

Deborah A. O'Connor, MANCHESTER METROPOLITAN UNIVERSITY, d.oconnor@mmu.ac.uk
Leah M. Stade, UNIVERSITY OF NEBRASKA MEDICAL CENTER, leah.stade@unmc.edu
Cassidy Johnson, UNIVERSITY OF NEBRASKA MEDICAL CENTER, cassijohnson@unmc.edu
Simone Regnier, UNIVERSITY OF NEBRASKA MEDICAL CENTER, sregnier@unmc.edu
Molly A. Whitlow, UNIVERSITY OF NEBRASKA MEDICAL CENTER, mmccarthy@unmc.edu



Work-Integrated Learning Special Section

Exploring Belongingness during Work-Integrated Learning for Healthcare Students in International Settings: The BeWIL Study

ABSTRACT

Education within the healthcare professions commonly involves variations of work-integrated learning (WIL) experiences. WIL is an educational approach involving a student, an educational institution, and an external partner. It consists of authentic work-focused experiences that integrate theory and practice. This study explored belongingness among healthcare students engaged in WIL in the United States and the United Kingdom (The BeWIL study). The BeWIL study used the Belongingness Scale-Clinical Placement Experience (BES-CPE), which assessed 34 items using a five-point scale ranging from always true (5) to never true (1). The BES-CPE measures belongingness across three domains: esteem, which relates to perceptions of being respected by colleagues; connectedness, which relates to interpersonal relationships; and efficacy, which relates to behaviours to enhance feelings of belongingness. Respondents were healthcare professions students from 11 allied health professions within four different degree structures ranging from undergraduate to doctoral study (n=79). For the study, we calculated summative scores for belongingness (M=126.65; SD=13.76). These results indicate that healthcare students in WIL experience a sense of belongingness between sometimes and often. Participants regularly engaged in behaviours to enhance belongingness and have relatively high efficacy in actions taken. (M=4.140). Participants perceived that they were held in esteem by colleagues between some of the time and often (M=3.901). They reported experiencing connectedness between some of the time and often (M=3.301). To enhance students' sense of belongingness and ensure professional retention, students, educational institutions, and external partners could consider targeting factors related to connectedness and esteem.

KEYWORDS

work-integrated learning, belongingness, healthcare professions

INTRODUCTION

Education of healthcare professions students requires significant time in a practice setting in order to enable them to develop and apply core knowledge and skills in the work arena. This core element of professional education, often referred to as fieldwork, practice, or clinical placements, is stipulated by professional bodies and can comprise somewhere between one-third to one-half of programme delivery. Healthcare professions students are from a range of disciplines involved in the

[CC-BY-NC License 4.0](#) This is an Open Access article distributed under the terms of the Creative Commons – Attribution License 4.0 International which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly attributed.

delivery of health or related services (The Association of Schools Advancing Health Professions 2020). Some examples include nursing, rehabilitative therapies, and social work. All students studying within these professionally regulated programmes are required to complete sufficient placement hours in order to be eligible to proceed within their chosen profession (Chartered Society of Physiotherapy 2020). This essential component of academic delivery in the healthcare practice setting is a form of Work-Integrated Learning (WIL). WIL is a wider umbrella term that encompasses multiple pedagogical strategies and the experiential learning undertaken by students, including students studying to become healthcare professionals (Stade, Selzer, Bennett, Luack, and O'Connor 2023). To facilitate consideration of this topic and a wider understanding of the literature, the term WIL is used throughout this paper and defined by Zegwaard, Pretti, Rowe, and Ferns (2023) as:

an educational approach involving three parties—the student, the educational institution, and the external stakeholder—consisting of authentic work-focused experiences as an essential component of the curriculum. Students learn through active engagement in purposeful work tasks, which enable the integration of theory with meaningful practice that is relevant to students' discipline of study and/or professional development. (39)

WIL provides an opportunity to apply knowledge and skills in a professional context (Lave and Wenger 1991) and draws on the expertise of the healthcare professionals who support students, using reflection as a key pedagogical approach (Kolb 1984; Schön 1983). For the purpose of this paper and the research study, external stakeholder refers to the external placement partner providing the WIL experience. There are questions about how best students can be prepared, supported, and facilitated for success in the practice setting. Williams (2010), following a study of student nurses, reported that to be truly successful, students required opportunities to take control of their own learning. Despite substantial time working in the disciplinary field, some students report that they still feel underprepared to join their profession (Malau-Aduli, Jones, Alele, Adu, Drovandi, Knott, Young, and Jo 2022). In an integrated literature review, Stade et al. (2023) explore the factors that impact the reflective process, which are well documented in terms of behaviours, learning culture, and support.

Berndtsson, Dahlborg, and Pennbrant (2020) conducted an integrative literature review that considered the success of WIL in integrating theory with practice. Whilst the researchers highlighted several factors that contribute to this success, the findings emphasised that belongingness and team acceptance were key factors in students' development of professional identity. Considering that the underpinning goal of education within this type of WIL setting is to create future healthcare professionals, a sense of belongingness is therefore crucial to students' lifelong career success. Belongingness is defined by Levett-Jones and Lathlean (2008) as:

a deeply personal and contextually mediated experience that evolves in response to the degree to which an individual feels a) secure, accepted, included, valued, and respected by a defined group, b) connected with or integral to the group, and c) that their professional and/or personal values are in harmony with the group. (104)

Belongingness contributes to one's sense of connectedness and esteem while making efforts to care for and value others (Levett-Jones, Lathlean, Higgins, and McMillan 2007).

Furthermore, Lu (2023) describes belongingness as a contemporary shift in higher education to focus on belonging as a lever for change. It has built on the concept of inclusion within diversity,

equity, and inclusion (DEI) frameworks and is created through social systems. Healthcare professions students enter a WIL as novice practitioners, often subject to hierarchical systems with expected social norms. When they are supported and included, belongingness within the professional arena develops with more ease (Adams, Ari, Cleaves, and Gong 2019; McLaren, Woods, Boudioni, Lemma, and Tavabie 2008). As a basic construct, belongingness dates as far back as the work of Maslow (1968), who describes that it can only be satisfied through connection with others. Those supporting healthcare students, alongside the students themselves, share the responsibility to foster this sense of belonging and enable full professional development. Previous work has also highlighted that belongingness relates to self-esteem, feelings of connectedness, and confidence as self-efficacious behaviours, such as asking questions or offering support to colleagues (Levett-Jones, Lathlean, Higgins, and McMillan 2009a). Each of these consequences of belongingness enables an individual to feel safe, comfortable, and satisfied, enhancing students' motivation to learn and influencing their future career aspirations.

In an integrative literature review that examined all three constructs of healthcare professions students, WIL, and belongingness, the authors determined that belongingness is a critical part of professional development (Stade et al. 2023). The development of interpersonal relationships alongside professional knowledge and skill can support and affirm the individual's place within their chosen profession (Bowen 2018). However, there are gaps within this body of literature in terms of the professions studied, the practice setting, and the different models of WIL employed in relation to belongingness and how connected students feel (Sedgwick 2013; Sedgwick, Oosterbroek, and Ponomar 2014; Sedgwick and Rougeau 2010; van den Broek, Querido, Wijnen-Meijer, van Dijk, and Cate 2020). It is also clear that there are interrelationships between these constructs that require further investigation. The main body of literature within this area is in relation to nursing and therefore, other professions, such as the rehabilitative therapies, are largely underrepresented.

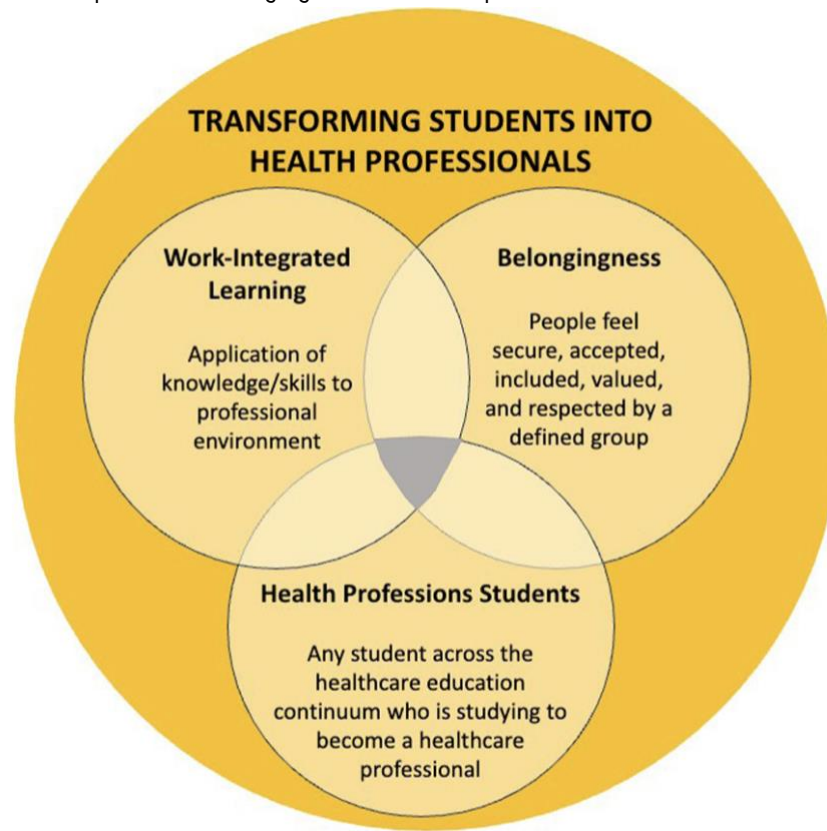
This paper reports the findings of the multi-professional, multi-centre, multi-national Belongingness in Work-Integrated Learning study (BeWIL). The study was part of a multi-institutional research seminar that aimed to connect seminar and institutional research (Moore 2014). This collaboration allows researchers to gather and compare results with other institutions to impact educational practice (Moore 2014). This study explored the extent to which WIL experiences develop a sense of belongingness in healthcare professions students across three institutions and within two countries. As indicated within the literature, these constructs are interrelated (see Figure 1). Exploring belongingness, within the practice environment, as something that is essential to student success enables WIL to be created intentionally and purposefully, meeting the needs of individual students and fostering successful experiences.

METHODOLOGY

Context

We conducted this study at three universities, two in the United States (US), one midwest (US1) and a southeastern university (US2), and one in the northwest of the United Kingdom (UK) (UK1). Included institutions offer similar academic programmes but differ in terms of cultural context and models of delivery. Examples of the included degree structures are undergraduate, pre-registration masters, postgraduate masters, and doctoral study. We surveyed students enrolled in a health care professions programme who had completed at least one period of healthcare related work-integrated learning.

Figure 1. Interrelated concepts of WIL, belongingness, and health professions students considered within this study.



Created by Stades et al. 2023.

Methods

Study instrument

For this study, we employed a quantitative survey design. The Belongingness Scale-Clinical Placement Experience (BES-CPE) assessed 34 items using a five-point scale ranging from always true (5) to never true (1) (Levett-Jones, Lathlean, Higgins et al. 2009a). We calculated mean scores on each of the 34 questionnaire items, subscale categories, and a total for the entire questionnaire (Ashktorab, Hasanvand, Seyedfatemi, Zayeri, Levett-Jones, and Pournia 2015; Borrott, Day, Sedgwick, and Levett-Jones 2016; LeBlanc 2021). Total possible scores for the scale ranged from 34 to 170. The BES-CPE measures participants' experience of belonging, using subscales related to esteem, connectedness, and efficacy (Levett-Jones, Lathlean, Higgins, et al. 2009a). The domain of esteem relates to student perceptions of being respected by colleagues, as developed through experiences that assist in the creation of a self-image (Levett-Jones, Lathlean, Higgins et al. 2009a); Connectedness refers to student's relationships with others sharing well-being, support, and common goals and values (Levett-Jones, Lathlean, Higgins, et al. 2009a). Efficacy relates to behaviours that benefit a goal or desired outcome despite challenges (Levett-Jones, Lathlean, Higgins, et al. 2009a). The internal reliability coefficient for the BES-CPE is high (0.92), with subscale coefficients of esteem (0.9), connectedness (0.82), and efficacy (0.8) (Levett-Jones, Lathlean, Higgins et al. 2009a). Table 1 below outlines items on the BES-CPE and their designated domains.

Table 1. Belongingness scale: clinical placement experience (BES-CPE) survey and categorised domains

Item	Question asked	Domains		
		Esteem	Connectedness	Efficacy
Q1	I feel like I fit in with others during my placements.	x		
Q2	It is important to feel accepted by my colleagues.			x
Q3	Colleagues see me as a competent person.	x		
Q4	Colleagues offer to help me when they sense I need it.	x		
Q5	I make an effort to help new students or staff feel welcome.			x
Q6*	I view my placements as a place to experience a sense of belonging.			
Q7	I get support from colleagues when I need it.	x		
Q8	I am invited to social events outside of my placements by colleagues.		x	
Q9	I like the people I work with on placements.	x		
Q10r	I feel discriminated against on placements.	x		
Q11	I offer to help my colleagues, even if they don't ask for it.			x
Q12*	It is important to me that someone at my placement acknowledges my birthday in some way.			
Q13	I invite colleagues to eat lunch/dinner with me.		x	
Q14r	On placements I feel like an outsider.	x		
Q15	There are people that I work with on placements who share my values.		x	
Q16	Colleagues ask for my ideas or opinions about different matters.		x	
Q17	I feel understood by my colleagues.	x		
Q18	I make an effort when on placements to be involved with my colleagues in some way.			x
Q19	I am supportive of my colleagues.			x
Q20	I ask for my colleagues' advice.			x
Q21	People I work with on placements accept me when I'm just being myself.	x		
Q22r*	I am uncomfortable attending social functions on placements because I feel like I don't belong.			
Q23	When I walk up to a group on a placement I feel welcomed.	x		
Q24	Feeling "a part of things" is one of the things I like about going to placements.	x		
Q25	There are people on placements with whom I have a strong bond.		x	
Q26r	I keep my personal life to myself when I'm on placements.		x	
Q27	It seems that people I work with on placements like me.	x		

Q28	I let colleagues know I care about them by asking how things are going for them and their family.		x	
Q29	Colleagues notice when I am absent from placements or social gatherings because they ask about me.		x	
Q30	One or more of my colleagues confides in me.		x	
Q31	I let my colleagues know that I appreciate them.			x
Q32	I ask my colleagues for help when I need it.			x
Q33	I like where I work on placements.	x		
Q34	I feel free to share my disappointments with at least one of my colleagues.		x	

Notes: r denotes a question that is reverse coded and * denotes a question that could not be coded into a single domain.

We added ten additional questions at the conclusion of the BES-CPE to gain insight into participants' demographic characteristics, including profession, year of study, WIL requirement and source, duration of WIL, age, gender, racial identity, marital status, and caring responsibilities. We sent US surveys via Microsoft Forms and the UK surveys using Qualtrics. Participants self-administered the surveys.

Ethical considerations

The University of Nebraska Medical Center, Elon University, and Manchester Metropolitan University ethical review boards approved this research. Anonymity and security of BeWIL survey responses were assured. We assigned all identifiable information codes, and only research team members could access this information. Students could take the survey anytime during a two-month period.

Participants and consent

We recruited students from each university through the students' learning management systems, student email, and flyers posted on campus. Inclusion criteria included current enrolment in a healthcare professions program, completion of at least one period of healthcare-related WIL, able to communicate in the English language, and have access to required technology to complete the survey. We invited students to participate via the linked survey or survey QR code. The initial survey screen asked for consent. If the participant decided not to take part in the study, they were routed away from the survey questions to a thank you page. Following survey completion, we directed students to two additional survey links. One survey allowed students to enter personal preferred contact information to be entered into a draw and a second survey to enter personal preferred contact information to consent to participate in future focus groups, as needed. Eighty-five respondents participated in the survey. Of these, seventy-nine respondents completed all BES-CPE questions. Fourteen of the seventy-nine students selected "prefer not to answer" or did not respond in at least one of the demographic data questions.

Analysis

Univariate analyses described the distribution of BES-CPE scores and domains (esteem, connectedness, and efficacy). We inspected data for esteem, connectedness, and efficacy for assumption of normality using a Quantile-Quantile plot focusing on the fit of the data to the reference line and spread. We also used a Shapiro-Wilk test to support the interpretation of normality. Bivariate analyses compared average BES-CPE summated rating scale scores and domain scores across

predictor variables: institution, duration of WIL experience, year of study, age, gender, race/ethnicity, marital status, and caregiving responsibilities; we used independent samples t-tests when response options had two levels and Analysis of Variance (ANOVA) when variables' response options had three or more levels. To correct for multiple comparisons, we employed Bonferroni's method. We assessed the internal consistency reliability of the BES-CPE questionnaire for this population using Cronbach's alpha. We conducted a complete-case analysis in which we omitted respondents if they had missing values for any relevant variables. We also omitted single values to facilitate appropriate statistical analysis. We assigned statistical significance to results where $p < 0.05$. We used JASP, a free graphical software package for basic statistical procedures, for all analyses (The JASP Team 2024).

FINDINGS

A total of 85 students responded to the survey, though we omitted six due to missing values on relevant variables; therefore, this study has a sample size of 79. Overall summative belongingness scores ranged from moderate to high ($M=126.65$; $SD=13.76$; range 92–162). Mean summative belongingness score was highest at US1 ($M=128.63$), followed by UK ($M=125.74$), and US2 ($M=124.29$). We determined these means based on descriptive analysis when participants indicated a positive response in relation to belongingness. There was no overall statistical significance for belongingness between US and UK institutions. Table 2 outlines demographic characteristics of the 79 respondents who completed the survey. There were 11 professions represented across three institutions and two countries. The most represented profession was occupational therapy ($n=24$, 30%) followed by physiotherapy/physical therapy at 14% ($n=11$). There was a wide spread of different years of study across the respondents as well as a total of four different models of healthcare professions education, including undergraduate (UK, US), pre-registration masters (UK), postgraduate masters (US), and doctoral study (US). All degree structures lead to accreditation with a professional body and a license to practice within the chosen profession, dependent on the country represented.

About an equal number of respondents experienced shorter- and longer-term WIL experiences ($n = 37$, $n = 39$ respectively). We used non-parametric independent T-tests to explore differences between groups for all demographic variables. We noted significant differences between groups for duration of WIL experience (whole sample $p = 0.054$, UK only = 0.023). The age range of respondents was from 19–38, with five respondents choosing not to respond to this question. There was higher belongingness in the age category 24–28 for combined US populations ($p = 0.041$). A total of five different ethnic groups were represented within the sample, and 28% of the respondents self-identified as male. This characteristic demonstrated significance for UK-based students only ($p=0.046$), 68% of respondents were single, and 17% had caring responsibilities.

Table 2. Sample characteristics

Demographic question	Response options	US1 n=35	US2 n=21	UK1 n=23	Total n=79
Healthcare profession	Physician assistant		10		10
	Physical therapy/physiotherapy	2	11	5	18
	Occupational therapy	24			24
	Clinical perfusion	1			1
	Genetic counselling	2			2
	Medical laboratory science	3			3
	Radiography	1			1
	Nursing			4	4
	Social work			1	1
	Dietetics			9	9
	Speech language			3	3
	Prefer not to answer/no response	2		1	3
Current year of study	Doctorate	25	10		35
	Master's	4	11		15
	2 nd year grad	1			1
	Pre-registration master's year 1			2	2
	Pre-registration master's year 2			12	12
	1 st year undergraduate			1	1
	2 nd year undergraduate			4	4
	3 rd year undergraduate			5	5
	4 th year undergraduate	4			4
	5 th year undergraduate	1			1
	Prefer not to answer/no response				
Duration of WIL experience	Six weeks or more	4	20	13	37
	Less than six weeks	29	1	9	39
	Prefer not to answer/no response	2		1	3
Age	19-23	7	1	9	17
	24-28	21	15	8	44
	29-33	2		2	4
	34-38			2	2
	Prefer not to answer/no response	5	5	2	12
Gender identity	Female	25	14	15	54
	Male	9	7	6	22
	Transgender			1	1
	Prefer not to answer/no response	1		1	2

Race/ethnicity	White	30	19	13	62
	African/Black	1	2	2	5
	Asian	1	1	4	6
	Hispanic/Latino	2			2
	Mixed/multiple			1	1
	Other				
	Prefer not to answer/no response	1		2	3
Marital status	Married	5	4	3	12
	Single	24	15	15	54
	Domestic partner	5	1	3	9
	Prefer not to answer/no response	1	1	2	4
Caring responsibilities	No	29	17	19	65
	Yes	6	4	3	13
	Prefer not to answer/no response			1	1

Table 3 presents the overall mean scores, by question and domain for each institution. The highest mean score ($M = 4.43$) was for Q5 and Q19 equally, with Q2 ranked third ($M = 4.42$). The lowest overall mean score ($M = 2.72$) was for Q26, which was reverse scored.

Table 3. Mean scores BES-CPE

Domain: Esteem					
Item number	Survey item	US1 M	US2 M	UK1 M	Total M
Q1	I feel like I fit in with others during my placements.	3.86	3.86	3.83	3.85
Q3	Colleagues see me as a competent person.	4.14	3.86	3.87	3.99
Q4	Colleagues offer to help me when they sense I need it.	4.14	3.81	3.91	3.99
Q7	I get support from colleagues when I need it.	4.23	4.14	3.83	4.09
Q9	I like the people I work with on placements.	4.14	3.95	3.83	4.00
Q10r	I feel discriminated against on placements.	4.54	4.14	4.04	4.29
Q14r	On placements I feel like an outsider.	3.74	3.57	3.00	3.48
Q17	I feel understood by my colleagues.	3.77	3.67	3.52	3.67
Q21	People I work with on placements accept me when I'm just being myself.	4.14	3.71	3.87	3.95
Q23	When I walk up to a group on a placement, I feel welcomed.	3.71	3.57	3.48	3.61
Q24	Feeling "a part of things" is one of the things I like about going to placements.	3.89	3.76	3.91	3.86
Q27	It seems that people I work with on placements like me.	4.11	3.90	3.87	3.99
Q33	I like where I work on placements.	4.03	3.90	3.87	3.95

Domain: Connectedness					
Q8	I am invited to social events outside of my placements by colleagues.	2.94	3.19	2.39	2.85
Q13	I invite colleagues to eat lunch/dinner with me.	2.69	2.90	3.22	2.90
Q15	There are people that I work with on placements who share my values.	3.91	3.76	3.91	3.87
Q16	Colleagues ask for my ideas or opinions about different matters.	3.69	3.48	3.52	3.58
Q25	There are people on placements with whom I have a strong bond.	3.54	3.67	3.43	3.54
Q26r	I keep my personal life to myself when I'm on placements.	2.60	3.05	2.61	2.72
Q28	I let colleagues know I care about them by asking how things are going for them and their family.	3.86	3.90	3.74	3.84
Q29	Colleagues notice when I am absent from placements or social gatherings because they ask about me.	3.37	2.95	3.09	3.18
Q30	One or more of my colleagues confides in me.	3.11	3.43	2.96	3.15
Q34	I feel free to share my disappointments with at least one of my colleagues.	3.57	2.95	3.48	3.38
Domain: Efficacy					
Q2	It is important to feel accepted by my colleagues.	4.49	4.19	4.52	4.42
Q5	I make an effort to help new students or staff feel welcome.	4.37	4.43	4.52	4.43
Q11	I offer to help my colleagues, even if they don't ask for it.	3.71	3.38	4.00	3.71
Q18	I make an effort when on placements to be involved with my colleagues in some way.	3.66	3.57	4.30	3.82
Q19	I am supportive of my colleagues.	4.29	4.52	4.57	4.43
Q20	I ask for my colleagues' advice.	4.23	3.86	4.43	4.19
Q31	I let my colleagues know that I appreciate them.	4.00	3.90	3.96	3.96
Q32	I ask my colleagues for help when I need it.	4.29	3.71	4.30	4.14
Items unable to be coded into a single domain					
Q6	I view my placements as a place to experience a sense of belonging.	4.03	3.57	4.00	3.90
Q12	It is important to me that someone at my placement acknowledges my birthday in some way.	2.23	2.33	2.83	2.43
Q22r	I am uncomfortable attending social functions on placements because I feel like I don't belong.	3.60	3.67	3.13	3.48

Notes: r denotes a question that is reverse scored.

Esteem

The results from the one-way ANOVA indicated a small difference in esteem between institutions ($F = 3.461, p = 0.036, \eta^2 = 0.083$), with 8.3% of the variance in esteem explained by institution. A follow-up post-hoc comparison indicated that differences existed between all institutions: UK1 cf. US1 ($t = 2.496, p = 0.044$), UK1 cf. US2 ($t = 0.638, p = 1.000$), and US1 cf. US2 ($t = 1.730, p = 0.263$). Overall mean scores indicated participants perceived that they were held in esteem by colleagues between some of the time and often ($M = 3.901, SD = 0.431$). Question 10, "I feel discriminated against on placements," had the highest mean score ($M = 4.29$) for this domain, when reversed coded. This indicates that students rarely to never felt discriminated against, with the UK students reporting more discrimination than the US students ($M = 4.04$).

Connectedness

A trivial difference in connectedness between institutions ($F = 0.205, p = 0.815, \eta^2 = 0.005$), with 0.5% of the variance in connectedness explained by institution. Participants also perceived connectedness between some of the time and often ($M = 3.301, SD = 0.586$). Of note, however, the items in the connectedness domain had lower mean scores ranging from $M = 3.87$ to $M = 2.72$.

Efficacy

The results from the one-way ANOVA indicated a moderate difference in efficacy between institutions ($F = 3.205, p = 0.046, \eta^2 = 0.078$), with 7.8% of the variance in efficacy explained by institution. A follow-up post-hoc comparison indicated that differences existed between all institutions: UK1 cf. US1 ($t = -1.485, p = 0.425$), UK1 cf. US2 ($t = -2.528, p = 0.041$), and US1 cf. US2 ($t = 1.320, p = 0.537$). Participants indicated they engaged in efficacious behaviours to enhance belongingness between always and often ($M = 4.140, SD = 0.511$). Questions five ($M = 4.43$), 19 ($M = 4.43$), and two ($M = 4.42$), the three highest overall mean scores, were this domain.

Reliability of BES-CPE for sample population

We used Cronbach's alpha to analyse internal consistency and reliability of the BES-CPE scale and each domain. Reliability coefficient for the BES-CPE scale was excellent, 0.90, for this population.

DISCUSSION

Study population

The findings of this multi-disciplinary, multi-institutional, and international study found that students who engaged in WIL experiences across a wide range of academic programmes, disciplines, and degree types reported moderate to high levels of belongingness. Overall summative belongingness scores by institution had only slight differences. Belongingness scores were higher when WIL experiences lasted six weeks or longer. With a longer WIL experience, students may have more time to build relationships, form professional connections, and develop a greater sense of belongingness within the workplace. Students with shorter experiences move placement partners routinely, and this limits the opportunity to build relationships and form professional connections (Levett-Jones and Lathlean 2009).

This study found that on average, nursing students from the UK reported higher belongingness scores than those from both US institutions. Caution should be applied due to small sample size, but this is similar to previous findings from use of this tool within the nursing community (Borrott et al. 2016; Honda, Levett-Jones, Stone, and Maguire 2016; Levett-Jones and Lathlean 2009). Given that researchers initially developed the BES-CPE for a UK nursing population, the language and

terminology included may be more familiar to nursing students in this cultural context. Thus, interpretation may indicate enhanced belongingness due to familiar concepts used in the scale.

Overall, there were mixed associations between belongingness and sample characteristics of the study population. There were significant differences between the UK and US in terms of which age group felt a greater sense of belongingness. When the data was combined for both US institutions, the age category 24–28 reported higher belongingness on the BES-CPE scale. This, however, was the most highly represented age group. Given that most of the healthcare professionals represented within this study population would have commenced their healthcare professions master’s or doctoral study within this age category, this finding is unsurprising. The US findings also aligned with those of Borrott et al. 2016, whose study was situated within Canada and Australia. What is interesting to note, however, is that the trend is different within the UK, and the older population of 34–38 reported the highest overall scores for belongingness, although this was not statistically significant.

Another interesting finding is related to gender identity. Male students within the UK indicated a greater sense of belongingness compared to female students. Typically, healthcare professions tend to have higher female representation, and this is reflected within our data where males constituted 28% of the survey respondents. In addition, these male students were predominantly from the physiotherapy profession (n=5). There are considerations about professional culture and the level of support within this profession that link to belongingness and may differ according to gender. There was only one respondent who identified as transgender within this study population, and their responses indicated one of the lowest overall scores on the BES-CPE scale. Josling (2015) and Michael (2023) found no significance with regard to gender and belongingness in the general healthcare setting and with diagnostic medical sonography students, respectively. Lindenfeld (2024) found a wide range of belongingness scores on BES-CPE categories when surveying nursing students who identified as male, while Sedgwick and Kellett (2014) found the scores of those who identified as male were significantly lower on the efficacy subscale, but not on connectedness and esteem. The variety in findings suggest a need for further research in this area.

Around 22% of the survey participants were from a racial or ethnic minority background. White respondents and respondents of minoritised racial/ethnic backgrounds reported similar levels of belongingness. Gould (2023) reports that a sense of belonging is influenced by representation of minoritised individuals among peers, patients, WIL mentors, or other healthcare professionals. Some students described that having others who look like them improved their sense of belongingness because they felt less different (Gould 2023). No association existed between belongingness, caregiving responsibilities, and marital status. Small sample sizes precluded more detailed analyses, and important sub-group differences could be lost in this analytic approach.

Due to the different nature of educational delivery in both countries, there is a wide variation of levels of study within the survey respondents. It is worth noting the difference in educational structures within the individual healthcare professions, institutions, and countries. For example, within the UK, a traditional undergraduate programme would be three years in length, which then leads directly to professional registration with the chosen awarding body. In contrast, within the US, some programmes represented in this study were doctoral level and therefore, students had previously undertaken a four-year undergraduate programme before commencing a three-year doctoral degree that leads to professional registration. Institutionally, WIL experiences for healthcare professions students are core elements of study, and therefore, student choice may be limited. This may impact a sense of belongingness if students are assigned to WIL experiences that do not align with their personal values, are not perceived to be areas of interest, or logistical challenges are present, e.g., travel, distance.

Domains

The three domains considered within the BES-CPE scale revealed interesting findings that are worthy of more exploration. Making comparisons between countries demonstrated cultural influences on behaviours and different approaches to managing WIL-related experiences.

Esteem domain

Student reports of being held in esteem, or experiencing admiration and respect, varied significantly between institutions. The items in the esteem domain with the highest mean score indicated that students feel rarely discriminated against on placements and supported by colleagues. This contrasts with other studies, where students report vulnerability to discrimination and exclusion while on WIL placement (Caffrey, Botticello, Quarshie, Ali, Watts, Cathala, and Ferrante 2023; Khan, Drewery, Ademuyiwa, Fannon, and Phillips-Davis 2024). The small study population and majority reporting non-minority backgrounds may rationalize the inverse finding of the BeWIL study. US culture may factor into the similar scores between US institutions. However, the significant differences between US1 and UK1 may be attributed to the cultural differences between countries or differences in affiliated placement partners. To improve healthcare students' feelings of esteem, external placement partners should make purposeful gestures to welcome, acknowledge, and accept students within the workplace, to provide education to improve acceptance of diversity, and to create spaces for students to ask for help or be involved in the learning process (Caffrey et al. 2023; Rae, Smith, Hopkins, and Tallentire 2024; Squire, Gonzalez, and Shayan 2024). Students can improve esteem through demonstration and expression of competency (Squire et al. 2024) and advocating for their role in WIL (Rae et al. 2024). The educational institution can work to improve esteem by communicating with each WIL placement partner regarding the curriculum and areas of competency the students have completed prior to placement, encouraging the development of professional reasoning, teaching students when to advocate for help, and continuing mentorship of students while on placement (Caffrey et al. 2023; Naidoo Plummer, McKean, Mack, Bowdle, Mullins, and Gore 2022).

Connectedness domain

Connectedness, or interpersonal connections, did not statistically differ among the universities surveyed. Mean scores for this domain were lower than for the other domains. This suggests that despite student effort and investment, there is a lack of engagement with students during WIL that might impact on their future work plans. If belongingness is not fostered, retention of students in healthcare professions may be negatively affected. However, it should be acknowledged that professional boundaries may impact staff and student connectedness, and some may be wary of behaviours that are potentially perceived as being overfamiliar. To improve students' sense of belongingness, increased efforts related to connectedness should be considered, such as extending invitations for students to join social activities, like workplace meals, or getting to know about each other's lives outside of the workplace, within appropriate professional boundaries. The WIL placement partner should provide opportunities to create communal spaces where students feel welcome and like a part of the team (Caffrey et al. 2023; O'Connor, Baird, Jack, Wilkinson, Chambers, and Hamshire 2024). Colleagues should encourage students to ask questions and share information about themselves, including celebrations and successes. The authors suggest that university staff should consider hosting events for WIL colleagues and students to interact within a non-WIL environment, such as neutral spaces within the academic institution. This could be facilitated by pre-WIL inductions, social activities, or post-WIL celebration events or awards. In addition, students do

have a responsibility to create opportunities to feel more connected with their WIL colleagues; this could be as simple as conversations during break times about outside interests and social activities. Students might also consider reciprocating social invitations, such as for lunch or coffee breaks, to their WIL colleagues.

Efficacy domain

Efficacy scores demonstrate that students feel they are participating in efficacious behaviours often to always. This includes behaviours such as helping others feel welcome, offering support to others, and asking for support or assistance. The significant differences in scores between the three universities may be due to a variety of factors, including curriculum, culture, and affiliated external partners. The lowest mean score in the efficacy domains was found in item 11, “I offer to help my colleagues, even if they don’t ask for it.” Students may improve their sense of belongingness by extending offers to assist colleagues when able. Levett-Jones and Lathlean (2009) propose that students could attend planned orientations, focusing on finding their way around and getting to know people in the early stages of the WIL experience. Through observing closely how things are done within these initial weeks, this may support efficacious behaviours and promote confidence for students to advocate for themselves, their role, and responsibilities (Levett-Jones, Lathlean, Higgins, and McMillan 2009b). Furthermore, students should also advocate for consistency in educator support wherever possible (Levett-Jones and Lathlean 2009).

There are responsibilities for all parties involved in WIL to ensure that students feel a heightened sense of belongingness. The university should ensure the use of evaluation activities which allow both the WIL placement partner and the student to express questions, concerns, areas for assistance, and appreciation (Caffrey et al. 2023; Squire et al. 2024). Universities can improve the allocation of WIL experience through individualised means, taking into account students’ personal factors and preferences, within their available scope and standards. It is the responsibility of the WIL placement partner to ensure that they provide consistent and constructive feedback to students and demonstrate appreciation of students and their efforts (Caffrey et al. 2023; Squire et al. Shayan 2024). The WIL placement partner could utilise experienced students to train or orientate new students to their unit or department (Naidoo et al. 2022; Rae et al. 2024) and, when appropriate, allow students to step in with a helping hand and provide peer support.

Reliability of the BES-CPE

Finally, this study also found that the BES-CPE had strong internal consistency reliability in this sample of healthcare professions students from three institutions over two countries, enrolled in academic programmes from the undergraduate through to doctoral level. This is consistent with other studies that utilise this tool (Ashktorab et al. 2015; Levett-Jones, Lathlean, Higgins et al. 2009a). Future researchers could consider using the BES-CPE to explore belongingness across a range of healthcare professionals.

Limitations and consideration

For this study, we took a convenience sample, and therefore, findings may not be generalised to other universities, countries, or healthcare professions. Limitations may also exist within the demographic data, with the majority of respondents being white. Other limitations to be considered are the timing of the survey requests within the academic calendar and the omission of collecting data that represented the total amount of WIL completed by each student. Students self-reported, meaning there could be biases towards providing socially acceptable responses, despite providing

anonymity. Additionally, the scale does not require a compilation of a total score, thus leaving scale determination and interpretation to the researchers and allowing for a variety of interpretation methods. Finally, we used a scale written by the original author, and the language used was designed for nursing students within a UK setting. Whilst there was some guidance provided to the participants to explain the terminology used in scale that differs for professions outside of nursing, this may have affected interpretation of the questions and therefore responses. Small sample size precluded multivariate analyses when only one student responded within a particular response group. Demographic characteristics of samples differed across academic institutions (e.g., current year of study); this made it difficult to compare belongingness among respondents according to country. Finally, this study did not include a control or comparison group, which could have generated some findings that contrasted belongingness in WIL within other demographic populations.

Future studies

The findings of the BeWIL study warrant further investigation. Future research could address all three domains of esteem, connectedness, and efficacy in relation to belongingness within WIL experiences for healthcare professions students. An exploration of student, educator, and university staff perspectives would provide additional context and meaning for different healthcare professions and geographical locations. A particularly important area of future scholarship is to examine differences in belongingness among more racially and ethnically diverse samples. In addition, placement-specific factors, such as racial/ethnic concordance between the student and their WIL supervisor, may also be considered.

CONCLUSION

The sense of belongingness amongst healthcare students in WIL experiences in this study was moderate to high overall and tended to be higher when WIL experiences lasted six weeks or longer. Belongingness appeared higher among nursing students compared to allied health professionals, men compared to women, and amongst students between 24–28 years of age in the US and 34–38 years of age in the UK. The BES-CPE had strong internal consistency reliability in this sample. Despite effort from all parties, some students still did not report a high sense of belongingness, which may be affected by culture, geographical location, professional background, and age. To promote belongingness among students, consider strategies such as targeting the domains of esteem, connectedness, and efficacy. These may be targeted differently depending on whether the responsibility lies with the student, the external partner, or university. Fostering an inclusive culture that ensures that all parties are invested in developing belongingness during WIL is essential for retention of the future workforce.

ACKNOWLEDGMENTS

We gratefully acknowledge the contributions of our colleagues, Dr. Cynthia Bennett, Professor Robin Selzer, and student contributor, Hannah Lauck. This work was conducted as part of the Evidence-based Practice Lab series at the University of Nebraska Medical Center and as part of the Elon University Center for Engaged Learning Seminar on Work-Integrated Learning.

AUTHOR BIOGRAPHIES

Deborah A. O'Connor (United Kingdom) is an associate professor and head of the Department of Health Professions at Manchester Metropolitan University, Manchester. Deborah is a chartered physiotherapist registered with the Health and Care Professions Council.

Leah M. Stade (United States) is an assistant professor and the academic fieldwork coordinator in the occupational therapy program in the College of Allied Health Professions at the University of Nebraska Medical Center in Kearney, Nebraska.

Cassidy Johnson (United States) is a second-year occupational therapy student at the University of Nebraska Medical Center in Omaha, Nebraska, with an expected graduation date in May 2026. Future practice interests include outpatient paediatrics, school-based services, and population-level programming.

Simone Regnier (United States) is a second-year occupational therapy student at the University of Nebraska Medical Center in Omaha, Nebraska.

Molly A. Whitlow (United States) is an assistant professor in the occupational therapy program in the College of Allied Health Professions at the University of Nebraska Medical Center in Omaha, Nebraska.

ETHICS

The University of Nebraska Medical Center, Elon University, and Manchester Metropolitan University ethical review boards approved this research.

REFERENCES

- Adams, Jennifer, Mim Ari, Michelle Cleaves, and Jennifer Gong. 2019. "Reflective Writing as a Window on Medical Students' Professional Identity Development in a Longitudinal Integrated Clerkship." *Teaching and Learning in Medicine* 32 (2): 117–25. <https://doi.org/10.1080/10401334.2019.1687303>.
- Ashktorab, Tahereh, Shirin Hasanvand, Naemeh Seyedfatemi, Farid Zayeri, Tracy Levett-Jones, and Yadollah Pournia. 2015. "Psychometric Testing of the Persian Version of the Belongingness Scale-Clinical Placement Experience." *Nurse Education Today* 35 (3): 439–43. <https://doi.org/10.1016/j.nedt.2014.11.006>.
- The Association of Schools Advancing Health Professions. 2020. "What Is Allied Health?" Accessed 10 July 2024. <https://www.asahp.org/what-is>.
- Berndtsson, Ina, Elisabeth Dahlborg, and Sandra Pennbrant. 2020. "Work-Integrated Learning as a Pedagogical Tool to Integrate Theory and Practice in Nursing Education—An Integrative Literature Review." *Nurse Education in Practice* 42: 102685. <https://doi.org/10.1016/j.nepr.2019.102685>.
- Borrott, Narelle, Gary E. Day, Monique Sedgwick, and Tracy Levett-Jones. 2016. "Nursing Students' Belongingness and Workplace Satisfaction: Quantitative Findings of a Mixed Methods Study." *Nurse Education Today* 45: 29–34. <https://doi.org/10.1016/j.nedt.2016.06.005>.
- Bowen, Tracey. 2018. "Becoming Professional: Examining How WIL Students Learn to Construct and Perform Their Professional Identities." *Studies in Higher Education* 43 (7): 1148–59. <https://doi.org/10.1080/03075079.2016.1231803>.
- Caffrey, Anna, Botticello Julie, Quarshie E Philomena, Ali Luul, Watts Paul, Cathala Xabi, and Ferrante Joshua. 2023. "Student nurses' experiences of discrimination and racism on work placements: What can higher education institutions do?" *Nurse Education Today* 131: 105980. <https://doi.org/10.1016/j.nedt.2023.105980>.

- Chartered Society of Physiotherapy. 2020. "Learning and Development Principles for CSP Accreditation of Qualifying Programmes in Physiotherapy." Accessed 2 May 2025. <https://www.csp.org.uk/publications/learning-development-principles-csp-accreditation-pre-registration-programmes>
- Gould, Connor J. 2023. "The Experiences of Clinical Placement Belonging Among Nursing Students with Racially and Ethnically Minoritized Identities: An Interpretive Descriptive Study." *ProQuest*, June 15. <https://www.proquest.com/docview/2890694251?fromopenview=true&pg-origsite=gscholar&sourcetype=Dissertations%20&%20Theses>.
- Honda, Kazuma, Tracy Levett-Jones, Teresa Stone, and Jane Maguire. 2016. "Japanese Nursing Students' Sense of Belonging: A Story of Uchi (Insider) and Soto (Outsider)." *Nurse Education in Practice* 20: 85–92. <https://doi.org/10.1016/j.nepr.2016.07.004>.
- JASP. n.d. "JASP - Free and User-Friendly Statistical Software." Accessed 20 August 2024. <https://jasp-stats.org/>.
- Josling, Megan. 2015. "Belongingness, Work Engagement, Stress and Job Satisfaction in a Healthcare Setting." Thesis, Dublin Business School.
- Khan, Tauhid H., David Drewery, Idris Ademuyiwa, Anne-Marie Fannon, and Colleen Phillips-Davis. 2024. "An Investigation of Barriers Experienced by Students from Equity-Deserving Groups in a Canadian Co-Op Program." *International Journal of Work-Integrated Learning* 25 (Special Issue): 51–65. https://www.ijwil.org/files/IJWIL_25_1_51_65.pdf.
- Kolb, David A. 1984. *Experiential Learning: Experience as the Source of Learning and Development*. Prentice-Hall.
- Lave, Jean, and Etienne Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation. of Learning in Doing: Social, Cognitive and Computational Perspectives*. Cambridge University Press.
- LeBlanc, Denise. 2021. "Belongingness in the Clinical Setting in Baccalaureate Nursing Students: A Comparative, Descriptive Study." *Journal of Interprofessional Practice and Collaboration* 3 (1). <https://repository.ulm.edu/ojihp/vol3/iss1/4>.
- Levett-Jones, Tracy, and Judith Lathlean. 2008. "Belongingness: A Prerequisite for Nursing Students' Clinical Learning." *Nurse Education in Practice* 8 (2): 103–11. <https://doi.org/10.1016/j.nepr.2007.04.003>.
- Levett-Jones, Tracy, and Judith Lathlean. 2009. "The Ascent to Competence Conceptual Framework: An Outcome of a Study of Belongingness." *Journal of Clinical Nursing* 18 (20): 2870–79. <https://doi.org/10.1111/j.1365-2702.2008.02593.x>.
- Levett-Jones, Tracy, Judith Lathlean, Isabel Higgins, and Margaret McMillan. 2009a. "Development and Psychometric Testing of the Belongingness Scale—Clinical Placement Experience: An International Comparative Study." *Collegian* 16 (3): 153–62. <https://doi.org/10.1016/j.colegn.2009.04.004>.
- Levett-Jones, Tracy, Judith Lathlean, Isabel Higgins, and Margaret McMillan. 2009b. "Staff—Student Relationships and Their Impact on Nursing Students' Belongingness and Learning." *Journal of Advanced Nursing* 65 (2): 316–24. <https://doi.org/10.1111/j.1365-2648.2008.04865.x>
- Levett-Jones, Tracy, Judith Lathlean, Jane Maguire, and Margaret McMillan. 2007. "Belongingness: A Critique of the Concept and Implications for Nursing Education." *Nurse Education Today* 27 (3): 210–18. <https://doi.org/10.1016/j.nedt.2006.05.001>.
- Lindenfeld, Maura. 2024. "Belongingness of Nursing Students Who Identify as Men." *Teaching and Learning in Nursing* 20 (1): e78–83. <https://doi.org/10.1016/j.teln.2024.08.005>.

- Lu, Adrienne. 2023. "Everyone Is Talking About 'Belonging' What Does It Really Mean?" *The Chronicle of Higher Education*, 12 February 2023. <https://www.chronicle.com/article/everyone-is-talking-about-belonging>.
- Malau-Aduli, Bunmi S., Karina Jones, Faith Alele, Mary D. Adu, Aaron Drovandi, Gillian Knott, Louise Young, and Clara Jo. 2022. "Readiness to Enter the Workforce: Perceptions of Health Professions Students at a Regional Australian University." *BMC Medical Education* 22 (February): 89. <https://doi.org/10.1186/s12909-022-03120-4>.
- Maslow, Abraham H. 1968. *Toward a Psychology of Being*. Van Nostrand Reinhold Company.
- McLaren, Susan, Leslie Woods, Markella Boudioni, Ferew Lemma, and Abdol Tavabie. 2008. "Implementing a Strategy to Promote Lifelong Learning in the Primary Care Workforce: An Evaluation of Leadership Roles, Change Management Approaches, Interim Challenges and Achievements." *Quality in Primary Care* 16 (3): 147–55.
- Michael, Kimberly. 2023. "Belongingness in the Clinical Learning Environment: A Novel Descriptive Study Focusing on Diagnostic Medical Sonography Students." PhD diss., Clarkson College. ProQuest. <https://www.proquest.com/openview/9bbcb8218b9edfc8a85b39c4095c2318/1?pq-origsite=gscholar&cbl=18750&diss=y>.
- Moore, Jessie L. 2014. "Fostering Institutional and Multi-Institutional Research." *Elon University Center for Engaged Learning*, October 14. <https://www.centerforengagedlearning.org/fostering-institutional-and-multi-institutional-research/>.
- Naidoo, Keshrie, Laura Plummer, Martha McKean, Amanda Mack, Garrett K. Bowdle, Margaret A. Mullins, and Shweta Gore. 2022. "Virtual Faculty and Peer Mentoring to Promote Social Belonging among Minoritized Physical Therapist and Nursing Students." *Healthcare* 10 (3): 416. <https://doi.org/10.3390/healthcare10030416>.
- O'Connor, Deborah A., Tamsin Baird, Kirsten Jack, Ryan G. Wilkinson, Alison Chambers, and Claire Hamshire. 2024. "Supporting Physiotherapy Learners in Practice Settings: A Mixed Methods Evaluation of Experiences of Physiotherapy Educators." *Physiotherapy Theory and Practice* 40 (8): 1791–804. <https://doi.org/10.1080/09593985.2023.2219313>.
- Rae, Valerie I., Samantha E. Smith, Samantha R. Hopkins, and Victoria R. Tallentire. 2024. "From Corners to Community: Exploring Medical Students' Sense of Belonging through Co-Creation in Clinical Learning." *BMC Medical Education* 24 (1): 474. <https://doi.org/10.1186/s12909-024-05413-2>.
- Schön, Donald A. 1983. *The Reflective Practitioner*. New York: Basic Books.
- Sedgwick, Monique. 2013. "Comparison of Second-Degree and Traditional Undergraduate Nursing Students' Sense of Belonging During Clinical Placements." *Journal of Nursing Education* 52 (11): 657–61. <https://doi.org/10.3928/01484834-20131014-05>.
- Sedgwick, Monique, Tracy Oosterbroek, and Victoria Ponomar. 2014. "'It All Depends': How Minority Nursing Students Experience Belonging During Clinical Experiences." *Nursing Education Perspectives* 35 (2): 89–93. <https://doi.org/10.5480/11-707.1>.
- Sedgwick, Monique, and Jordana Rougeau. 2010. "Points of Tension: A Qualitative Descriptive Study of Significant Events That Influence Undergraduate Nursing Students' Sense of Belonging." *Rural and Remote Health* 10 (November): 1569. <https://doi.org/10.22605/RRH1569>.
- Squire, Dian, Laura Gonzalez, and Colleen Shayan. 2024. "Enhancing Sense of Belonging in Nursing Student Clinical Placements to Advance Learning and Identity Development." *Journal of Professional Nursing* 51: 109–14. <https://doi.org/10.1016/j.profnurs.2024.01.007>.

- Stade, Leah M., Robin Selzer, Cynthia C. Bennett, Hannah N. Lauck, and Deborah A. O'Connor. 2023. "Transforming Students into Healthcare Professionals: A Literature Review Exploring the Interrelationships Between Work-Integrated Learning, Belongingness, and Health Professions Students." *The Advisor* 43 (2): 1–7. <https://e-space.mmu.ac.uk/id/eprint/633809>.
- van den Broek, Sjoukje, Sophie Querido, Marjo Wijnen-Meijer, Marijke Van Dijk, and Olle T. Cate. 2020. "Social Identification with the Medical Profession in the Transition from Student to Practitioner." *Teaching and Learning in Medicine* 32 (3): 271–81. <https://doi.org/10.1080/10401334.2020.1723593>.
- Williams, Caroline. 2010. "Understanding the Essential Elements of Work-Based Learning and Its Relevance to Everyday Clinical Practice: Work-Based Learning in Clinical Practice." *Journal of Nursing Management* 18 (6): 624–32. <https://doi.org/10.1111/j.1365-2834.2010.01141.x>.
- Zegwaard, Karsten E., T. Judene Pretti, Anna D. Rowe, and Sonia J. Ferns. 2023. "Defining Work-Integrated Learning." In *The Routledge International Handbook of Work-Integrated Learning*, by Karsten E. Zegwaard and T. Judene Pretti, 3rd ed., 29–48. Routledge. <https://doi.org/10.4324/9781003156420-4>.



Copyright for the content of articles published in *Teaching & Learning Inquiry* resides with the authors, and copyright for the publication layout resides with the journal. These copyright holders have agreed that this article should be available on open access under a Creative Commons Attribution License 4.0

International (<https://creativecommons.org/licenses/by-nc/4.0/>). The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited, and to cite *Teaching & Learning Inquiry* as the original place of publication. Readers are free to share these materials—as long as appropriate credit is given, a link to the license is provided, and any changes are indicated.