Nonsuicidal Self-Injury, Mental Health Service Use, and Cultural Perspectives among Ethnically Diverse University Students

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Abstract

We aimed to investigate non-suicidal self-injury (NSSI), help-seeking, and cultural responses to NSSI among a diverse sample of university students in Canada. NSSI prevalence was examined in a sample of students (*n*= 5450; 63.9% women), which yielded a follow-up sample of ethnic minority students with a history of self-injury (*n* =101; 81.2% women), to study service use and cultural responses to NSSI. Asian, Southeast Asian, White, and multiracial backgrounds were at the most risk for NSSI engagement. Three categories of responses to NSSI emerged: responses embedded in stigma, emotional, and constructive responses. Implications for cultural differences in help seeking and attitudes towards NSSI are discussed.

Keywords: non-suicidal self-injury, ethnic/racial minorities, help-seeking behaviours, cultural responses

Nonsuicidal self-injury or NSSI is defined as deliberate self-inflicted damage to one's own body tissue, although with no conscious suicidal intent (Nixon & Heath, 2009). These behaviors are not used for religious and/or cultural purposes (Favazza, 2012). Instead, those who engage in NSSI do so to regulate their inner experiences or interpersonal contexts (Bentley, Nock, & Barlow, 2014), and it is most common among adolescents and young adults (Moran et al., 2012; Plener et al., 2015). NSSI often leads to negative personal consequences including shame and guilt, social isolation, as well as scarring and potential infections (Wilkinson & Goodyer, 2011). Most importantly, NSSI is one of the strongest predictors of suicide attempt, as it may increase individuals' acquired capacity for suicide (May & Victor, 2018; Willoughby, Heffer, & Hamza, 2015). The clinical importance and prevalence of the behavior among young adults has led to NSSI's consideration as a distinct clinical diagnosis (DSM-5, American Psychiatric Association, 2013), rather than a symptom of other disorders.

Because NSSI onset peaks at approximately 14 years of age with a second peak at approximately 20 years of age (Gandi et al., 2018), NSSI research has targeted adolescents and young adults (Swannell et al., 2014). Not only do most Canadian post-secondary students fall in this age category (ACHA, 2013), but also almost 20% of university students report having a mental illness diagnosis (American College Health Association, 2013). However, compared to the general population of young adults, the university context creates unique opportunities to reach, access, and target mental health difficulties among students (Hunt & Eisenberg, 2010). With an average NSSI lifetime prevalence of up to 17% among university students in Canada (Hamza & Willoughby, 2016; Heath, Toste, Nedecheva, & Charlebois, 2008; Kokaliari, Roy, & Koutra, 2017; MacLeod & Brownlie, 2014), and its impact on mental and physical health, further delineation of differences among Canadian university students who self-injure is warranted.

NSSI and Ethnic Minority Students

Despite increased understanding of self-injury among young people, most research is based on White-majority samples and far less is known about NSSI among ethnic minority individuals. One study examining the prevalence of self-harming behaviours among different ethnic groups have found higher prevalence among ethnic groups (Haigh, Kapur, & Cooper, 2014), while another found greater incidence of deliberate self-harm among South Asian women compared to their White counterparts (Bhui, McKenzie, & Rasul, 2007). However, similar studies of university students in North America have reported inconsistent findings. Turner, Arya, and Chapman (2015) compared NSSI in White and Asian university students, and found higher prevalence of NSSI among White students, who were also more likely to report cutting. Kuentzel et al. (2012) found that Middle Eastern university students report lower engagement in NSSI over their lifetime, whereas other studies have identified particularly high incidence of NSSI among other ethnic groups. In a systematic review, Gholamrezaei, De Stefano, and Heath (2015), found that some minority ethnic groups, including multiracial, indigenous, and university students self-identifying as "other", seemed to be at increased risk for engaging in NSSI. Ethnic minority students might be particularly vulnerable during the transition from adolescence to adulthood (Huynh & Fuligni, 2012) which coincides with the transition to university.

Ethnic minority students need to navigate the extra task of constructing a bi-cultural identity while encountering unique challenges, such as acculturation stress and discrimination as immigrants or international students (Brittian et al., 2015; Huynh & Fuligni, 2012; Neville, Heppner, Ji, & Thye, 2004; Smith, Allen, & Danley, 2007; Stewart, 2015;). Factors such as collectivism versus individualism, acculturation conflicts, increased pressure on immigrant youths to do well in school, and racism are all factors that influence mental health (Chew-

Graham et al., 2002; Husain et al., 2006; Marshall & Yazdani, 1999; Tse & Ng, 2014). Therefore, both ingroup and outgroup sociocultural factors may contribute to certain ethnic minority groups being at higher risk of particular mental health issues, including NSSI.

Gender differences in NSSI prevalence and methods used (Bresin, & Schoenleber, 2015) are also based on White-majority data, with few studies examining gender differences and other characteristics of NSSI among ethnic/racial minorities. Results of a meta-analysis revealed that women were statistically more likely to report a history of NSSI with the preferred methods of cutting, scratching, and biting (Bresin, & Schoenleber, 2015). However, this study was based primarily on White-majority samples, and it is unclear whether similar gender differences in prevalence and method exists among ethnic minorities. Considering the clinical importance of NSSI and the dominance of White-majority samples, inclusion of more diverse samples seems necessary to advance our understanding of NSSI.

NSSI and Help-Seeking

Although number of students who seek mental health services from university counselling centers is increasing (Crozier & Willihnganz, 2006), many with significant psychological issues do not seek help (Rhodes, Bethell, & Bondy, 2006; Robinson et al., 2016). Lack of perceived need, stigma, skepticism about treatment effectiveness, and not being aware of services are some of the main barriers to help-seeking among university students (Eisenberg, Downs, Golberstein, & Zivin, 2009; Hunt & Eisenberg, 2010). Unfortunately, international and ethnic minority students are even less likely to seek out or use mental health service (e.g., Eisenberg, Golberstein, & Gollust, 2007; Kim & Zane, 2016). Level of acculturation and ethnic identity seem to influence service utilization, with more recent immigrants being less likely to use services for mental health issues (Keyes et al., 2012), and minorities with stronger ethnic

identities have decreased help-seeking and mental health service use tendencies (Burnett-Zeigler, Lee, & Bohnert, 2018; Keyes et al., 2012). Though most of this research is based on U.S. samples, it seems that this is also true for minorities in Canada, despite a publicly funded health care system (Tiwari & Wang, 2008).

Focussing on help-seeking for NSSI, Baetens et al. (2011) found that 67% of adolescents with NSSI felt that they needed professional help, but only 17% actually sought it out. Another study found that almost half of youth who self-injure do not seek help, and when they do ask for help it is most likely from informal resources such as family, friends, and websites (Rowe et al., 2014). Again, stigmatization, minimization of self-injury as a problem, and fear of the treatment process have all been identified as barriers to seeking help (Rowe et al., 2014). In addition, research is emerging on the perspectives and responses to NSSI by parents (Oldershaw et al., 2008), teachers (Heath et al., 2006), and mental health professionals (Bosman & Meijel, 2008) and their impact on help-seeking of youth. For instance, in a qualitative study conducted in Britain, Oldershaw et al. (2008) found that parents who were exposed to their adolescents' self-injury, felt confused and minimized its significance (Oldershaw et al., 2008). In addition, these individuals engaging in NSSI felt that neither their parents nor their teachers understood their behavior. (Heath et al., 2011; Oldershaw et al., 2008). We also see negative attitudes and misperceptions even among mental health professionals, a fact that undoubtedly impacts help-seeking and recovery (Bosman, & Meijel, 2008; De Stefano et al., 2012; Heath et al., 2011; McAllister et al., 2002). These barriers may be even more insurmountable for ethnic minorities who may be more likely to hold negative attitudes towards mental illness and mistrust of the Western mental health system (Chaze et al., 2015; Clement et al., 2015; Menke & Flynn, 2009).

In conclusion, although there has been increasing research on the help-seeking behaviors of young adults who self-injure using White-majority samples, for ethnic minorities this topic has remained understudied. This is surprising given the importance of a cultural understanding of mental health on help-seeking (Chaze et al., 2015), and yet much less is known about how NSSI among ethnic minorities is perceived and responded to within local cultures outside of the U.S.

Purpose and Study Aims

Underrepresentation of ethnic minority samples in NSSI research may contribute to poor identification and misunderstanding of individuals at risk for self-injury, as well as problems in assessment and treatment for individuals outside of the middle-class White-majority. Ethnic comparisons regarding NSSI prevalence, gender differences, and help-seeking can help identify both commonalities and culture-specific factors that facilitates development of culture-sensitive interventions (Colucci, 2006). Using an ethnically diverse sample, the present study aimed to answer four main research questions: (1) what is the prevalence of NSSI among ethnic minority university students in Canada and does prevalence vary based on gender? (2) Does the prevalence of NSSI vary based on ethnicity? (3) Among ethnic minority university students with a history of NSSI, what is the relation between service utilization, ethnic identity, and/or immigration status? Lastly, (4) what are responses to and perceptions of NSSI within the cultural context with which ethnic minority students' identify?

Hypotheses. With respect to the research questions above, we hypothesized that (H1) there would be a statistically significant gender difference in the prevalence of NSSI among White and East Asian students with women reporting greater prevalence of NSSI than men (Turner et al., 2015); we also hypothesized that (H2) White, East Asian, Indigenous, and multiracial students would be at higher risk of NSSI engagement compared to other ethnic groups (Gholamrezaei et

al, 2015; Turner et al, 2015). To examine if particular ethnic groups demonstrate higher risk for lifetime NSSI, we controlled for levels of general perceived stress, gender, sexual orientation, and immigration status to rule out the possibility that the hypothesized relation between ethnicity and lifetime NSSI engagement is due to general perceived stress and/or demographic factors. In the absence of prior conclusive research on the relation between mental health service utilization, ethnic identity, and immigration status among ethnic minority students with a history of NSSI, no hypotheses were formulated for research questions 3 and 4 which remained exploratory. Thus, the final research focus of this study was to explore a contextualized understanding of the ingroup responses to NSSI experienced by ethnic minority students. We used a qualitative inquiry approach to achieve this, which allowed for a wide variety of responses based on individuals' lived experiences.

Method

Recruitment

Students were recruited through a large, urban Canadian university in Montreal using a convenience sampling method (n= 6453; M_{age}= 19.3; SD= 1.97; 65% women) during the 2014-2015 academic year. The study was conducted in compliance with the Tri-Council Policy Statement and was approved by the Research Ethics Board-II (REB-II) and included a detailed consent form and a list of available mental health campus and community resources. Undergraduate students were approached in class following the approval of the course instructor. Although the sampling technique constituted a convenience sampling method, the following measures were used to mitigate potential selection bias. First, courses for data collection were selected to be representative of the faculties within the university (e.g. science, engineering, education, arts, music). Second, courses within each faculty were selected for the largest course

capacity in order to reach as many students as possible while minimizing overall disruption. Previous studies at the same institution have reported no significant differences in student stress and coping profiles based on their program of study (Böke et al., 2019), as such the convenience sampling method for the present study was deemed acceptable to yield a representative university student sample. Course instructors were informed by email regarding the goals and procedures of the study. Following the approval of the course instructor, students were invited to complete the short survey during the first few minutes of class (see instruments section below). All participants signed an informed consent form and received a copy of the form. At the end of the survey, participants were asked to provide their contact information should they wish to participate in further studies.

Participants for the second study were recruited from within the larger sample of students who completed the in-class survey and agreed to be contacted for additional studies. The objectives of the second study were focused on exploring the experiences of NSSI specifically among students who self-identified as being part of ethnic minority group. Thus, participants who reported a lifetime history of NSSI and did not self-identify as White (n = 260) were invited to participate in the second study through an email invitation containing the link to the online study. Out of the 260 invited students with a history of lifetime NSSI, 101 students completed the online survey. The final sample for the second study consisted of a diverse group of 101 ethnic minority students (M_{age}= 20.45; SD= 1.46; 81.2% women) who reported engaging in self-injury at least once in their lifetime and completed the online questionnaire.

Recruiting for ethnic diversity. Given the central role of ethnic diversity as a factor within the present study and the overrepresentation of White samples within NSSI research, recruitment did not focus on any specific ethnic minority group, and participants from diverse ethnic and racial

identities were included. We acknowledge that the use of ethnicity and race as factors is controversial in psychological research (Onoye et al., 2017) because they are complex and interconnected constructs. To be consistent with previous NSSI research (Gholamrezaei et al., 2015), the operational definition we employed when referring to ethnicity included individuals who were considered minorities in terms of either visible characteristics such as skin color and facial features and/or those who identified with a "common nationality, language, or culture" other than white, European-descent cultures in a North American context (Betancourt & Lopez, 1993, p. 631). We acknowledge that the categories used are broad and certainly not homogeneous and are not representative of all ethnic, cultural, or racial identities. To reflect this, we simply refer to our recruited sample as a diverse group of ethnic minority students.

Instruments

In-class survey refers to the paper-and-pencil questionnaire that was completed by the large sample (*n*= 6453) and follow-up online survey refers to the follow up study with the small sample of ethnic minority students with a lifetime history of NSSI (*n*= 101). Detailed description of the instruments used within each sample are outlined below. Both in-class and online instruments developed by authors can be found in appendix A.

In-class survey. The large in-class survey was a screening questionnaire to identify students who engaged in a range of healthy and unhealthy coping behaviours, including NSSI. It also included a section on demographics and a brief assessment of general perceived stress.

Demographic information. The first part of the 15-minute paper-and-pencil in-class survey for the large sample (*n*= 6453) consisted of assessing demographic variables including gender identity (i.e., woman, man, trans, not listed), sexual orientation (i.e., heterosexual, gay, lesbian, bisexual, not listed), immigration status, and ethnicity. To be as inclusive as possible,

participants indicated their ethnicity by responding to the open-ended question: "what ethnicity/race you identify with? Please list below". We aimed to aggregate the data to broader categories by referring to the Statistics Canada's classification of visible ethnic minorities in Canada (Statistics Canada, 2011). The final aggregated categories were African-descent (Black), European-descent (White), East Asian, Indigenous, Latin/Hispanic, Middle Eastern, Multiracial, South Asian, and Southeast Asian (see appendix A).

Perceived Stress Scale (PSS- 4-item). This scale was used in the in-class survey to assess general perception of stress within the last month. We used the 4-item version of PSS as this survey was designed to be used as a quick screening for stress and coping behaviours. PSS is scored on a 4-Likert scale ranging from 0 (never) to 4 (very often). A higher score indicates a greater level of perceived general stress (Cohen, Kamarck, & Mermelstein, 1983). PSS-4-item is used globally in research and has acceptable psychometric properties among university students in North America (Caldwell et al., 2010). In this study, Cronbach's alpha representing internal reliability was 0.78.

Nonsuicidal self-injury (NSSI). This scale was developed by the study authors to screen for a range of different healthy and unhealthy coping behaviours endorsed by university students, over the last 12 months and across the lifetime. The coping behaviours that were assessed within the screening questionnaire included substance-use, physical activity, meditation, non-suicidal self-injury, among others. Participants were asked to read the list of behaviours and indicate Yes or No in response to the following prompt: *I have engaged in this behaviour during my lifetime*. The NSSI item was worded as "self-injuring without wanting to die; e.g. self-cutting, self-hitting, burning, bruising, scratching" (see appendix A). Only the NSSI item was included within the analyses for the current study as the coping behaviour of interest.

Follow-up online survey. The online follow up survey was mainly concerned with approaches to help-seeking and mental health service use among ethnic minority students who engaged in self-injury. This survey assessed participant demographics, NSSI profile, and mental health service use. In addition, we aimed to assess the level of identification with ethnicity/race to investigate our third research question. Finally, an open-ended question was added to access cultural perspectives and responses to NSSI based on the subjective experience of ethnic minority students who self-injure.

Demographic information. The first section assessed demographic information including gender, age, immigration status, subjective evaluation of socioeconomic status, and ethnicity. Because ethnicity was a primary variable in the study, and to minimize missing data on reporting ethnicity, we used the Statistics Canada's classification of visible ethnic minorities in Canada[1] (Statistics Canada, 2011). Due to limited sample sizes, some of these categories were merged to create a broader category (e.g., Chinese, Japanese, and Korean categorized as East Asian) and some other categories included (e.g., non-Arab Middle Eastern referred to those who identified origin as Iran, Turkey, or Israel). Also, students were given the opportunity to select "multiracial" and "other" as categories within the ethnicity question. The final conceptualization of categories within the present study were as follows; Indigenous, Arab, Black, East Asian (e.g., Chinese, Japanese), Latin American, Southeast Asian (e.g., Indonesian, Malaysian), South Asian (e.g., Indian, Pakistani), Non-Arab Middle Eastern (e.g., Iran, Turkey, Israel), Multiracial (Please specify), White, and Other (Please specify) (see appendix A).

[1] South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean, Japanese, visible minority, multiple visible minorities, and not a visible minority.

NSSI profile. In the online questionnaire, participants were also asked about NSSI; their engagement in NSSI in the 12-months, methods used, age of onset, and lifetime frequency (see appendix A).

Service use. The third section of the online survey consisted of an assessment of the need to seek help for NSSI, mental health service use regarding NSSI, mental health service use for other issues, history of a psychiatric diagnosis, and prescribed medications (see appendix A).

Ethnic identity. The fourth section aimed to establish participants' level of identification with their ethnic or racial background using the Multigroup Ethnic Identity Measure-Revised (MEIM-R; Phinney & Ong, 2007). This instrument was included to examine any relation between different levels of ethnic identity and perceived need as well as mental health service use in the small sample of ethnic minority students. MEIM-R was chosen because it includes both aspects of ethnic identity including two subscales of exploration (e.g., "I have spent time trying to find out more about my ethnic/racial group") and commitment (e.g., "I have a strong sense of belonging to my own ethnic/racial group"), each having three items ranging from 'strongly disagree' to 'strongly agree'. Research suggests high internal consistency among both European Americans (Cronbach's α= .89) and minorities (Cronbach's α= .88) and adequate construct and theoretical validity (Yoon, 2011). In the present study, internal consistency measured by Cronbach's alpha was .87.

Open-ended question on cultural perspective. The final portion of data collection investigated the cultural responses to NSSI among ethnic minority students using an open-ended question of "In your culture, what is the general response to people who engage in self-harming behaviours?". Participants were encouraged to answer in detail and as honestly as possible. The

primary aim was to document a variety of subjective experiences of cultural responses to NSSI among the ethnic minority students.

Data Analysis

In-class survey. Chi-square analyses were used to examine the proportions and gender differences of lifetime NSSI among the large sample of university students. Prevalence across different ethnic backgrounds were also compared. To address our second research question and to investigate if any particular ethnic background can predict a history of lifetime NSSI, a binary logistic regression was used; this tests the presence/absence of lifetime NSSI engagement as the dependent variable using a single variable of ethnicity with eight categories as the independent variable. As the aim of the logistic regression was to identify ethnic groups with higher likelihood of a history of lifetime NSSI, we chose the ethnic group that would have the lowest prevalence of lifetime NSSI as the reference category for calculating odds ratios of other categories and identifying high risk ethnic groups regarding NSSI. Additionally, as previously stated, we aimed to control for perceived general stress as well as demographic factors including gender, sexual orientation, and immigration status.

Follow-up online survey. Descriptive analyses and comparison tests were conducted to examine the NSSI characteristics and NSSI methods, and to investigate mental health service use and its relation to ethnic identity. To address the third research question, t-test analyses were conducted to investigate if ethnic minorities who did not feel the need to seek help for NSSI or who did not use mental health services would report higher MEIM-R scores. Also, chi-square analyses were conducted to examine if there were any statistically significant differences in perceived need for help-seeking and/or any mental health service use across different immigration status.

To address our fourth research question regarding cultural responses to NSSI and to analyze the responses from the open-ended question, we used inductive data-driven content analysis (Elo & Kyngäs, 2008). All responses were divided into "meaning units", including phrases or sentences that relate to a central meaning. Therefore, our abstraction process focused on analyzing manifest content (see Graneheim & Lundman, 2004) and generating final categories, whereby emergent codes were classified into sub-categories and then grouped by commonalities to generate the final broad categories. To ensure the trustworthiness of the findings, the analysis was performed by the first author and audited by the third author. The generated codes and categories were subsequently discussed among all the authors and agreement was achieved upon the divergent opinions (Elo et al., 2014). Finally, verbatim quotations were used throughout the text to reflect the participants' voices (Elo et al., 2014).

The use of the open-ended question gave the participants the chance to generate responses according to their subjective experiences as a heterogeneous sample of third generation Canadians to first year international students. Also, it provided context-sensitive data that could inform further systemic and comprehensive research regarding cultural responses to NSSI. However, because no triangulation of data regarding one overarching research question could occur (see Östlund et al., 2011) this should not be confused with mixed-method research.

Results

In-Class Survey

Primary analyses. Among the large sample of university students (*n*= 6453; 65% women), 15.5% of participants did not report their ethnicity (15.5%, *n*= 1003, 73% women). Those participants with unknown ethnicity were excluded from all the analyses and the final retained sample consisted of 5450 students (63.9% women). The group of participants with

unknown ethnicity (*n*= 1003) was not statistically different from the retained sample regarding demographic factors of gender, sexual orientation, and age; or regarding the studied variables of perceived general stress or lifetime NSSI engagement indicating that the final sample of 5450 participants was not statistically different from the original sample of 6453 students regarding the variables of interest. Table 1 summarizes the demographic characteristics of the final sample of university students.

Table 1
Demographic Characteristics of the Large Sample of University Students (n =5450)

Characteristics	n	Valid Percent
Gender		
Man	1931	35.4
Woman	3480	63.9
Trans	11	.2
Not Listed	15	.3
Missing data	13	.2
Sexual Orientation		
Heterosexual	4886	89.7
Gay	93	1.7
Lesbian	42	.8
Bisexual	254	4.7
Not Listed	84	1.5
Missing data	91	1.6
Ethnicity		
Black	162	3
White	2837	52.1
East Asian	1216	22.3
Latin American	106	1.9
Middle Eastern	363	6.7
Multiracial	316	5.8
Indigenous	15	0.3
South Asian	360	6.6
Southeast Asian	75	1.4
Status in Canada		
Citizen	3687	65.8
Immigrant	191	3.5
International student	1584	29.1
Not listed	72	1.3
Missing data	16	.3

NSSI prevalence and gender differences. Results revealed that 17.4% (n = 951) of the large sample indicated engaging in NSSI at least once in their lifetime. Table 2 displays the prevalence of NSSI across different ethnic minority groups. With a Bonferroni-corrected p value (=.00625), a series of chi-square tests of independence were conducted to identify gender differences within ethnic minority groups regarding lifetime NSSI engagement. A significant gender difference was found for Caucasian students ($\chi^2(2)= 67.21$, $p <.0001$) with higher proportion of lifetime NSSI for those identifying as women or other (see Table 2). Ethnic minority participants in the large sample that indicated a non-binary gender identity (n =7) were omitted from the chi-square analysis due to cell sizes below 5. In terms of gender differences among other ethnic categories, only Middle Eastern students showed a significance, with higher reported NSSI engagement for women ($\chi^2(1)= 7.45$, $p <.00625$).

Table 2

NSSI Prevalence and Gender Difference in the Large Sample (n= 5450)

Ethnic/racial Identification	Total	Men		Women		Other[1]		χ^2
	Lifetime NSSI	NSSI	Non-NSSI	NSSI	Non-NSSI	NSSI	Non-NSSI	
	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)	% (*n*)	
Multiracial	21.1 (67)	16.4 (11)	31.1 (75)	82.1 (55)	68.9 (166)	1.5 (1)	0 (0)	5.37*
South East Asian	20.0 (15)	26.7 (4)	37.3 (22)	73.3 (11)	61.0 (36)	0 (0)	1.7 (1)	0.66
White	18.9 (536)	22.1 (118)	38.7 (867)	75.9 (406)	60.9 (1363)	2.1 (11)	.4 (8)	67.22**
East Asian	16.5 (201)	28.0 (56)	36.6 (355)	71.5 (143)	63.3 (615)	0.1 (1)	0.5 (1)	5.18*
Latin American	16.0 (17)	29.4 (5)	38.8 (33)	70.6 (12)	61.1 (52)	0 (0)	0 (0)	0.54
South Asian	14.7 (53)	37.7 (20)	36.4 (108)	62.3 (33)	63.6 (189)	0 (0)	0 (0)	0.04
Black	13.0 (21)	28.6 (6)	38.8 (52)	66.7 (14)	61.2 (82)	4.8 (1)	0 (0)	0.58
Middle Eastern	11.1 (40)	20.0 (8)	42.2 (132)	80.0 (32)	57.2 (179)	0 (0)	0.6 (2)	7.45*
Indigenous	6.7 (1)							

Note. [1] Non-binary gender group had to be omitted from the Chi square analysis for cell sizes below 5.
* Significant gender difference at $p < .05$
**Significant gender difference using Bonferroni-corrected $p < .00625$

NSSI prevalence and ethnicity. To address our second research question, a binary logistic regression was used to test the presence/absence of lifetime NSSI, with NSSI engagement as the dependent variable and the eight categories of ethnicity as a single independent variable. This analysis included the university students with known ethnicity (n= 5450), but Indigenous students were excluded from the analysis due to limited sample size (n=15). To determine the reference category for calculating odds ratios of other categories, a chi-square test with post-hoc analysis was conducted. Results of the chi-square test revealed a significant difference across ethnic groups for lifetime NSSI ($\chi^2(7)= 23.26$, $p <.01$). Post-hoc z score comparisons suggested a significantly higher proportion of lifetime NSSI among Caucasian students ($\chi^2(7) = 7.73$, $p <.01$) and significantly lower lifetime NSSI engagement among Middle Eastern students ($\chi^2(7) = 11.6$, $p <.001$). Middle Eastern students had the lowest prevalence of lifetime NSSI, so this group was selected as the reference category identifying ethnic minority groups at higher risk for NSSI. To account for demographic factors of gender, sexual orientation, and immigration status as well as perceived general stress, we conducted correlations among the variables. There was no correlation between NSSI engagement and immigration status in the large sample, so immigration status was omitted from the regression analysis.

Goodness-of-fit was examined using Hosmer Lemeshow chi-square test, indicating an adequate goodness-of-fit for the full model ($\chi^2(8) = 9.02$, p=.34). The full model was significant [$\chi^2(11) = 439.1$, $p < .000$] and accounted for 8.1% (Cox and Snell R^2) of variability of NSSI group membership. East Asian, South East Asian, White, and multiracial categories were significant in the model after controlling for gender, sexual orientation, and perceived general stress (see Table 3).

Table 3.
Results of Logistic Regression Predicting Presence/Absence of Lifetime NSSI engagement in the Large sample (n= 5450)

Predictors	*B*	*SE*	Wald	*Odds Ratio*	95% Confidence Interval
Perceived Stress	.199	.01	226.82***	1.22	1.18-1.25
Sexual Orientation	1.2	0.11	115.23***	3.25	2.64-4
Gender					
Women	.48	.08	31.17***	1.63	1.37-1.93
Other	.91	.44	4.23*	2.49	1.04-5.50
Ethnicity					
East Asian	.55	.19	7.90**	1.7	1.18-2.52
South East Asian	.75	.35	4.62*	2.12	1.01-4.20
Caucasian	.73	.18	15.93***	2.1	1.45-2.98
Multiracial	.74	.23	10.36**	2.1	1.34-3.29

* p <.05, ** <.01, *** <.001

Follow-Up Online Survey

As noted above, the second study sample consisted of 101 ethnic/racial minority students with a history of NSSI (M_{age}= 20.45; *SD*= 1.46; 81.2% women) who responded to the follow-up online survey. Table 4 summarizes the demographic information for the second study sample. Of the total sample of ethnic minority students with lifetime NSSI engagement (*n*=101), 42.6% (*n* = 43; 79% women) indicated that they engaged in NSSI within the past 12 months with an average NSSI age of onset reported as 13.72. Overall, 74.3% of the sample indicated engaging in more than one method of NSSI. Also, 24.7% of the participants reported engaging in NSSI less than 5 times in their lifetime, 28.7% engaged 5 to 10 times, and 46.6% more than 10 times. Appendix B summarizes the prevalence and characteristics of NSSI across different ethnic/racial groups.

Table 4
Demographic Characteristics of the follow-up Sample of Ethnic Minority Students (n=101)

Characteristics	n	Percent
Gender identity		
Women	82	81.2
Men	16	15.8
Other	3	3
Ethnic/racial background	3	3
African descent (Black)	50	49.5
East Asian	6	5.9
Latin American	3	3
South East Asian	14	13.9
South Asian	11	10.9
Middle Eastern	9	8.9
Multiracial	5	4.9
Other		
Social Economic Status (subjective)		
Low	10	9.9
Low average	11	10.9
Average	44	43.6
High average	29	28.7
High	7	6.9
Current Status in Canada		
Second generation immigrant	33	32.7
First generation immigrant	42	41.6
International student	21	20.8
Not listed	5	5
Country of birth		
Canada	34	33.7
China	18	17.8
United States	12	11.9
Other countries reported	37	36.7

Mental health service use. Regarding mental health service use, only 30% of the 101 ethnic minorities who self-injured indicated that they felt the need to seek help for NSSI; 35% reported using mental health services for NSSI and 64.4% reported using them for other issues. There were no significant gender differences for any of the categories with respect to perceived need and service use. Similarly, multiple chi-square tests revealed no significant differences based on immigration status. Of the students who sought professional help for NSSI, 26% (n = 9) reported receiving medication, including antidepressants (Escitalopram, Venlafaxine, Citalopram, Fluoxetine, Bupropion), and other types of psychiatric medication (Quetiapine and lorazepam). Table 5 summarizes the services used for NSSI and/or other issues. All the results are summarized across the ethnic/racial groups in Appendix C.

Finally, 41.6% of the sample (n= 42; 83% women) indicated that they had received a psychological diagnosis, but there was no significant difference in diagnoses between men and women in this sample. Of those who received psychiatric diagnoses, 69% (n= 29) were diagnosed with an anxiety disorder, including panic disorder, and 66.7% (n=28) were diagnosed with depression. Other diagnoses included 11.9% sleep disorder (n=5), 9.5% Anorexia (n=4), 4.8% Bulimia (n=2), 4.8% ADHD (n=2), 4.8% OCD (n=2), 2.4% BPD (n=1), and 2.4% substance abuse (n=1). Of those receiving psychiatric diagnoses, 38.1% (n=16) received their diagnoses within the past year and 42.9% (n=18) within the past three years.

Finally, results of t-test analyses revealed no significant difference in MEIM-R scores regarding perceived need for service use for NSSI, help-seeking for NSSI, or other issues.

Table 5.
List of Mental Health Services Used among the Small Sample (n = 101)

Mental Health Services	For NSSI	For Other Issues
	% (*n*)	% (*n*)
Counsellor/therapist/psychologist	19.8 (20)	43.6 (44)
Psychiatrist	13.9 (14)	20.8 (21)
Physician (e.g., your family doctor, doctor in a hospital or walk-in clinic)	4 (4)	14.9 (15)
Social worker	5.9 (6)	5 (5)
University mental health services	14.9 (15)	34.7 (35)
Peer support programs	5 (5)	9.9 (10)
Crisis hotline	5.9 (6)	8.9 (9)
Emergency services	5 (5)	4 (4)
Websites	10.9 (11)	21.8 (22)
Religious consultants	(0)	2 (2)
Other	1 (1)	4 (4)

Note. Multiple response options were permitted (e.g., select all that apply)

Qualitative content analysis. Of the total sample of diverse students, 92 participants (74% women) responded to the question about cultural perspectives/responses to NSSI, to provide a nuanced understanding of NSSI and help-seeking, allowing for both positive and negative responses. Three main categories emerged: stigma-based responses, emotion-based responses, and constructive responses (Table 6).

Stigma-based responses. The stigma-based responses produced five subcategories (1) mental health knowledge; (2) prejudiced attitudes; (3) prejudiced behaviours; (4) norm/value/religion incompatible; and (5) hindered help-seeking behaviour. Per participants' experiences, there seems to be a lack of knowledge and awareness about NSSI and mental health issues within the cultures with which they identify; according to our participants, some people would respond negatively by shaming the individuals, maintaining secrecy about NSSI, expressing prejudice, and distancing themselves from the individuals. For example, one participant described about the lack knowledge and understanding of NSSI or other mental health issues in some cultures, which can be taken for granted in Western cultures:

> "There isn't really an established cultural mindset about how to deal with it [NSSI], and if people do take action their responses can be uninformed by certain understandings that North America can sometimes take for granted about depression and other mental illnesses".

In addition to the insufficient knowledge about mental illness, some students described the failure within their culture to make a link between NSSI and the underlying psychological motivations, leading to stigma and blame:

> "There is a stigma placed on saying one has mental health issues that are out of our control. Both my parents somewhat invalidated my anxiety, and

> to some extent still do, believing that I created this anxiety for myself and can eliminate it just as easily."

Some of the participants reported that their self-injury was perceived as antagonizing social norms, religious practices and/or family values, and, therefore, caused shame and dishonour to their family: "That God is punishing them or an evil spirit is taking over. For the most part, it is not talked about." Some students also described the notion of family honor and considering NSSI a dishonorable act: "Self-harm is seen very poorly in my culture. It is seen as dishonorable (emphasis on "honor")". Self-injury specifically and mental illness were perceived to be a stereotypical Western phenomenon which does not exist in their culture: "I think it is stereotyped to be more of a Western thing. From my parents' perspective, it is hard to react to something that they thought didn't even exist". Denying psychological issues, linking self-injury to lack of faith, and considering NSSI a shameful act that is damaging family honor leads to secrecy in the family and a lack of discussion within the culture, both of which hinders help-seeking behaviours for the individual who self-injures:

> "It's not talked about. Ever. Depression and mental health issues are extremely misunderstood. Some people think that if you just pray enough all of a sudden you will be healed of depression, and so many people don't seek help because of this. Depression is called a "white people" sickness".

In addition to public stigma towards NSSI and mental health issues, there are prejudiced attitudes and behaviours towards the individuals who self-injure: "They're described as bian tai, which roughly translates to abnormal, anti-social, or freak" and "people tend to see those suffering from these symptoms as unworthy of care, attention and prioritization."

Emotion-based responses. Participants indicated negative emotional reactions to NSSI which were categorized into three groups of (1) ambivalence; (2) fear-based response; and (3) anger-based response. The ambivalence subcategory represents reactions to NSSI consisting of mixed or incongruous reactions that reveal the family's and ethnic culture's confusion, and overreaction to and/or minimization of the self-injury; this category included extreme responses indicating either minimization or overreaction to the behaviour. For instance, a student highlighted this ambivalence as "either neglect or taking the person to the hospital (public)". Fear-based responses included reactions stemming from shock, worry, and disbelief. Another participant stated that the response to NSSI in their culture would be "extreme fear and shock, people in our ethnic group (Kurdish/Turkish) take it very seriously". Similarly, another student indicated the response would be "panic and discomfort [because] most don't know how to handle self-harm". The last subcategory of emotion-based responses is anger-based response which includes blaming the individuals who self-injure and using force/control to stop the behaviour. For instance, a participant explained that the individual who self-injures is responsible for their struggles: "they are responsible for their own depression". Additionally, that self-injury is viewed as manipulative, attention seeking, and/or as ingratitude towards parents: "If it's present in youth, it is seen as complaining about nothing, ingratitude, a behavioural problem, and a way to hurt your parents". Another participant noted that "In my case, I was treated like I was misbehaving or demanding attention, rather than suffering from serious mental illness". The emotion underlying these interpretations seems to convey subtle forms of anger towards the individual who engages in self-injury. Clearly, these negative reactions hinder an empathic and supportive response to the individual and his/her struggles with NSSI.

Constructive responses. The evolving response category consists of three subcategories of (1) acceptance, (2) support, and (3) idiosyncratic response. Some participants noted recent emergence of knowledge about mental health issues and acceptance towards individuals struggling with such difficulties:

> I think in my generation people are somewhat more accepting (for lack of a better word) of self-harming behaviors and are less likely to stigmatize them in comparison to my parents' generation.

This category also includes supportive responses such as sympathy and/or encouraging the individual to seek professional help. For example, a student wrote about the sympathy she received despite the general lack of link between NSSI and the underlying mental health issues: "although there is a lot of sympathy, in my personal experience, there is often a lack of understanding or acknowledgement of underlying mental issues that may lead to self-injury."

Table 6.

The Illustration of the Abstraction Process of the Cultural Responses to NSSI

Category	Stigma-based responses					Emotion-based responses			Constructive responses		
Subcategory	mental health knowledge	prejudiced attitudes	prejudiced behaviours	evaluated as norm/ value/ religion incongruence	Hindered Help-seeking Behaviour	ambivalence	Fear-based	Anger-based	Acceptance	Support	idiosyncratic
Codes	ignorance	Taboo & stigma	Social condemn	Secrecy (within the family)	reduced help seeking behaviour due to considering faith as cure	Inconsistency in how to respond to /handle it	fear and shock	Considered an attention seeking behaviour	Emergence of acceptance and awareness	Asking for help from professionals	The response depends on the family
	Insufficient open discussion (within the culture/society)	Consider the individual insane/ unstable/ crazy/ abnormal	Social exclusion/ estrangement	Considered immoral/ wrong Shaming/ Shameful		Dismissing and minimizing	Disbelief	Using force/ pressure to stop the behaviour		Sympathy	depends on the degree of NSSI
	Insufficient knowledge and awareness about NSSI/ mental health issues	Consider the individual weak	Pity	Depression and/or NSSI are Seen as a Western/White phenomenon	help-seeking behaviours are discouraged due to stigma	Confusion	Worry	Considered manipulative Anger		Empathy	Similar to mainstream response
	Not realizing that the behaviour indicates underlying inner suffering/ mental health issues	Taboo and stigma in older generation	insufficient support/ care	Dishonour on family		Considered a phase		Considered ingratitude (to parents)			
	Praying or faith as the cure			result of insufficient faith or connection to God				Blame			
				being punished by god or evil taking over				considered childish/ irresponsible			

Finally, some students stated that the response to NSSI in their culture would depend on the family, context, and/or the severity of the self-injury, and we classified these responses under the constructive responses subcategory. For instance, a student wrote that the response "largely depends on the person, however" or "depends on the severity".

Discussion

The current study investigated the prevalence and profile of NSSI among a diverse sample of ethnic minority students as well as their experiences with mental health service use. We also explored the perceived responses to NSSI of the family/communities that identify with diverse ethnicities and cultures.

In-Class Survey: NSSI Prevalence and Gender Difference

Our results on NSSI prevalence among the large convenience sample of university students support previous research suggesting differing incidence of NSSI based on ethnic and/or racial identity(Gholamrezaei et al., 2015; Turner et al., 2015). Within this study, multiracial, White, and East Asian ethnic identities were associated with a higher incidence of NSSI compared to other groups, even after controlling for demographic factors and perceived general stress. The lower prevalence of NSSI among Middle Eastern students is also consistent with previous research (Kuentzel et al., 2012).

Identification of high risk ethnic/racial backgrounds regarding NSSI engagement in the university setting is vital as it can generate more research investigating potential factors that may contribute to the differences in NSSI prevalence. However, we must note the limitations of this study in addressing these differences. Further studies are needed to identify the various cultural factors that may contribute to different prevalence of NSSI across different ethnic and/or racial identity groups. Furthermore, Marshall and Yazdani's (1999) caution is well taken; i.e., we need

to avoid pathologizing certain cultures when interpreting any observed differences. Our findings suggest that university students identifying with certain ethnic minority groups report a higher incidence of engagement in NSSI , however these results may only apply to young adults attending university in a North American context and may not be generalized to all young adults. Further research among nonclinical samples outside of North American university context is warranted.

The gender difference in NSSI engagement among White students in the present study is consistent with previous research (Bresin & Schoenleber, 2015) demonstrating higher prevalence of NSSI among White women compared to White men. While we are not aware of any study showing gender differences specifically among Middle Eastern students in a North American context, studies conducted in the Middle East either have not found gender differences in NSSI engagement among university students (e.g., Gholamrezaei, Heath, & Panaghi, 2016) or contrastingly have reported higher prevalence among men (e.g., Toprak et al., 2011). We found that students identifying as women, multiracial, and/or East Asian were more likely to report NSSI engagement within our study sample. Although this is the first study to examine gender differences in NSSI among multiracial students, the higher prevalence among East Asian students identifying as women compared to men had been previously identified in the literature (Turner et al., 2015).

NSSI and Help-Seeking among the Small Sample of Ethnic Minority Students

Results regarding the profile of NSSI among the diverse group of ethnic minority university students are similar to those characteristics of White samples in the literature. Age of onset, use of multiple methods of NSSI, and multiple episodes of self-injury were largely consistent with previous research (Bresin & Schoenleber, 2015). Due to limited sample size, we

were unable to analyze the gender differences in NSSI methods used within each ethnic minority identification within the present study.

Compared to Baetens et al.'s (2011) results, our sample reported substantially lower rates of perceived need for professional help for self-injury. Although only 30% of our participants reported a perceived need to seek professional help, 35% reported actively having sought help for their self-injury. The discrepancy between perceived need and help-seeking behaviour might be linked to involuntary help-seeking and coerced treatment by the students' family or school personnel. Additionally, more than half of the participants indicated using mental health services for other mental health difficulties. Also, we found no relation among perceived need, service use, immigration status, and ethnic identity, in contrast to the few studies that investigated the relations between ethnic identity and mental health service utilization (Burnett-Zeigler et al., 2017; Keyes et al., 2012). However, samples used in previous studies consisted mostly of adults older than 30 years from lower SES groups (e.g., Burnett-Zeigler et al., 2017). Therefore, the relationship between ethnic identity and immigration status and service use might be weaker in university samples.

Besides the low perceived need for professional help, we did not find different patterns for service use among ethnic minority students compared to studies with White samples, which is inconsistent with research regarding disparities in use of care among ethnic minority groups (Ault-Brutus & Alegria, 2016; Cummings & Druss, 2011; Pumpa & Martin, 2015). However, caution is needed in interpreting these results in light of the sample characteristics as well as sampling bias.

Our results suggest that ethnic minority students who self-injure might be more willing to seek help for anxiety and depression than self-injury. Indeed, research suggests that the presence

of some symptoms such as suicidal ideation and alcohol use (Czyz et al., 2013) negatively impacts help-seeking behaviours, and the self-destructive nature and physical evidence of self-injury might hinder help-seeking for those engaging in NSSI. Negative reactions and social stigma towards self-injury as well as associated shame, guilt, and secrecy also deter individuals from seeking appropriate help (Pumpa & Martin, 2015). Given that for many individuals NSSI might not be perceived as a problem but as a strategy for coping with psychological distress, individuals would typically not seek help for the injury.

Cultural Responses

In general, attitudes towards individuals who self-injure include shaming and stigmatizing people who self-injure, overreacting or dismissing the self-injury, and failing to consider NSSI a meaningful action for the individual. NSSI is seen as a pathological symptom that must be stopped quickly (e.g., Bosman & Meijel, 2008; Heath et al., 2006; Kokaliari et al., 2015; McAllister et al., 2002; Toste & Heath, 2010). However, most of these observations reported in the literature have been based on White samples, with little attention to how self-injury among ethnic minorities is perceived and responded to within these contexts. As Kokaliari et al. (2015) suggest, cultural and religious factors shape how NSSI is responded to even among mental health professionals, and therefore contextual factors must be considered in the study of NSSI. Our results parallel some of the findings based on White majority samples. For example, the emotion-based response category, including responding to NSSI as a manipulative and/or attention seeking behaviour, was noted in previous studies utilizing White samples (Favazza, 1989; Rayner et al., 2005). Stigma and insufficient knowledge about NSSI have been also reported in studies focusing on White samples (Heath et al., 2011; McAllister et al., 2002; Oldershaw et al., 2008).

Despite these commonalities, some unique themes emerged from the qualitative analyses within the present study. Many participants reported that self-injury was responded to with a lack of understanding of their underlying emotional suffering. A common theme that emerged from participants' responses was a perceived disconnect between NSSI and mental health issues; instead, self-injury was understood as lack of faith, bad spirit, immorality, weakness, and insanity. Thus, there appeared to be an incongruency between how our participants understood and made sense of their NSSI engagement compared to people in the cultural context with which they identified. Accordingly, participants might have been adhering more to Western bio-medical approaches in understanding NSSI than their parents, relatives, and friends in their identified cultural context. As Chaze et al. (2015) argue, religion and spirituality seem to be important factors for some ethnic/racial groups in making sense of different aspects of life including mental health versus illness. However, this lack of agreement on the significance and meaning of NSSI seemed to be perceived as invalidating by our participants.

Participants also described profound shame, secrecy, and condemnation due to perceived damage to family honor, and a lack of an open discussion about these issues within the local culture. They also noted that mental health issues in general are seen as problems that are unique to *White people* and thus were taken less seriously within their identified culture. Therefore, the stigma-based category emerged in our study seems to have unique qualities compared to stigma experienced in cultures with Western bio-medical approaches to mental illness. Most importantly, some participants directly referred to the hindering impact of such responses to their help-seeking behaviours. Previous research suggests that some ethnic minority groups, including first and second-generation immigrants, are vulnerable to strong ingroup stigma towards mental illness which at times could lead to isolation and social rejection (Chaze et al., 2015). Likewise,

our results suggest some secrecy and discrimination towards ethnic minority students' self-injury contributes to additional feelings of shame and guilt. On the contrary, our third category of constructive responses indicated an emergence of a more accepting attitude whereby participants experienced sympathy, support, and encouragement to seek help despite the incongruent viewpoints to understanding self-injury.

In general, there seems to be a negative ingroup response to NSSI among ethnic minority students which is similar to the responses documented among White samples. Recent research on attitudes and self- stigma towards NSSI has documented strong negative self-perceptions and feelings such as; guilt, shame, or embarrassment (Staniland et al., 2020; Long, 2018). In terms of public stigma, non-culture specific responses to NSSI include perceiving individuals who self-injure as *attention-seekers* (Brown & Kimball, 2013) or *freaks* (Mitten et al., 2016) whereby their concerns may be seen as *undeserving of attention* and not taken seriously (Staniland et al., 2020). However, what seems to set apart the present sample of ethnic minority students who self-injured is the incongruity and differing perspectives of NSSI that highlight links to religion and spirituality (e.g., being possessed or evil). This finding may reflect generational differences and varying degrees of acculturation amongst our participants. While, ethnic minority university students might adopt a more Western, medicalized understanding NSSI, they report members of their identified culture as espousing more of a religious and spiritual understanding of NSSI. This finding is congruent with previous research reporting religion-based and/or spirituality driven perceptions of NSSI among certain ethnic/racial groups (Chaze et al., 2015). Even within these reported incongruities between their lived experience versus how they may be perceived, participants nonetheless noted the presence of ingroup sympathy, empathy, and support.

It should be noted that this research did not seek the perspectives of ethnic minority students who do not self-injure; as such, are not intended to make broad claims pertaining to advancing culture-based understandings of NSSI. More specifically, the present study highlights diverse culture-based responses to NSSI as informed by the lived experiences of ethnic minority students who report a lifetime history of NSSI engagement. The emergence of stigma-based, emotion-based responses within the qualitative portion of the study are consistent with research that has reported similar perceptions of NSSI in an Eastern cultural context (Chen et al., 2021), and in a recent cultural comparison study (Gandhi et al., 2021). The constructive and supportive cultural responses to NSSI that were highlighted within the present study are also aligned with research, albeit limited, that identify the potential protective role of cultural/racial sense of belonging in mitigating NSSI engagement among certain groups (Wester & Trepal, 2015). Overall, research and clinical examination of the role of culture, ethnic/racial identity and belonging within NSSI is an area of study that is still in development with emerging research addressing gaps to further our understanding of the relation between these constructs (Chesin et al., 2013; Gandhi et al., 2021). Thus, findings within the present study are a contribution to this growing body of evidence and present the important perspectives of ethnic minority university students who engage in self-injury.

Study Limitations

Although this study highlighted different perceptions of and responses to self-injury among a diverse sample of university students, it is not without limitations. First, causality cannot be established because of the cross-sectional and descriptive nature of the data. Second, we did not have a comparison group to which we could systematically compare the help-seeking behaviours of the ethnic minority group who engaged in self-injury. Third, small sample sizes

within the different ethnic groups restricted the analyses, notably regarding NSSI characteristics and service use, for each ethnic group distinctly. Fourth, small effect sizes within the analyses restrict the external generalizability of the present results, caution must be exercised in interpreting findings. Fifth, our samples only consisted of eight ethnic backgrounds and was not representative of all ethnic groups living in Canada. Additionally, certain identity groups with very limited sample sizes had to be omitted from most analyses as reported in the results section. Further studies are needed to specifically examine NSSI engagement and responses to NSSI among Indigenous university students. Sixth, the convenience sampling methods used within this study may have introduced a selection bias within our study samples, therefore caution is advised when interpreting findings given limited generalizability. Despite this limitation, it is of note that the present study has used both a heterogenous (larger sample of diverse sample characteristics) and homogenous (smaller sample with unifying sample characteristics; i,e., all identify as ethnic minority and report a lifetime history of NSSI) convenience samples. Researchers argue that the use of homogenous convenience samples may contribute to more specific generalizability compared to only reporting findings from a heterogenous convenience sample (see Jager et al., 2017). Future studies should further consider and examine this distinction in potential generalizability as it pertains to convenience sampling approaches in psychological research. Finally, to assess the responses to NSSI that come from family, friends, or professionals within the students' identified cultural context, we only used one open-ended question. We acknowledge that the open-ended question was only a complementary component of the study which cannot fully capture the complexity of this important topic. More comprehensive qualitative studies can tap into the unique qualities of ingroup perspectives and responses to NSSI reported within our sample.

Clinical Implications

Exploring NSSI is particularly important when dealing with ethnic minority university students as they live in both mainstream and local cultures. Therefore, it is vital that the cultural meanings of, and reactions to NSSI are explored and considered in assessment and treatment planning in clinical settings. As noted in the limitations section above, small effect sizes within the present study hamper our ability to conclusively discuss the role of ethnic identity for those with a history of NSSI. Despite this, our findings contribute to the advancement of knowledge in the area of NSSI by highlighting student experiences as contextualized in culture and ethnicity identifications. Considering the levels of stigma and secrecy noted within our sample, there might be additional aspects of shame and guilt which deters individuals from self-disclosure or negatively impacts the therapeutic outcome. Because of the close link between NSSI and suicidality (Klonsky, May, & Glenn, 2013), it might be necessary to explicitly explore NSSI in clinical settings, otherwise it may remain unnoticed. Furthermore, practitioners need to attend to the underlying psychic struggles of the individual instead of merely focusing on eliminating self-injury.

Among cultural communities, religious consultation is a common response to dealing with mental or psychic distress (Chaze et al., 2015); however, in our sample we found very limited religious consultation. Perhaps the demographic characteristics of the sample such as, age, SES, immigration status, and the university setting might have contributed to the limited use of traditional and culture-congruent approaches to coping which can include the use of religion and spiritual practices. More studies are needed to explicate the role of diverse forms of healing such as community support, religious mobilization, and traditional healing regarding self-harming behaviours among ethnic minority university students. Finally, almost 11% of the ethnic

minority students indicated using websites or online sources as help-seeking resources for NSSI and 22% reported having sought help online for other mental health problems. Considering the beneficial and/or potentially harmful influences of NSSI content online (Lewis et al., 2012), it is important for practitioners to explore online activities of young adults who self-injure and to promote the use of professionally-driven resources and online platforms for NSSI for preventive and outreach programs in colleges and universities (Lewis et al., 2012).

Conclusions

Despite the previous belief that NSSI mainly occurs among middle/upper class White young women (Chandler, Myers, & Platt, 2011), our results suggest that some ethnic minority groups (i.e., Multiracial, East Asian, and South East Asian) may be at higher risk of lifetime NSSI although replication of these findings in other university contexts are warranted. Similarly, the socio-psychological factors contributing to this higher prevalence among certain ethnic groups are yet to be determined. Sociocultural contexts are a profound source of influence for how behaviors such as self injury are perceived, understood, and received. Overall, there needs to be more research regarding the subjective experience of ethnic minority university students who self-injure to capture the nuances of how NSSI manifests in different cultural contexts.

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