Is research on professional identity formation biased? Early insights from a scoping review and metasynthesis

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OBJECTIVE Despite a recent surge in literature identifying professional identity formation (PIF) as a key process in physician development, the empiric study of PIF in medicine remains in its infancy. To gain insight about PIF, the authors examined the medical literature and that of two other helping professions.

METHODS The authors conducted a scoping review and qualitative metasynthesis of PIF in medicine, nursing and counselling/psychology. For the scoping review, four databases were searched using a combination of keywords to identify empiric studies on PIF in trainees. After a two-step screening process, thematic analysis was used to conduct the metasynthesis on screened articles.

RESULTS A total of 7451 titles and abstracts were screened; 92 studies were included in the scoping review. Saturation was reached in the qualitative metasynthesis after reviewing 29 articles.

CONCLUSION The metasynthesis revealed three inter-related PIF themes across the helping professions: the importance of clinical experience, the role of trainees' expectations of what a helping professional is or should be, and the impact of broader professional culture and systems on PIF. Upon reflection, most striking was that only 10 of the 92 articles examined trainee's sociocultural data, such as race, ethnicity, gender, sexual orientation, age and socio-economic status, in a robust way and included them in their analysis and interpretation. This raises the question of whether conceptions of PIF suffer from sociocultural bias, thereby disadvantaging trainees from diverse populations and preserving the status quo of an historically white, male medical culture.

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INTRODUCTION

Professional identity formation (PIF) in medicine focuses attention on the career-long process of becoming a clinician.[1,2] PIF can be thought of as a double helix: the individual and the profession form parallel strands that become intertwined. Each strand must bend in order to accommodate the other; however, this burden of bending and changing to accommodate seems to fall more acutely on the individual strand, with the profession's strand remaining more fixed. PIF frequently involves experimentation, change and uncertainty, and ideally results in the successful reconciliation of conflicting ideals, values and roles. Although successful formation of a professional identity has been linked to career success[3] and creativity at work,[4] a mismatch between an individual's internal bearings and the roles and expectations of the profession can create anxiety, frustration and feelings of inadequacy, and can result in the individual leaving the profession.[5] The role of culture, race, socio-economic status and gender might be expected to be critical components of the individual strand, and could prove to be important confounders in the study of this complex process.

We set out to gain an understanding of the current state of the PIF literature in medicine by conducting a scoping review and metasynthesis of the literature across three of the helping professions (medicine, nursing and counselling/psychology), hoping to gain insight into foundational themes that cross professional silos. We approached our work using two broad research questions:

1. How do several helping professions conceptualise, operationalise and assess PIF in their educational programmes?
2. Are there unifying or complementary concepts of PIF that can guide curriculum development and outcomes evaluation in medical education?

Our overall goal was to develop an evidence-based conceptual framework that can inform future research and curricular development in medical education.

METHOD

Relying on the team's expertise in library sciences, medical humanities education, and health services and educational research,[6–12] we conducted a scoping review and qualitative metasynthesis. The purpose of a scoping review is to examine the extent, range and nature of research activity;[13] such reviews can be especially helpful in complex areas of inquiry that have not previously been mapped.[14] Metasynthesis is a qualitative research technique that involves bringing together in a cohesive fashion the findings of qualitative studies, and as such offers a:

> fully integrated description or explanation of a target event or experience, instead of a summary view of unlinked features of that event or experience.[15]

To begin the literature search, the team's information specialist (NEA) constructed a query for the multidisciplinary Web of Science database (1900 to November 2016; searched 21 November 2016) using a combination of keywords expressing the concept *professional identity formation* joined with a modified, previously published search string expressing the concepts of *quantitative*[16] or *qualitative study design*.[15] Web of Science database features were used to analyse the disciplinary fields in helping professions other than medicine in which studies relevant to PIF were being published. We found that the professions of nursing and counselling/psychology were comparatively well represented in the PIF literature, so we included these professions, with medicine, in the scoping review and metasynthesis. We then conducted additional database searches in PsycINFO (1806 to March 2017; searched 31 March 2017), PubMed (1966 to November 2016; searched 11 April 2017) and CINAHL (1981 to November 2016; searched 26 April 2017) using a combination of controlled vocabulary and keywords to express *professional identity formation* AND *study design* (*quantitative OR qualitative)* AND *trainee or student*. A second health sciences librarian peer-reviewed all search queries. Appendix S1 provides the complete search statement for PubMed.

Search results were exported into EndNote X4 (Clarivate Analytics, Philadelphia, PA, USA), duplicates deleted, and titles and abstracts of each result were screened using our inclusion criteria (Table 1) by two independent reviewers, with a third reviewer adjudicating (NEA, MH, RLV). At this stage, if there was any uncertainty about a result fitting inclusion criteria, that result was retained for full-text screening. The team performed a quality check to ensure that a set of previously identified,

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Table 1 Stage 1 inclusion and exclusion criteria

Parameter	Inclusion criteria	Exclusion criteria
Topic: PIF	The process of integrating and aligning individual self-conceptions with the profession	Simply using the phrase 'professional identity formation' alone not sufficient. Manuscripts that were about professionalism (narrowly defined, e.g. attire, hand washing). Articles about socialisation (narrowly defined, e.g. emphasising responsibilities or expected behaviours related to the professional role)
Trainee	The unit of analysis in the study is an individual enrolled on a course of study. Because PIF is a lifelong process, the individual can be a traditional trainee (e.g. nursing student) or a less traditional trainee (e.g. nurse manager enrolled in a leadership development programme)	All study populations that were not trainees. Papers that included data on both trainees and non-trainees but did not separate the two in analysis
Included professions	Medical trainees; nursing trainees; counselling/psychology trainees	All other professions
Method	Original qualitative and quantitative research articles.	Theoretical articles, opinion pieces, synthesis articles
Language	English	Published in a language other than English
Time	All time periods included	
Type	All peer-reviewed journal articles	Conference proceedings, books, book chapters, dissertations

PIF = professional identity formation.

highly relevant articles were included in the remaining results after this stage.

Studies meeting the Stage 1 inclusion criteria were obtained in full text and underwent Stage 2 screening by one researcher (MH) after a norming process among three of the researchers (NEA, MH, RLV). In this second stage, one researcher (MH) reviewed the full text of each article to ensure: (i) the article met Stage 1 screening criteria; (ii) the study population was one of the included professions (medicine, nursing or counselling/psychology), and (iii) PIF was the main focus of the article as opposed to an ancillary finding. The final number of articles included in the scoping review was 92. The flowchart in Fig. 1 represents an overview of our scoping review search and screening strategy.

The 92 articles identified in the scoping review provided the data for the qualitative metasynthesis. The metasynthesis was characterised by thematic analysis, using the principle of saturation to determine when data analysis was complete.[17] In line with the conventions of qualitative metasynthesis, we analysed only the results and discussion sections of each manuscript.[15]

Informed by the fact that there was a total of nine counselling/psychology articles included in the scoping review, the investigators began analysis by reading 29 articles (nine counselling/psychology articles, 10 nursing articles and 10 medical articles). The investigator who had read all 92 articles (MH) was responsible for selecting the 29 articles that were included in the metasynthesis. Articles that were expected to challenge our thinking were prioritised; for example, articles with different theoretical frameworks, a different grouping of trainees or some other atypical element.

To develop the codebook, three of the authors (NEA, MH, RLV) read eight articles to develop a shared mental model and begin to conceptualise early codes. These eight articles were drawn from across the three helping professions and were selected based on their rich data and their diverse perspectives on the topic. Then, two investigators

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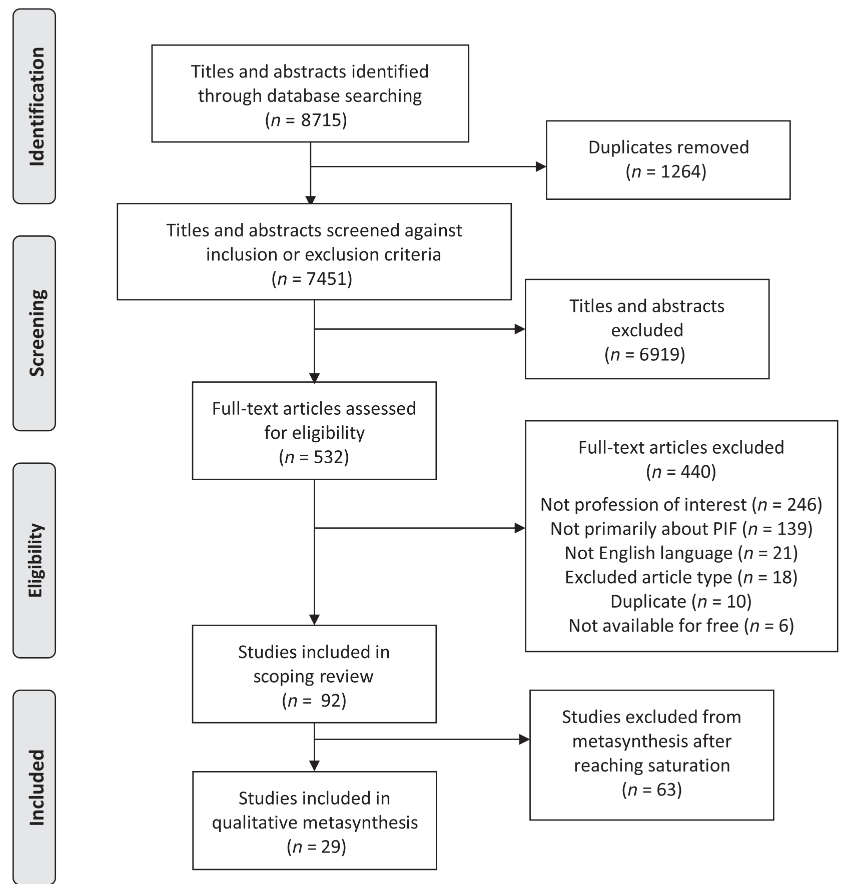

Figure 1 Overview of article selection process.

(MH, RLV) read an additional eight randomly selected articles together and developed a draft codebook of themes, with conceptual definitions and examples for each theme. This codebook was then vetted with the rest of the research team (PH, DRW). Two investigators (MH, RLV) collaboratively coded 13 additional articles, during which time no new themes were added to the codebook and therefore saturation was achieved. Once all 29 articles were coded, the two investigators (MH, RLV) shared the themes and sub-themes with the entire research team for further discussion about the model and its implications for medical education. Data were coded using qualitative data analysis software NVivo Version 11 (QSR International Pty Ltd, Doncaster, Victoria, Australia).

Although we reached saturation regarding the themes that were present in the literature, we perceived a gap, something that was missing: most articles did not account for the role of demographic variables in the process of PIF. This gap first became apparent when screening an article about a dearth of working class applicants to medical school.[18] The article did not meet the inclusion criteria because it was not about the process of integrating or aligning individual self-conceptions with the profession; instead, it was pre-PIF in that it was about the decision to study medicine. However, the article led to the study team's realisation that the PIF literature was, for the most part, not considering socio-economic class, race and other sociocultural factors. To confirm this, we conducted a secondary analysis and explicitly searched our scoping review articles about PIF in the helping professions ($n = 92$) for studies that targeted these sociocultural factors (Table 2). The 10 articles that were identified as targeting this gap were read closely and discussed by two authors (MH, RLV), who identified initial patterns. The entire research team then discussed these patterns and developed conclusions and recommendations for further research in this area.

RESULTS

The two-stage screening process resulted in 92 studies included in the scoping review.[19–110] Of

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Table 2 Professional identity formation in the helping professions: articles that considered sociocultural data

Author	Discipline	Research question	Author-reported method	Author-reported findings
Chan et al.[83]	Nursing	What is the self-image of male nursing students?	Content analysis	Male nursing students in Hong Kong are confused about their professional identities and roles and lack a clear self-image as a nurse
Vaismoradi et al.[102]	Nursing	How do male nursing students regard the role of nursing education in developing a professional identity?	Content analysis	These Iranian male nursing students reported the educational system does not promote the development of a male nurse professional identity nor familiarise the public with the position of men in the nursing field
Hinojosa and Carney[25]	Counselling	How do Mexican American female doctoral students navigate their culture of origin and the academic cultures of their counsellor education and supervision (CES) doctoral programme?	Constant comparative analysis	Although some Mexican American doctoral students were able to integrate their ethnic and academic identities, others reported a disconnect, with several sharing that they silenced their personal identities and voices in order to succeed
Nelson and Jackson[23]	Counselling	What are the distinct factors that Hispanic students identify as being important in helping them consolidate their emerging professional counselling identity?	Constant comparative analysis	For Hispanic graduate students, the process of becoming a professional counsellor involved emotional and financial costs; support from friends and family was named as important but even more important were caring and knowledgeable faculty members
Hilberman et al.[71]	Medicine	How do female medical students establish a professional identity within the medical field defined as 'masculine'?	No method reported	Female medical students recognised internal (self-concept) as well as external (institutional and systemic) obstacles in their development of a professional identity as a physician
Hill and Vaughan[59]	Medicine	How do paradigmatic trajectories shape female medical students' experiences of surgery and subsequent career intentions?	Thematic analysis	Female medical students' experiences of surgery were strongly gendered; they were unable to see or identify with other women in surgery and lacked experiences of participation. As a result, they self-selected out of surgical careers
Johannson and Hamburg[65]	Medicine	How do second-year medical students understand 'being a doctor'?	Grounded theory	Female medical students face having to choose between career and family commitments, whereas male medical students expect to have both an interesting career and time for relaxation, family and hobbies
Babaria et al.[64]	Medicine	What is the impact of gender on female medical students' preclinical educational experiences?	Constant comparative analysis	Female medical students frequently experience gendered and inappropriate encounters with patients, peers and attending physicians, with the result that female medical students experience loss of self-worth, feelings of isolation and emotional stress

Table 2 (Continued)

Author	Discipline	Research question	Author-reported method	Author-reported findings
Babaria et al.[80]	Medicine	How does gender affect the professional identity formation of third-year female medical students?	Constant comparative analysis	Female medical students reported recurrent behaviours and attitudes that diminish the value of their professional identity as a 'woman doctor' and the role of women in medicine
Beagan[41]	Medicine	Are Canadian women, racialised minority students, working class and gay and lesbian students forced to adapt to fit in at medical school?	Constant comparative analysis	Although medical schools recognise the need to train physicians with diverse backgrounds, students are trained to see themselves and their patients as almost 'neutral', thereby minimising if not discounting the impact of social characteristics on both themselves and patients

these, 57 investigated PIF in medical students and/or residents,[28–82,109,110] 26 involved nurse trainees (associate, bachelor, graduate and nurse managers),[83–108] and nine involved counselling or psychology undergraduate or graduate students.[19–27] Three of the studies had a mixed-methods design,[41,53,79] six were quantitative[26,87,90,103,104,108] and 83 were qualitative.[19–25,27–40,42–52,54–78,80–86,88,89,91–102,105–107,109,110]

Many of the studies involving medical students and residents noted that identity formation often takes place within communities of practice as trainees interact with patients and families, peers and other professionals.[22,29,46,49,54,57,69,70,76,84,100] This framework was less common in the nursing and counselling/psychology literature. However, we found studies framed around the theory of adult development[48,55,73,104] across all three helping professions.

Perhaps stemming from differences in theoretical frameworks, the language used to describe PIF was different across the three professions. Words such as 'socialisation' and 'professional socialisation' were frequently used in the nursing literature. In the counselling/psychology literature, the profession's identity as well as the individual's identity as a professional was discussed. By contrast, the medical literature did not often use words such as socialisation to describe PIF, nor did it often consider the profession's identity. Rather, medicine simply draws upon the nomenclature of PIF. Despite differences in language, the idea under consideration in all three disciplines was strikingly similar.

Although the articles in the scoping review presented diverse approaches to PIF in the helping professions, our qualitative synthesis revealed three interrelated themes: (i) norms and expectations for a helping professional (ideas about what a helping professional is or ought to be, how a helping professional behaves and what a helping professional values); (ii) experiences that shape professional identity, and (iii) the culture of the profession. However, on reflection, we believe that what we did not find in the data is the most important contribution of this study. In the rest of this section, we present the findings from our qualitative synthesis first, followed by the results of our secondary analysis.

Norms and expectations

Before the trainee can be integrated into the profession (engaging in the process of *becoming* the professional) they must have a sense of what it is that they are aiming to become. Trainees in the nursing literature, for instance, frequently cited what a nurse is or ought to be by identifying fundamental personal qualities such as being 'caring' and 'sensitive to others'.[85,89,90,93,95,106]

> Students saw empathy and compassion as central to the role of the RN [registered nurse].[95]

Medical trainees also talked about the importance of being role models for patients, being ethical decision makers and being culturally sensitive:[52,54,81,90]

> Some students reported that the responsibility motivated them to follow through with health

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> behaviors of their own, in order to lead by example.[54]

Trainees were influenced by the views of others, both positively and negatively. When others had positive perceptions of their profession, the trainee felt the interaction helped support their identity as a caring professional.[52,56,81,106] Not everyone the trainee interacted with had positive perceptions of the trainees' profession, however, and not all trainees perceived that people viewed their profession highly. This created a source of conflict within the trainees and undermined their view of themselves as professionals:[24,52,56,81,106]

> Some students had struggled with the idea of entering nursing. They had a lay image of nursing that made them afraid they would be seen as "dumb blondes" or "bimbos" and believed "anyone could be a nurse".[106]

Experiences that shape PIF

Across the helping professions, trainees identified numerous experiences, positive and negative, that helped shape their professional identity development. Trainees identified experiences with patients and clients,[21–24,26,27,32,52,80,81,85,89,91,92,94] experiences with role models[20,22–25,27,30,52,54,79–81,94,107] and being included in a professional community[20,23,24,27,52] as impacting their developing professional identity.

Trainees cited the value of hands-on experiences with patients and clients in helping them understand the responsibilities and challenges of their profession:[23,26,32,52,80,91,92]

> Almost every participant nominated time spent in hospital as representing a key contributor to their feelings of belonging to the medical profession ... practice (doing the work of a doctor) was in many cases more valuable in forming professional identity than theory (learning the work of a doctor).[52]

Although trainees recognised the importance of classroom instruction in developing professional knowledge, a sense of identity developed primarily through interactions with patients or clients and other professionals:[24,52,89,95,106,107]

> In describing the importance of direct counselling experience in shaping identity, Kathy illustrated the clear divide between theory and praxis: "... when I read about it, it doesn't give me a sense of competence".[24]

The impact of role models and mentors on PIF is well established.[2] Students described positive and negative experiences in both the preclinical and clinical environments.[22–25,27,30,79–81,94] Negative role models, in particular, seemed to have a big impact.

> However, where students encountered negative role models, confusion, anxiety, and feelings of isolation emerged.[94]

Inclusion as a professional in the professional community was also identified as important to the process of PIF:[24,52,89,95,106,107]

> Participants cited membership in professional associations, contributing to the greater collective, sharing with other counselors, and having exposure to allied disciplines as contributing to their sense of professional identity.[24]

Culture of the profession

Trainees identified the culture of the profession, including hierarchy and power[23,24,30,31,56,80] as playing an important role in their PIF:

> Both Claire and Catherine attributed how they and others were treated as ex-nurses who were now medical students to a gendered hierarchy amongst the various health professions, with nursing assigned to the lowest position.[31]

Hierarchy sometimes referred to the hierarchy *between* the helping professions, for example, between medicine and nursing,[30,31] and at other times referred to the hierarchy *within* a single helping profession, for example, the perceived hierarchy among different types of mental health professionals.[23,24,56,80]

Trainees also identified the role of the educational institution as important in their development of PIF,[24,25,32,56,80,91] noting that sometimes the institutional culture promoted unhealthy behaviour, such as overwork,[54] and that training sometimes took place in harsh environments.[32]

> Every educational program is embedded within a cultural milieu and therefore professional identity formation cannot be separated from its context.[24]

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Secondary analysis: possible sociocultural bias

The above findings reflect the results from our scoping review and metasynthesis of PIF in the helping professions and provide the backdrop for what happened next. When conducting the metasynthesis, we identified what we thought might be a gap in the literature: the vast majority of articles about PIF did not analyse or consider the role of race, gender and socio-economic status in the development of PIF. Although demographic data were frequently collected, they were rarely included when qualitative results were presented. And when such data were included, they were not typically analysed or explored. For example, a quote might be attributed to a female versus male medical student, but no attempt was made to investigate whether that student's experiences could be attributed in part to his or her gender. Because we had already carefully created a dataset of articles about PIF in the helping professions via the scoping review, we scoured that dataset for studies that included a consideration of the role of demographic variables in the process of PIF. In the articles we identified (Table 2), the background of trainees was found to be extremely important for the development of a professional identity.

We identified 10 articles that considered sociocultural data about PIF in trainees (Table 2). Seven were about gender,[59,64,65,71,80,83,102] two were about race or ethnicity,[23,25] and one was about racialised minority students, working class students and gay and lesbian students.[41] Seven articles were conducted with domestic trainees in the USA and Canada,[23,25,41,59,64,71,80] and three were international (Hong Kong, Sweden and Iran).[65,83,102] Six studies were conducted with medical students,[41,59,64,65,71,80] two with nursing students[83,102] and two with counsellor trainees.[23,25]

A striking similarity across these articles was a sense by learners from traditionally under-represented cultures of not fitting in with the identity of the dominant health professions culture. For example, male nurses felt there was no 'clear image for male nursing',[83] and without an image to aim for the PIF path for male nurses was not clear to them in the way it was clear to female nurses:

> male nursing students . . . had to develop their own way of expressing care that supports their self-view as men.[102]

For female medical students, role conflict produced by a sense of not fitting in was found to impair their professional identity development.[41,59,65,71] Female medical students experienced a foundational identity clash; in a way that male medical students did not, female medical students worried about identifying as a doctor:

> To shoulder the doctor's identity was something female students found problematic for the future.[65]

Perhaps in part because of their sense that they did not fit in, trainees reported feeling as though they were outsiders, and this often led to a sense of isolation. For example, if maleness is the default in academic medicine[41,64] and if the idealised image of a physician is male, then it is categorically impossible for a woman to achieve the ideal.[71] This means that female medical students are inherently, and always, outsiders when compared with the dominant image:

> And it's very clear to me how as a female I do not belong in this profession. No matter what you're told, about equality, or we're a non-sexist profession – but that's a big stress when I go home from class everyday, when I'm trying to – it's like you're paying this tax . . .[64]

Tragically, students from traditionally under-represented cultures experienced a sense of being outsiders in their health professions education and eventually in their home cultures. Mexican American counselling psychology trainees perceived 'a harsh division between their ethnic identities and academia' which eventually:

> seemed to divide [the subjects] from their families.[25]

Surprised that there were only 10 articles that considered race, ethnicity, gender and socio-economic status in their study of PIF in trainees, we used the reference lists of included studies to identify additional studies, and in this way found four additional articles that were about trainees' race and socio-economic status.[111–114] We chose not to include these articles in Table 2 because they do not meet the inclusion criteria for the scoping review; however, they are relevant enough that it seemed inappropriate to exclude them. Interestingly, all four articles were about medical trainees. For example, one study found that non-

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white medical students experienced pressures to 'conform to the expected template of a "real" medical student' that were not brought up by any white students.[114] Additionally, there was considerable agreement among medical students that individuals from upper or middle class backgrounds fit in at medical school more easily and adopted a student–physician identity more readily than students from working class backgrounds. Indeed, one low income student:

> argued that she could never fit in at medical school, could never be "a proper med student", and had needed to subdue significant parts of her personality to try to fit in.[111]

DISCUSSION

We began this line of inquiry to synthesise qualitative and quantitative research about PIF across the helping professions. Our scoping review and metasynthesis findings mirrored the existing literature on PIF, in that they emphasise PIF is significantly influenced by clinical experience, the role of trainees' expectations of what a helping professional is or should be, and the impact of broader culture and systems on PIF. However, upon reflection, it is what we did not find that is most striking: although most of the included studies gathered at least some demographic data such as gender, age and race, very few included these data in a robust way in their analysis and interpretation of findings. The irony here is that a foundational task of PIF is for students to integrate their emerging professional identities with the selves they were before medical school, and the:

> professional identity may 'fit' less easily when students are women, older, working-class, gay or lesbian, or from visible minority groups.[62]

By excluding these considerations from PIF studies, an assumption is made that the professional identity being formed is one of a member of the hegemony: an upper middle class white male. The scholarship on PIF inappropriately treats this person as neutral, when, in fact, they are not. Medicine has recently been criticised as 'a culture of no culture', meaning that the medical community erroneously endorses a:

> shared cultural conviction that [our] shared convictions [are] not in the least cultural, but, rather, timeless truths.[115]

The empirical research on PIF may suffer from its own form of sociocultural bias, thereby disadvantaging trainees from diverse populations and preserving the status quo of an historically white, male medical culture. The experience of PIF is very likely to be extremely different, and perhaps more difficult, for members of under-represented minorities, working class individuals, women and others who do not typify the white, male medical culture. This realisation has prompted us to slow down, step back and ask ourselves some difficult questions. Why haven't scholars, ourselves included, focused on these variables in their exploration of PIF? What data are used to make curricular decisions about how to cultivate and evaluate PIF, and are the data unbiased?

The question of what data are used, and for what purpose, is important. Recently, the Massachusetts Institute of Technology Media Lab graduate student Joy Buolamwini found that facial recognition software was significantly more accurate for white men than for other groups. Further, facial recognition software did not even recognise the dark-skinned Ms Buolamwini's face *as a face*. It was only when she put on a white mask that the facial recognition software could compute that a face had appeared on the screen.[116] This happened because the data used to create the facial recognition software were the white male faces of stereotypical computer software developers. One widely used facial recognition dataset was estimated to be more than 75% male and more than 80% white.[117] This happens in medicine too. To take just one example, spirometry value calculators, which measure lung function, sometimes include 'race corrections' because in 1864 a large study concluded that white soldiers had higher lung capacity than black soldiers[118,119] and yet there is no modern evidence that lung function varies based on the colour of one's skin.

Our profession needs to take a hard look at the implicit assumptions and 'data' that underpin the culture of medicine and recalibrate the lenses through which we view PIF. Future studies might involve qualitative inquiries of diverse learners, exploring how they view who they are, and how those conceptions align, or do not, with the predominant medical culture. It would also be important to investigate the perceptions of women and traditionally under-represented minorities who have experienced formal PIF curricula. Finally, research could explore the relationship, if any, between imposter syndrome and PIF in traditionally under-represented minorities.

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Our study has several limitations. Even though a scoping review was performed, it is possible that there are other studies that were not identified. For example, we excluded one recent study that investigated the dearth of working class applicants to medical schools[18] because it was not primarily about PIF *during* medical training. Another study of gender differences in the development of professional identity for counselling practitioners[120] was excluded because it did not focus on trainees. Additionally, the scoping review and metasynthesis focused on peer-reviewed publications and we therefore did not search the non-peer-reviewed 'grey literature'.

In conclusion, we reviewed the literature on PIF in medical, nursing and counselling/psychology trainees. We were struck by what was not there: the empiric scholarship on PIF for the most part does not take into account the role of gender, race, socio-economic class, sexual orientation, gender identity and age in the development of professional identity. This should perhaps not come as a surprise, because medicine has historically been silence on issues of gender, race and class in medical education[64] and purports to be a 'culture of no culture'.[115] Yet there is increasing evidence that women, and people who are non-white who do not fit in with the dominant culture of medicine have a more formidable burden in achieving PIF than their white male counterparts.[71] With this manuscript, we hope to contribute to breaking the silence and to spur other researchers to overtly study whether the process of PIF is more challenging for certain groups, and what those challenges look like.

PIF is a difficult task, and by virtue of arguing that the process is particularly hard for some groups, we do not intend to insinuate that PIF is easy for other groups. Instead, we aim to highlight that the experience of PIF by members of the predominant culture is not the only experience, and if we as a medical education research community characterise the rich and complex process of PIF as only this, the research perpetuates the marginalisation and isolation of many promising trainees.

Contributors: RLV was responsible for designing the project, analysing the articles for the scoping review and metasynthesis and primary drafting of the manuscript. MH collaborated on designing the project, made substantial contributions to the analysis of the articles for the scoping review and metasynthesis, and was a critical reader of early drafts of the manuscript. PH collaborated on designing the project, helped with interpretation of the data for the work and was a critical reader and reviser of the manuscript. DRW collaborated on designing the project, helped with interpretation of the data for the work and was a critical reader and reviser of the manuscript. NEA collaborated on designing the project, made substantial contributions to the analysis of the articles for the scoping review and metasynthesis, and was a critical reader and reviser of the manuscript. All authors gave final approval to submit this paper.
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SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:

Appendix S1. Complete search statement for scoping review in PubMed.

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