

Nursing Students' Perceived Faculty Support, Stress, and Substance Misuse

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ABSTRACT

Background: Nursing school can be an extremely stressful experience. Many nurses with substance misuse issues developed the problem when they were students. The authors, guided by Peplau's interpersonal theory in nursing, examined whether stress and perceived faculty support were related to substance misuse. **Method:** A quantitative, cross-sectional, correlational design was used. Data were collected from members of the National Student Nurses Association using an Internet questionnaire. **Results:** Students with higher stress scores had a higher incidence of substance use. Most students who had higher perceptions of faculty support tended to use fewer nonprescribed stimulants for academic enhancement. **Conclusion:** Nursing students reported a moderate level of stress and used nonprescribed prescription drugs more frequently as the stress scores increased. Perceived faculty support was inversely related to the use of nonprescribed stimulants and does not appear to moderate the effects of stress on substance misuse. [*J Nurs Educ.* 2017;56(7):404-411.]

Nurses who abuse chemical substances are a threat to their patients, colleagues, society, and themselves. Of the three million licensed nurses in the United States (U.S. Department of Health and Human Services, Health Resources and Services Administration, 2010), it is estimated that between 6% and 20% are chemically dependent (Bell, McDonough, Ellison, & Fitzhugh, 1999; Garb, 1965; Luck & Hedrick, 2004).

Research has demonstrated that substance abuse among nurses typically starts before or while they are in basic nursing programs (Bugle, Jackson, Kornegay, & Rives, 2003; Coleman et al., 1997; Fletcher & Ronis, 2005; Greenhill & Skinner, 1991). This can be attributed to the heavy stress from academic and clinical expectations that nursing programs place on students. It is important for nursing program administrators, faculty, and the public to identify students at risk for developing substance use disorders and offer prevention or early intervention. Perceived faculty support may moderate the effects of stress in nursing programs and decrease students' risk of substance misuse.

Several studies have identified the prevalence of substance use in college students, but few have addressed the issue in the subpopulation of nursing students. In a review of the literature, Nair, Nemeth, Williams, Newman, and Sommers (2015) found that the existing knowledge of nursing students' use of substances was derived from studies conducted in the 1980s and 1990s.

INTERPERSONAL RELATIONS THEORY

Peplau's (1952, 1964, 1992) interpersonal relations theory informs on the issue of nursing student substance misuse, stress, and perceived faculty support. Peplau (1952) defined *nursing* as "an educative instrument, a maturing force that aims to promote forward movement of the personality in the direction of creative, constructive, productive, personal, and community living" (p. 16).

Central to Peplau's theory is the concept of stress as a motivation for behavior. People have psychological needs, such as security, recognition, affection, new experiences, and mastery. Needs or stress, in turn, cause tension that individuals strive to

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reduce through behavior or action. Frustration occurs when fulfillment of the need is blocked and can be manifested by anxiety and or aggression (Peplau, 1952). Nursing students experience high levels of stress and are at risk for psychiatric and physical illness (Beck & Srivastava, 1991; Chernomas & Shapiro, 2013; Jones & Johnston, 1997; Reeve, Shumaker, Yearwood, Crowell, & Riley, 2013; Shipton, 2002; Yamashita, Saito, & Takao, 2012). Nursing faculty can be supportive by acknowledging the stress of the program and promoting the use of healthy coping patterns.

Although Peplau (1952) never addressed the relationship between the instructor and the student specifically, the importance of the relationship is implied in her assumptions about nursing education. First, the kind of person a nurse becomes affects what the patient will learn from the experience of the nurse-patient relationship. Second, the role of nursing education is to “foster personality development in the direction of maturity” (Peplau, 1952, p. vii). Given her view on nursing education, Peplau would advocate for a supportive relationship between the instructor and nursing student.

A key assumption in Peplau's theory is that nursing education “requires the use of principles and methods that permit and guide the process of grappling with everyday interpersonal problems or difficulties” (Peplau, 1952, p. xii). Nursing school is an extremely stressful experience. If students feel criticized and judged, they may not talk about their anxiety and may exhibit what Peplau (1952) called a “negative withdrawal” (p. 173). Unable to relieve the increasing anxiety of the stress of the nursing program, the student may resort to chemical use for relief. Peplau (1952) thought that it is important for people to be in warm and accepting relationships, in which they feel that they can be themselves, express feelings, and not be judged.

STRESS AND NURSING STUDENTS

Nursing students are under a lot of stress in their intense programs. Stress has the potential to impede learning and functioning. Timmins and Kaliszer (2002) investigated factors that cause stress in 110 third-year diploma students in Ireland, who identified financial constraints and workload, clinical placement, and relationships with staff and teachers as sources of stress. Other studies found that stress was related to the actions of clinical faculty, nursing staff, and peers and to the implementation of nursing procedures, preparation for clinical assignments, feeling overworked or unprepared, balancing work and home life, and encountering new clinical rotations (Chernomas & Shapiro, 2013; Magnussen & Amundson, 2003; Shipton, 2002).

McAfee (2008) measured the level of stress and perceived faculty support in 137 associate and bachelor of science in nursing degree students using the Student Nurse Stress Index (SNSI) and the Perceived Faculty Support Scale (PFSS). The SNSI results showed that the lack of free time and family time, the amount of material to learn, and examinations and grades were most stressful for undergraduates. Students with high scores on the SNSI had lower grade point averages. Other studies found that nursing students perceived the amount and difficulty of coursework, the amount of material to be learned, examinations, grades, fear of failure, personal health, family

health, and relationships with family, friends, peers, and partners during nursing school as stressful (Glossop, 2001; Jones & Johnston, 1999). Students have also identified lack of free time and time for fun, entertainment, and recreation with friends and family as stressors. In addition, students report competition with peers, the college's lack of response to student needs, and patients', clients', and other professionals' attitudes toward nursing as stressful (Glossop, 2001; Jeffreys, 2007; Jones & Johnston, 1999; Kirkland, 1998; O'Lynn, 2004; Shelton, 2003).

Reeve et al. (2013) surveyed 107 bachelor of science in nursing students enrolled in either a traditional program ($n = 49$) or a second-degree program ($n = 58$) and found that both groups experienced high levels of anxiety, worry, and depression related to stress, which resulted in feelings of inadequacy and rejection. Traditional students tended to report heavy alcohol intake, compared with second-degree students, who reported moderate alcohol intake. Thirty-two percent of the traditional students reported drinking more than six drinks per week, compared with 9% of the second-degree students. One finding that seemed concerning was that some students used alcohol as a maladaptive coping strategy. Neither group used faculty members as support. Traditional students tended to use their peers for support, and second-degree students turned to their spouse or significant other. This is consistent with an earlier study of nursing students (Shipton, 2002).

ANXIETY, STRESS, AND FACULTY SUPPORT

Anxiety is a personal experience that indicates a threat of some type and arouses a stress response. If faculty are able to use good interpersonal skills, they can engage in the formation of a supportive, therapeutic relationship with anxious students.

According to Peplau (1952), “prevention in the area of... psychological functioning is largely a matter of identifying a situation that has become problematic early enough to do something constructive about it” (p. 15). Faculty might consider the purpose of a particular behavior as a possible attempt to relieve stress. If the student seemed to withdraw or demonstrate stress symptoms, the instructor might bring up the concept of stress and how it relates to the life of the student. The instructor could talk to the student privately, or address the group as a whole. The instructor should teach students “how to experience their feelings and how to bear their feelings” (Carey, Noll, Rasmussen, Searcy, & Stark, 1998, p. 204). Although Peplau (1952) thought it was important to help the person solve the immediate problem, she also believed that, for the student to move closer to maturity, he or she must learn how to meet the same difficulty if it arose again. Addressing the topic of the stress of the nursing program early could influence students' recovery from stress and promote healthy coping strategies.

According to a qualitative study by Magnussen and Amundson (2003), 12 undergraduate students' experiences in undergraduate nursing education supported other research regarding recurrent themes expressed by nursing students. These themes included “(a) meeting conflicting demands, (b) feeling overworked, (c) feeling unprepared, and (d) seeking respect and support from faculty” (p. 261). One student reported having a supportive clinical instructor who corrected him or her with-

out making the issue a personal attack, and the instructor's approach helped the student's resolve to remain in the program and not voluntarily withdraw. Another student reported that a faculty member's interaction with a peer was an experience he or she never wanted, because the faculty member criticized the student "in front of other people. So, not only was it criticism, it was criticism so that everybody else could hear it" (Maggnessen & Amundson, 2003, p. 265). This type of interaction devalues and diminishes the student-faculty relationship. The first student reflected feeling that learning was enhanced in a safe environment. Conversely, the second student's experience elicited feelings of impending doom on clinical days.

Learning theorists recognize the significance of having an optimal environment for the best learning to occur. High-level stress impedes this process (Billings & Halstead, 2012; Hutchinson, 2003). The type of relationship that nursing faculty have with nursing students affects teaching and learning outcomes. Students' success in a nursing program is related to their perceptions of having a supportive relationship with faculty (Shelton, 2003).

The current study addresses the following hypotheses:

- Nursing students who report a higher level of stress will have a higher self-report of substance use than those students who report a lower level of stress.
- Nursing students who report a higher level of perceived faculty support will have a lower self-report of substance use than those students who report a lower level of perceived faculty support.
- An interaction will exist between support and stress, such that low levels of perceived faculty support will not change the relationship between stress and substance misuse, and high levels of support will weaken the relationship between stress and substance misuse.

METHOD

Design

This study has a quantitative, cross-sectional, correlational design to determine whether a relationship exists between stress and substance abuse and whether perceived faculty support moderates the effects of stress on substance misuse in a convenience sample of nursing students.

Study Participants

This convenience sample included nursing students who were members of the National Student Nurses' Association (NSNA). Membership includes 60,000 nursing students in 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands (D. Mancino, personal communication, September 9, 2013). The student members are enrolled in diploma, 2-year, and 4-year nursing programs. Data were collected through the Internet by means of SurveyMonkey™.

Instruments

The SNSI. The SNSI (Jones & Johnston, 1999) has a four-factor structure that queries concerning academic load, clinical concerns, personal problems, and interface worries. Interface worries (seven items) include peer competition, attitudes of oth-

er professionals, school response to student need, lack of free time, lack of performance feedback, no time for entertainment, and no time for family. The instructions on the instrument state, "Think of real events in the past month, in your role as student. For each item, please circle the rating that applies to YOU" (M. Jones, personal communication, May 22, 2014).

The responses to the queries range from 1 = *not stressful at all* to 5 = *extremely stressful* in a Likert-type scale. The scale is scored as the total of scores of items 1 to 22, for an overall total of 22 to 110. Scores are categorized by low (22 to 55), medium (56 to 99), or high (100 to 110) levels of stress (Jones & Johnston, 1999). Jones and Johnston (1999) reported that the SNSI demonstrated cross-sample factor congruence, good internal reliabilities, and concurrent and discriminant validity. It has been used as an instrument in many studies.

The PFSS. Shelton (2003) developed the PFSS to explore the relationship between perceived faculty support and student retention. The PFSS consists of 24 items on a 7-point Likert scale from 1 = *disagree* to 7 = *agree*. The score can range from 24 to 168 (median = 96). Half the items measure psychological support, whereas the other half measure functional support. The possible scores for psychological support range from 14 to 98 (median = 56), and the scores for functional support range from 10 to 70 (median = 40). A higher score on the scale indicates greater perceived faculty support. Shelton (2003) reported that content validity was established by a review of three experienced nurse educators.

Shelton (2003) also found that data loaded on two factors when factor analysis was conducted with a varimax rotation: (a) psychological support and (b) functional support. Factor 1 accounted for 31.1% of the variance, with factor loadings of .52 to .79. Factor 2 accounted for 25.6% of the variance, with factor loadings ranging from .49 to .77. Internal consistency for the PFSS was .96, as measured by Cronbach's alpha. Psychologically supportive behaviors included behaviors that were caring, understanding, approachable, encouraging, listening, and respectful. Functionally supportive behaviors included being available, helping without taking over, setting clear and reasonable expectations, giving fair evaluations, role modeling, and presenting information clearly.

The PFSS was shown to differentiate between students who remained in a nursing program and those who withdrew or experienced academic failure ($p = .001$). McAfee (2008) used the PFSS (Shelton, 2003) to determine the relationship of nursing students' perceptions of perceived faculty support to their stress level. The PFSS mean score was 115.54 ($n = 137$) of a possible 24 to 168. This average score falls between perceiving faculty as moderately supportive (73 to 119) and perceiving faculty as highly supportive (120 to 168). PFSS scores were recoded into high (120 to 168), moderate (73 to 119), and low support (24 to 72) to align with the other variables coded as high, moderate, and low. In the analysis of the recoded variables, 95% of all students perceived the faculty as either moderately or highly supportive. Forty-eight percent of all students thought that the faculty was highly supportive. Cronbach's alpha coefficient for the PFSS was .97, which is consistent with alpha coefficient reported by Shelton (2003) of .92 for internal consistency, and "item-to-total correlations were positive and acceptable, from .52 to .79" (p. 73).

Personal Use Survey. The personal use survey consisted of five questions relating to students' personal use of alcohol, marijuana, illegal drugs, amphetamine-like drugs for academic enhancement, and nonprescribed prescription drugs in the past year. These questions were based on the *Monitoring the Future* study by Johnston, O'Malley, Bachman, Schulenberg, and Miech (2014). *Monitoring the Future* is a research program, in its 39th year, funded by the National Institute on Drug Abuse.

Procedures

Prior to embarking on data collection, this study was submitted to the institutional review board (IRB) at Teachers College, Columbia University. The IRB determined that the study was exempt from committee review and assigned it approval number 15-278.

The president of the NSNA gave approval for the study after receiving confirmation of the Teachers College, Columbia University IRB approval. After approval from the NSNA's president, the NSNA sent an e-mail invitation to all undergraduate members to participate in the survey using the link provided in the invitation.

After the questions pertaining to their personal use of substances had been completed, the students who felt they might have an alcohol or drug problem were advised to contact their primary care doctor, the campus counseling center, or a private counseling center for a more in-depth screening, or to go online to find their nearest Alcoholics Anonymous™ meeting (<http://www.aa.org>). The 4,033 participants who completed the survey were offered the opportunity to participate in a lottery for one of four \$100 gift cards.

Data Analysis

Descriptive statistics were conducted on all items in the survey. Means, standard deviations, minimums, and maximums were computed on continuous variables (**Table 1**). Cronbach's alpha for this sample was computed on the three previously developed surveys. Cronbach's alpha was set at .05, but a Bonferroni correction was used to control for Type I errors. In this case, three variables were tested with six different dependent variables. The corrected Cronbach's alpha was .003.

Analyses investigated the relationship of stress and faculty support to each type of substance use and then to the variable combined substance use. The combined substance score was obtained by summing the dichotomized substance use variables (0 = *no drugs used* to 5 = *five drugs used*). For the predictor of stress, a variable was created from the centered mean of the composite score of the SNSI divided by 10. A similar variable was created to index the faculty support variable using the centered mean of the PFSS divided by 10. Scores were divided by 10 to make them more interpretable and were mean centered to avoid multicollinearity of the interaction term with the main effects.

To address the three hypotheses regarding the assessment of combined substance use, a multivariate linear regression was used with SNSI, PFSS, and the interaction between them as predictor variables, and combined substance use was the dependent variable. Individual substance use was examined to assess whether the separate types of substance use were related to the three predictors. A multivariate logistic regression analyses

TABLE 1
Frequencies and Percentages of Demographic Data
(*N* = 4,033)

Demographic	<i>n</i>	%
Age		
17 to 27 years	2,783	69
28 to 58 years	1,250	31
Gender		
Male	290	7
Female	3,743	93
Race		
White	3,195	79
African American	245	6
Asian	306	8
American Indian	38	1
Native Hawaiian or other Pacific Islander	34	1
Some other race	215	5
Relationship status		
Single, never married, and not living with significant other	2,147	53
Single but cohabiting with significant other	625	16
Married	982	24
Domestic partnership or civil union	99	3
Divorced	139	3
Separated	32	1
Widowed	9	1
Were you born in the United States?		
Yes	3,649	91
No	384	10
What type of nursing program are you currently enrolled in?		
Associate degree in nursing	1,027	26
Baccalaureate degree in nursing	2,686	67
Baccalaureate degree completion program (already have RN)	71	2
Diploma in nursing	74	2
Other	175	4
What year of the nursing program are you in?		
First year	947	24
Second year	1,175	29
Third year	608	15
Fourth year	997	25
Other	306	8

Note. Due to rounding error, not all percentages sum to 100.

TABLE 2
Frequencies and Percentages of Personal Use
in the Past Year

Substance	n	%
Drank more than five drinks in a row (a drink is a glass of wine, a wine cooler, a bottle of beer, a shot glass of liquor, or a mixed drink)?		
0 occasions	1,552	39
1 to 40+ occasions	2,481	61
Used marijuana (i.e., weed, pot) or hashish (i.e., hash, hash oil)?		
0 occasions	3,310	82
1 to 40+ occasions	723	18
Used illegal drugs, excluding marijuana, or nonprescribed prescription drugs (e.g., Ritalin, Adderall, pain pills, and tranquilizer sleeping pills)?		
0 occasions	3,820	95
1 to 40+ occasions	213	5
Used amphetamines or other prescription stimulant drugs (e.g., Ritalin or Adderall) to help you study or to enhance your academic performance without the doctor telling you to?		
0 occasions	3,710	92
1 to 40+ occasions	323	8
Used nonprescribed prescription drugs (e.g., pain pills, tranquilizers, sleeping pills), excluding nonprescribed stimulants, such as Adderall or Ritalin?		
0 occasions	3,625	90
1 to 40+ occasions	408	10
Used 0 substances	1,328	32.9
Used 1 substance	1,727	42.9
Used 2 substances	655	16.2
Used 3 to 5 substances	313	8.

was conducted on each of the substance categories to assess a relationship of use of the individual substances to stress, faculty support, and their interaction.

RESULTS

Description of the Sample

The majority of survey participants was women ($n = 3,743$, 93%) and White ($n = 3,195$, 79%). Most participants identified their relationship status as single, never married, and not living with a significant other ($n = 2,147$, 53%), and a majority of participants was born in the United States ($n = 3,649$, 91%). Most participants were enrolled in a baccalaureate nursing program ($n = 2,686$, 67%) and were in the second year of their respective nursing program ($n = 1,175$, 29%). Demographic results are presented in **Table 1**.

Reliability

Means and standard deviations were calculated for the SNSI and PFSS composite scores. Scores for the SNSI ranged from 22 to 110 ($M = 68.21$, $SD = 14.16$). Scores for the PFSS ranged from 24 to 168 ($M = 119.14$, $SD = 28.94$).

Cronbach's alpha test of reliability and internal consistency was conducted on the two scales. The alpha values were interpreted using SPSS® version 18 software. Results for SNSI scores indicated good reliability ($\alpha = .893$), and results for PFSS scores indicated excellent reliability ($\alpha = .970$).

A Pearson product-moment coefficient was computed to assess the relationship between the PFSS and SNSI scales. A negative correlation existed between the two variables ($r = -.308$, $n = 4,033$, $p < .001$). Increases in PFSS scores were correlated with decreases in stress scores.

Combined Substance Use

Frequencies and percentages were calculated for combined substance use (**Table 2**). A multivariate linear regression was conducted with mean-centered SNSI scores, mean-centered PFSS, and their interaction as predictors and combined substance use scores as the outcome variable. The linear regression model was significant, $F(3, 4029) = 6.97$, $p < .001$, $R^2 = .005$, but the R^2 suggests that the predictor variables accounted for less than 1% of the variance in combined substance use scores. Mean-centered SNSI scores were significant in the model, which suggests that with every 10-unit increase in scores, the combined substance use scores increased, on average, by 0.04 units. Mean-centered PFSS scores ($p = .042$) and the interaction term ($p = .274$) were not significant in the model. Regression results are shown in **Table 3**.

Individual Substances

Each of the substance use categories were individually examined to see whether a relationship existed between the dichotomized type of substance used and the three predictors. Frequencies and percentages were calculated for individual substance use (**Table 2**).

Logistic regressions were conducted to ascertain the effects of mean-centered SNSI scores, mean-centered PFSS scores, and the interaction term on the likelihood that participants would excessively drink or use marijuana or illegal drugs. The SNSI scores, the PFSS scores, and the interaction terms were not predictive of whether a student was likely to binge drink or use marijuana or illegal drugs.

Stimulant Use for Academic Enhancement. A multivariate logistic regression was performed to ascertain the effects of mean-centered SNSI scores, mean-centered PFSS scores, and the interaction term on the likelihood that participants would use nonprescribed stimulants for academic enhancement. The logistic regression model was statistically significant, $\chi^2(3) = 27.33$, $p < .001$, but the analysis indicated that the predictor variables accounted for less than 1.6% (Nagelkerke's R^2) of the variance in nonprescribed stimulant use. Mean-centered PFSS scores were significant in the model, suggesting that for every 10-unit increase in the PFSS scores, students had, on average, a decrease of 0.09 units of stimulant use. Mean-centered SNSI scores ($p = .182$) and the interaction term ($p = .997$) were not significant in the model. Results are presented in **Table 4**.

TABLE 3
Multiple Linear Regression

Source	B	SE	β	t	p
Mean-centered SNSI scores	0.04	0.01	.05	3.05	.002
Mean-centered PFSS scores	−0.01	0.01	−.04	−2.20	.028
Mean-centered SNSI × Mean-centered PFSS	0.00	0.00	.02	1.10	.274

Note. Overall model fit: $F(3, 4,029) = 6.97, p < .001, R^2 = .005$; SNSI = Student Nurse Stress Index; PFSS = Perceived Faculty Support Scale.

Nonprescribed Prescription Drugs. A logistic regression was conducted to ascertain the effects of mean-centered stress scores, mean-centered faculty support scores, and the interaction term on the likelihood that participants would use nonprescribed prescription drugs. The logistic regression model was statistically significant, $\chi^2(3) = 28.66, p < .001$, but the analysis indicated that the predictor variables accounted for less than 1.5% (Nagelkerke's R^2) of the variance in nonprescribed drug use. For every 10-point increase in stress scores, students were 1.17 times more likely to report nonprescribed drug use than those students with lower scores on the SNSI ($p < .001$). The PFSS scores ($p = .032$) and the interaction term ($p = .538$) did not significantly add to the model. Results are presented in Table 5.

DISCUSSION

The purpose of this quantitative, cross-sectional, correlational design was to determine whether a relationship exists between stress and substance abuse and whether perceived faculty support would moderate the effect of stress and substance misuse in a convenience sample of nursing students. The results support the first hypothesis for combined substance use and use of nonprescribed prescription drugs, that students who reported higher levels of stress would have higher self-reports of substance use than those students who reported lower levels of stress. The results partially support the second hypothesis, that nursing students who reported higher levels of faculty support would have lower self-report of substance use than those students who reported a lower level of perceived faculty support, but this finding applied only to stimulant use for academic enhancement. Although models containing both stress and faculty support were significant, they accounted only for 0.5%, 1.6%, and 1.5% of the variance, respectively.

However, the results did not support the third hypothesis. No relationship existed between substance use and the interaction term, which suggests that no support existed for the moderation hypothesis.

When the substances were examined individually, the results indicated that nursing students who reported high levels of stress were more likely to use nonprescribed drugs; the lower the per-

TABLE 4
Results of Logistic Regression With Stimulant Use for Academic Enhancement

Source	B	Wald	df	p	OR
Mean-centered SNSI/10 scores	0.059	1.78	1	.182	1.06
Mean-centered PFSS/10 scores	−0.089	17.60	1	<.001	0.915
Mean-centered SNSI × Mean-centered PFSS	0.000	0.012	1	.997	1.00

Note. Overall model fit: $\chi^2(3) = 27.328, p < .001$, Nagelkerke $R^2 = .016$. SNSI = Student Nurse Stress Index; PFSS = Perceived Faculty Support Scale; df = degrees of freedom; OR = odds ratio.

TABLE 5
Results of Logistic Regression With Use of Nonprescribed Prescription Drugs

Source	B	Wald	df	p	OR
Mean-centered SNSI/10	0.158	16.46	1	<.001	1.17
Mean-centered PFSS/10	−0.042	4.62	1	.032	0.959
Mean-centered SNSI × Mean-centered PFSS	0.000	0.012	1	.997	1.00

Note. Overall model fit: $\chi^2(3) = 28.660, p < .001$, Nagelkerke $R^2 = .015$. SNSI = Student Nurse Stress Index; PFSS = Perceived Faculty Support Scale; df = degrees of freedom; OR = odds ratio.

ceived faculty support was, the more likely the student was to report use of stimulants for academic enhancement. However, the amount of variance accounted for in all these analyses was very small. Clearly, other factors besides stress influence the use of substances as they are assessed in this study.

The mean SNSI score was 68. This falls into the category of moderate degree of stress (Jones & Johnston, 1999). The association of stress with increase in substance use is consistent with the findings of other studies reporting that nursing students may use alcohol and drugs as a coping strategy (Baldwin, Bartek, Scott, Davis-Hall, & DeSimone, 2009; Reeve et al., 2013).

The average PFSS score of the participants was 119.14. This is at the upper boundary of perceived moderate support (Shelton, 2003). The results do not support a moderating effect of perceived faculty support on the relationship between stress and nursing students' use of substances. This is surprising as, by itself, faculty support can reduce the risk of substance abuse, at least for stimulant use. It may be that no way exists to reduce the stress except how the student copes with it using individual strategies.

CONCLUSION

Nursing students experience a moderate level of stress and may use substances as a way of coping with this stress. On average, students experience a moderate degree of faculty support. They are at risk for substance misuse as their stress level increases. Perceived faculty support seems to be a protective factor relative to stimulant misuse for academic enhancement, suggesting that students who feel supported by faculty do not feel the need to use artificial means to enhance their academic performance. Peplau (1964) espoused that the prevention of problems is “largely a matter of identifying a situation that has become problematic early enough to do something about it” (p. 41). It is the faculty’s responsibility to be aware of the student experience and develop prophylactic strategies for managing stress by providing support and educating their charges with stress management techniques. Students who have instructors they perceive as supportive may be more likely to express their anxiety and frustrations to them and elicit support from them, rather than to self-medicate with substances to cope with their anxiety and stress.

It also possible that substance use is affected by other variables, such as students’ perceptions about acceptability, lack of knowledge of substances’ effect on the body, previous substance use behavior, genetic predisposition, religious beliefs, participation in sports or other club activities, or some other confounding factors.

Clinical Relevance

Many of the nurses with substance misuse issues developed the problem while they were students. Accordingly, it is important to identify students at risk for developing substance misuse disorders for prevention or early intervention. Early intervention may help prevent the development of detrimental neurocognitive brain changes caused by substance misuse.

Several studies have identified the prevalence of substance use in college students, but few have addressed the issue in the subpopulation of nursing students. This study informs the nursing education community about the importance of perceived faculty support in reducing the risk of students’ stimulant use.

Limitations

There are several limitations to this study. First, the study used a convenience sample of nursing students in the United States who were members of the NSNA. It is possible that students who answered this type of questionnaire are not representative of all students. This study is cross-sectional, which means it only measured substance use at one point in time. Of the 56,000 potential participants, 4,452 responded. About 9% of the surveys were incomplete and discarded. It may be that students who misused substances were uncomfortable with the questions and so did not take the survey or complete it once they started.

Another limitation is that students were not asked about stress reduction techniques. Some schools may also offer instruction on wellness for students. This might include stress reduction techniques. Students were not asked whether they were in counseling or taking psychiatric medication, which might

affect their perception of stress and their use of substances as a relief from stress. In addition, this is a self-report study. Self-report data can have several potential sources of bias. One such bias is selective memory about events that have occurred in the past. In this case, students were asked to remember past-year substance use. Exaggeration and social desirability are other biases that can occur if participants over- or underreport substance use in line with what they perceive as desirable.

Implications for Future Research

Research is needed on interventions that increase students’ perception of faculty support or that increase actual faculty support. Another area of research needed to explore how the faculty can help students in reducing their stress levels. Conducting stress reduction programs or support groups for nursing students facilitated by nurse counselors may help students to cope in an adaptive manner.

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