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Belongingness and its implications for undergraduate health professions education:  
a scoping review.

Short title: Belongingness in health professions education

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## ABSTRACT

Belongingness is well recognized within higher education as having an important influence on the performance and wellbeing of learners but there appears to be little awareness of the importance of belongingness in undergraduate health professions education.

**Aim:** To identify how belongingness has been defined, how belongingness has been measured, the impact of belongingness on the performance and well being of learners, and how belongingness can be fostered in educational settings.

### Methods

A scoping review to map the published research in the wider higher education literature (including undergraduate health professions education). PubMed and ERIC were searched. Only peer reviewed articles in the English Language between 1996 and 2016 were included.

### Results

Fifty one relevant articles were identified with 16 related to nurse clinical education. No studies were identified in undergraduate medical education or in primary care educational settings. There are common features in the several definitions of belongingness. A thematic analysis of articles revealed that belongingness has an important role in student motivation and learning, identity formation, and in facilitating positive mental health.

## Discussion

The scoping review highlighted the importance of belongingness in higher education and also undergraduate health professions education, with implications for future practice and policy. Further research is recommended since there are important implications for curriculum development and delivery, including clinical placements; within medical education and primary care education.

**Status Box**

Belongingness is a well recognized psychological construct within the higher education but there is less recognition in undergraduate health professions education, including medical education and primary care education.

Perceived belongingness in higher and health professions education is an important influence on student motivation and learning, identity formation, and in facilitating positive mental health.

No research on belongingness was identified in medical education and primary care education.

Further research should address how to understand and foster belongingness in medical and primary care education learning environments.

The importance of 'belongingness' is increasingly discussed in higher education (HE) research and policy as influencing the performance and well being of learners [1, 2, 3, 4]. In view of this interest, we included belongingness as a question in our recent research that had a focus on exploring self-reported factors that might influence academic underperformance of ethnic minority medical students. We found that academic performance was positively associated with belongingness in both Caucasian and ethnic minority students [5]. These findings prompted us to undertake this scoping review to further understand the importance of belongingness in HE and undergraduate health professions education (HPE), including medical education and primary care education, and to also inform recommendations for further practice, policy and research.

A scoping review approach was selected since it provides a "map" of the breadth of literature within a particular field to inform decision making for both future practice and policy but also to highlight important gaps in the current literature, with the intention of developing recommendations for future research [6, 7]. This approach to literature review is not intended to identify all the literature on a topic, such as with a systematic review, nor to appraise the quality of the included studies [8]. However, the review adhered to recommendations for ensuring the quality of scoping reviews, with a transparent and replicable process with regular team meetings, review of full articles for inclusion, and a descriptive summary of the evidence[7].

## **METHOD**

We adapted Arskey and O'Malley's [6] five-step framework in performing the scoping review, as described below.

### ***Framework Stage 1: Identification of the research question***

The purpose of our review was to identify the main themes within the areas of: (1) What is belongingness (2) How has belongingness been measured (3) What is the impact of belongingness on performance and wellbeing of learners and (4) How can belongingness be fostered in educational settings? The educational settings included both HE and HPE, including medical education and primary care education.

### ***Framework Stage 2: Identification of relevant studies***

We limited our search to PubMed and ERIC as these are the main databases in which literature in both HE and HPE are published. 'Belongingness' is not a MeSH term in PubMed and we limited the main search term to 'belongingness' in the Title OR Abstract fields in both PubMed and ERIC. The search was limited to peer reviewed articles published in English Language in the 20 years prior to 2016 to ensure current relevance. The use of the additional search term 'belonging' returned the same articles as 'belongingness'; with the term being used a verb in the Abstract field.

### ***Framework Stage 3: Study Selection***

Selection was performed by each author independently reading the abstracts of all retrieved articles and if the abstract did not make the relevance of a work clear, the whole article was read. Any differences were discussed until consensus was reached.

Figure 1 about here

## **RESULTS**

### ***Framework Stage 4: Charting the data***

The PubMed search identified 18 relevant articles in the context of learning in HE, including HPE, and in ERIC 33 relevant articles were identified. We checked the reference lists of the identified articles to make sure that we had not excluded any other potentially relevant articles. The studies included as relevant are presented in Table 1.

Table 1- Studies included in the review about here

### ***Framework Stage 5: Collating Summarising and Reporting***

A total of 51 articles were included in the review: 19 of the articles were situated in the US, 16 in the UK; and the rest of the work reviewed included Australia, Sweden, Canada and Malaysia.

Thirty-three articles were from HE, with 16 from undergraduate nursing education,



one from undergraduate midwifery education and one from undergraduate dental education. No articles were identified from undergraduate medical education or from primary care educational settings.

The first author (PVS) read through each article and main themes were extracted based on the key questions identified above (Table 2). The table was initially developed through the first 10 articles that were analyzed and then iteratively refined as the analysis progressed. The emerging results were constantly checked and compared with the second author (JS).

Table 2- Characteristics of the studies included in the scoping review

## **DISCUSSION**

### **What is 'belongingness'?**

Belongingness has not been well defined in HE[9] and only 11 of the articles provided a definition of belongingness. However, there were common features in all of the definitions that focused on 'connection' or 'acceptance' from others. For example, an individual's "desire to feel connected to others—to love and care, and to be loved and cared for"[10], and Thomas et al. [11] defined belongingness as:

*Students' sense of being accepted, valued, included, and encouraged by others (teacher and peers) in the academic classroom setting and of feeling oneself to be an important part of the life and activity of the class. More than simple perceived liking or warmth, it also involves support and respect for personal autonomy and for the student as an individual, (p25).*

Within HPE, 10 papers provided a definition of belongingness that were derived by Levett-Jones and her colleagues in their studies of undergraduate nurse education [12, 13, 14, 15]. These definitions were drawn from either the psychological literature (as in example 1) or were informed through data from interviews with nursing students (as in example 2).

#### Example 1

*'the need to be and perception of being involved with others at differing interpersonal levels. . . which contributes to one's sense of connectedness (being part of, feeling accepted, and fitting in), and esteem (being cared about, valued and respected by others), while providing reciprocal acceptance, caring and valuing to others' p2. [16]*

#### Example 2

*'Belongingness is 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 those of the group. The experience of belongingness may evolve passively in response to the actions of the group to which one aspires to belong and/or actively through the actions initiated by the individual'; p154, [17].*

Overall, our findings highlight that there are several definitions of belongingness but a common feature across the definitions is that belongingness is an individual sense of 'connection' or 'acceptance' from others, and is created through an interaction between an individual and their surrounding environment.

### **How has 'belongingness' been measured?**

A range of approaches has been used to investigate belongingness in learners (Table 1). Several studies have used qualitative methods to explore perceived experiences of belongingness [17, 18, 19], but more studies have used questionnaires; very few employed a mixed methods approach [11, 20].

In Table 1 we have differentiated between studies which utilized a questionnaire survey to investigate the association of belongingness with academic performance, as opposed to studies that focused on developing a paper based tool to measure the belongingness of individuals and across cohorts of learners. There was some consistency amongst authors in their conceptualization of belongingness, with recognition that belongingness is not a stable construct but and varies across

different contexts [21] and over time [22], as well as being influenced by both individual [23] and situational [24, 25] factors. Only one instrument has been validated for the identification of changes over time in HE students' perception of belongingness [26].

The most widely used belongingness scale used in HPE is that developed by Levett-Jones et al.[27]. This scale for measuring belongingness during clinical placements amongst nursing students has been tested for validity and reliability but not for generalizability in other contexts.

Our findings highlight that questionnaires to measure belongingness should be validated in the specific context to which they are to be used.

### **What is the impact of belongingness on performance and wellbeing of learners?**

This was the largest theme (See Table 2).

An inquiry into the future of HE and lifelong learning in the UK highlighted that belongingness can be considered to be a moral imperative for lifelong learning [28].

The HE literature supports this view, with studies finding that an individual's perception of belongingness with the institution and learning environment was a factor for engagement and success with learning [9, 29, 30, 31]. Belongingness was also noted to be a key factor for maximising student retention [32, 33].

In HPE, Levett-Jones and Lathlean[15] identified belongingness as an important factor for student nurses' learning and success. They concluded that competence was only possible once core needs such as belongingness and a healthy self-concept had been met. In a critical review of studies about belongingness in undergraduate nurse education, Levett-Jones et al. [17] argued that clinical placements are typified by feelings of alienation and a lack of belongingness. However, staff-student relationships can promote legitimization of the student role, thereby positively influencing belongingness and learning [34], as are relationships with patients [35]. Overall, there has been increasing recognition of the importance of belongingness in ensuring that nursing students benefit from their clinical placements [36].

Several themes were identified within the main theme of impact on performance and well-being:

***(a) Role of belongingness in identity formation***

Several studies in HE highlight the influence of belongingness on identity formation as a learner [37, 38, 39, 40], especially amongst minority students [18]. No specific studies on identity and belongingness in undergraduate health profession were identified. However, belongingness was noted to be associated with working as a dentist on an outreach programmed for dental students [41]. In undergraduate nursing, students were more likely to adopt existing norms and values of the team and institution regardless of whether they agree with these, in order to improve their likelihood of acceptance by the team [42].

***(b) The role of belongingness in minority and non-minority student performance***

Walton et al. [30] focused on the role of belongingness in the learning of minority student groups in HE and Sedgwick [43] on the learning of minority group nursing students. Their findings are corroborated by other work [44, 45, 46, 47], with belongingness appearing to be related to how students engaged with the university environment [48, 49].

***(c) The role of 'belongingness' in positive mental health***

Overall, the literature in the HE context indicated that facilitating belongingness was important to nurture mental wellbeing [16, 50, 51], and lack of belongingness was a significant factor associated with suicidal ideation for international students [51, 52].

In HPE, Grobecker [53] investigated the relationship between belongingness and stress amongst nursing students who have completed at least one clinical experience and found a significant negative relationship between the two.

Overall, our findings highlight that belongingness has an impact on both learning and mental well being for both minority and majority students. An important aspect of belongingness is its influence on the identity formation as a learner.

**How can belongingness be fostered?**

The focus of most studies was on describing the impact of belongingness on learners rather than on interventional approaches where person or situational factors can be manipulated to nurture belongingness.

In HE, one intervention study provided minority students with strategies to deal with perceived social adversity and found that there was improved academic performance and wellbeing [30]. Other effective approaches included individual reflective activities on experiences to gain insights and develop strategies to increase belongingness [43] and institutional activities, such as creating social spaces and offering clubs and societies, to facilitate improved relationships with peers [11, 54] and personal tutors [4, 11], especially for students not living on-campus.

In HPE, the key features of clinical workplaces that appeared to be conducive to facilitating belongingness in nursing students were interpersonal dynamics, clinical leaders/managers who were welcoming, nursing staff who were encouraging and inclusive, and mentorship that was valued by students [17, 55]. Belongingness can enhance students' 'potential for learning' and lack of belongingness can lead to disengagement and reduced motivation for learning [17], especially for minority students [43].

### **Strengths and Limitations of the review**

We performed this scoping review to provide a broad overview of the literature to

inform future directions for practice, policy and research related to belongingness in HPE, including medical education and primary care education. We only considered two databases for literature gathering but these are the main databases for indexing educational research in HE (ERIC) and HPE, including medical education and primary care education (ERIC and PubMed). It was not within the remit of this scoping review to evaluate the quality of evidence or to provide a synthesis of the weight of evidence for or against the influence of belongingness in developing learners. However, no studies were found that did not support the role of belongingness in learning. An advantage of a scoping review, as opposed to a systematic review, is that it considers a wider range of evidence and gives weight to qualitative and non numerical findings thereby providing the reader with a fuller picture of the current state in what role belongingness plays in developing learners.

### **Conclusions and Future Directions**

Our review only identified studies from both HE and HPE, with no studies identified from medical education and primary care education. In the context of HE and HPE, belongingness had an important influence on learner engagement, academic performance and mental wellbeing. The studies from HE and HPE also indicated that belongingness was related to identity development, both as a learner but also as a future professional. However, only a limited number of interventional studies were identified that demonstrated how to develop and foster belongingness.



Although no studies were identified from medical education and primary care education it is highly likely that belongingness has similar influences on learner performance and wellbeing, especially during clinical placements. We recognize that HPE settings can be distinctly different to medical education and primary care education settings, such as student nurses are often paid to work during training and are an integral part of a work team. However, the studies in HE and HPE suggest that belongingness is a major influence on performance and wellbeing across different contexts. We recommend that a priority for further research is to understand the importance and influence of belongingness in the specific contexts of medical education and primary care education.

We identified that belongingness in HE and HPE was not a stable characteristic of individual learners but was related to the influence of the wider socio-cultural environment, such as the educational institution or clinical placement, on the perceptions and meaning making of individual learners. This has important implications for future research about fostering belongingness in medical education and primary care education. A major challenge for future research is to consider how complex interventions can be developed and adapted that address the various factors within the wider learning environment. Self determination theory [56] may also be important here in order to understand how learners respond to their learning environment and what motivations drive such responses, and in explaining any variability in responses to interventions to facilitate belongingness.

With the exception of a validated questionnaire in nursing [27], there is an overall lack of validated instruments to measure belongingness and to evaluate whether efforts to foster belongingness have been successful in HPE, including medical education and primary care education. We recommend that the development of validated instruments to measure belongingness in medical education and primary care education is a priority action, especially for use in the context of clinical placements.

The literature on belongingness challenges all educational researchers to not focus on visible personal characteristics of their learners but to have a focus on macro level factors within the learning environments that can help to develop the performance of all learners. An important future focus for research will be to identify whether interventions that that will be developed to improve student belongingness may also reduce disparity in achievement amongst student populations of diverse backgrounds. For undergraduate HPE (including medical education and primary care education) in particular, there are a number of questions to consider. If belongingness influences identity formation, does belongingness also influence the development of professional identity as well as learner identity? In light of the increase in student diversity, how can all HPE educators, including medical educators and primary care educators, ensure that the learning environment (including the clinical workplace) nurtures belongingness for all learner groups? As the literature indicates that belongingness may have an influence on mental health, is this relevant to the discussions on how to support poorly

performing HPE, including medical and primary care, students? Can belongingness reduce disparity between learner achievements?

Belongingness appears to have a major influence on the performance and wellbeing of learners in HE and HPE. This has important implications for all medical and primary care educators. We recommend further research to influence future policy and practice in medical education and primary care education.

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