

## Perceptions of Academic Supports for Indigenous Nursing Students

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### Abstract

**Given the gap in rates of completed education between Indigenous students and non-Indigenous students and the need for more Indigenous nurses, support for Indigenous nursing students is imperative for their academic success. In this paper, a scoping review of the literature was conducted to summarize student and academic staff perceptions of support services for Indigenous nursing students, identify common themes about barriers and supports and determine gaps in the research for future exploration. The findings suggest that facilitative factors such as individual supports, the learning environment, financial supports and student characteristics all play a role in the academic success of students. Another facilitative factor is the collaborative relationships between various support services. Stressors, health, institutional racism and feelings of shame and self-doubt are some barriers students must overcome. Within the larger context, students' pre-university educational experience, the academic environment and program characteristics may impact the effectiveness of support services. More research is needed to seek Indigenous nursing students' feedback on how academic support service providers like librarians, learning services instructors and nursing faculty student advisors can collaborate to provide seamless, holistic, continuous support throughout the students' education journey, and to investigate the reasons why Indigenous nursing students do not utilize available supports.**

**Keywords:** Indigenous, Aboriginal, students, supports, success, nursing

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### Introduction

#### Background

The gap in rates of completed education between Indigenous and non-Indigenous people, due in part to colonial governmental policies such as the residential school system, which deprived Indigenous students of their culture, has resulted in social, health, educational and economic inequalities ("Residential Schools in Canada Education Guide," n.d., Truth and Reconciliation Commission of Canada, 2015; Union of Ontario Indians, 2013). Despite various attempts by federal and provincial governments to address these disparities, government funding to First Nations schools remains lower in comparison to provincial schools (Assembly of First Nations, n.d.; Assembly of First Nations, 2011, Axworthy & DeRivierre, 2015; Harper government helps to provide Indigenous students at Nunavut Arctic College with tailored post-secondary skills and training, 2015; Assembly of First Nations, n.d.; Assembly of First Nations, 2011; Harper government Nunavut; Harper government Saskatchewan;

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Harper government Six Nations; Saskatchewan's postsecondary schools, 2015).

Given that Canada's First Nations, Métis and Inuit people are in poorer health compared to non-Indigenous people, with higher incidences of chronic conditions, smoking rates and obesity rates (Statistics Canada, 2015), the recruitment and retention of Indigenous students in the field of healthcare is an important issue to address because these future healthcare professionals will, ideally, return to their home communities and provide culturally appropriate care for those in need (Pugh et al., 2018).

The University of Saskatchewan has attempted to improve the recruitment, retention and graduation rates of Indigenous nursing students by creating a program called the University of Saskatchewan Community of Aboriginal Nursing (UCAN), with the goal of addressing the Indigenous nursing shortage in the province (Bautz, 2013). The University of Regina and Saskatchewan Polytechnic (formerly the Saskatchewan Institute of Applied Science and Technology), developed the Saskatchewan Collaborative Bachelor of Science in Nursing (SCBScN) program in their attempt at recruitment, retention and graduation of Indigenous nursing students to meet the health needs of the province's Indigenous population (Bautz, 2013). The SCBScN program ensures that 16% of the seats are equity seats and that the program has Indigenous student advisors and supports in place for Indigenous students (Bautz, 2013).

Foxall (2013) examined the literature on recruitment and retention of nursing students in the context of Maori nursing students and found that barriers to recruitment include students' lack of understanding about the healthcare profession and having a poor sense of self-efficacy. The enrolment process and institutional culture also presented barriers to students (Foxall, 2013). Other

retention barriers include racism, financial costs and a lack of educational success in elementary and high school (Foxall, 2013). Some students were also caring for children and had family obligations that made it difficult to move away to pursue postsecondary education (Foxall, 2013). Subsequently feeling isolated at school was another stressor hindering their academic pursuits (Foxall, 2013). To address these barriers, Foxall (2013) suggested the following five strategies: 1) Offer better support for students; 2) Promote healthcare as an industry within which to work; 3) Offer transitional educational programs; 4) Provide financial and housing support; 5) Address students' separation from their families and communities.

Nursing programs need not only recruit and retain Indigenous nursing students, but also recognize Indigenous knowledge within the curriculum and train culturally competent practitioners (Canadian Nurses Association, 2014). The Canadian Indigenous Nurses Association (formerly the Aboriginal Nurses Association of Canada (2009)), stressed the importance of providing a safe learning environment by being culturally sensitive and culturally competent in instruction in order to improve retention rates.

Gorman (2017), reflecting on his experience as an Indigenous nursing student from Australia, described the barriers and challenges he faced when he was enrolled in his nursing program. He found that his lack of awareness and experience with university life, academic requirements and the cost of education were challenges. However, an Aboriginal Education and Research Institute at his university provided him with a sense of community. The institute offered financial, emotional and academic support such as writing and mathematics tutoring, career advice, accommodation subsidies, a place to study and other funded resources.

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**\*Review papers** are papers that provide a balanced synopsis of the current literature within a specific area of inquiry. These papers summarize the literature comprehensively, but also identify outstanding questions and areas for future inquiry.

Dr. David Paul (2013), a health expert with the Centre for Aboriginal Medical and Dental Health, described the University of Western Australia's efforts at recruiting, retaining and graduating Australian Indigenous health sciences students. The university has a strong high school program, creates alternative educational pathways into the program, has individually tailored pathways for each student and provides comprehensive and ongoing support programs. Pidgeon (2014) has postulated that institutions have a responsibility to design and implement policies, programs and services that meet the needs of Indigenous students by providing holistic support services throughout their tenure at the institution.

### **Institutional Context and Rationale**

At Saskatchewan Polytechnic, Indigenous student success includes recruitment and retention of Indigenous students, successful completion of their programs and having Indigenous students and staff and their culture reflected throughout the institution (Saskatchewan Polytechnic, 2018). The Indigenous Success Strategy at Saskatchewan Polytechnic for students in all programs includes access to the Indigenous Students' Centre, which provides a place to study and to socialize, Elders who provide guidance and support, financial support through scholarships and bursaries and a summer transition program ("Indigenous Student Success Strategy," n.d.). Academic support for Indigenous nursing students includes assistance from Learning Services instructors, a nursing liaison librarian, and an Indigenous nursing student advisor who is a member of the nursing faculty. Learning Services at Saskatchewan Polytechnic offers skill development in math, communication, writing, study methods and exam writing to individuals or small groups ("Learning Services," n.d.). Nursing liaison librarians provide information literacy skill instruction and American Psychological Association referencing style support on an individual, group or classroom level. The nursing student advisor supports Indigenous students in their transition to the postsecondary learning and living environments through the implementation of the Saskatchewan Polytechnic

Indigenous Nursing (SPIN) program. The SPIN program fosters student success by providing academic, personal, financial and cultural supports. Resources include access to computers and a kitchen, as well as cultural, educational and recreational workshops and activities such as smudging ceremonies and soup and bannock lunches ("Indigenous Students' Resources," n.d.).

As academic staff in the areas of learning services, the library and program advising, we wanted to investigate how our three areas of academic support could collaborate in order to provide seamless service to Indigenous nursing students throughout their academic careers. To begin, we felt it was necessary to understand the perceptions of both Indigenous nursing students and the academic staff that provide these support services to them. The aim of this paper is to provide a scoping review of the research that has been conducted on the topic of Indigenous nursing student perceptions and academic staff perceptions of support services. We also aimed to identify common themes found in the relevant literature, and determine gaps in the research for future exploration.

While the term "Aboriginal" is the collective noun used in the Canadian Constitution Act, 1982, the authors of this article have chosen to use the term "Indigenous" in place of "Aboriginal" to describe the First Peoples of Canada, which include First Nations, Inuit and Métis Peoples (Indigenous Corporate Training Inc., 2016). We have replaced "Aboriginal" with "Indigenous" throughout the paper except in direct quotations and in any cited sources.

## **Method**

### **Scoping Study Framework**

In general, the purpose of a scoping study is to identify and map current knowledge on a particular topic from the literature (Levac et al., 2010). A variety of research methodologies and various types of research articles may be included in scoping studies. This flexibility for article inclusion from the scoping review methodology allows researchers to comprehensively grasp knowledge that exists on the topic because it allows for a developmental and intellectually creative process (Davis et al., 2009).

As Davis et al. (2009) note, “Scoping gives meaning to the ‘what’ and ‘why’ explanations of an inquiry” (p. 1387).

Some common reasons for conducting a scoping study may be “to examine the extent, range, and nature of research activity, to summarize and disseminate research findings, or to identify research gaps in the existing literature” (Arksey & O’Malley, 2005, pp. 6-7). This paper attempts to do all of the above, using the framework originated by Arksey and O’Malley (2005), with refinement by Levac et al. (2010) as displayed in Table 1.

### The Search Strategy

We conducted a keyword search, looking for articles about “Indigenous nursing student” or “academic staff perception of support services.” The selected terms were searched in the title, abstract or subject term section of

the article in relevant databases to which our institution subscribes: Academic Search, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Education Source, Library, Information Science and Technology Abstracts (LISTA), Medline and PsyArticles (see Table 2).

The first search for articles about “Indigenous student” or “academic staff perception of support services” resulted in 43 peer-reviewed articles published between 2012 and 2018. When a broader search was performed, dropping the term “perception” and looking for articles with the terms “Indigenous nursing students” or “staff and support services”, 83 peer-reviewed articles published between 2012 and 2018 appeared. We did not search for articles older than 2012 to keep research current.

**Table 1**

**Scoping Review Framework**

Arksey & O’Malley’s (2005) framework (pp. 8-9)	Levac et al. (2010) recommended changes (p. 4)
Step 1: Identify the research question	<ul style="list-style-type: none"> <li>• Articulate a research question.</li> <li>• Identify purpose of scoping study</li> </ul>
Step 2: Identify relevant studies	<ul style="list-style-type: none"> <li>• Identify inclusion and exclusion criteria based on the research study</li> </ul>
Step 3: Study selection	<ul style="list-style-type: none"> <li>• Use at least two reviewers to independently review the abstract and then the full articles before deciding to include or exclude an article</li> <li>• For disagreements, have a third reviewer decide</li> </ul>
Step 4: Chart the data	<ul style="list-style-type: none"> <li>• Develop a data abstraction form and have at least two authors extract data from the article</li> </ul>
Step 5: Collate, summarize, and report the results	<ul style="list-style-type: none"> <li>• Describe the numeric summary analysis and qualitative thematic analysis</li> <li>• Report on the outcome of the studies as it relates to the research question</li> <li>• Consider the meaning as it relates to the research question</li> </ul>
Step 6: Consultation (optional stage)	<ul style="list-style-type: none"> <li>• Establish a purpose for consultation and identify stakeholders</li> </ul>

**Table 2****Search Strategy**

Indigenous	Nursing Students	Perception	Supports
Metis or Inuit, Aboriginal or Native or Indigenous or American Indians or First Nations or Maori or Eskimos	nursing students or student nurses or undergraduate student nurses or practical nursing students	perceptions or attitudes or opinion or experience or beliefs	supports or success or achievement or performance or advisor or advising or retention

**The Screening Process**

The first stage of the screening process consisted of the librarian examining the combined 126 articles and selecting relevant articles based on the selection criteria (see Table 3). At the end of this first stage of the screening process, 27 articles were selected after the exclusion criteria were applied to the 126 articles found.

The second stage of the screening process included all three members of the research team separately reading the abstracts of the 27 articles selected by the librarian to decide which should be included or excluded from the study based on the inclusion/exclusion criteria. The team members then met as a group to come to a consensus. There was agreement on 17 of the articles based on reading the abstract (16 articles to be included

and one to be excluded), but there were 10 articles where the team could not decide if they should be included or excluded. These articles needed to be read in full before they could be definitively selected. The third stage of the screening process encompassed each of the three team members reading the 26 articles in full, completing a data abstraction form in order to evaluate if the article should be included or excluded, and then meeting as a group to reach a consensus on inclusion or exclusion. Articles were excluded if they were not about Indigenous nursing students' perceptions or academic support staff perceptions of the support services that were being offered. At the end of this three-stage article selection process, nine articles were included for analysis in this scoping review.

**Table 3****Article Selection Criteria**

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> <li>· Articles containing the keywords in the title, abstract, or subject terms section of the article</li> <li>· Articles published after 2011</li> <li>· Articles that are peer-reviewed</li> <li>· Research articles (all research methodologies and type of research article were considered)</li> </ul>	<ul style="list-style-type: none"> <li>· Articles that do not contain any of the keywords in the title, abstract or subject terms section of the article</li> <li>· Articles older than 2012</li> <li>· Articles that are not peer-reviewed</li> <li>· Commentary, editorials, or book reviews</li> </ul>

## Results

### Overview of the Articles Summarized

A summary of the articles included in the scoping review can be found in Table 4.

Of the nine articles selected for inclusion based on our criteria, six were from Australia (Best & Stuart, 2014; Slayter et al., 2016; Stuart & Gorman, 2015; West et al., 2016; West et al., 2013; West et al., 2014), one was from Canada (Edgecombe & Robertson, 2016), and two were from the United States (Ferrell et al., 2016; Rearden, 2012).

In terms of research methodology, two articles described the program the authors were investigating (Best & Stuart, 2014; Edgecombe & Robertson, 2016). Three studies interviewed participants or had focus groups (Stuart & Gorman, 2015; West et al., 2016; West et al., 2014). Three studies used mixed methods (West et al., 2013; Slatyer et al., 2016; Ferrell et al., 2016), one study used a survey (Rearden, 2012), and three studies incorporated an Indigenous approach to research (Best & Stuart, 2014; West et al., 2016; West et al., 2014).

**Table 4**

#### Article Summary

Study	Research Question	Setting	Participants	Methodological Design	Tests Theories Used
Best & Stuart (2014)	Describes the educational experiences of Indigenous nursing and midwifery academics at a university and their efforts with the recruitment and retention of Indigenous students	Australia	Indigenous nursing and midwifery academics (does not clarify further)	Program description	Indigenous nursing support model: Helping Hands (five step process aimed at recruitment and retention)
Edgecombe & Robertson (2016)	Describes the educational experiences of Inuit students and staff at a college nursing program	Canada	Inuit students and academic staff	Retrospective reflection article	None identified
Ferrell, Decrane, Edwards, Foli, & Tennant (2016)	Examines factors that contribute to the success of minority nursing students	United States	Self-reported minority students at two institutions (four Native American students participated)	Mixed methods (survey and short answers)	Minority Student Nurse Questionnaire
Rearden (2012)	Examines what elements of the recruitment and retention of Alaska Natives into nursing program (RRANN) enabled educational success	United States	Self-identified Alaska Natives nursing graduates	Program description based on a survey	None identified

Study	Research Question	Setting	Participants	Methodological Design	Tests Theories Used
Slatyer et al. (2016)	Describe barriers and enablers to the retention of Indigenous students in diploma nursing program	Australia	Recent Indigenous nursing graduates and enrolled nursing students	Survey and focus group	None identified
Stuart & Gorman (2015)	Reports on the educational experiences of Indigenous nursing students	Australia	Indigenous nursing students	Individual and focus group interviews	None identified
West et al. (2016)	Describe Indigenous nursing students' educational experiences	Australia	Indigenous nursing students enrolled in the final year of a pre-registration nursing program	Semi-structured interviews	Dadirri approach encompassing practices associated with community, reciprocity, reflectivity and trustworthiness
West etl. (2013)	Investigates Indigenous students' participation in pre-registration in nursing courses and explores factors relating to successful program completion	Australia	Indigenous nursing students and academics from four universities	Mixed methods (examines statistics related to commencement, attrition, progression and completion rates) and interviews	None identified
West et al. (2014)	Explores academic staff perceptions of factors enabling successful course completion by Indigenous students	Australia	Indigenous and non-Indigenous academic staff working with Indigenous nursing students (academic staff included: program heads, advisors, coordinators and those in student support roles)	In-depth, semi-structured interviews	Indigenist approach: respectful of Indigenous knowledge, culture and beliefs

Four of the articles focused on the perception of Indigenous nursing students (Ferrell et al., 2016; Rearden, 2012; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2016), while three articles focused on both the perceptions of academic staff and Indigenous nursing students (Edgecombe & Robertson, 2016; West et al., 2014; West et al., 2013), and one article focused solely on the perceptions of academic staff (Best & Stuart, 2014).

### **Common Themes**

Common themes emerged regarding contributing factors and barriers to Indigenous nursing students' remaining in the program and graduating (see Table 5). These are described in detail below.

### **Facilitating Factors to Academic Success**

#### ***Collaborative Relationships***

Best and Stuart (2014) highlighted the importance of having a strong partnership between the Indigenous education unit at their university and the faculty of nursing

and midwifery in order to support student success. The partnerships between different support services may provide more holistic support to Indigenous nursing students (West et al., 2014). The relationship between Indigenous and non-Indigenous academics providing student support is also an important factor in Indigenous nursing students' experiencing success (West et al., 2016). West et al. (2013) found that "the third most enabling factor of Indigenous nursing student success was creating sustainable relationships, connections and partnerships at the university, in the family and in the community" (p. 131). Slatyer et al. (2016) also emphasized the importance of Indigenous nursing students' having a positive relationship with staff, family and the community as key to their success.

West et al. (2014) found that relationships and partnerships that facilitated Indigenous nursing students' success included collaborations between the school of nursing and Indigenous support services as well as

**Table 5**

### ***Facilitative Factors and Barriers to Success***

<b><i>Facilitative Factors</i></b>	<b><i>Barriers</i></b>
<ul style="list-style-type: none"> <li>• Collaborative relationships between programs, services, students and Indigenous student centres</li> <li>• Financial support</li> <li>• Peer support</li> <li>• Academic support</li> <li>• Family support</li> <li>• Personal support</li> <li>• Community support</li> <li>• Learning environment (students' relationships with faculty members)</li> <li>• Program design (bridging programs, different entry pathways, Indigenization of the curriculum etc.)</li> <li>• Cultural awareness of Indigenous issues</li> <li>• Life experiences in dealing with problems and expectations</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural expectations</li> <li>• Shame</li> <li>• Mental and/or physical health</li> <li>• Workload</li> <li>• Family stressors</li> <li>• Work stressors</li> <li>• Self-doubt</li> <li>• Racism</li> <li>• Financial constraints</li> </ul>

Indigenous nursing students' relationships with other students, academics, the university community and the healthcare industry. West et al. (2016) suggest the importance of relationships and role of the community impacts Indigenous nursing students' ability to stay enrolled in the program: "[H]aving affirming and supportive relationships with peers, family, the community, and culturally appropriate support at university was particularly important" (p. 351).

### **Individual Supports**

For the individual Indigenous nursing student, peer supports played an important role in their success (Best & Stuart, 2014; Slatyer et al., 2016; Rearden, 2012; West et al., 2016) as did family support (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015; Rearden, 2012; West et al., 2016; West et al., 2014). Academic supports that offered to meet their individual needs were also perceived to be helpful by Indigenous nursing students (Best & Stuart, 2014; Edgecombe & Robertson, 2016; Ferrell et al., 2016; Rearden, 2012; Slatyer et al., 2016; Stuart & Gorman, 2015).

### **The Learning Environment**

Indigenous nursing students valued nursing faculty members' relationships with them and viewed those relationships as being supportive as they serve as role models, mentors and tutors (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015). The flexibility of nursing programs in having pre-registration programs, bridging programs or different educational pathways also supported Indigenous nursing students to stay in the program (Best & Stuart, 2014; Edgecombe & Robertson, 2016; Ferrell et al., 2016). As well, the cultural awareness and sensitivity of the university community towards Indigenous issues positively impacted student success (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2016).

### **Financial Support**

Providing financial assistance such as grants, scholarships or stipends to Indigenous nursing students was a common theme in many of the articles, and they viewed it as being

helpful to them in continuing their education (Best & Stuart, 2014; Edgecombe & Robertson, 2016; Ferrell et al., 2016; Rearden, 2012; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2016).

### **Student Characteristics**

Personality traits that may help Indigenous nursing students persevere throughout the length of their programs include confidence (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2013), resilience (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2016; West et al., 2013) and determination (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2016). Being motivated and committed to the program also bolstered Indigenous nursing students' perseverance (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2013; West et al., 2014). In addition, students' life experience, such as prior academic experiences, study and time management skills, helped them cope with the stress and expectations of academic life (Edgecombe & Robertson, 2016; Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2016; West et al., 2014).

Having Indigenous nursing student advisors may facilitate students' having positive relationships with those who can serve as role models or mentors (Best & Stuart, 2014; Stuart & Gorman, 2015; West, et al., 2016). Students also viewed their Indigeneity as being an important aspect of their identity and their educational experience (West et al., 2016).

Aside from support services, program design, and student characteristics, the educational institution can play an important role in facilitating the academic success of Indigenous nursing students by instituting policies to ensure the existence of systems and structures that support Indigenous nursing students (Stuart & Gorman, 2015; West et al., 2013; West et al., 2014).

### **Barriers to Graduation**

Sources of stress for Indigenous nursing students include the pressure they place on themselves to succeed, not

only for themselves but for their communities (Edgecombe & Robertson, 2016); their families' expectations (Edgecombe & Robertson, 2016; Stuart & Gorman, 2015), and the demands of working outside jobs (Stuart & Gorman, 2015). Another factor that impacts their ability to continue in nursing programs includes the status of their mental and physical health (Edgecombe & Robertson, 2016; Ferrell et al., 2016). Indigenous nursing students also encounter institutional racism during their educational experience, which is also a barrier to remaining in the nursing program (Slatyer et al., 2016; Stuart & Gorman, 2015; West et al., 2016; West et al., 2013). Student characteristics that may hinder the ability to succeed include feelings of self-doubt (Edgecombe & Robertson, 2016) and a sense of shame (Edgecombe & Robertson, 2016; Slatyer et al., 2016).

Choosing not to access available support services may also be a barrier to Indigenous nursing students' academic success. For example, Ferrell et al. (2016) found that only 32% of Indigenous students in a variety of programs accessed tutoring services and only 5% of students accessed formal mentoring services. Ferrell et al. (2016) concluded that most had not used a vast array of support services available to them. Rearden (2012) found that of the support services that Indigenous nursing students used, the students were most satisfied with the student success facilitator, financial stipend and social-cultural outings. West et al. (2016) observed that "in order for support to be useful, participants had to choose to accept it, and to use it as and when needed" (p. 352).

## Discussion

Anderson (2011) and Raman (2013) found that psychological and emotional factors can facilitate or hinder Indigenous nursing students' perseverance, therefore how academic staff relate, interact, and form relationships with students may influence their feeling of being supported. This is congruent with our findings that the collaborative relationship between faculty and Indigenous nursing students plays an important role in facilitating their academic success. Smith et al.,

(2011) did a literature review on Indigenous recruitment and retention in nursing education and found only 17 primary research articles on the topic. Indigenous nursing students' pre-university preparation, experiences with transitioning to university, social-cultural needs, financial needs, and personal characteristics shape the type of support services that they may need (Smith et al., 2011). This is similar to our findings, as multiple factors influence students' continuation and graduation from the nursing program: the learning environment, financial needs, student personality characteristics, life experiences and prior academic experiences.

Paul (2013) has advocated for an Indigenous health curriculum within medical and dental health education in the context of a safe learning environment as well as institutional anti-racist strategies to support these non-nursing Indigenous students. While our results did not identify the need for an Indigenous health curriculum, it did identify that racism is a source of stress for Indigenous nursing students and is a barrier to their academic success. Foxall's (2013) literature review on the recruitment of Maori nursing students had similar findings in that the barriers to retention were racism, cultural safety, academic preparation and experience prior to university, financial constraints, family obligations, and family support (Foxall, 2013) thus echoing our findings.

Beyond available support services, issues such as the cultural competence of nursing faculty (Lane & Petrovic, 2018; Milne et al., 2016; Rowan et al., 2013; Wilson et al., 2011; Zeran, 2016.), the Indigenization of the nursing curriculum or program (Green, 2016; Moffitt, 2016; Thurston & Mashford-Pringle, 2015; Stansfield & Browne, 2013; Patterson et al., 2017), and creative programming in terms of different pathways to graduation (Martin & Sequire, 2013) all have the potential to influence Indigenous nursing students' perception of supports. These findings speak to the learning environment's impact on students' academic success and through our study, we found that the learning environment can shape students' perceptions of being supported.

Indigenous nursing students appear to have similar perceptions as non-nursing Indigenous students when it comes to facilitators and barriers to their academic success. In an effort to understand non-nursing Indigenous students' perceptions of support services, an inter-professional team of faculty researchers from social work, nursing, physical education and justice studies interviewed Indigenous students from a variety of programs and found that factors leading them to feel supported were a result of the following services: Indigenous-centred education programs, which offered individualized services in the form of cultural and spiritual advising, counselling, tutoring and having access to a computer resource laboratory, along with peer support (Gallop & Bastien, 2016). Supportive teaching strategies such as positive instructor feedback and clear expectations from faculty members empowered Indigenous students, while negative or critical feedback was one reason they stated for dropping out or for course failure (Gallop & Bastien, 2016). This supports our finding that having collaborative relationships between faculty and students as well as between the nursing program and other support services may result in nursing and non-nursing Indigenous students feeling more supported.

According to Rochecouste et al. (2017), the perceptions of academic staff on the impact of support services for both Indigenous nursing students and non-nursing Indigenous students was similar. They found that while there is diversity within the Indigenous student population, Indigenous nursing students' perceptions of the value of support services were similar to those of non-nursing Indigenous students (Rochecouste et al., 2017). This suggests that support strategies for nursing and non-nursing Indigenous students can be similar. The services that were perceived to be helpful to all Indigenous students, nursing or otherwise, by the academic staff included the following: Indigenous student centres located in their institution, bridging programs, access to tutors, computer laboratories and study space, as well as counselling services (Rochecouste et al., 2017). This indicates that library services can play an important role in students' academic success as it pertains to having

computer laboratories and having a study space in which students can work (Gallop & Bastien, 2016; Rochecouste et al., 2017). Cultural sensitivity and cultural competence in teaching were also believed to be important factors when working with nursing and non-nursing Indigenous students because they inform the instructional and relationship practices of faculty and staff (Rochecouste et al., 2017). We also found that faculty's cultural awareness and sensitivity of Indigenous issues had an impact on Indigenous nursing students' perception of being supported. Both nursing and non-nursing Indigenous students also need time to care for their extended family members and time to devote to their academic studies, and both of these groups have financial concerns (Rochecouste et al., 2017). Thus, our findings focused on Indigenous nursing students in particular align with those of Indigenous students more broadly.

Wilson et al. (2011) concluded that "understanding the experiences of Aboriginal and minority students is key to identifying factors that contribute to their retention in programs" (p. 71).

### **Gaps in the Research**

Missing from the current research on Indigenous nursing students' perceptions of support services is how they would like support services to collaborate in order to provide seamless, holistic, continuous supports throughout their academic careers. Patterson et al. (2017) found that non-nursing Indigenous students wanted more contact and ongoing contact with support services. As well, what prevents Indigenous nursing students from accessing support services and how those factors might be mitigated should be investigated. Research on the effectiveness of support services in Indigenous nursing students' retention and completion rates is also lacking, and there appears to be less research from Canada and the United States than from Australia and New Zealand.

The role of librarians in providing support to Indigenous nursing students or non-nursing Indigenous students as a separate service or in collaboration with other student support services is not captured in the

articles analyzed. A separate literature search (using the databases available at this institution) on how librarians or library services support Indigenous students across all programs in terms of information literacy instruction yielded no results, yet information literacy competency has the potential to impact Indigenous nursing students' academic performance because it is fundamentally linked to evidence-informed practice. How librarians provide culturally sensitive or culturally competent information literacy instruction also yielded no relevant results. Only 12 peer-reviewed articles published between 2012 and 2018 were found on the topic of how librarians or libraries served Indigenous students from all programs; six of those 12 articles investigated how to meet the collection needs of Indigenous students (Alexander, 2013; Kostelecky et al., 2017; Aase, 2017; Bishop et al., 2017; Bowers et al., 2017; Linton & Ducas, 2017); one article focused on archiving Indigenous languages materials (Thorpe & Galassi, 2014); and only three articles investigated Indigenous students' perceptions of the library (Hare & Abbott, 2015; Melançon & Goebel, 2016; Neurohr & Bailey, 2016). This indicates a lack of research on how librarians or libraries can meet the needs of Indigenous nursing or Indigenous non-nursing students and their perception of the quality of service they have received.

### Limitations

Scoping reviews lack a common definition (Levac et al., 2010) and a standardized approach (Davis et al., 2009), leaving room for interpretation as to purpose and methods. Another limitation is that our institution does not have a full suite of health sciences databases such as Scopus, Web of Science, Embase or Library and Information Science Abstracts (LISA), and hence we may be missing some relevant articles.

### Conclusions

The literature we reviewed outlines and explains many facilitators and barriers to Indigenous nursing students' success. Collaborative relationships, individual supports, the learning environment, financial supports and various student characteristics play a role in retention and

graduation rates. What appears to be lacking in the research, particularly in Canada, are the Indigenous nursing students' perceptions of the effectiveness of these supports and how support providers can collaborate to better meet the Indigenous nursing students' needs. Perhaps what is necessary is the decolonizing approach of involving students in participatory action research where they define, develop, and evaluate the effectiveness of the support services that are provided. Librarians, Learning Services instructors and Indigenous nursing advisors can be research partners with students to determine how academic support services can collaborate together to offer Indigenous nursing students comprehensive, wrap-around services.

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### References

- Aase, L. (2017). There is no view from nowhere: User experience research at the Center of Southwest Studies Library. *Collection Management*, 42(3/4), 139-158. <https://doi.org/10.1080/01462679.2017.1328324>
- Aboriginal Nurses Association of Canada. (2009). Cultural competence and cultural safety in nursing education. <https://cna-aiic.ca/en/on-the-issues/better-health/Aboriginal-health>
- Alexander, D. L. (2013). American Indian Studies, multiculturalism, and the academic library. *College & Research Libraries*, 74(1), 60-68. <https://doi.org/10.5860/crl-311>
- Anderson, L. (2011). A learning resource for developing effective mentorship in practice. *Nursing Standard*, 25(51), 48-56. <https://doi.org/10.7748/ns2011.08.25.51.48.c8661>

- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19-32. <https://doi.org/10.1080/1364557032000119616>
- Assembly of First Nations. (2011). Post-secondary education fact sheet. [https://www.afn.ca/uploads/files/education/22.\\_2011\\_afn\\_pse\\_fact\\_sheet.pdf](https://www.afn.ca/uploads/files/education/22._2011_afn_pse_fact_sheet.pdf)
- Assembly of First Nations. (n.d). Federal funding to First Nations schools' fact sheet. [https://www.afn.ca/uploads/files/2\\_-\\_fact\\_sheet\\_-\\_funding\\_first\\_nations\\_schools.pdf](https://www.afn.ca/uploads/files/2_-_fact_sheet_-_funding_first_nations_schools.pdf)
- Axworthy, L., & DeRiviere, L. (2015, September 21). Keeping Aboriginal youth in school. *Winnipeg Free Press* <https://www.winnipegfreepress.com/opinion/analysis/keeping-indigenous-youth-in-school-328464331.html>
- Best, O., & Stuart, L. (2014). An Aboriginal nurse-led working model for success in graduating Aboriginal Australian nurses. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 48(1), 59-66. <https://doi.org/10.1080/10376178.2014.11081927>
- Bautz, S. (2013, May 06). Aboriginal success strategies effective for Aboriginal nursing students. <http://nationtalk.ca/story/aboriginal-success-strategies-effective-for-aboriginal-nursing-students-regina-leader-post>
- Bishop, N., Pringle, J., & Tsosie, C. (2017). Connecting Cline Library with tribal communities: A case study. *Collection Management*, 42(3/4), 240-255. <https://doi.org/10.1080/01462679.2017.1359717>
- Bowers, J., Crowe, K., & Keeran, P. (2017). "If you want the history of a white man, you go to the library": Critiquing our legacy, addressing our library collections gaps. *Collection Management*, 42(3/4), 159-179. <https://doi.org/10.1080/01462679.2017.1329104>
- Canadian Nurses Association. (2014). Aboriginal health nursing and Aboriginal health: Charting policy direction for nursing in Canada. <https://cna-aiic.ca/en/on-the-issues/better-health/Aboriginal-health>
- Davis, K., Drey, N., & Gould, D. (2009). What are scoping studies? A review of the nursing literature. *International Journal of Nursing Studies*, 46(10), 1386-1400. <http://doi.org/10.1016/j.ijnurstu.2009.02.010>
- Edgecombe, N., & Robertson, A. (2016). The Nunavut nursing program: A retrospective reflection. *Northern Review*, 43, 83-103. <http://journals.sfu.ca/nr/index.php/nr/article/view/594>
- Ferrell, D. K., Decrane, S. K., Edwards, N. E., Foli, K. J., & Tennant, K. F. (2016). Minority undergraduate nursing student success. *Journal of Cultural Diversity*, 23(1), 3-11.
- Foxall, D. (2013). Barriers in education of indigenous nursing students: A literature review. *Nursing Praxis in New Zealand*, 29(3), 33-39. <http://www.nursingpraxis.org/293-barriers-in-education-of-indigenous-nursing-students-a-literature-review.html>
- Gallop, C. V., & Bastien, N. (2016). Supporting success: Aboriginal students in higher education. *Canadian Journal of Higher Education*, 46 (2), 206-224. <http://journals.sfu.ca/cjhe/index.php/cjhe>
- Gorman, E. (2017). Blackfullas in ivory towers: referenced reflections of a Bundjalung graduate nurse. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 53(6), 691-697. <https://doi.org/10.1080/10376178.2017.1409645>
- Green, B. (2016). Decolonizing of the nursing academy. *Canadian Journal of Native Studies*, 36(1), 131-144. <https://www.brandonu.ca/native-studies/cjns/>
- Hare, J., & Abbott, W. (2015). Library support for Aboriginal university students: Moving from the periphery to the mainstream. *Evidence Based Library & Information Practice*, 10(4), 80-94. <https://doi.org/10.18438/B86W3Q>

- Government of Canada. (2015, July 17). Harper government helps to provide Aboriginal students at Nunavut Arctic College with tailored post-secondary skills and training. <https://www.canada.ca/en/news/archive/2015/07/harper-government-helps-provide-aboriginal-students-nunavut-arctic-college-tailored-post-secondary-skills-training.html>
- Government of Canada. (2015, July 30). Harper government helps to provide Aboriginal students at the Saskatchewan Indian Institute of Technologies with tailored post-secondary skills and training. <https://www.canada.ca/en/news/archive/2015/07/harper-government-helps-provide-aboriginal-students-saskatchewan-indian-institute-technologies-tailored-post-secondary-skills-training.html>
- Government of Canada. (2015, July 23). Harper government helps to provide Aboriginal students at Six Nations Polytechnic with tailored post-secondary skills and training. <https://www.canada.ca/en/news/archive/2015/07/harper-government-helps-provide-aboriginal-students-six-nations-polytechnic-tailored-post-secondary-skills-training.html>
- Indigenous Corporate Training Inc. (2016). Indigenous Peoples terminology guidelines for usage. <https://www.ictinc.ca/blog/indigenous-peoples-terminology-guidelines-for-usage>
- Indigenous Student Success Strategy (n.d.). <https://saskpolytech.ca/student-services/support/indigenous/index.aspx>
- Indigenous Students' Resources (n.d.). <https://saskpolytech.ca/student-services/support/indigenous/indigenous-students-resources.aspx>
- Kostelecky, S. R., Hurley, D. A., Aguilar, P., & Manus, J. (2017). Centering Aboriginal knowledge: Three southwestern tribal college and university library collections. *Collection Management*, 42(3/4), 180–195. <https://doi.org/10.1080/01462679.2017.1327914>
- Lane, A., & Petrovic, K. (2018). Educating Aboriginal nursing students: Responding to the truth and reconciliation report. *International Journal of Nursing Education Scholarship*, 15(1), 1–1. <https://doi.org/10.1515/ijnes-2017-0064>
- Learning Services. (n.d.). <https://saskpolytech.ca/student-services/academic/learning-services.aspx>
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science: IS*, 569. <https://doi.org/10.1186/1748-5908-5-69>
- Linton, J., & Ducas, A. (2017). A new tool for collection assessment: One library's response to the calls to action issued by Canada's Truth and Reconciliation Commission. *Collection Management*, 42(3/4), 256–279. <https://doi.org/10.1080/01462679.2017.1344596>
- Martin, D., & Seguire, M. (2013). Creating a path for Aboriginal student success in baccalaureate nursing education. *Journal of Nursing Education*, 52(4), 205–209. <https://doi.org/10.3928/01484834-20130314-01>
- Melançon, J., & Goebel, N. (2016). Personal librarian for Aboriginal students: A programmatic assessment. *College & Research Libraries*, 77(2), 184–196. <https://doi.org/10.5860/crl.77.2.184>
- Milne, T., Creedy, D. K., & West, R. (2016). Integrated systematic review on educational strategies that promote academic success and resilience in undergraduate Aboriginal students. *Nurse Education Today*, 36, 387–394. <https://doi.org/10.1016/j.nedt.2015.10.008>
- Moffitt, P. (2016). Mobilizing decolonized nursing education at aurora college: Historical and current considerations. *Northern Review*, 43, 67–81. <http://journals.sfu.ca/nr/index.php/nr/article/view/593>
- Neurohr, K., & Bailey, L. (2016). Using photo-elicitation with Native American students to explore perceptions of the physical library. *Evidence Based Library & Information Practice*, 11(2), 56–73. <https://doi.org/10.18438/B8D629>

- Patterson, J., Newman, E., Baddock, S., Kerkin, B., & See, R. (2017). Strategies for improving the experiences of Māori students in a blended bachelor of midwifery programme. *New Zealand college of Midwives Journal*, 53, 45-52.
- Paul, D. (2013). Creating change: Building the capacity of the medical workforce in Aboriginal health. *ANZ Journal of Surgery*, 83(1/2), 55-59. <https://doi.org/10.1111/ans.12031>
- Pidgeon, M. (2014). Moving beyond good intentions: Indigenizing higher education in British Columbia Universities through institutional responsibility and accountability. *Journal of American Indian Education*, 53(2), 7-28. <http://dx.doi.org/10.17645/si.v4i1.436>
- Pugh, J. D., Cramer, J. H., Slatyer, S., Twigg, D. E., & Robinson, M. (2018). Adaptation and pretesting of the College Persistence Questionnaire V3 (Short Form) for measuring intention to persist among Aboriginal Diploma of Nursing students. *Nurse Education Today*, 61, 162-168. <https://doi.org/10.1016/j.nedt.2017.11.021>
- Raman, J. (2013). Nursing student success in an associate degree program. *Teaching & Learning in Nursing*, 8(2), 50-58. <https://doi.org/10.1016/j.teln.2012.12.001>
- Rearden, A. K. (2012). Recruitment and retention of Alaska Natives into nursing: Elements enabling educational success. *Journal of Cultural Diversity*, 19(3), 72-78. <https://www.questia.com/library/p587/journal-of-cultural-diversity>
- Residential Schools in Canada Education Guide. (n.d.). [http://education.historicacanada.ca/files/32/ResidentialSchools\\_English.pdf](http://education.historicacanada.ca/files/32/ResidentialSchools_English.pdf)
- Rochecouste, J., Oliver, R., Bennell, D., Anderson, R., Cooper, I., & Forrest, S. (2017). Teaching Australian Aboriginal higher education students: What should universities do? *Studies in Higher Education*, 42(11), 2080-2098. <https://doi.org/10.1080/03075079.2015.1134474>
- Rowan, M. S., Rukholm, E., Bourque-Bearskin, L., Baker, C., Voyageur, E., & Robitaille, A. (2013). Cultural competence and cultural safety in Canadian schools of nursing: A mixed methods study. *International Journal of Nursing Education Scholarship*, 10(1), 1-10. <https://doi.org/10.1515/ijnes-2012-0043>
- Saskatchewan's post-secondary schools working to close Aboriginal education gap. (2015, November 18). *The Canadian Press*. <https://regina.ctvnews.ca/saskatchewan-s-post-secondary-schools-working-to-close-aboriginal-education-gap-1.2664819>
- Saskatchewan Polytechnic. (2018). miyo wahkohtowin: Indigenous student success strategy. Saskatchewan Polytechnic Press.
- Slatyer, S., Cramer, J., Pugh, J. D., & Twigg, D. E. (2016). Barriers and enablers to retention of Aboriginal Diploma of Nursing students in Western Australia: An exploratory descriptive study. *Nurse Education Today*, 42, 17-22.
- Smith, D., McAlister, S., Gold, S. T., & Sullivan-Bentz, M. (2011). Aboriginal recruitment and retention in nursing education: A review of the literature. *International Journal of Nursing Education Scholarship*, 8(1), 1-22. <https://doi.org/10.2202/1548-923X.2085>
- Stansfield, D., & Browne, A. J. (2013). The relevance of Aboriginal knowledge for nursing curriculum. *International Journal of Nursing Education Scholarship*, 10(1), 1-9. <https://doi.org/10.1515/ijnes-2012-0041>
- Statistics Canada. (2015). Health at a glance: Select health indicators of First Nations people living off reserve, Metis and Inuit (Catalog No. 82-624-X). <https://www150.statcan.gc.ca/n1/pub/82-624-x/2013001/article/11763-eng.htm>
- Stuart, L., & Gorman, D. (2015). The experiences of Aboriginal health workers enrolled in a bachelor of nursing at a regional Australian university. *AlterNative: An International Journal of Aboriginal Peoples*, 11(1), 29-44. <https://doi.org/10.1177/117718011501100103>

- Thorpe, K., & Galassi, M. (2014). Rediscovering Aboriginal languages: The role and impact of libraries and archives in cultural revitalisation. *Australian Academic & Research Libraries*, 45(2), 81-100. <https://doi.org/10.1080/00048623.2014.910858>
- Thurston, J. M., & Mashford-Pringle, A. (2015). Nursing and Aboriginal education integration. *Journal of Nursing Education & Practice*, 5(10), 9-15. <https://doi.org/10.5430/jnep.v5n10p9>
- Truth and Reconciliation Commission of Canada (2015). Truth and reconciliation commission of Canada: Calls to action. Retrieved from [http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls\\_to\\_Action\\_English2.pdf](http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf)
- Union of Ontario Indians (2013). An overview of the Indian residential school system. Retrieved from <http://www.anishinabek.ca/wp-content/uploads/2016/07/An-Overview-of-the-IRS-System-Booklet.pdf>
- West, R., Foster, K., Stewart, L., & Usher, K. (2016). Creating walking tracks to success: A narrative analysis of Australian Aboriginal and Torres Strait Islander nursing students' stories of success. *Collegian*, 23(4), 349-354. <https://doi.org/10.1016/j.colegn.2016.08.001>
- West, R., Usher, K., Buettner, P. G., Foster, K., & Stewart, L. (2013). Aboriginal Australians' participation in pre-registration tertiary nursing courses: A mixed methods study. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 46(1), 123-134. <https://doi.org/10.5172/conu.2013.46.1.123>
- West, R., Usher, K., Foster, K., & Stewart, L. (2014). Academic Staff Perceptions of Factors Underlying Program Completion by Australian Aboriginal Nursing Students. *Qualitative Report*, 19(12), 1-19. Retrieved from <https://nsuworks.nova.edu/tqr/vol19/iss12/2/>
- Wilson, D., McKinney, C., & Rapata-Hanning, M. (2011). Retention of Aboriginal nursing students in New Zealand: A cross-sectional survey. *Contemporary Nurse: A Journal for The Australian Nursing Profession*, 38(1-2), 59-75. <https://doi.org/10.5172/conu.2011.38.1-2.59>
- Zeran, V. (2016). Cultural competency and safety in nursing education: A case study. *The Northern Review*, 43, 105-115. Retrieved from <http://journals.sfu.ca/nr/index.php/nr/article/view/591>