

Exploring Professional Identity Development Research on Displaced Higher Education Students

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Abstract—In university, students develop professionally in ways that affect their ability to find and retain jobs after graduation. Outlined curriculum goals ensure students gain conceptual understanding and practical skills, but throughout their enrollment, students also develop their professional identities in ways that are less understood. Positively formed professional identities gain students' entrances into a professional community, making the transition to work more seamless [1], [2], however, scholars concernedly note that a large population of students face violence, natural disasters, and pandemics that disrupt their education and development [3]. This makes displaced students who are facing forced migration particularly vulnerable to an incomplete professional identity formation.

Researchers have begun to study the challenges displaced students face as they develop professionally and personally towards gainful employment in resettlement contexts [4], [5], finding that displaced students negotiate and renegotiate both personal and professional identities [6], [7], [8] upon migration. This negotiation and competition of identity happens in ways that are socially embedded [9] and can impinge on students' development.

These issues may be particularly challenging for engineering students, where tightly structured curricula make disruptions even more problematic and where a sense of belonging and connection to peer groups are crucial to success [10]. However, we do not yet have a clear comparative understanding of displaced student experiences in engineering, nor do we understand how displacement contexts impact displaced student professional development broadly. To that end, this scoping literature review and research full paper seeks to summarize and characterize current research on the influences on professional identity development in displaced university students broadly, laying the groundwork for future discipline-specific research. The study describes the contextual barriers to displaced students' professional identity development in multiple disciplines, and then focuses on engineering-specific issues and complementary supports. Preliminary findings indicate that engineering-specific nuances exist in professional identity development for displaced students based on discipline-specific values, attitudes, conventions, and approaches. Uncovering these nuances helps ensure educators better facilitate positive professional identity development in displaced engineering students across disciplines, which is aligned with the achievement of the sustainable development goals.

Keywords— professional development, displaced students, identity, higher education, asylum-seekers

I. INTRODUCTION

In situated learning theory, learning always includes identity formation [11], [12]. As undergraduate students prepare for their careers, they develop their professional identities through engaging with others in a disciplinary or workplace community [13], [14], [15], learning and negotiating professional norms, idealized images of a profession, and the professional recognition of significant others [2],

[16], [17]. This social dimension of learning in a university context highlights professional identity formation as a process that interacts with and involves physical space, structures, and institutions [18]. These complex social dynamics influence a student's ability to develop a sense of belonging within a professional community, which is critical to professional identity development, overall well-being [19], [20], [21], [22], and thus, retention [23].

Because professional identity formation is so intertwined with external and contextual factors, disruptions to or shifts in context, such as those arising from also disrupt identity development. In this paper, displacement is a term describing several phenomena related to forced migration, and it is understood that as students are displaced, their relocation involves complex identity reconstruction that influences professional identity development [8]. Regardless of distance or reason for displacement, displaced students are confronted with resettlement in places where societal norms, culture, language, and religion differ from their place of birth in ways that are often challenging to navigate [4], [5], [6], [7], [24], especially as they develop both their professional and personal identities in preparation for employment after graduation. Scholars have found that as students renegotiate their identities with a hybrid or hyphenated identity, they hold onto their home taken from them while adopting beneficial parts of a new school and professional environment [6], [7], [8]. At the same time, they are also renegotiating professional identities in ways that are embedded in local politics, demographics, and social structures [9], posing barriers to displaced students' abilities to develop a positive professional self-concept [16], [25], [26], [27], [28], [29]. Scholars in this review show that the educational microcultures in resettlement contexts require displaced students to adjust and therefore disrupt their development [30].

Professional identity development pose a particular threat for displaced engineering students, where tightly structured curricula make disruptions more problematic and where a sense of belonging and connection to peer groups are crucial to success [10], [9], [31], [32], [33], [34]. The rich body of research in this area demonstrates strong links between identity development and outcomes such as retention with engineering programs, persistence in engineering careers, and academic success, and at the same time, highlights the critical roles played by a sense of belonging in developing resilient professional identities. Virtually all this work, however, focuses on engineering students who remain in place at a single institution, developing their identities over time within a single community. In contrast, there is a scarcity of research on the professional identity development of displaced engineering students [27], [35] in comparison to an already small pool of studies in non-engineering contexts [36], [37], [38], [39], [40]. Short and long-term displacements resulting from natural and humanitarian disasters are increasing as the frequency of disasters increases [e.g., 41], but researchers do not have a summative understanding of displaced student professional identity development experiences across disciplines, nor do they have a comparative understanding of the nuances in the engineering

profession. To that end, this scoping literature review summarizes current research on the supports and barriers to positive professional identity development for displaced students, highlighting the specific challenges engineering students face as well as making recommendations based on best practices. The purpose of doing so is to better characterize the need for further discipline-specific research on diverse displaced students' experiences in higher education. This concept paper represents an initial piece of this overarching scoping review and will therefore only focus on the most common supports and barriers and those that are highly linked to the nature of engineering programs. As such, the research questions guiding this study are:

- (RQ1)** What are the salient supports and barriers to displaced higher education students' professional identity development according to current research?
- (RQ2)** How are these supports and barriers to displaced student professional identity development different for those students who are engineers?

II. METHODOLOGY

Once the topic, objectives, and research questions for this review were confirmed, a protocol including eligibility criteria, screening processes, and cataloging was established. The review draws on collected published articles from 199 publications from the EBSCO Education Full-Text Database from 2001 to 2021, using the iterated search string selection inclusion criteria of "(refugees or asylum seekers or displaced or migrants or 'natural disaster') AND ('professional development' or 'professional learning' or 'professional training' or 'professional education' or 'professional identity' or 'professional identity development' or 'Career development') AND (university or college or 'higher education' or post-secondary or postsecondary or undergraduate or graduate or PhD) AND students." A librarian's expertise was helpful for performing searches; seminal articles were used to test search strings for validity, and articles were also screened for a focus on higher education, displaced students, and professional identity development. In doing this the coder analyzed each article broadly for its relevance to the research questions. Ultimately 59 articles passed these different quality screenings, forming the basis for this conference paper.

As stated, for the sake of this review, displaced students are persons who experience a form of forced migration; this definition is meant to be broad because "in the complex interaction of identities that move across space and time as they are displaced terms like asylum-seeker, internally displaced, forced displacement, refugee, resettlement, and migrant are terms that blend and have implications for one another [8]. In other words, students displaced for a wide variety of reasons hold both similar and divergent experiences from other displaced learners. As such, the 59 articles in this study are research on displaced students including but not limited to refugees, asylum-seekers, DACA recipients, other undocumented immigrants, student migrants, disaster victims, and internally displaced persons. There is a breadth of sources from around the world, including resettlement contexts like Canada, the US, Australia, Ireland, Sweden, the UK, Germany, South Korea, Portugal, Russia, Taiwan, Israel, Scotland, Vietnam, and an unnamed African country. Some of the home countries included are Syria, Indonesia, Somalia, Iran, Iraq, Zimbabwe, Mexico, China, Dominican Republic, Afghanistan, Sudan, and Ethiopia. Additionally, in some cases, students' resettlement country is the same as their home country.

After the articles were successfully chosen, they were coded using content analysis focused on identifying supports and barriers to displaced student professional identity development. In other words, the articles were broken down by topic into discrete units of data that were then systematically and reliably categorized as either supports or barriers to professional identity development as per the definition of Lent et al. [42]. In their studies of contextual supports and barriers to

career development, supports and barriers are defined as environmental conditions that can either augment or encroach upon a students' development of interests, attitudes, and skills aligned with their profession. As such, to answer RQ1, each article was coded for discrete units of barriers and supports, then inductive coding was used to categorize the units and generate categories for overarching themes. To answer RQ2, engineering-specific instances of these supports and barriers were coded to shine a light on the ways displaced engineering students uniquely experience professional identity development.

III. RESULTS

The content analysis and theming generated 9 categories of barriers—identity invisibility, pressure, othering through discourse, liminality, credentialism, figured worlds, cultural conflict, instability, and resources, and 9 categories of supports associated with these barriers. For each of the supports and barriers, scholars provided examples of displaced engineering students experiencing nuanced versions of these coded categories, so these findings were paired accordingly. Given that this conference paper is part of a larger review, it will focus only on the three categories of identity invisibility, pressure, and othering through discourse, which have been found to be most common and most salient to displaced engineering students. The following three results sections include first a presentation of each barrier to professional identity development for displaced students followed by a refined version for engineers and associated supports or suggested practices.

A. *Identity Invisibility as a Barrier to Professional Identity Development*

Identity invisibility as a barrier to professional identity development is multidimensional and refers to the ways the identities of displaced students are rendered invisible in higher education structures, impacting the level of support they receive. It first relates to the lack of identification documentation and tracking information for displaced students enrolling in resettlement tertiary institutions. Oftentimes displaced students do not have proper identification with them upon arrival, and students' original schools and new schools struggle to share necessary identification information and educational records [43], [44], halting enrollment and rendering displaced students invisible in university record systems [6], [20] [45], [46], [47]. In Coco's [48] study of displaced students from Hurricanes Katrina and Rita, the author found that even sharing student information within-state was challenging because of the disconnect between institutional systems; displaced students needed extended deadlines for admissions processes as a result. This lack of information-sharing results in little staff awareness of students' situations, coupled with limited university and peer support [23], [49]. As a result, displaced students often go unclassified as a distinct social group from overseas students; in Morrice's 2013 study with refugee professionals in the UK from Iran, Iraq, and Zimbabwe enrolled in university, a displaced student was classified as a home student by her university, and, as a result, they had to pay higher fee rates [38]. The effects of invisibility in the computer system trickle down; Shelton and Thompson's [50] study of Puerto-Rican students displaced by Hurricane Maria mentions that professors show a lack of concern in not proactively acknowledging the hurricane and how individual students were affected afterward. Students felt their instructors did not recognize them and would have appreciated a reaction to the circumstances, accommodating logistics for enrollment, and support structures designed with them in mind.

Not only are displaced students rendered invisible in terms of tracking information, but their unique experiences are also often homogenized, constituting another facet of identity invisibility. In Stebleton's study of Black African college student asylum-seekers in the US, the author reminds readers that "there is a difference between being African and African American, and society does not always distinguish the two experiences" [37, p. 55]. The homogeneous rhetoric

around displaced students erases their unique identities in ways that weaken their visibility and enable educators to ignore their differences in culture, background, and identity [44], [51], [52], [53]. Schools not only fail to distinguish the difference between displaced and domestic students, but they also conflate different forms of displacement. Scholars in this review note that the needs of displaced students are often over-generalized or universalized [16], [29], [43], [54], [55], [56], particularly when discrimination is present. The homogenization of displaced student experiences is harmful because it allows educators to ignore the “separate and distinct needs” of all students [47] and prevents students from bringing their whole selves to a given setting [4], [46].

The final element of identity invisibility as a barrier builds on the idea of homogenization of displaced student experiences. Scholars in this scoping review note that few institutions and researchers consider the broad spectrum of displaced student backgrounds, making it difficult to support diverse students fully and to draw conclusions as to the role that other facets of identity like race, class (dis)ability, gender, sexual orientation, and documentation status play in experiences of professional identity development [28], [29], [37], [54], [57], [58], [59]. Understanding that an individual’s professional identity is a “complex structure of simultaneous participation in different levels of privilege and oppression... [and] individual experiences are gendered, racialized, classed, ethnicized and sexualized in multiple and complex ways,” [60, p. 50] educators and scholars must consider the social and cultural dynamics of a space and the ways in which displaced students’ multiple intersecting identities interact as they enter a community of practice [11], [61], [62]. That said, many of the authors in this review note that these layered identities are not often considered for displaced student support, keeping some students from being able to fully identify with their professions.

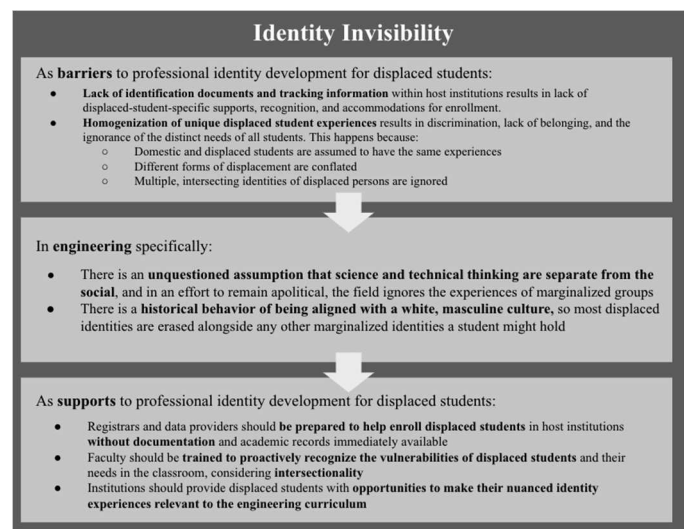
1) *Identity Invisibility in Engineering*: Identity invisibility is especially compromising for displaced engineering students who negotiate a “boundary status” within the engineering community [63], brought on by the chilly climate, underrepresentation, and an environment that is not conducive to women, people of color, those that are disabled, and other marginalized groups in engineering [2], [64], [65], [66], [67]. These invisible identities are only exacerbated by engineering’s commitment to separating the individual from the work, illuminated by the field’s way of thinking marked by an “unquestioned assumption...that the knowledge, the mathematical procedures and scientific processes, and the laws on which problem solutions were based were race and gender-free” [68, p. 10]. This way of thinking minimizes the impacts of discrimination [69] and the historical behavior of engineering as a profession that is aligned with a white, masculine culture [70]. As such, in engineering, not only are displaced identities invisible but so are other marginalized identities that displaced students might hold [71], making displaced engineers with other marginalized identities a minority within a minority [27], [72]. For example, in a 2019 article, authors studying the experiences of female refugee and asylee students in the US found that as students discussed their professional identity development, they noted the impacts of being both a displaced student in the US in addition to being a woman of color in a STEM profession [73]. As a result of accumulated advantages, domestic, white, male, upper-class students receive positive socialization towards a career in engineering, making them more adept to the dominant culture. This nearsighted ignorance, the engineering field’s commitment to ostensible objectivity, results in support structures designed for the assumed engineer, leaving displaced engineering students at a compounding disadvantage [36].

2) *Helpful Practices or Supports for Identity Invisibility*: Researchers in this study respond to identity invisibility as a barrier to displaced students’ professional identity development with recommended practices for institutions enrolling displaced students. In terms of identification documents, administrators and registrar staff need to be trained with familiarity in registering displaced students

with foreign documentation and with helping those students without documentation find appropriate papers. They also need to understand that information sharing takes time and displaced students might need extended deadlines for enrollment processing. In the way of tracking information, Pham and Saito [35] propose that host countries develop databases for their foreign students’ records and credentials to help ensure smooth transitions and that universities develop more effective support services and curricula. Examples of these services include culturally relevant professional student organizations like undocumented student programs aimed at meeting the unique needs of undocumented students; support services like these make visible those invisible identities and provide students institutional opportunities to find mentors and gain professional experience [26], [28], [74].

To ensure that displaced students’ are recognized in classrooms regardless of whether tracking information is adequate, faculty should be made aware of their displaced students despite their documentation status. Administrators, faculty, and staff need to proactively recognize that displaced students are “more vulnerable than [those] whose social location is congruent with the dominant society;” as such, institutional practices should “validate and underscore the value of a diverse [student] body.” [63, p. 59]. Part of this includes [75]’s point that educators need to learn more about the history, culture, and experience of displaced students in their schools so that they are better prepared to address student needs and so that they celebrate diversity. Other elements for creating awareness of the need for and benefits of an intersectional and context-specific approach include training instructors to realize the impact of social location on classroom dynamics, and engaging students in culturally responsive curriculum and instruction [36], [43], [58], [60]. One example of this includes educators asking themselves how they can make their classroom a lively learning place for displaced students to thrive as well as what all students stand to gain in an inclusive classroom [55]. Wu and Wu [18] provide another example where women displaced from Vietnam were given classroom opportunities to make presentations that were relevant to their transnational backgrounds; they were able to provide their experiences in class, creating positive visibility for displaced women and their home country. Instead of accepting ostensible objectivity and treating all students the same as engineering tends to do, researchers recommend the best ways to combat identity invisibility for displaced students involves making these nuanced identity experiences visible and relevant to the curriculum.

FIGURE 1
IDENTITY INVISIBILITY AS A BARRIER, IN ENGINEERING, AND AS A SUPPORT



B. Pressure as a Barrier to Professional Identity Development

Another common barrier displaced students face as they develop their professional identities is intense pressure to prove themselves amidst the multiple competing forces or roles they are expected to play [18, 54]. One way this manifests is in the form of fulfilling family obligations in addition to schoolwork; while some students have the luxury of undivided attention for studies, most displaced students in this review juggled additional expectations outside of school. Multiple authors across contexts in this review discuss displaced students explaining that some of their families expect them to attend university [73] and/or to provide financial assistance to them in the future [37], [40]; these students note the significant sacrifices their family members have made to ensure their education, and their desire to repay them. Unfortunately, many report this pressure to be successful and to have well-paying careers is overwhelming [23]; in one study of African asylum-seeking college students, the author notes students “may experience depression, anxiety, and fear related to... sending back enough money home to support members of their families” [75, p. 294]. Displaced students’ pressure to succeed and make money to help support their is evidence of the multiple challenging and competing roles displaced students play as they pursue higher education.

In a technical sense, pressure is force exerted over an area; just as pressure is the sum of many forces over a surface, so too is the pressure for displaced students facing multiple competing roles a sum over their experience. This was particularly true for women displaced students; in the words of Wu and Wu [18], “the multiple, intensified roles of these women as wives, mothers, higher education learners, and workers created great distress for some of them... it seems impossible to meet the needs of both institutions simultaneously” (p. 147). Authors describe displaced students in general as navigating multiple, often conflicting roles, expectations, and priorities that pose barriers to their education and professional identity development [18], [54], [76], [77]. In a study of foreign-born asylum-seeking undergraduate women at a U.S. institution, authors provide examples of this in three ways— that displaced students often cannot participate in common college activities because of their added expectations, that many of them will opt to select majors that lead to specific occupations (e.g. STEM, business) options rather than others (e.g. theater, history), and that these students often feel conflicted because of competing roles and let them influence their decisions about career decision-making [73].

1) Pressure in Engineering: Displaced engineering students find that this pressure as a barrier to professional identity development is exacerbated by the nature of their field. Engineering degrees are a significant expression of the capital associated with social mobility [66], particularly for displaced students who face a mismatch of expectations of capital upon resettlement [73]. As such and because of the potential for high-salaried jobs after graduation, majors like that of engineering remain in high demand for displaced students seeking to provide for their families. The multiple roles these students play and the pressure to make every right turn along the way mount, and despite high demand from non-traditional students, engineering’s heavy and inflexible course requirements, expectation for internships and/or unpaid work experience, and lack of representation of students who have competing responsibilities other than being a student [78], [79] make it a particularly challenging field for displaced students developing their professional identities.

Another way that pressure manifests in this field in particular is related to Godfrey and Parker’s engineering way of doing, which refers to the beliefs and assumptions made about how teaching and learning should be done in engineering [68]. One belief that Godfrey refers to as “hardness” permeates the design of the engineering curriculum; it is the assumption is that engineering should be hard or difficult, and the workload should be intense [10], [80]. There is little room left in the engineering curriculum for the flexibility that displaced students often need as they reacclimate to a new context, meet personal obligations,

and succeed in the degree. In this way, both displacement and the engineering field itself create pressure for displaced students; first it comes in the form of multiple competing roles and financial responsibilities, but then engineering adds to it with the pressure created by “engineering ways of doing” [68].

Helpful Practices or Supports for Pressure: Pressure in the form of multiple roles and displaced students’ need to provide for themselves and often family as well means that many of the students in this review work jobs outside of their school work to earn enough money to fund their education and lives [58], [74]. Opportunities for paid work within institutions that are connected to students’ career interests help displaced students negotiate a strained schedule by aligning their financial burdens and professional development. A strong example of these opportunities comes from one of the undocumented students in Morales Hernandez and Enriquez’s [26] study. They mentioned “UndocuBruins...a research program for undocumented students” saying, “and if you’re interested in a PhD program, you can do any research that you want...and you get a stipend” (p. 325). Work opportunities such as these, in conjunction with career centers trained in policies regarding regulated financial assistance for loans, grants, assistantships, and fellowships for displaced students [74] create pathways for displaced students to manage their multiple roles that can impinge on their professional identity development.

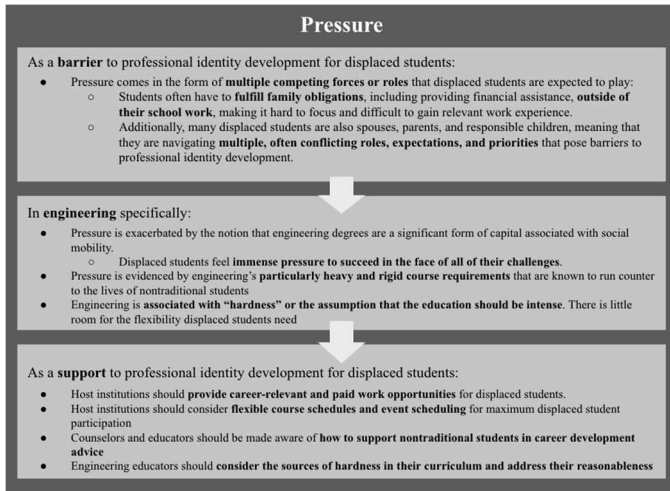
Other aspects of displaced students’ professional identity development beyond their work experience include the courses they take as well as the more informal socialization that happens in communities like professional societies. The same challenges of a complex schedule arise in these areas, particularly when transportation and childcare are [28], making flexibility around course schedules and social events paramount if displaced students are to partake; this means that courses should be offered at multiple times and in multiple modalities and social events should take place at times non-traditional students are available.

In addition to providing work opportunities and flexible schedules, career counselors and educators need to be cognizant of the relevance of these multiple work roles in displaced people’s lives when advising students. Scholars in this review note that career practitioners in host countries or states often are discouraged when advising undocumented students because they do not know how to provide the help that displaced students need; they also often do not know how to consider system influences on career development such as family and community because of their training focused on more traditional students, leaving displaced students at a disadvantage in terms of career advice [37], [73], [75]. A proposed support to this issue is offering opportunities for faculty to talk with counselors who specialize in working with undocumented students and giving faculty flexibility to create programs and outreach in ways that help build their efficacy as career professionals supporting displaced students [69].

In terms of pressure in the form of hardness for displaced engineering students, according to Deters et al. [81], educators need to consider why and how hardness drives engineering pedagogy, particularly since we do not have evidence that this focus reinforced learning for students displaced by COVID-19. Educators should provide students with challenging opportunities but not just for the sake of making the experience intense—they should be connected to students’ curriculum and reasonable based on the content with which students are provided and the understanding that students’ lives do not end when the school day does. Finally, since pressure as a barrier to displaced students’ professional identity development manifests in the form of psychosocial stress [18], [19], [20], [53], [75], [81], scholars recommend counseling support in tandem with the other helpful practices discussed.

FIGURE 2

PRESSURE AS A BARRIER, IN ENGINEERING, AND AS A SUPPORT



C. Othering Through Discourse as a Barrier to Professional Identity Development

Discrimination, othering, and discourse are linked in this review through homogenized and stigmatized rhetoric around the displacement experience and those who are displaced. An environment of xenophobia filled with stigmatized and essentialized notions of the refugee experience is not uncommon in resettlement contexts [83] and results in students feeling isolated and denied their cultural identities. Critical scholars note that citizens of many resettlement communities are familiar with terms like migrant, refugee, and asylee as marks of the "other" or deviance from the norm, and they tend to group displaced peoples at a lower status as such [7], [28], [45], [52], [84], [85]. Ploner and Nada, in their [86] study of international students in Portugal and the UK, links this notion of the racially, culturally, and geographically distant other to the "historical dimensions of European Higher Education expansion as a modern colonial project" (p. 375) where the majority culture is taken for granted, and difference is otherness. Perceiving difference as otherness is also linked to Tajfel and Turner's Social Identity Theory, which posits that our personal identities are constructed based on social relationships we have, and we seek to achieve a positive concept of ourselves in them; in order to do so, we create in-groups and out-groups that are hierarchically related [87], [88], [89]. In other words, othering happens at an individual psychological scale, whereby we position ourselves as positively as possible to the detriment of those who are not like us. This behavior expands to a social scale through systemic means.

The problem associated with this leaning towards othering is that educators and employers make a connective assumption between displaced people's migratory experience and unskilled labor [26], [90], despite displaced peoples' prior experience. This stigmatized understanding translates to low expectations of displaced students [43], doubts of their potential to succeed [60], and ambivalence towards the recognition of the positive values these students bring to their workplaces and schools [91]. One way this manifests is in stereotyping of displaced students; in Morrice's [49] study of refugee students in the UK, one participant shares about a "kind of racism...[where] some Muslims do something bad and lots of people think that all Muslims are the same" (p. 666). Adversario [56] echoes this when his participant Sabrina points out that Latinos in the US are stereotyped as being "only good for manual labor jobs" (p. 11). The risk of stereotype threat is prominent and often results in displaced students' avoidant behaviors and the use of silence to protect themselves, limiting students' opportunities to socialize and develop professionally [16], [56].

Mupenzi 2018 provides an example of Rwandan refugees in Uganda, for whom a key feature of their identity is having names in their ethnic language, Kinyarwanda. These students avoided being named in Kinyarwanda in the education system because it exposed them to ethnic discrimination in name-calling and exclusion, giving them more trouble than an advantage in social connectedness [52]. The additional effort required to bounce back from discrimination continually exhausts students and limits their participation in school. It is worth noting that this othering is also influenced by intersecting identities and embedded social phenomena like racism and sexism [18], [54], [73], [75], [92], [93].

As mentioned, for this review, othering as a barrier to professional identity development for displaced students is deeply intertwined with language and discourse; in Baker et al.'s [29] study of asylum-seeking students in Australia, the authors suggest this is because "the form of human capital that counts the most [for displaced students] is proficiency in the host language;" (p. 8) this resonates with Cortez et al.'s mention that linguistic capital is the most valuable for undocumented students investing in career options [94]. This may be due in part to Gee's [90] different ways of viewing identity; one way to do so is through discourse and dialogue and thus the recognition of self by significant others. In essence, one finds belonging in a group by talking to and about others through a dialogue aligned with the discourses of a given community. In addition to stereotyping, another way othering through discourse manifests itself in this review is in language discrimination [38].

Displaced students face hegemony of certain languages in resettlement contexts that results in institutional structures favoring students speaking a dominant language [12] and the perception that non-native speakers with accents are incapable [56], [75]. A common example of this across multiple studies of displaced teaching higher education students was the expectation student-teaching programs had for native-like English; in Varghese and Snyder's [76] study, they discuss the presence of dominant language ideologies that are primarily monoglossic in orientation, posing bilingualism as additive and disregarding a more fluid perspective of language around trans-language. In other studies, authors pose that this expectation of native-like English means that non-native accents are viewed as a signal of incompetence and that non-native speakers are patronized and devalued [60]. This otherness and discrimination from students and educators alike turn into these displaced teaching students feeling conscious about their English; Fotovatian [84], in their study of Iranian students in Australia, notes that displaced students are newcomers to a community who "always feel like outsiders, under pressure to do the right thing, say the right thing, and behave in the right way to help them get inside the circle." (p. 6). The experience of language discrimination is not unique to internationally displaced students; in Wang's [5] study of within-country displacement in China due to fast-paced urbanization, displaced students from more rural areas also experienced a lack of confidence in speaking with urban peers due to their accents and differing communication micro-practices.

This is concerning because as displaced students face language discrimination and othering, they tend to withdraw, avoiding stressful conversations and distancing themselves from their bilingual identities and cohort [12], [74], [84]. In terms of professional identity development, language discrimination impacts students' abilities to establish networks within their second language community and to find a professional discourse internally persuasive [14]. This means that while students need to feel confident in their ability to communicate effectively within their profession to develop a sense of belonging and pursue educational goals, displaced students in this review are often insecure in their professional identities [28].

Ultimately the presence of othering through discourse does not stop at the displacement experience alone; it reverberates through research on displaced student experiences as well. Houghton and Morrice, in

their study of asylum-seeking students, bring forward the tendency in the literature to focus on displaced students' individual deficits despite evidence of their agency [28]. Other authors amplify this concern and note that often research on displaced students' professional identity development focuses on a delineation of barriers at the expense of overt mention of the positive contributions students make in navigating these challenges [50], [53]. The risk of doing this is putting the onus of survival completely on displaced students themselves instead of the institutions designed to support them; resilience is not a trait that people do and do not have, but rather a practice developed over time that is influenced by contextual factors [96].

1) *Othring Through Discourse in Engineering*: Othring through discourse in engineering is layered and associated with the profession's domination by white, male, elite, English-speaking engineers and their ways of thinking, doing, and communicating [77], [79], [97], [98], [99]; since engineering has traditionally been a profession of these people, there are features of the discourse used in the field that privilege white, male, elite, English-speaking students, putting many displaced students at a disadvantage [75]. An example of this is found in [100] Tonso's 1996 study, where they found that discourse in engineering classrooms indicates and reinforces cultural norms of engineering that are rarely open to revision; their results suggest that profanity in the classroom, semi-sexual, double-entendre humor, and violent metaphors serve to dictate culturally appropriate speech in engineering and to set the tone of a class at the detriment of students who do not fit the engineering archetype in terms of using such casual and graphic language in professional settings. It is often difficult for these students to develop a professional identity that is aligned with the engineering profession in these ways.

In Dutta's [27] study on international female engineers in the US, the author provides two illustrative examples of othring through discourse. One student, Alice, remarks that as the lone female member of her project team, she felt uncomfortable with the loud and argumentative conversations the men in her team would have during meetings. She felt her participation depended on how loud she could be, keeping her from getting her points across the table, and restricting her definition of what a professional engineer should be. While Alice experienced exclusive discourses from peers, another student, Sarah, provided an example of the way her institution othred her through discourse. Sarah told the author that her being a woman and from another country positioned her as a representative of the diversity in communication strategies within the engineering school; she had mixed feelings though because these representations were more about her documentation status and her womanhood than about her capabilities as an engineer. Here othring through discourse is perhaps more subtle; Sarah is made to feel like an outsider because of the tokenization she experiences through the university's advertising scheme.

Both of these examples point to the ways in which the engineering profession specifically others displaced students through language; it also highlights the idea that communication is central to engineering work. Ingram et al. [35] mention that within the engineering profession, linguistic capital is seen as a person's ability to write emails, give presentations, persuade and influence others, handle conflict, and interact with colleagues, supervisors, and clients. These parts of engineering work are all socially embedded based on the norms of the profession that other displaced students; a lack of understanding of the discourse of the field translates to a lack of belonging.

Helpful Practices for Othring Through Discourse: Research-recommended practices related to othring through discourse as a barrier to displaced student professional identity development first respond to discrimination towards displaced people and the homogenous, stigmatized rhetoric around migratory experiences. In response, scholars recommend reframing conversations about

differences in schools, to ones where diversity is posed as an asset to the community and the climate celebrates all students' unique "aspirational, linguistic, familial, social, navigational, and resistance capital through strength-based socialization and mentoring practices" [38 p. 419]. In these environments, the backgrounds and capital students bring to school with them are positioned positively instead of with the deficit lens that looks for the ways in which displaced students stray from the norm. In line with this practice are Houghton and Morrice's [28] recommendations for raising staff awareness around what constitutes racism and the ways in which bias, microaggressions, and stereotype threats impact individuals within their schools. Doing so represents a necessary first step towards inclusivity in a resettlement institution.

In addition to embracing diversity, researchers recommend that resettlement institutions embrace multilingualism as support to displaced students' professional identity development. Specifically, instructors need to be aware of the discourses they use themselves that can either hold back or offer possibilities to displaced students' identity construction; to disrupt authoritative discourses, instructors must create opportunities for displaced students to make meaningful connections between their experiences and the course content [14]. This can come in the form of classes offered more regularly in different languages and the optionality of translators in a classroom where needed. Other examples include chances for students to work on projects that allow them to mesh both their professional and displacement identities. Researchers in this review note the need to additionally increase the normality of other languages on campus; Varghese and Synder [76] suggest that institutions need to value the multilingual resources of displaced students on their campuses, and Massing [14] notes that programs should acknowledge the validity of multiple polyphonic voices. Doing so helps establish the legitimacy of these languages in professional environments. stereotype threats impact individuals within their schools.

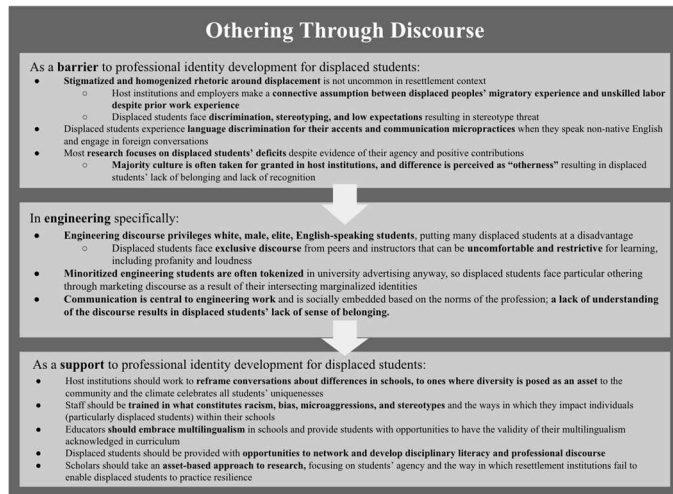
That said, since many of the job opportunities displaced students intend to apply for after graduation are usually monolingualistic and English-speaking specifically, displaced students need to also be afforded opportunities to learn the micro-practices of communication within their job community and to network in professional communities speaking both English and their first-languages. Scholars suggest resettlement institutions provide opportunities to attend conferences and other networking events, to present on work and receive feedback, and to practice written communication in the form of emails, meeting minutes, and technical letters as support to displaced students' professional identity development [27], [35]. Other than offering students opportunities to develop their disciplinary literacy, institutions should also ensure that culturally appropriate language is being used in the classrooms teaching students to develop their linguistic authority within their profession. Particularly in engineering, the use of crude and graphic language serves to make some students uncomfortable and unable to adopt the professional discourse within a community fully.

The final set of recommendations relates to the notion that research on displaced students' experiences often take a deficit-based approach, neglecting students' agency and the ways in which institutions fail to enable displaced students to practice resilience. This barrier is supported by researchers' efforts to focus on students' assets and to make recommendations for educators instead of students themselves. Taking inspiration from recommendations in schools, helpful influences engaging in dialogue about the skills and experiences of displaced students and the idea that recognition should be based on concrete information instead of stereotype. Scholars recommend comprehensive skills assessment programs that focus on contextualized skills, experience, and qualifications based on recognition rather than the assumption of deficit [25]. Other supports include reframing students' supposed deficits as assets in research. For

example, Brazill [38] showed that while many framed students' language barrier as a deficiency, they challenged this and posed translanguaging as an asset to students' knowledge because they not only understand course content in one language but also according to the nuances of another, adding complexity to their understanding. McWhirter et al. [90] echo this and suggests that critical consciousness can help scholars understand the strengths and assets of cultural groups as well as the role systematic inequities play in the assessment of skillsets. A key feature of these recommendations is that they place the onus on institutions and scholars to ensure the success of displaced students, not the students themselves.

FIGURE 3

OTHERING THROUGH DISCOURSE AS A BARRIER, IN ENGINEERING, AND AS A SUPPORT



IV. DISCUSSION

The findings from this review point to three key types of salient barriers and associated supports to displaced higher education student professional identity development in response to RQ 1-- that of identity invisibility, pressure, and othering through discourse. Figures 1-3 highlight these barriers and supports in more detail, but in sum, displaced students face challenges with the homogenization of displacement experiences, the pressure to succeed and to fulfill multiple roles, and language discrimination. In response to RQ2, this review also shed light on the disciplinary nuances of engineering that exacerbate these professional identity development experiences of displaced students. Findings include that the culture and historical background of engineering challenge displaced engineering students' professional identity development in ways that are qualitatively different from their non-engineering peers.

Key recommendations for ensuring displaced engineering student professional identity development include enrollment and tracking information process changes in resettlement schools and host countries, the recognition of displacement identities in classrooms, opportunities for paid work in school, flexible schedules, recognition of non-traditional students in career counseling, consideration for the sources of and need for hardness in curricula, creating celebratory conversations about difference, avoiding graphic language, providing opportunities to learn disciplinary communicative practices, and reframing research findings in terms of student agency and the ways in which institutions impact resilience.

These supports and barriers and the ways in which challenges are exacerbated by engineering-education-specific contexts highlight the need for future disciplinary-specific studies of displaced student

experiences. This will allow for disciplinary-specific needs to be considered when creating curriculum that is truly inclusive of displaced students and effective in aiding in their professional development.

These themes are ultimately the start of a larger study categorizing the contextual influences of professional identity for displaced students and characterizing them as either supports or barriers to provide institutions with recommendations for supporting their displaced students. Future work will entail characterizing the remaining 6 categories of influences on displaced student professional identity development. Additionally, responding to the need for a shift towards asset-based literature in this space, future studies will explore student agency in these contexts and continue to pose institutional recommendations instead of ones aimed at students themselves, putting the onus of survival on schools.

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