Professional Identity - the key to professional survival? Designing a tool to measure the development of professional identity.

Truman J,¹ Fox J ², McGinley S,¹ Ekstam L,³ Hynes S,² Orban K, ³ Hills C,² Shiel A²

University of Southampton, United Kingdom ¹
National University of Ireland Galway, Ireland ²
Lund University, Sweden ³
Structure of the presentation

• What is Professional Identity and why should we measure it?
• Limitations of current tools
• Tool Development
• Use of tool to evaluate impact of international learning activities on professional identity
• Discussion
• Next steps
What is professional identity and why is it important?
What is professional identity?

• Professional identity is defined as the values, beliefs and attitudes that a group shares about the work they undertake (Adams et al 2006).

• It involves the perceptions of individuals within the group and is shaped by interactions with those outside the group (Trede et al 2012, Turner and Knight 2015)
Why is it important?

• Crucial in the understanding and development of professional roles (*Trede et al* 2012)

• Essential to represent the profession in its values, behaviours and skills (*Adams et al* 2006)

• Needed to support the growth and continued existence of the profession (*Turner and Knight* 2015, *Boehm et al* 2015, *Wilding and Whiteford* 2007)

• Has been shown to prevent stress related ill health i.e. burnout (*Edwards and Dirette* 2010)

• Necessary to work interprofessionally within teams and in profession specific and generic roles (*Adams et al* 2006, *Davis* 2006, *Turner and Knight* 2015)
Why is it important to measure in OT Curricula?

• Development of professional identity is essential to prepare graduates for work – (competency, resilience)

• HEIs are called to recognise the need to return to core philosophies to support professional identity and practice (Whiteford and Wilcock 2001).

• Professional Identity development can reduce attrition in courses (Boehm et al 2015)
Why is the measurement of professional identity challenging?

• Self-reported measures rather than objective measures of change
• Multifaceted, dynamic and lifelong; hence it is subject to change
• Measures used lack psychometric properties
• It is not just reliant on the curricula – often begins before training
  (Adams et al 2006)
• There is no one singular curricular activity – practice placements, group work with peers, discussions with educators guest lecturers, university staff – creating ‘Communities of practice’ (Davis 2006)
Designing a Psychometrically Robust Tool
Measuring a Tool psychometrically

• Validity – face and content
• Internal Consistency of the measure
• Factor Analysis
• Test- Retest reliability
The Measure
At this point in my education I feel equipped to:

<table>
<thead>
<tr>
<th>Contribution Area</th>
<th>1 Strongly Disagree</th>
<th>2 Disagree</th>
<th>3 Agree</th>
<th>4 Strongly Agree</th>
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<tbody>
<tr>
<td>Contribute to the development of an inclusive society through enabling occupation and occupational justice</td>
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<td>Be creative and adaptable to a range of settings within local and global context</td>
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<td>Work in a culturally diverse world</td>
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<td>Be competent in professional communication and behavior</td>
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<td>Be confident and competent in applying OT theory and knowledge to practice and implementation to individuals, communities &amp; populations</td>
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<td>Have a core understanding of occupation and its impact on health and wellbeing for individuals, communities and populations</td>
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<td>Demonstrate a desire to address health inequities</td>
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Please rate your level of agreement/disagreement with the following statements, how have the following statements in your program enhanced your development as a professional.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
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<tbody>
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<td>Occupation focused models</td>
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<td>Occupational science</td>
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<td>Practice education/fieldwork</td>
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<td>University-based educators, ie lectures/professors</td>
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<td>Clinical occupational therapists during practice education/fieldwork</td>
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<td>International learning activities</td>
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<td>Peers</td>
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<td>Group-work</td>
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<td>Self-directed learning</td>
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<td>Reflective practice</td>
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<td>Use of case studies</td>
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Validity

Face Validity
• Does the test measure what it claims to measure
• Completed by an expert panel and asking students about the measure
  ‘How well do you think the questions covered what you consider to be professional identity?’

Content Validity
• Reviewed 2 tools (Ashby et al 2016; Boehm et al 2015)
• Neither was fully appropriate to answer the question or had robust psychometric properties.
• Both provided a framework for further development.
• Expert panel then reviewed this and amalgamated them
• Scoring was reviewed and aligned to 4 point scale (4 point and 5 point)
Internal Consistency

• How well do the items on the test measure the same concept
• Are the items all related to professional identity – the aim of the tool
• Used Cronbach's alpha (Tavakol and Dennick 2011)
• 0.775 (good)
• Increased to 0.807 with removal of 2 items

• “Occupational Therapy is too diverse to have a clear professional identity”
• “I would prefer Occupational Therapy to have a more distinct definition”
Factor Analysis

• Which of the items has the most power to answer the question?
• Rationalise number of items and increase usability and psychometric properties
• The closer factors are to -1 or 1, the more they affect the variable (Beavers et al 2013)
• Carried out 3 times using Principal Components Analysis
  • No exclusions and x4 factors
  • Exclusions and x3 factors
  • Exclusions and X3 factors
• F1 - What does it mean to have a professional identity
• F2 - Perceptions of professional identity
• F3 - What contributes to the development of professional identity
Factor 1 - What does it mean to have a professional identity?

- Ranges typically 0.6-0.8
  - ‘Have a core understanding of occupation and its impact on health and well-being for individuals, communities and populations’ .869
  - ‘At the beginning of the Occupational Therapy programme I had a strong identity of becoming an occupational therapist’ -0.574

- Should be removed but will be retained as it offers opportunities for a baseline for further analysis
Factor 2: Development of / Use of Professional Identity

• As an occupational therapy student I have had the opportunity to value and use occupation-based practice / theory .657

• I feel confident in describing occupational therapy .559

• I believe overcoming challenging situations and/or experiences fosters professional growth .614
Factor 3: Development of professional identity

• ‘At the beginning of the Occupational Therapy programme I had a strong identity of becoming an occupational therapist’ .638

• ‘Professional identity is an important element in being prepared for professional practice’ .537
Factor 4: Challenges to professional identity

Confirms the results of internal consistency analysis

• ‘I would prefer occupational therapy to have a more distinct definition’

• ‘Occupational therapy is too diverse to have a clear professional identity’
Reliability

• Separate survey with different groups of students
• Survey link sent twice with reminders each time
• Insufficient data returned to evaluate reliability (6 filled out initial survey and 2 the second survey)
What influenced Professional Identity scores?
Procedure

• Scale is internally consistent
• Correlation and regression analysis
• Is there a relationship between influencers and professional identity scores?
• Do influencers predict professional identity scores?
What influences Professional Identity?

- Relationships between enablers and professional identity
- Ordinal data, not normally distributed
- Spearman’s ranked correlation co-efficient

<table>
<thead>
<tr>
<th></th>
<th>Rs</th>
<th>P-value</th>
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<tbody>
<tr>
<td>Occupation focused models, e.g. MOHO, CMOP-E, PEO, PEOP</td>
<td>.504**</td>
<td>.002</td>
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<tr>
<td>Occupational science</td>
<td>.623**</td>
<td>&lt;.001</td>
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<td>University-based educators, ie lectures/professors</td>
<td>.435*</td>
<td>.01</td>
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<tr>
<td>International learning activities</td>
<td>.380*</td>
<td>.03</td>
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Predictors of higher levels of Professional Identity: International Activity:

• $R = 0.322$
• $R$ Square = 0.103
• Adjusted $R$ Square = 0.081
• Std. Error of the Estimate = 4.70082

Therefore 8-10% of variability in levels of reported professional identity is explained by international activities.
Do International Learning Activities influence or predict levels of Professional Identity
Erasmus+

Data

- Pre and post physical exchange and post web exchange 2018-9
- Data cleaned – removal of incomplete responses
  - Pre exchange n=31
  - Post exchange n = 27
  - (Pre web exchange n=2)
  - Post web exchange n=25
- Differences, Relationships and predictors explored
Results: 2018 pre and post physical exchange and web exchange

- Did students’ self assessment of professional identity change?
  - No
    - Wilcoxon signed ranks test: Z-.56, ns

- What influenced professional identity?
  - Spearman non parametric correlation

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<thead>
<tr>
<th></th>
<th>Practice education</th>
<th>Models</th>
<th>Occ Science</th>
<th>Lecturers</th>
<th>Clinical therapists</th>
<th>International learning activities</th>
<th>Peers</th>
<th>Groupwork</th>
<th>Self directed learning</th>
<th>Reflective practice</th>
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<tbody>
<tr>
<td>Professional Identity</td>
<td>.284 p=.009</td>
<td>.129 Ns</td>
<td>.167 Ns</td>
<td>.176 Ns</td>
<td>.301 p=.005</td>
<td>.312 p=.004</td>
<td>.214 P=.04</td>
<td>.205 ns</td>
<td>.411 P&lt;.001</td>
<td>.391 p&lt;.001</td>
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What predicts higher levels of professional identity?

- Multiple regression analysis, forward entry
- Independent variables: those significantly correlated
- Dependent variable: Professional Identity score
  - F=8.21, p<.001, df=5; Rsq=.348

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<thead>
<tr>
<th>Variable</th>
<th>t=</th>
<th>p=</th>
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<tbody>
<tr>
<td>International Learning Activities</td>
<td>2.91</td>
<td>.005</td>
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<tr>
<td>Reflective practice</td>
<td>2.35</td>
<td>.02</td>
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<tr>
<td>Self Directed Learning</td>
<td>2.56</td>
<td>.02</td>
</tr>
<tr>
<td>Clinical Occupational Therapists</td>
<td>1.27</td>
<td>ns</td>
</tr>
<tr>
<td>Practice Education</td>
<td>.580</td>
<td>ns</td>
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</table>
What does international learning activity contribute?

Linear regression with international learning activity as independent variable

• Pre physical exchange $f=0.024$, ns

• Post physical exchange $f=7.5$, $p=0.01$; $R^2=0.231$

• Post web conference $f=0.82$ ns
Discussion

• Instrument is internally consistent

• **International learning activities are associated with and predict higher levels of professional identity**

• Other important factors related to higher levels of professional identity include practice education, influence of clinical therapists on placement, reflective and self directed learning
Discussion

• Results indicate that the **physical exchange is a more effective method** of developing professional identity:
  • Being on another country is considered to be more contextually and culturally relevant
  • Intensity/ focus of the learning activities
  • Full immersion (academically, socially and personally)
  • Emotional engagement

• Different experiences of host and travelling students

• Web-exchange did not significantly support the web-exchange at this time due to inadequate pre web-exchange data
Impact of these findings on Sustainability

- Web-exchange is the most sustainable of the long term options
  - Cost (practical costs)
  - Resources (staff)
  - Time
  - Impact on curricular
Next steps?

• Establish reliability

• Instrument could be used to track development of professional identity through the duration of a programme
References


Mackey H (2007) ‘Do not ask me to remain the same’: Foucault and the professional identities of occupational therapists. *Australian Occupational Therapy Journal* 54 95-102


