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The Associations of Race/Ethnicity and Suicidal Ideation among College Students: A Latent Class Analysis Examining Precipitating Events and Disclosure Patterns

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Abstract

The aim of this paper was to examine precipitating events for suicidal ideation and how these experiences relate to disclosure in a diverse sample of college students. Among non-Hispanic White students, relationship/academic problems were most associated with ideation. A romantic break-up increased the odds of getting help. Among racial/ethnic minority students, family/academic problems were most associated with ideation and students who reported multiple events were less likely to get help compared to those not reporting events. Future research should examine the reasons for interpersonal conflict among this high-risk group, their attitudes about help-seeking, and identify cultural norms associated with disclosure.

Keywords

College Students; Disclosure; Suicidal Ideation

Young adults report some of the highest rates of suicidal ideation (SI) and attempts in the U.S. (CDC, 2012) and suicide is the second-leading cause of death among college students (NIMH, 2010). Multiple large-scale studies have followed adolescents throughout high school indicating that racial/ethnic minority (REM) students have remarkably high rates of reported suicidal behaviors compared to non-Hispanic White (NHW) students (CDC, 2012). Due to the lack of research on college students compared to high school students, literature has overlooked whether the same proportion of students report SI and disclosure patterns in relation to race/ethnicity. Due to changing demographics on campuses, the fastest growing groups in higher education are often those reporting high rates of suicidal behaviors in high

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school (NCES, 2012). Clarifying processes that reduce suicidal risk, especially racial/ethnic minority students, can inform campus prevention strategies.

Individual-level factors such as depression and substance abuse are well-established risk factors for college students experiencing SI (Furr et al., 2001). Over half (53%) of students reported some form of depression upon entering college. Substance use, especially alcohol, tends to increase from high school to college (SAMHSA, 2012) heightening one's likelihood of suicidal behaviors. Yet risk factors associated with suicidal behaviors appear to present differently for racial/ethnic groups. For example, there are varying rates of chemical dependency, recent drug use before suicidal death, and the amounts of drugs in decedents' bodies at the time of death (CDC, 2009). Compared to NHWs, Blacks tend to report very low rates of substance use/abuse while Latinos report a strong positive relationship with alcohol and severity of suicidal behaviors compared to NHWs, Asian and Blacks (CDC, 2009). Substance use has long been associated with maladaptive coping during times of distress. A study comparing NHW and Black college students found that Black students reported they had more hope, set more goals and had higher scores related to motivation to achieve their goals which served as protective factors for suicidal ideation (Davidson & Wingate, 2011). What is interesting about these differences among racial/ethnic groups is that while some students report more risk factors compared to NHW students, they still report lower rates of suicidal behaviors.

Suicide risk factors present differently far beyond mental health issues. Social factors including family support and religious affiliation might play a critical protective role among REM groups (Walker, Lester & Joe, 2006). In addition, interest has increased in ascertaining specific social-ecological risk and protective factors associated with suicidal behaviors at the community (e.g. college campuses) and societal (e.g., cultural norms) level. These social-ecological factors are important to prevention efforts as they are related to the number of systems one associates with and feels connected to daily (Wyman et al., 2010).

Compared to peers who have a parent with a college degree, first generation students are more likely to be African American or Latino (NCES, 2012). These students often experience distinctive strains, compared to NHW students, to achieve academic success not only for themselves but also for their families compared to NHWs, intensifying the need to succeed (Sue & Sue, 1990). This added pressure could lead to feelings of hopelessness, depression and isolation. Other social-ecological factors such as school connectedness (De Luca & Wyman, 2012) is linked to increased openness to seek help for distress and these connections likely decrease feelings of loneliness.

While pathways to suicidal behaviors have been studied among those who attempt suicide, there is less information about specific events that precipitate attempts, especially preceding ideation among racial/ethnic minority students. Among adolescents and emerging adults (ages 13-24) presenting with medically serious suicide attempts, interpersonal conflicts such as relationship break-ups and financial problems were common precipitants of suicidal behavior. One-third of this sample reported no adverse events preceding their attempt (Beautrais, Joyce & Mulder, 1997). More so, the suicidal trajectory appears to be moderated by gender, race/ethnicity and other demographic factors. Latina youth with recent attempts

reported a pattern of continuous, escalating stress often associated with parental conflict, mainly with mothers (Zayas, 2011). Peer victimization appears to be higher among NHW adolescents who engage in suicidal behaviors more than REM students (Kaminski & Fang, 2009). Understanding events preceding ideation are imperative for prevention efforts.

In terms of suicidal norms which provide us insight on triggers for suicidal behaviors, Black students reported that suicide was less likely to be associated with interpersonal strain among other stressors but attributed to God's plan compared to NHWs (Walker et al., 2006). Among Latinos, guilt and remorse were strongly associated to their suicide attempts usually due to the effect their behavior had on their families. Conversely, these adolescents also reported that the trigger for their attempt was related to familial conflict (Zayas et al., 2010). When NHW students were compared to REM college students, NHWs reported fewer reasons to not attempt suicide than Blacks, and scored lower than Blacks on the moral objections and coping beliefs (Morrison & Downey, 2000). While these studies shed light on precipitating events among students with suicidal histories, these studies did not examine precipitating events or disclosure patterns that would help inform prevention efforts.

Disclosure and Receiving Help

Suicidal disclosure by college students has emerged as a salient topic in prevention research as it is often a crucial first step in the help-seeking process. Few young adults with mental distress independently seek help from formal helpers (e.g., campus counseling centers) and more often they seek help from family or peers (Arria et al., 2011). Low help-seeking from adults is more pronounced among adolescents with suicidal behaviors, as SI is associated with reduced help-seeking compared to those with a mental health condition alone (Pagura et al., 2009). Therefore understanding factors that facilitate or inhibit suicidal college students from seeking out trusted adults is an important topic for research. Although this study used data from this study is over 20 years old (collected in 1990), and not a nationally representative sample, Morrison & Downey (2000) found NHW college students disclosed at higher rates than REM students. Their findings are not surprising as, racial/ethnic minorities traditionally utilize mental health services less than NHWs (Early & Akers, 1993), including Latinos with recent SI (De Luca & Wyman, 2012) and among college samples (Walker, et al., 2006). Lower rates in minority mental health care utilization could be linked to parental attitudes of behavioral care (Zimmerman, 1991) even though the need for services may be equal or greater than that for other racial/ethnic groups (McMiller & Weisz, 1996). Informal help-seeking is also more common with Latinos and Blacks, who frequently seek help from family and friends compared to NHWs (Ocampo et al., 2007; Cooper-Patrick et al., 1999). These differences may set a norm or pattern of expectations that influence racial/ethnic minority students who experience distress in terms of whether they disclose their SI to an adult or seek help from peers.

This study sought to contrast college students' rates of SI with NHW and racial/ethnic minority students across 70 colleges across the U.S. Based on current trends, we expected that minority students would report higher proportions of SI and seek help less frequently during times of distress compared to NHWs (controlling for demographic factors including gender, age, sexual orientation, living arrangements, and relationship). Our primary

hypothesis was that NHWs would be more open to obtain help for SI and report fewer precipitating events than REM students. We also believed that REM students will report more interpersonal conflicts, especially with family, leading to SI compared to NHWs and these conflicts will decrease the chance of REM students getting help.

Methods

Participants

This study utilized the University of Texas at Austin's Research Consortium Data (*N*=26,451). The stratified sample consists of college students who ideated suicide during the past 12 months (see Drum et al., 2009 for further description). The result was a sample of 1,321 college students nested in 70 schools, including 1,018 NHW and 303 REM (64 Black, 74 Asian, 84 Latino and 81 students defined as "other". Students reporting SI were similar for each racial/ethnic group (4.1% to 5.%; χ^2(4, *n*=1321) = 4.59, *p*>.05). As the NHW group is much larger than any of the other minority groups, the unbalanced group size may bias the estimation (Hox & Maas, 2001). Due to the low numbers represented in each subgroup of the REM sample, we were not able to examine each subgroup (e.g. Latinos) separately (see Czyz et al., 2013). Thus, this study addresses the research questions for NHWs and REM (Black, Asian, Latino and "other) separately.

Stratifying by NHW and REM acknowledges important variations embedded in the sample and a more homogenous sample might mask these differences (see Stanton-Salazar, Chavez, & Tai, 2001). By employing a person-centered approach (Muthén & Muthén, 2000) we can identify intra-individual factors to create targeted prevention programs (White, Bates, Labouvie, 1998). Since research suggests differences in help-seeking behaviors between racial ethnic groups compared to NHW's (Morrison & Downey, 2000) this specific approach may further our awareness of behavioral patterns for REM students. The protocol was approved by the University of Texas at Austin IRB.

Measures

Dependent Variable

Disclosure and Seeking Help: Students responding affirmatively to SI were asked to answer the following question: "Who was the first person you told about these (suicidal) thoughts" with the following individuals to choose from: mother, father, sibling, other relative, spouse/partner, boyfriend/girlfriend, friend, roommate, co-worker, resident advisor, professor, college/off campus mental health provider, psychiatrist, counselor, clergy or other with options of either "yes/no". Due to the low response rate (mean= 10%) of individual responses, likely a result of number of options a student could choose from, we combined all individuals a student reported resulted in a dichotomous measure of 1=help or 0= no help reported (De Luca & Wyman, 2012).

Independent Variables

Precipitating Events: Participants were asked, "Which, if any, of the following occurred before you seriously considered attempting suicide in the past 12 months," and responded "yes/no" to the following events: "recent suicide of a friend or family member", "recent

death of a friend or family member", "recent breakup or loss of a friendship", "recent breakup or loss of a romantic relationship", "recent family problems", "recent financial problems", "recent academic problems", "sexual assault", "relationship violence", "recent trauma/victimization (assault, accident, etc.)", "hurting yourself in a non-suicidal way", and "recent conflict regarding my sexual orientation".

Covariates

LGBQ, Age, Race and Ethnicity: Participants were asked a variety of demographic measures. Students described their sexual orientation as follows: "Bisexual", "Gay/ Lesbian", "Heterosexual" and "Questioning". Bisexual, Gay/Lesbian and Questioning students were combined into this measure. Respondents were asked their age in years and described themselves in terms of race and ethnicity. The options included "Asian", "Alaska Native/American Indian", "Black/African American", "White" or "Hispanic/Latino," and multiple responses were recoded as "Multiracial."

Relationship Status, Living Arrangements and Religion: Measures related to connections to others were also included. Relationship status was determined by the question "which of the following best described your relational status while you were seriously *considering* suicide during the past 12 months?" This measure was coded: 1-in a relationship and 0-single. Participants' living arrangements were defined by two measures: "Do you live with a family member?" and "Do you have a roommate?" with the option of "yes" or "no". Religious affiliation had following options: "Agnostic", "Atheist", "Buddhist", "Christian", "Hindu", "Islamic", "Jewish", "Native American Religion", "Unitarian/Universalist" and "Other". Coded as 1=religious affiliation or 0=no affiliation.

Data Analysis

Univariate analyses examined potential differences among NHWs vs. REM with recent SI (See table 1). Although there was minimal missing data with these univariate statistics, we employed full information maximum likelihood (FIML) to address missing data for the analyses (e.g., Enders & Bandalos, 2001). Latent class analysis (LCA) identifies distinct typologies of previous adverse life experiences among NHW and REM students who ideated in the past 12 months. This analysis is based on probability profiles of observed variables and is particularly appropriate for data on the presence or absence of symptoms (Olino et al., 2012). Mplus Version 7.0 (Muthén & Muthén, 1998-2012) evaluated the fit of a two-class solution followed by a three-class solution, and so on, until the best solution was reached. The Bayesian Information Criteria (BIC) and the adjusted LR chi-square test of exact fit reported overall relative and absolute model fit. The Lo-Mendell-Rubin Adjusted LRT Test (Adj LMR-LRT) compared the fit of the K-class solution with a model with one less class. Non-significant results suggest that a more parsimonious class solution is accurate enough to reflect the data. Finally, the approximate correct model probability (cmP) for a k-class model is an approximation of the actual probability of k-class model being correct model relative to a set of J models under consideration – the higher probability indicates the more likelihood to be correct.

To conduct the classification diagnoses, relative entropy tested the overall precision of classification across all the latent classes. A value 0.7 indicated an overall good separation of the latent classes. We then conducted the class-specific diagnoses for the best fitting model. The modal class assignment proportion (mcaP) falls within the 95% confidence interval for the corresponding model-estimated. Pr (c=k) suggests a good modally-assigned classification. The odds of correct classification (OCC) and average posterior class probability (AvePP) were employed to test classification precision. An OOC value >.5 or an AvePP value > .7 indicates adequate separation and classification precision.

In terms of specific parameters for LCA models, we used the item probability, which refers to the probability of an individual in the specific class endorsing an item (Nylund, Bellmore, Nishina, & Graham, 2007). After determining the best class solution, the latent classes were added to a multilevel logistic regression (Level 1: individual; Level 2: school) to examine what characteristics, including these latent classes, predict disclosure, while considering the within-school clustering. Besides the best possible classes regarding preceding events for SI, gender, age, sexual orientation, living arrangements, relationship status and religious affiliation were controlled for in the models. For multilevel logistic regression models, intraclass correlations were calculated to explain the proportion of variance accounted for at school level (Goldstein, Brown, & Rasbash, 2002).

Results

Suicidal Ideation, Precipitating Events and Disclosure

NHWs and REM students reported similar disclosure rates (53.4% vs. 53.6%, χ^2(1, n=1321) = 0.01, p>.05). Yet, NHWs had higher rates of sexual assault (8.6% vs. 4.0%, χ^2(1, n=1321) = 6.89, p<.05), Hurting yourself in a non-suicidal way (25.0% vs. 17.8%, χ^2(1, n=1321) = 6.54, p<.05) but lower reports of family problems (36.0% vs. 42.8%, χ^2(1, n=1321) = 4.40, p<.05) than REM peers.

Racial/Ethnic Minority Students—LCA examined events prior to SI with REM and NHW students separately. Model evaluation (Table 2) and classification diagnosis outcomes (Table 3) showed that a three-class model was the most parsimonious model for REM that adequately captures the homogeneity of class membership and it had adequate separation and classification precision.

In the three-class model, Class 1, "family/sexual assault/trauma" (6% of REM total, N=17) was typified by intermediate occurrences of family (61%), sexual assault (57%) and exposure to trauma (59%) prior to SI. Class 2: "family/financial/academic problems" (38%, N=115) was typified by high incidence of family problems (82%), financial problems (71%) and academic problems (68%) Class 3: "no events" was the most prevalent (56%, N=171) and characterized by relatively low rates of precipitating events. Results from the multilevel logistic regression indicated that after controlling for covariates, students in Class 2 had a higher likelihood in disclosing (OR= 1.55, CI=1.13-2.54), compared to those not reporting adverse events prior to SI (See Table 4).

Non-Hispanic White Students—Compared to REM students, NHW students had more heterogeneous constellation of adverse life experiences. Results from model evaluation indices suggest that a four-class model would be the most parsimonious model for NHWs that adequately capture the homogeneity of class membership (See Table 2). Classification diagnoses in Table 3 showed that 4-class model had adequate separation and classification precision.

Class 1: "sexual assault" (6% of students, N=63) was characterized as being high in only sexual assault (93%), but low in or not well distinguished by other items prior ideation. Class 2: "financial" (34%, N=350) had very high occurrences of financial problems (69%), but was low or not well distinguished from other classes by other items. Class 3: "multiple adverse events" (19%, N=191) included students who recently broken-up with not only their romantic partner (91%) but also a friendship (71%) as well as family problems (64%). Class 4: "no events" was the most prevalent (41%, N=415) and described by low rates of adverse experiences. Multilevel logistic regressions indicated that after controlling for covariates, students in Class 3 (multiple adverse events) were more likely to disclose (OR=1.65, CI=1.24-1.96) compared to students without reports of adverse events (Table 4).

Discussion

Drawing on a social-ecological perspective (Wyman et al., 2010), we examined events experienced by students prior to ideation and subsequent disclosure patterns among NHW and REM students, College campuses are a key system for emerging adults and previous work has linked positive health behaviors with the ability to practice adaptive coping skills and reduced suicidal behavior (Borowsky et al., 2001). However, little is known about the mechanisms related to racial/ethnic minority students to health, including intentions to seek help for SI.

Congruent with other nationwide studies involving adults (CDC, 2009), as data on racially/ ethnically stratified college samples related to SI are not available, NHW and REM students reported similar ideation rates. While high school samples indicate that racial/ethnic minorities consistently report the highest rates of suicidal behavior, it appears that students who enter college might be a more resilient group, as there appears to be little difference in SI rates among NHW and REM students compared to more representative community samples. Research should focus on specific racial/ethnic college samples to tease-out potential disparities related to SI.

While 58% of NHWs and 25% of REM students reported adverse events triggered ideation, interpersonal conflicts appeared to be common risk factors for both groups. While this finding is consistent with previous research (Zayas, 2011), as interpersonal issues tend to be a strong predictor of suicidal behaviors, it was unexpected that only one-quarter of REM students identified possible reasons for SI. While the list of adverse events was not exhaustive, common triggers linked to SI, including romantic relationship problems, factored into the SI of most REM students.

While NHW students reported a diverse grouping of interpersonal conflicts evidenced by 6 latent classes, REM students reported their most common precipitating events were family and academic strains. This finding was not surprising as minorities typically report utilizing family support during difficult times. While students were not asked if they were first generation college student, we do know that many minorities are the first in their family to attend college (NCES, 2012) and this could lead to increased pressure to succeed. For example, it is not uncommon for a number of family members to work multiple jobs to financially support a relative to attend college. If a REM is struggling academically, inversely if family problems are leading to academic problems, the family unit can be strained. While it appears that a REM students' recollection of events are somewhat homogenous, it appears that NHWs report diverse events preceding SI. While further research needs to tease out these typologies, a universal approach to suicide prevention might be more beneficial to NHW students while culturally tailoring prevention programs for REM students.

As expected, help-seeking for ideation was low among college students overall. An unexpected finding was the similarity in rates of disclosure. We anticipated, based on current trends that REM would be less likely to seek help for ideation compared to NHWs. In relation to which students were most likely to disclose, NHW's reporting a romantic breakup only or combined with a friendship breakup increased help-seeking while REM students with multiple adverse events were less likely to seek help. The break-up of a relationship is often found to be a precursor to suicidal behaviors among young adults and if a romantic relationship ceases this close relationship their main source of support might also end. NHW students might experience this as a real loss and therefore see the need to get help. Conversely, the literature posits that minorities are less open to access help compared to NHWs (Freedenthal, 2007). REM students who experienced a variety of stressors including financial and academic problems, sexual violence, a friend or family member's suicidal death, and family conflict were less likely to seek help. While even one of these interpersonal issues would isolate an individual, it is possible that a combination of issues potentially increases feelings of hopelessness resulting in decreased help-seeking. Prevention efforts should focus on encouraging students to get help early on before becoming overwhelmed by a multitude of issues simultaneously.

A bit more surprising was how only a romantic relationship break-up was related to help-seeking for SI among NHWs. Given that NHWs generally report more openness to getting help for distress, it was surprising that other events would not have the same association for disclosure. For example, family and academic problems were more common among NHWs than romantic issues alone. More concerning is that academic difficulties are issues that multiple individuals would be privy to (i.e. professors, academic advisors, department chairs, etc.) and could provide some encouragement and referral for services. Colleges and universities should encourage academic advisors, faculty and resident advisors to incorporate the importance of mental health counseling into their lectures when appropriate. By normalizing help-seeking to individuals who may have never attended a counseling session or have misperceptions of the process, students might be less apprehensive to initiate an appointment. Also having peer mentors could provide the impetus for a student to access a campus-counseling program. Peer mentoring programs to encourage help-seeking have

shown promise in high schools could be effective on college campuses (Wyman et al., 2010).

Racial/ethnic minorities residing in integrated communities exhibit more positive health behaviors than in segregated neighborhoods (Neeleman & Wessely, 1999). While REM are the fastest growing portion of the college student body, Blacks and Latinos remain under-represented on most campuses. Understanding students' level of connectedness or examining differences between Historically Black Colleges and/or Hispanic Serving Institutions compared to largely NHW schools in terms of suicidal disclosure could shed light on students' feelings of comfort to access services.

Our study raises questions about how to strengthen community-based protective factors that reduce suicide for college students while honoring the strengths of family and community. Traditional Latino, Asian and Black culture stresses keeping personal issues within the familial unit (Sobralkske, 2006). Disclosing SI to anyone, especially a mental health professional might conflict with these cultural norms. A number of prevention initiatives, primarily gatekeeper programs, instruct teachers and staff collectively to become aware of the warning signs of suicide. And while gatekeeper programs have been under scrutiny for their effectiveness in actually increasing help-seeking among suicidal adolescents (Wyman et al., 2008), programs need to specifically address the cultural norms of a diverse student body. Developing culturally-appropriate preventative components that include peers and adults from the community to encourage REM students to disclose distress and SI to an appropriate or trained adult are important challenges for the future. Program developers may seek approaches for recruiting REM, male and sexual minority students who access campus mental health services to share their experiences with peers. Further, sending parents/guardians general information about mental health services on campus might initiate communication about seeking supportive services from trained professionals.

Our results should be interpreted cautiously and cannot be generalized to the larger population due to the small sample size and stratification by race/ethnicity with recent SI. Latino and Black high school students have the highest rates of school dropouts in the U.S. that could potentially bias the REM subsample (Department of Education, 2013). It is unclear whether the lower rates of SI among REM are associated with resiliency or other forms of sample bias. As with other self-report surveys, students may have answered questions in a socially desirable manner. Due to the stigma of SI, reported rates might have been biased, although steps were taken to reduce this potential limitation, including having students answer their survey on-line.

Further research should focus on how students with a history of suicidal behaviors cope with distress while in college, specifically among specific demographic subgroups. For example, sexual minorities have a higher likelihood of suicidal behaviors (SPRC, 2008) and our study found similar proportions of LGBQ students (45%) reporting SI. Further research should focus on this high risk group especially while attending college, as this is a time marked with significant transitions including changes in emotional supports and other socially-based stressors. Prevention efforts specifically focusing on this high-risk group have been limited, especially in college. This study underscores the need to ascertain factors promoting help-

seeking among suicidal REM students. As many college samples are over-represented with NHW students (Czyz et al, 2013; Arria et al., 2011), collecting sufficient samples allowing for the examination of REM separately (i.e. Latinos vs. African Americans) will aid in culturally tailored prevention efforts. Racial/ethnic differences linked to help-seeking for suicidal behaviors are emerging areas of research, likely due to the growing representation of REM in college. Examining the reasons for interpersonal conflict among high-risk students affects their help-seeking attitudes and identifies potential cultural norms associated with disclosure. Understanding these differences is key for effective campus-wide prevention efforts and assessments at campus mental health centers.

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Table 1

Demographics, Precipitating Events and Help-Seeking Among College Students with Suicidal Ideation past 12 months (n=1,321)

Variable	Non-Hispanic White (N=1,018)		Students of Color (N=303)	
	Number	Valid Percent	Number	Valid Percent
Independent Variables				
Gender				
Female	660	65.3	213	71.2
Living with a Family Member/Roommate	752	74.1	231	76.5
In a Romantic Relationship	510	50.2	153	50.7
LGBQ	139	13.0	39	13.7
Having Religious Affiliations	908	89.8	270	90.0
Precipitating event for SI				
a. Recent suicide of a friend or family member	53	5.3	12	4.0
b. Recent death of a friend or family member	159	16.0	36	12.1
c. Recent breakup or loss of a friendship*	254	25.5	55	18.5
d. Recent breakup or loss of a romantic relationship	331	33.2	98	33.0
e. Recent family problems*	359	36.0	127	42.8
f. Recent financial problems	344	34.5	107	36.0
g. Recent academic problems	339	34.0	118	39.7
h. Sexual assault*	86	8.6	12	4.0
i. Interpersonal violence	52	5.2	18	6.1
j. Trauma/victimization (i.e. assault, accident)	80	8.0	22	7.4
k. Hurting yourself in a non-suicidal way*	249	25.0	53	17.8
l. Recent conflict regarding my sexual orientation	62	6.2	16	5.4
	Mean	SD	Mean	SD
Age	24	7.1	24	6.0
Dependent Variable	Number	Valid Percent	Number	Valid Percent
Disclosed SI	524	53.4	157	53.6
Disclosed SI to				
Family member	87	8.9	19	6.5
Romantic partner	174	17.7	56	19.1
Friend	167	17.0	58	19.8
Mental Health Professional	73	7.4	18	6.1
Other helpers	23	2.3	6	2.0
No help	458	46.6	136	46.4

p<.05

Fit of Competing Models

Model	LL	npar[a]	Adj LR chi2 (df), p-value	BIC	Adj LMR-LRT p-value	BF(K, K-1)	cmPk	Entropy
Model for Students of Color								
2-class	-1421.81	25	288.27 (90) ***	2905.66	**	>10	0.02	0.63
3-class	-1401.92	38	309.81 (76) ***	2898.14	0.31	>10	0.97	0.74
4-class	-1390.30	51	328.07 (63) ***	2907.15	0.51	<.10	0.01	0.79
5-class	-1378.55	64	307.92 (50) ***	2915.92	0.16	<.10	<.01	0.83
Model for Non-Hispanic White								
2-class	-5198.95	25	1059.79 (263) ***	10570.50	**	>10	<.01	0.49
3-class	-5142.82	38	1027.52 (250) ***	10547.99	**	>10	<.01	0.68
4-class	-5089.30	51	929.26 (237) ***	10530.70	**	>10	0.99	0.75
5-class	-5065.38	64	870.63 (224) ***	10572.60	0.35	<.10	<.01	0.70
6-class	-5043.88	77	865.26 (211) ***	10619.34	0.66	<.10	<.01	0.73
7-class	-5025.82	90	826.91 (198) ***	10672.98	*	<.10	<.01	0.75

[a] : number of parameters estimated;

*
 p< 0.05;

**
  p<0.01;

***
   p<.001

Table 3

Classification Diagnostics and Response Probabilities in Latent Classes for Non-Hispanic White Students and Students of Color (Unit: %)

Previous Adverse Experiences Prior to Suicidal Ideation	Non-Hispanic Whites				Students of Color		
	Class 1	Class 2	Class 3	Class 4	Class 1	Class 2	Class 3
Classification Diagnostics							
$\hat{\pi}_k$	6.20	34.14	18.91	40.75	5.834	37.85	56.32
95% C.I.*	0.06	0.34	0.19	0.41	0.06	0.38	0.56
	0.04, 0.17	0.20, 0.48	0.09, 0.38	0.29, 0.50	0.01, 0.17	0.20, 0.52	0.43, 0.71
$mcaP_k$	0.06	0.29	0.19	0.46	0.05	0.38	0.60
$AvePP_k$	0.93	0.90	0.81	0.82	0.92	0.87	0.91
OCC_k	207.02	22.90	18.06	5.38	246.52	10.55	6.69
Response Probabilities							
Recent suicide of a friend/family member	0.60	6.70	7.60	3.80	6.40	4.70	3.30
Recent death of a friend/family member	29.30	17.50	28.20	7.00	21.90	16.80	8.00
Recent breakup or loss of a friendship	16.60	6.30	90.90	12.60	40.30	28.20	9.80
Recent breakup or loss of a romantic relationship	31.30	22.90	71.10	24.60	51.20	33.80	30.60
Recent family problems	53.90	48.80	64.10	9.60	60.90	82.10	14.40
Recent financial problems	37.00	69.20	45.60	0.00	54.80	70.90	10.60
Recent academic problems	27.60	48.20	49.90	15.80	47.30	67.60	20.20
Sexual assault	92.90	0.00	9.40	2.70	57.00	0.00	1.30
Relationship violence	29.70	4.10	8.20	1.10	25.70	4.50	5.10
Recent trauma/victimization	52.40	7.60	5.60	2.70	58.60	5.70	3.20
Hurting yourself in a nonsuicidal way	48.80	20.60	37.30	19.30	52.20	16.40	15.20
Recent conflict regarding my sexual orientation	18.60	5.70	7.40	4.20	48.30	6.80	0.00

*
Bias-corrected bootstrap 95% confidence intervals

Table 4

Multilevel Logistic Regression Models: Disclosure of Suicidal Ideation

DV: Seeking Helps (1) Vs. No Help (0)	Racial/Ethnic Minority Students (n = 303)		Non-Hispanic White Students (n = 1,018)	
	OR	[95% CI]	OR	[95% CI]
Measures of Associations (OR)				
Female	1.51**	[1.15, 1.99]	1.38	[0.70, 2.73]
Age (in Years)	1.00	[0.98, 1.02]	1.01	[0.97, 1.05]
Religion	1.03	[0.69, 1.54]	0.53	[0.22, 1.25]
Living with a family member/roommate	0.91	[0.68, 1.21]	0.74	[0.42, 1.31]
Be partnered	1.57**	[1.18, 2.08]	1.90**	[1.19, 3.02]
Lesbian, gay, bisexual, questioning	1.05	[0.68, 1.62]	1.55	[0.84, 2.86]
Final Latent Class				
Class 1	1.07	[0.54, 2.15]	0.41	[0.12, 1.39]
Class 2	0.99*	[0.98, 1.00]	1.55*	[1.13, 2.54]
Class 3	1.65*	[1.24, 1.96]	(reference group)	
Class 4 (Only for NHW model)	(reference group)		—	—
Intercept	1.32	[0.66, 2.62]	1.07	[0.24, 4.77]
Measures of Variation or Clustering				
School level variance (SE)	0.03***	(0.07)	0.32***	(0.04)
Median odds ratio (MOR)	1.18		1.71	
Intraclass correlation (ICC) (%)	0.91		8.94	

*
<.05;

**
<.01;

***
<.001.