on each topic against the same criteria for professional identity (see Table 1) as the meta-learning responses, in exactly the same manner as described (Crossley & Vivekananda-Schmidt, 2009; Danielsen et al., 2000; Skorikov & Vondracek, 1997; Trede et al., 2012). By identifying themes evident in the interviewees' responses, the level of professional identity could be described and assigned a ranking using the steps outlined above for the meta-learning questions. This analysis took place without referring to their written responses. The professional identity scores from the written and verbal analyses of each interviewee for each topic were then compared for similarity.

Table 3

Written Transcript of a Semi-Structured Interview

Note: The interviewee was asked to think aloud regarding their decision to study occupational therapy while the interviewer formulates subsequent questions based on their response.

| Interviewer question | Interviewee answer | Interviewer interpretation |
|--|--|---|
| 'Think aloud about your decision to study occupational therapy' | <i>At [my] school...I kind of got to, saw a glimpse of what speech pathologists do. Well, to me it was just like, "Oh, you get to play with kids all day. I want to do this." So I kind of stuck with, 'I want to be a speech pathologist,' basically my entire schooling career. And then basically in the lead-up to [university] preferences being due I have two cousins at the moment who are in OT and they were basically the same ranks[§] to get in.</i> | Early exposure to speech pathology laid foundation for career choice; this can have a salient effect on the vocational decisions of the child in adulthood (Schiller, 1998). Late exposure into a different career from family members; this has the potential to force a decision onto the adolescent (Skorikov, 2008). |
| 'Okay, same OP [§] score?' | <i>Yeah, so I ended up just switching them last minute, because they were like, 'You should do OT.' I'm like, 'Okay,' so I ended up getting into OT. It wasn't, yeah...</i> | Family influence resulting in a forced decision against the natural inclination of the adolescent – this can have a profoundly negative impact on their professional identity development (Vivekananda-Schmidt, Crossley, & Murdoch-Eaton, 2015). |
| 'So, would you be happy working as an occupational therapist for the rest of your life, do you think?' | <i>Look, I'm sure I would, but I think I would always, and whatever I end up doing wonder, 'What if I did this? Should I, is this better suited to me? Would I have made a bigger difference doing this?' So I'm not sure if I'm ever going to have 100% satisfaction.</i> | Classic identity foreclosure: no exploration, only commitment; this is the most severe identity crisis as described by Marcia (1993). Identity is developed without personal choice or consideration, often through not exploring alternative options. |

[§] OP score is the current Queensland school-leaver ranking system used to determine entry into university degree programs

RESULTS

Individual student's responses to each question were used to score the overall strength of their professional identity. Students ($n=59$) had an average professional identity score of 5.56 ± 1.42 out of 9. The large standard deviation is indicative of the large variability in the strength of professional identity between students, which was expected at this stage of their academic career. Overall, most students (63%) had a professional identity which fell within the developing range, 25% were at an advanced stage, and 12% had a poor professional identity score. The average professional identity score for each meta-learning question fell within the developing range, but the average score for the question regarding profession membership (see Table 1) was significantly ($p=0.03$) lower than for the other questions. A Spearman's rank correlation test showed that there was no relationship between students' professional identity and their academic performance within the course ($r=0.135$; $p=0.307$).

Meta-learning Responses

Primary influences in choosing occupational therapy. Students reported a variety of factors which influenced their decision to choose a career in occupational therapy. Most commonly they cited being drawn to the health professions, or occupational therapy specifically, through a desire to help people (see Figure 1). They also commonly reported being influenced by personal experiences with occupational therapists (30%), either through family members who were in the profession or through seeing a family member treated by an occupational therapist. For example, one student who displayed strong indicators of advanced professional identity for this task said:

I recognized in high school that in the future, I wanted a job where I was able to help others in a health-related setting. After browsing through areas that addressed this, a family member who is an occupational therapist suggested occupational therapy as something that I may want to consider. After she explained what occupational therapy was and what she did as an occupational therapist (how they help individuals to be able to return to completing the things they want to do), I felt that occupational therapy was exactly what I was looking for.

Such students often also report seeking information regarding the profession (27%) or have undertaken work experience in the field (5%). Some students saw occupational therapy primarily as a good job prospect (12%), citing its stability and remuneration, although this is often associated with poor professional identity. One such student said:

The most influential factor in my decision to study occupational therapy was that it is a profession in demand. It was the option that would result in a stable job and I would not have as much trouble finding a job after graduation as a degree which does not groom students for a specific occupation e.g. psychology.

There were a small number of students who reported negative influences, saying that they were “strongly persuaded” by family members or felt an obligation to help people in need (see Figure 1). Such influences are usually associated with poor professional identity.

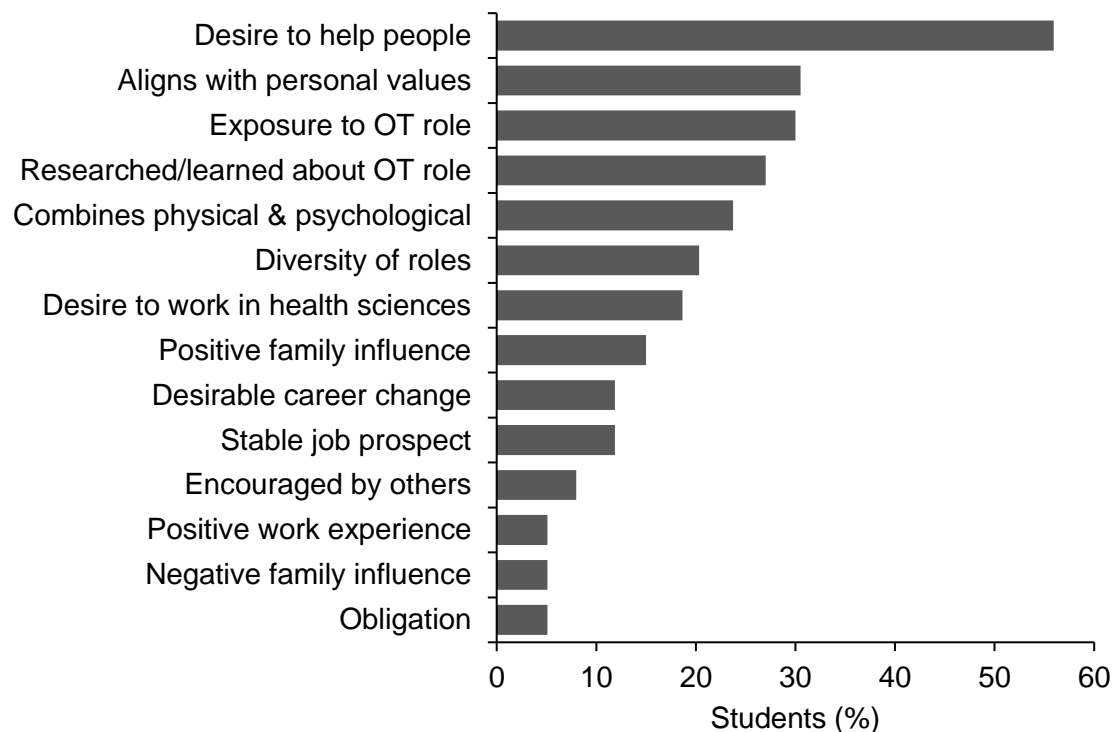


Figure 1. Influences in choosing occupational therapy. Analysis of student responses (n=59) to a meta-learning question regarding the reasons for their choice to study occupational therapy. Students could mention more than one influence.

Occupational therapist self-description. Those students who were ranked as having high professional identity due to the strength of their self-description often said they were proud to describe themselves as members of the profession or as an occupational therapist (OT), making statements such as:

I am very comfortable identifying as a member of the OT profession, as I genuinely believe that engaging in meaningful activity is vital for one's overall well-being. I see OT as profession of high importance in society and therefore I am proud to identify with this profession. I am also confident in doing so as I now have a full understanding of the wide range of roles OTs can have in a variety of settings.

Whereas those who expressed discomfort in describing themselves as a member of the profession often did so because of their status as students, or limited knowledge of the profession. For example, a student who was ranked as having poor professional identity said:

I am not comfortable calling myself a member of the occupational therapy profession. I am admirer and don't call myself a part of the profession yet as I feel I do not know enough about the profession and do not have the ability yet to articulate the information I have learnt.

Occupational therapy role models. In response to the question regarding role models, students overwhelmingly cited two groups of individuals: the academic staff they had contact with in their courses or occupational therapists they knew personally; these occupational therapists were cited as family members or individuals they had met through placements and work experience (see Figure 2). However, there was a considerable number of students (31%) who referred to staff or occupational therapists generally, saying there was no specific individual who they identified as a role model (see Figure 2). Students who were ranked highly in regard to role models described the characteristics that they found most admirable or inspiring. For example, one student said:

I really admire [lecturer]. She is the type of OT I would like to be. She is very open, friendly and approachable, as a lecturer and a person. She is also very aware of her role as an OT and is very involved in research to increase the validity of what OTs do in practice. [She] uses evidence and models to support everything she does in cases (when discusses a case with us in class) which again, increases the validity of OT in the eyes of the current medical model...

Only a small number of students had responses that were ranked as indicative of poor professional identity in their responses regarding role models. Generally, these students said they had no specific role models but still admired the teachers they had - valuing their knowledge - but did not appear to view the teaching staff as occupational therapists, stating in one example:

I don't have any particular role models no, no one I know personally is an OT. I do look up to many of our lecturers however as I would like to be as knowledgeable and experienced as they are. They influence me to not just settle with average, or being an average OT, they make me want to become one of the best in my field, to gain specialist knowledge and work hard to be the best I can.

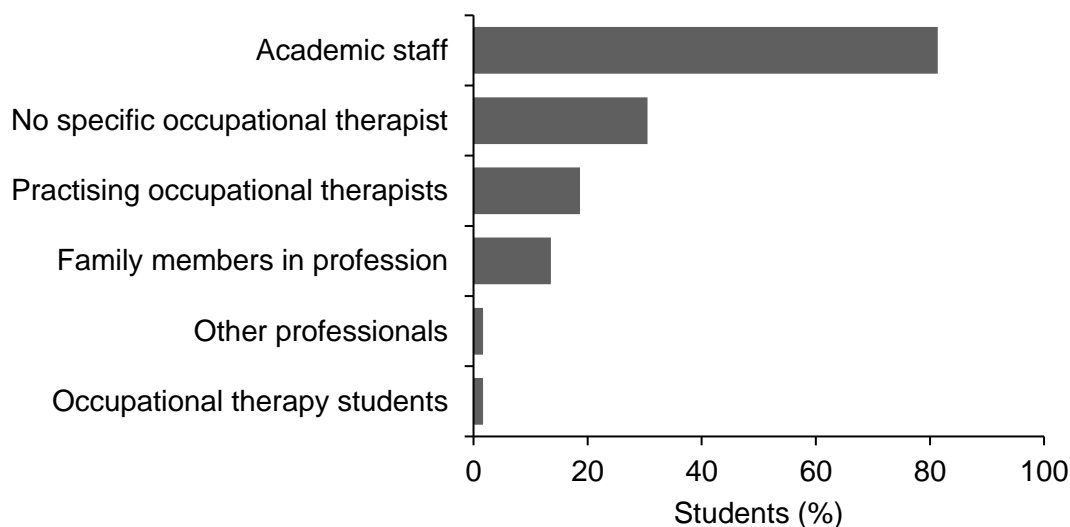


Figure 2. Occupational therapy role models. Analysis of student responses (n=59) to a meta-learning question regarding their role models in occupational therapy. Students could mention more than one role model, with 42% of students doing so.

Profession membership. There were differences in responses from students regarding their feeling of membership to the profession, despite being at the same stage of the occupational therapy program. A student who was ranked as having advanced identity regarding profession membership responded to the ongoing enculturation, saying:

University lecturers and clinical educators on practical placements go above and beyond to make students feel like they are a part of the occupational therapy profession. I strongly feel as though I am a part of the profession as I am often trusted with real patients and am assessed on my ability to communicate with patients, as I will be when I am a practicing therapist...

In contrast, a student who was ranked as poor for profession membership said:

As a student, I still do not feel that I am fully a member of the occupational therapy profession. I feel that I still have a lot left to learn and I have not yet had enough experience in the field and incorporating what I have learnt with practical experience. After I have graduated in two years, I feel confident that I will feel like a member of the OT profession.

Students who were ranked as possessing developing professional identity gave responses indicating they valued the experiences gained to date but still felt they had some way to go. For example:

I currently do not feel 100% strongly that I am a member of the OT profession, as there is still so much to learn and experience. However, as I move through the university course things are starting to align and I can see how everything is integrated into OT practice. When on practical fieldwork, I am beginning to get the feel of being a member of the OT profession.

Interview Responses

Analysis of the semi-structured interviews for each of the interviewees (n=5) allowed their response to each question to be ranked. An example of the interpretation and analysis of an unedited piece of interview transcript is shown in Table 3. In this example, the responses to the questions pertaining to influence outlined in Table 3 were largely indicative of poor professional identity. In keeping with the ranking of professional identity (see Table 1), this student was placed in the lowest tier of the 'poor' category of professional identity with a score of 'one'. This student also received a score of 'one' for their response to the meta-learning question *'What was the most influential factor in your decision to study occupational therapy? Why?'* This process was completed for all four questions of the meta-learning task with each of the five interviewees; the consistency of the professional identity measurements was validated by the interviewees being independently assigned a professional identity score from their verbal responses to within 95% accuracy of the original measurement from their written meta-learning responses.

Quantitative Results

The Spearman's rank correlation test was used to reveal inter-related variables; here it can be seen that there is a significant ($p < 0.001$), moderate association between responses for question one: *'What was the most influential factor in your decision to study occupational therapy? Why?'* and question three: *Do you have any role models in occupational therapy that you would like to aspire to? Describe how these role models have influenced your identity as an occupational therapist'* (see Table 3).

Table 3

Spearman's Rank Correlation Matrix for Professional Identity Questions

| Question | Question 1 | Question 2 | Question 3 |
|---|------------|------------|------------|
| 1. What was the most influential factor in your decision to study occupational therapy? Why? | - | | |
| 2. How comfortable are you to describe yourself as a member of the occupational therapy profession? Why? | 0.191 | - | |
| 3. Do you have any role models in occupational therapy that you would like to aspire to? Describe how these role models have influenced your identity as an occupational therapist. | 0.480*** | 0.210 | - |
| 4. How strongly do you feel that you are a member of the occupational therapy profession? Why? | -0.003 | 0.247 | 0.182 |

*** $p < 0.001$

DISCUSSION

The aim of this study was to assess the extent of professional identity in occupational therapy students. Rich, reflective responses to the meta-learning questions gave revealing insights into the developmental stage of professional identity for second year students, and aligned very closely to professional identity as described by Skorikov (2008). Themes identified within the students' responses showed how the factors influencing professional identity manifest in differing ways, providing a nuanced understanding of the impact of these factors. In addition, the use of a rubric to rank qualitative student responses was a strength of this study, as it resulted in a discernible spectrum of developing professional identity.

The results showed that there was large variation in professional identity among students, with almost two thirds displaying developing levels of professional identity. The students were at a stage in which a shift from theoretical to practical assessment occurs in their program (Boehm et al., 2015). This shift toward practical, authentic assessment heralds the beginning of an enculturation process, so it is not surprising that professional identity varies greatly among second year students, as students are likely to embrace that process to varying extents (Boehm et al., 2015). The importance placed on professional identity within the curriculum is reflected in the finding that a quarter of students in this study were assessed as having advanced professional identity, with almost two-thirds in the developing stage. However, despite having participated in the occupational therapy program for two years, 12% of students had poor professional identity. The specific reasons for this are unclear but may be a result of failing to socialize effectively with peers and role models. Holden and colleagues (2012) discovered that strong relationships with positive role models and colleagues were the most critical factor in molding the professional identity of student doctors. Alternately, students with poor professional identity may have started the occupational therapy course with underdeveloped professional identity, stemming from a variety of negative influences such as societal and family pressure leading to forced decision making (Skorikov, 2008), confusion regarding the role of occupational therapists, or the general public's inaccurate perceptions of the profession (Adams et al., 2006; Ashby et al., 2016; Turpin, Rodger, & Hall, 2012). If the poor professional identity reported by these students persists into their professional careers, they may be in danger of chronic stress and burnout (Boehm et al., 2015; Edwards & Durette, 2010). Therefore, it would be beneficial to reassess these students at the end of their fourth year as they approach graduation, to identify whether the differing levels of professional identity have persisted.

Students identified several influential factors in their decision to study occupational therapy, most commonly citing a desire to help people and the experiences of their family members either working as occupational therapists or being treated by them. This highlights the impact that positive early experiences can have on an individual's desire to pursue occupational therapy as a career (Ashby et al., 2016). Interestingly, the

correlation matrix revealed that responses to the questions regarding influential factors and role models were significantly correlated, suggesting that it is likely that the more positive influences a student had in their decision to pursue occupational therapy, the more likely they are to seek out a good role model or find role models in others. This finding is supported by Damon and Colby's (1992) moral exemplar study into how social relationships assist identity formation, which revealed that role models present scaffolding for identity formation through persuading or channeling students towards valuing particular goals and values. They also suggest that early influences such as positive parental support have a salient impact on a child's intent to seek out other positive influences (Damon & Colby, 1992). In this study, students commonly reported finding role models in the teaching staff - particularly valuing those who were practicing occupational therapists - and among the occupational therapists they met as part of their placements during their degree (see Figure 2). This highlights the importance of professional socialization in students' professional identity development (Ashby et al., 2016). Given these findings, it may be valuable to assess the influences students had prior to entering occupational therapy to identify those with fewer positive influences and pair those students with role models earlier in their study to better support development of their professional identity.

The responses of students both in regard to how they described themselves as occupational therapists and how they saw themselves as members of the profession revealed notable disparity between students, despite them being at the same stage of their degree program. While some appeared assured of their place in the profession and proud to be associated with it, others were less certain in their descriptions. Although the latter reflects their lack of confidence in the extent of their knowledge and skills to act as occupational therapists at this stage of their education, they often also indicated that they saw themselves as progressing and becoming capable, and looking forward to becoming members of the profession. It is critical that by the time students graduate they think of themselves as a professional, rather than a student (Crossley & Vivekananda-Schmidt, 2009), so these students need continued support to aid the ongoing development of their professional identity. Students' responses to these questions particularly highlighted the benefits they perceived they gained from practice-based educational experiences, frequently citing that the opportunity to interact with patients and practicing occupational therapists was where they felt they both gained skills and were valued as members of the profession. This reinforces the value of practice-based experiences in aiding professional identity development (Ashby et al., 2016), and the need for the inclusion of these experiences across the curricula.

The measurement of professional identity is complex as it is defined in a multitude of ways (Trede et al., 2012). Consequently, there are multiple methods of acquiring professional identity data, but all possessing unique flaws (Cowin, Johnson, Wilson, & Borgese, 2013). For qualitative studies such as this, thematic results should also be supported with verbatim quotes of the respondents. This was addressed with the semi-

structured interviews, with all interviewees being assigned a professional identity score of their spoken responses to within 95% accuracy of their original measurement from their written meta-learning responses. This indicates that the professional identity questions used in this study were suitable for an exploratory study. More specifically, the rich and detailed responses students gave to these questions allowed particular insight into the factors which influence professional identity development among occupational therapy students.

While the findings of this study provide valuable insights into the development of professional identity of occupational therapy students, they are subject to limitations, particularly due to the self-reported nature of the data obtained. While students provide rich and detailed responses to the meta-learning questions, not all provide objective information on the strength of their beliefs. Further, while these findings represent a snapshot of second year students studying occupational therapy at this university, they may not be representative of students at other institutions or at all year levels. Indeed, given its dynamic nature, it could be reasonably expected that students' professional identities will change as they approach graduation.

Implications for Occupational Therapy Education

It is critical that professional identity is fostered throughout university study, as students undergo tremendous change when taking the leap to becoming practicing occupational therapists. If it is not established in this vital period, the implications of poor occupational therapy identity persisting into the workplace can be dire (Boehm et al., 2015; Turpin et al., 2012). In response to findings that poor occupational therapy identity and role conflict is associated with burnout and chronic stress in occupational therapists (Edwards & Durette, 2010), the occupational therapy curriculum at the University of Queensland was reformed and emphasis was placed on embedding vocational formation from year one of the program (Turpin et al., 2012). In addition, professional identity is now a key graduate attribute in the Australian occupational therapy curriculum (Boehm et al., 2015; Turpin et al., 2012). However, the findings from this study suggest that some second-year students are still struggling to establish their professional identity. If such students can be identified as at risk, they can be targeted for intervention strategies. Currently, such intervention strategies are limited, so future research should focus on creating effective methods to deal with poor professional identity among occupational therapy students. Raskin (1989) noted that the impact of interventions with active involvement are particularly positive (Raskin, 1989). Such methods could include role model pairing for those who had poor professional identity at the commencement of their degree; this might entail private tuition from teaching staff or early placement in a clinical setting. Alternately, early socialization may be integrated through more social events pertaining to occupational therapy, such as coordinated study sessions, guest speaker nights, or more collaborative authentic assessment tasks.

References

- Adams, K., Hean, S., Sturgis, P., & Clark, J. M. (2006). Investigating the factors influencing professional identity of first-year health and social care students. *Learning in Health and Social Care*, 5(2), 55-68. <https://doi.org/10.1111/j.1473-6861.2006.00119.x>
- Ashby, S. E., Adler, J., & Herbert, L. (2016). An exploratory international study into occupational therapy students' perceptions of professional identity. *Australian Occupational Therapy Journal*, 63(4), 233-243. <https://doi.org/10.1111/1440-1630.12271>
- Boehm, J., Tanner, B., Lowrie, D., Bonassi, M., Brown, N., Thomas, Y., & Cordier, R. (2015). Exploring emerging occupational therapy identity and the development of graduate attributes among occupational therapy students. *British Journal of Occupational Therapy*, 78(8), 499–507. <https://doi.org/10.1177/0308022614562585>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Colthorpe, K., Sharifirad, T., Ainscough, L., Anderson, S. & Zimbardi, K., 2018. Prompting undergraduate students' metacognition of learning: Implementing 'meta-learning' assessment tasks in the biomedical sciences. *Assessment & Evaluation in Higher Education*, 43(2), 272-285. <https://doi.org/10.1080/02602938.2017.1334872>
- Cornelissen, J. J., & van Wyk, A. S. (2007). Professional socialisation: An influence on professional development and role definition. *South African Journal of Higher Education*, 21(7), 826-841. <https://doi.org/10.4314/sajhe.v21i7.25745>
- Cowin, L. S., Johnson, M., Wilson, I., & Borgese, K. (2013). The psychometric properties of five professional identity measures in a sample of nursing students. *Nurse Education Today*, 33(6), 608-613. <https://doi.org/10.1016/j.nedt.2012.07.008>
- Crossley, J., & Vivekananda-Schmidt, P. (2009). The development and evaluation of a professional self identity questionnaire to measure evolving professional self-identity in health and social care students. *Medical Teacher*, 31(12), e603-e607. <https://doi.org/10.3109/01421590903193547>
- Damon, W., & Colby, A. (1992). *Some do care: Contemporary lives of moral commitment*. New York: Free Press.
- Danielsen, L. M., Lorem, A. E., & Kroger, J. (2000). The impact of social context on the identity-formation process of Norwegian late adolescents. *Youth & Society*, 31(3), 332-362. <https://doi.org/10.1177/0044118X00031003004>
- Edwards, H., & Durette, D. (2010). The relationship between professional identity and burnout among occupational therapists. *Occupational Therapy In Health Care*, 24(2), 119-129. <https://doi.org/10.3109/07380570903329610>
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.
- Holden, M., Buck, E., Clark, M., Szauter, K., & Trumble, J. (2012). Professional identity formation in medical education: the convergence of multiple domains. *HEC Forum*, 24(4), 245-255. <https://doi.org/10.1007/s10730-012-9197-6>

- Jackson, K. M., & Trochim, W. M. (2002). Concept mapping as an alternative approach for the analysis of open-ended survey responses. *Organizational Research Methods*, 5(4), 307-336. <https://doi.org/10.1177/109442802237114>
- Kirpal, S., Brown, A., & Dif, M. H. (2007). The individualisation of identification with work in a European perspective. *Identities at work* (pp. 285-314). Dordrecht: Springer. https://doi.org/10.1007/978-1-4020-4989-7_11
- Lankau, M. J., & Scandura, T. A. (2007). Mentoring as a forum for personal learning in organisations. In Kram, K. E. & Ragins, B. R. (Ed.), *The handbook of mentoring at work: Theory, research, and practice* (pp. 95-122). Thousand Oaks, CA: Sage. <https://doi.org/10.4135/9781412976619.n4>
- Marcia, J. E. (1993). The status of the statuses: Research review. In A. S. Waterman, J. E. Marcia, D.R. Matteson, S.L Archer & J. Orlofsky (Ed.), *Ego identity: A handbook for psychosocial research* (pp. 22-41). New York: Springer. https://doi.org/10.1007/978-1-4613-8330-7_2
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1-16. <https://doi.org/10.1177/1609406917733847>
- Raskin, P. M. (1989). Identity status research: Implications for career counseling. *Journal of Adolescence*, 12(4), 375-388. [https://doi.org/10.1016/0140-1971\(89\)90061-4](https://doi.org/10.1016/0140-1971(89)90061-4)
- Schiller, R. A. (1998). The relationship of developmental tasks to life satisfaction, moral reasoning, and occupational attainment at age 28. *Journal of Adult Development*, 5, 239-254. <https://doi.org/10.1023/A:1021406426385>
- Skorikov, V. B. (2008). Occupational identity and human lives in the 21st century. In E. Avram (Ed.), *Psychology in Modern Organizations* (pp. 25-38). Bucharest: University Press.
- Skorikov, V. B., & Vondracek, F. W. (1997). Longitudinal relationships between part-time work and career development in adolescents. *Career Development Quarterly*, 45(3), 221-235. <https://doi.org/10.1002/j.2161-0045.1997.tb00466.x>
- Smith, A. E., & Hatmaker, D. M. (2009). Knowing, doing and becoming: professional identity construction among public affairs doctoral students. *Journal of Public Affairs Education*, 20(4), 545-564. <https://doi.org/10.1080/15236803.2014.12001807>
- Tan, C. P., Van der Molen, H., & Schmidt, H. (2017). A measure of professional identity development for professional education. *Studies in Higher Education*, 42(8), 1504-1519. <https://doi.org/10.1080/03075079.2015.1111322>
- Trede, F., Macklin, R., & Bridges, D. (2012). Professional identity development: A review of the higher education literature. *Studies in Higher Education*, 37(3), 365-384. <https://doi.org/10.1080/03075079.2010.521237>
- Turpin, M. J., Rodger, S., & Hall, A. R. (2012). Occupational therapy students' perceptions of occupational therapy. *Australian Occupational Therapy Journal*, 59(5), 367-374. <https://doi.org/10.1111/j.1440-1630.2011.00988.x>
- Vivekananda-Schmidt, P., Crossley, J., & Murdoch-Eaton, D. (2015). A model of professional self-identity formation in student doctors and dentists: a mixed method study. *BMC Medical Education*, 15(1), 83. <https://doi.org/10.1186/s12909-015-0365-7>