



Research Paper

A sense of belonging and perceived stress among baccalaureate nursing students in clinical placements



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SUMMARY

Introduction: The rigorous efforts students put into baccalaureate nursing programs to become a professional nurse is compounded by their need to have a sense of belonging in their clinical placements. In addition, the students' perceived stress may contribute to their physiological and psychological wellbeing undermining academic achievements and confidence.

Background: A sense of belonging and perceived stress have research history in psychological and sociological realms; but not used together in the nursing profession as applied in clinical placements. The Perceived Stress Scale is a psychological instrument used globally; however, the Belongingness Scale-Clinical Placement Experience (BES-CPE) measurement tool has not been used in published research in the United States.

Methods: A descriptive correlational research design examining the relationship between a sense of belonging and perceived stress among baccalaureate nursing students in clinical placements. Three measurement tools were used for data collection: BES-CPE, Perceived Stress Scale (PSS-10) and demographic questionnaire. Students were able to access the online survey through SurveyMonkey®.

Participants: A national study was conducted using 1296 volunteer nursing students from the National Student Nurses Association (NSNA) database. These nursing students were currently enrolled in a baccalaureate nursing program, 18 years of age and completed at least one clinical experience.

Results: The findings from this study revealed a statistically significant low inverse relationship ($r = -.277$) between a sense of belonging and perceived stress among baccalaureate nursing students in their clinical placements. The findings also supported the use of BES-CPE as a reliable and valid measurement tool for nursing students in clinical placements.

Conclusion: The results of this study supported the concept of a sense of belonging as a fundamental human need, having a positive influence and impact on students' learning, motivation and confidence. In contrast, perceived stress has negative consequences on the students' self-concept, learning skills and competence.

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Introduction

One of the hallmarks of nursing education is for students to practice and understand how to care for patients in a clinical placement. Clinical placements have prevailing influence on the learning processes and interpersonal relationships which are critical for nursing students' success (Baumeister and Leary, 1995; Levett-Jones and Lathlean, 2009); and provide them with opportunities to perform nursing skills which emulate a professional nurse (Benner et al., 2010; Chen et al., 2011; Cowen and Moorhead, 2011). The students learn the necessary socialization skills and the social connectedness in developing the capacity for engaging in relationships with patients and families (Benner et al., 2010; Walton and Cohen, 2007). Students need a sense of belonging because it is a pivotal concept which impacts student nurses' acceptance and connectedness with nurses in their clinical placements (Levett-Jones and Lathlean, 2009). On the other hand, perceived stress negatively impacts the student's confidence and motivation to learn. Nursing students who are not confident may have a more difficult

time fitting in with the nurses; leading to overwhelming feelings of being unprepared for the challenges of nursing (AACN, 2014; Ulrich et al., 2010; Levett-Jones and Lathlean, 2007).

The purpose of this study was to describe the level of a sense of belonging and perceived stress among baccalaureate nursing students in their clinical placements. According to Hagerty et al. (1992) a sense of belonging has been negatively associated with stress and depression (p. 173). A sense of belonging and perceived stress are important concepts researched in this study among nursing students as they transition to their roles as professional nurses. Belonging is defined as a personal involvement with a group or system which is characterized as feelings of being valued, needed or accepted by the group (Hagerty and Patusk, 1995). Levett-Jones and Lathlean (2009) explored the concept of belongingness and how it relates to nursing students' experiences as they learn to become nurses in their clinical placements. Further research on belongingness (Levett-Jones et al., 2009b) led to the development of the measurement tool, Belongingness-Scale Clinical Placement Experience (BES-CPE) which was used for this study.

Stress researcher Hans Selye pioneered and defined stress as producing non-specific responses in the body when there are any demands for change (Smith and Selye, 1979). Selye focused on the psychological and physiological responses of stress which included having positive and negative effects on an individual's motivation and performance. Many studies have associated stress with negative and energy draining aspects (Jan and Popescu, 2014; Jimenez et al., 2009). Individuals, such as nursing students, would evaluate their situations and respond to stress whether it is real or perceived as a threat and whether it is physical, psychological or social (Varcarolis et al., 2006; Lazarus and Folkman, 1984).

Previous research studies have included the relationships between “a sense of belonging and nursing students”, and “perceived stress and nursing students”; however there is no published data measuring the relationship of a sense of belonging and perceived stress among baccalaureate nursing students in their clinical placements. The hypothesis for this study suggests that there should be an inverse relationship between a sense of belonging and perceived stress on nursing students in their clinical placements. Data will be collected using the measurement instruments Perceived Stress Scale (PSS-10) and Belongingness-Scale Clinical Placement Experience (BES-CPE) measurement instruments. The Perceived Stress Scale (PSS-10) is a global psychological measurement instrument which has been used extensively to evaluate an individual's stress. The Belongingness-Scale Clinical Placement Experience (BES-CPE) measurement instrument has not been used in a national study in the United States and will add to the body of knowledge on an international level using sense of belonging among nursing students.

Background

Belonging is an essential concept for mental health, which includes the involvement of feeling needed, accepted and fitting in; thus when a person does not have a sense of belonging, they will feel loneliness and rejected (Hagerty et al., 1992; Baumeister and Leary, 1995). Students experiencing a sense of belonging are noted to have a healthier well-being and cognitive development which decreases stress and anxiety as well as promote self-confidence (Hagerty and Patusky, 1995; Levett-Jones et al., 2009a). Stress contributes to students' nervousness and anxiety, and they are overwhelmed by the sights, smells, and sounds they are experiencing for the first time (Jimenez et al., 2009; Levett-Jones et al., 2009a, 2009b). Many clinical placements are very busy and the students' initial responses are uncertainty and apprehension (Pullen et al., 2001). In addition, there is a decrease number in faculty, clinical sites, preceptors, and available nursing staff at the clinical placements. This overcrowding in clinical placements subjects students to “uncivil, if not hostile, behavior from the staff nurses” (Benner et al., p. 226).

Unfortunately, nurses who were not supportive or helpful made the students “feel nervous and incompetent” with an obvious strain between the relationships. Consequently, nursing students who are not confident and competent may have a more difficult time fitting in with the nurses (AACN, 2014; Ulrich et al., 2010). Wieland et al. (2007) found nursing students who were supported by the staff nurses, experienced a higher level of adaptation and socialization which influenced the students' confidence. As the students' confidence in caring for patients increased, the nurses trusted the students and allowed them to become more independent.

Literature Review

A sense of belonging has been considered a key element of social attachments (Baumeister and Leary, 1995) and social connectedness (Walton and Cohen, 2011) in supporting the students' academic motivation and achievements (Goodenow, 1993; Levett-Jones and Lathlean, 2008). The growing research on a sense of belonging for nursing

students in their clinical placements continues to validate the importance of this universal concept. Researchers Levett-Jones and Lathlean (2009) studies on belongingness and undergraduate nursing students from Australia and the United Kingdom in clinical placements revealed a diminished sense of belonging delays students' motivation and learning in the clinical placements. The researchers propose a sense of belonging is strongly related to the students' learning and motivation and allowed students to be self-directed in their learning.

In a rural hospital-based student nurse preceptorship, 12 nursing students participated in a study to explore the events and meanings of events which influenced the students' sense of belonging (Sedgwick and Rougeau, 2010). According to the students, they spent more time interacting with registered nurses, which had a significant influence making the students feel like they belonged or did not belong. Students having opportunities to meet their learning needs and be a contributing member of the nursing team, fostered a sense of belonging or connectedness and self-esteem. Students not having opportunities to create supportive relationships with the nursing teams may have difficulty fitting in. Sedgwick (2013) continued research on a sense of belonging comparing second-degree and traditional undergraduate nursing students in their clinical placements from a small urban university in southern Alberta, Canada. Using the BES-CPE questionnaire, these two groups of students were examined for their experience with belonging during their clinical placements. The belongingness subscales efficacy, connectedness and esteem, revealed the second degree students were found to have a lesser degree of efficacy ($p = 0.001$) than the traditional students. It was suggested combining the student groups to create opportunities for the second degree students to engage in sharing their life experiences and traditional students to reciprocate by sharing their familiarity with the culture of nursing practice in clinical placements.

Kim and Jung's (2012) research in nursing education recognized the importance of Korean nursing students' sense of belonging in their clinical placements. To address this issue, the researchers needed to develop a standardized Korean BES-CPE survey by translating and back-translating (for cultural concerns) the instruments' questions. The study used a cross-sectional survey of 335 self-reported nursing students' from 6 educational institutes (3 Seoul-based and 3 local schools). The researchers analyzed and found the translated BES-CPE Korean version was reliable and valid instrument in measuring a sense of belonging with Korean nursing students. Translated BES-CPE measurement tool from English into Korean revealed Cronbach's alpha score .90 (range: .71–.84) with the subscales of self-esteem, efficacy, and connectedness as .84, .81, and .74, respectfully. Clinical placements vary from schools, regions and countries. The relevance of this study supports BES-CPE as a valid and reliable tool to use for nursing students in another culture and country.

At the multidisciplinary higher education institute (HEI), Finnish Helsinki Metropolia Universities of Applied Science (UAS), a pilot study was conducted by researchers Metsala, Heiskanen and Kortelaninen (Metsala et al., 2012) using Levett-Jones' BES-CPE survey. As part of a larger university study to promote student wellbeing, these researchers were charged with finding an appropriate instrument to measure the students' belongingness. The BES-CPE survey was identified as appropriate because it was multidimensional and meeting the higher education institute standards. Four questions which were not used because they were specific for clinical placements and replaced with 5 questions about cooperation and meeting places. These replacement questions met the focus of the larger study's qualitative portion because cooperation and meeting places were important to students to feel like they belong. Approximately 16,000 students in 67 programs were initially sent a web-based questionnaire. Although the questionnaire was available for all 16,000 students, only 57 responses were returned, but these responses represented all the programs of the UAS. The response rate was the weakest part of the study but the researchers felt there were enough responses to have validity and

reliability tests. As a result from this pilot study, the Belongingness Scale in Higher (BES-HI) education institutions scale was formed. Three factors subscales were formed similar to the BES-CPE instrument: connectedness to student community, connectedness to higher education institute and integration.

The relationship between the nursing staff and students is crucial because interactions with the nursing staff can help or hinder the students' clinical learning experiences (Benner et al., 2010). Koontz et al. (2010) used a qualitative approach with 10 students (3 males and 7 females) to provide information of the students' perception of the nurses. Nursing students considered nurses as their role models, enhancing student nurse learning by having them feel part of the team; nurses on the other hand, felt a commitment to give back to the nursing profession as preceptors. Courtney-Pratt et al. (2011) also reported on a cross-sectional survey of 178 undergraduate nursing students and 22 supervising nurses demonstrated that nursing students who are welcomed and accepted by nurses in clinical placements learn to be confident and competent as nurses.

Sharif and Masoumi's (2005) qualitative study of 90 baccalaureate nursing students in Iran examined the students' experiences in their clinical placements. Participants were randomly selected from two hundred students and arranged into 9 groups of ten students. The focus groups data revealed four themes: initial clinical anxiety, theory-practice gap, clinical supervision, and professional role. These results revealed students were not satisfied with clinical experiences and initial clinical experiences were very stressful.

Watson et al.'s (2008) longitudinal study investigated how differences in life events and stress contribute to psychological distress in newly qualified nurses and nursing students. During a four year period (1994–1997), a total of 192 participants completed the study out of 359 participants (147 nurses and 212 nursing students). The results found life events and stress contributed significantly to psychological distress which compounded the experiences nursing students are exposed to in clinical placements. In addition, Edwards et al. (2010) longitudinal study on undergraduate nursing students also revealed stress level and self-esteem change over time because of the variations of psychological wellbeing.

There are many tools available to measure stress or perceived stress. This study used the Perceived Stress Scale (PSS-10) measurement tool because the psychometric properties for internal consistency reliability, factorial validity, and hypothesis validity were established as noted in Lee's (2012) research. Lee's extensive study of the literature review of the Perceived Stress Scales included three computerized data bases and full-text, and original articles which produced 654 studies that used PSS. The final inclusion criteria comprised of 19 studies. The population for these studies was similar to the present study using mainly college students or adult workers, but none of these studies specified nursing students. However, the systematic review of literature from Pulido-Martos et al.'s (2011) quantitative studies reported specifically on the source of stress for nursing students in clinical practice. Analyzing 23 studies related to student nurses in academics and clinical practice, Pulido-Martos et al compared these studies noting the differences in designs, instruments and stressors for nursing students.

An indirect link to the relationship of belonging and perceived stress was found in Choenarom et al.'s (2005) longitudinal study examining 90 men and women with a history of depression. One of the purposes of this study was to "examine sense of belonging, social support, and spousal support as potential mediators and moderators of the relationship between perceived stress and level of depression in men and women both with and without a history of depression" (Choenarom et al, p. 19). The study used Perceived Stress Scale (P-14) and Sense of Belonging Instrument (SOBI) to measure the individuals' assessment of life stressors and their fit and valued involvement, respectively. The results from this study suggested promotion of a sense of belonging interventions should be used when dealing with individuals with depressive symptoms. Nurses in particular should be mindful of

interventions aimed to support the individuals' social and spousal support. These interventions should be directed toward stress reassessment and promotion of a sense of belonging, thus yielding direct and stable effects of diminishing depression.

Methods

A descriptive correlational study was used to measure the relationship between a sense of belonging and perceived stress among baccalaureate nursing students during their clinical placements. A convenience sampling of baccalaureate pre-licensed nursing students from the National Student Nurses Association (NSNA) database was used. On February 10, 2014, approximately 30,000 baccalaureate pre-licensed nursing students from 50 states of the United States of America, the District of Columbia, Guam, Puerto Rico and the U.S. Virgin Islands received a broadcast email providing an electronic link to the survey along with an introductory message about the study via the online database SurveyMonkey®. For confidentiality and privacy, the NSNA did not release the students' email addresses. The students who participated in the survey were able to use their internet access (computer, iPad, and phone) from work, home, school or where they choose to complete the survey. Approval was received from the School of Nursing Institutional Review Board (IRB). Participation in this study was voluntary and implied their consent but could have declined to participate at any time. To ensure confidentiality and privacy no identifiable personal information including email addresses were used or captured and the survey was distributed only by the NSNA. In addition, the students could only respond once to this survey. The same broadcast email with survey was sent out again 2 weeks later on February 23, 2014 to the same students from the NSNA database. The survey was closed on March 2, 2014.

Inclusion criteria for this convenience sample of students were: (1) currently enrolled in a baccalaureate science of nursing program; (2) 18 years of age or older; and (3) completed at least one clinical experience. Exclusion criteria include students who have failed or dropped out of the nursing program for personal or non-academic reasons, under 18 years of age, and students who have not had a clinical experience.

Measurement Instruments

Prior to initiating this study, approval was received from the Institutional Review Board of the School of Nursing and permission from Dr. Diane Mancino's (Executive Director of the NSNA) to recruit students from the NSNA database prior to data collection. Three measurement instruments; Belongingness Scale-Clinical Placement Experience (BES-CPE), Perceived Stress Scale (PSS-10), and demographic questionnaire, were used together for the first time in collecting data for this study. The BES-CPE developed by Levett-Jones (2007) is a 34-item survey to measure belongingness by evaluating the students' feelings, cognition and behaviors which reflect the major factors or subscales of belongingness which are esteem, connectedness and efficacy. Permission to use the BES-CPE was requested and granted by Dr. Levett-Jones. The instrument was self-reported and has a five-point Likert scale ranging from: (1) never true, (2) rarely true, (3) sometimes true, (4) often true, and (5) always true. A higher score indicates a higher level of belongingness. The range of values obtainable for the BES-CPE is 0–175. For clarification with the U.S. nursing student population, the only modification in this survey was to use the term "clinical staff" instead of "colleagues" in the questions when applicable.

There are three versions of Perceived Stress Scale (PSS) developed by Cohen et al. (1983); the original 14 question scale (PSS-14), a shortened 10 questions scale (PSS-10) and a 4 question scale (PSS-4) use primarily for short introductions and phone interviews. The psychometric properties of all three of these scales were reviewed (Lee, 2012) and reported the PSS-10 scale to be superior to the PSS-14 and PSS-4.

The PSS has been widely used, translated into 25 languages and has been established in several research studies. In this study, the PSS-10 was used to measure the degree of perceived stress of the students' thoughts and feelings during the past month. This self-reported instrument measures the degree to which an individual perceives their life has been unpredictable, uncontrollable, and overloaded in the past month. Each of the 10 questions is rated on a 5-point Likert scale ranging from: (0) never, (1) almost, (2) sometimes, (3) fairly often, and (4) very often. The range of values obtainable for the perceived stress score range is 0–40 (Cohen and Williamson, 1988).

The demographic questionnaire was developed by the study's primary researcher using eight characteristics of the students. The demographic data included 8 items: (1) student status of full-time or part-time student; (2) semesters of nursing education completed; (3) number of clinical rotations; (4) employment in a healthcare setting; (5) family members in the nursing profession; (6) age; (7) gender; and (8) race or ethnicity.

Results

A response total of 1595 was received from the database SurveyMonkey®. Data were screened using the IBM SPSS 21. The results indicated of the 1595 total respondents were 286 respondents were removed from the study for missing 20% or more of the survey data. Another 4 respondents were removed due to not meeting the inclusion criteria. Finally, 13 respondents were removed because of not having a clinical experience recorded. After examining the data, there were 299 respondents not meeting the inclusion criteria and were not included in this study. The number of surveys included in this study for the final analysis was 1296 which was 81% of the responding sample.

The demographic characteristics are displayed in Table 1. The majority of the survey respondents were full-time students (n = 1253, 96.7%) and female (n = 1193, 92.1%) with a mean age of 26.30 years (SD 7.6 years), ranging from 18 to 60 years. The majority of the respondents (n = 1053, 81.3%) reported their racial or ethnic background as Caucasian. Fifty-four respondents identified with more than one racial or ethnic background while 7 other respondents wrote in responses: Creole, Jamaican, Mediterranean, Pakistani, Russian, Russian/European, and Scandinavian.

Table 1
Demographic characteristics of the respondents (N = 1296).

Demographic variables	Frequency	Percent
Student status		
Full-time	1253	96.7
Part-time	34	2.6
Missing	9	.7
Employed in healthcare		
Yes	722	55.7
No	568	43.8
Missing	6	.5
Family in nursing		
Yes	646	49.8
No	644	49.7
Missing	6	.5
Gender		
Male	94	7.3
Female	1193	92.1
Transgender	2	.2
Missing	7	.5
Racial ^a		
Asian Pacific/Islander	48	3.7
Asian American	48	3.7
Black African/American	60	4.6
White/Caucasian	1053	81.3
Hispanic, Latino/a, Spanish	117	9.0
Native American/Alaskan Native	21	1.6
Other	7	.5

^a Some students identified with more than one racial or ethnic background.

The reliability statistics of BES-CPE and PSS-10 was established with Cronbach's alpha of 0.90 and 0.89, respectfully. The BES-CPE measurement scale has three subscales integral to belongingness. The reliability statistics for these three subscales were: esteem 0.90, connectedness 0.80, and efficacy 0.76. The three highest scoring BES-CPE questions (Q2, Q 32, and Q 5) correlated to the questions relating to efficacy. The highest question, Q2 "It is important to feel accepted by my colleagues" (4.50 ± 0.64), second highest score was Q32 "I ask my clinical staff for help when I need it" (4.50 ± 0.61), and the third highest score was Q5 "I make an effort to help new students or staff feel welcome" (4.34 ± 0.71).

Pearson product-moment correlation coefficient (Pearson r) analyzed the relationship between the BES-CPE and PSS variables and revealed a statistically significant low inverse relationship (r = -.277) existed. This relationship indicated as one variable (sense of belonging) increased the other variable (perceived stress) decreases, and vice versa. The strength of the relationship (r = -.277) between these two variables represents an effect size which falls just below the Cohen's (1988) criteria for medium effect size (r = ±.30). On the average, for every point increase in the BES-CPE, the PSS drops 0.42 of a point.

The respondents were asked to identify their demographic characteristics of racial or ethnic background from the following categories: Asian/Pacific Islander 48 (3.7%); Asian American 48 (3.7%); Black/African American 60 (4.6%); White/Caucasian 1053 (81.3%); Hispanic, Latino/a, or Spanish origin 117 (9.0%); and Native American/Alaskan Native 21 (1.6%). Due to the unequal cells in racial/ethnicity background and respondents identifying with more than one racial or ethnic background, no statistical test could reliably be conducted (Meyers et al., 2013).

A Pearson Correlation coefficient 2-tailed analysis was used to examine the relationship between BES-CPE, PSS and the interval/ratio demographic variables: age, semesters in nursing education, and clinical rotations. There was no statistically significant relationship between BES-CPE, PSS, and these students' demographic data. Although age (years) did achieve a statistically significant relationship with PSS (r = -.145**), according to Cohen (1988) this correlation represented a small effect. But there was no practical significance because the difference with PSS and age was not large enough to make any practical sense. Since this study had a large response rate almost any difference may seem significant; but the effect size indicates the magnitude or strength of difference.

Discussion

Participants for this study were from a convenience sampling of baccalaureate of science nursing students (BSN) from the National Student Nurses Association (NSNA) database in the United States. They were self-selected by volunteering to participate. There are many nursing programs in the United States developed in response to the nursing shortage and need for diversity in nursing. According to the American Association of Colleges of Nursing (AACN, 2014), there are multiple educational entry levels or pathways to a (BSN) degree, including Accelerated BSN, Online BSN, and Traditional 4-year BSN programs. Perhaps giving this survey to a specific BSN group of students would have provided more insight into the correlation of a sense of belonging and perceived stress.

When answering the question "How many semesters of nursing education have you completed?" the term "semester" is used to determine the time frame in which the students attend school. Most semesters are 15 to 18 weeks in length. Some respondents replied using terminology relating to their nursing curriculum, such as: terms, quarters, blocks, trimesters and years, indicating their time in school. The same terminology issue occurred with the question; "How many clinical rotations have you completed as of this date?" which also had varied responses indicating clinical rotations were gauged in hours, days or weeks. Clinical rotations varied and since this survey was

distributed nationwide (50 states of the United States of American, the District of Columbia, Guam, Puerto Rico and the U.S. Virgin Islands), standards and scope of practice varied by the board of nursing for the geographic location, region, or state of the teaching institutions (National Council of State Boards of Nursing, 2015). Therefore, students' responses reflect their nursing programs curriculum.

The majority of students were full-time ($n = 1253$, 96.7%) and only 34 (2.9%) were part-time. It is not clear why the majority of students are full-time students. The U.S. unemployment rate in January 2007 was 4.6% jumping to 10% in October 2009 and improving in January 2012 with 8.2% and in January 2014 at 6.6% (Bureau of Labor Statistics, 2014). Students may have been influenced by the economic trends and aligned their educational studies with greater return on investment leading to better job opportunities and employment choices.

Over half of the respondents (55.7%) reported being employed in healthcare. This is not surprising since many nursing students work in the healthcare field to gain clinical experience. According to human resource consultant, Mary Maxwell (2004), recruiting strategies for nurses include building a candidate pipeline of nursing students well before they graduate. Fifty percent of the respondents reported having family members in the nursing profession. According to the Gallup Poll (2013), nursing is considered the most trusted profession based on honesty and ethical standards for the past 11 years in a row. Students may try to emulate family members by entering the nursing profession. Researchers McLaughlin et al. (2010) reported that while altruism, opportunities nursing presented, personal/self-development, and desire to care were major themes, family members were considered a great source of emotional and instrumental support for nursing students.

The mean age of the respondents was 26.30 years ($SD 7.61$) and the range was 18–60 years. This indicates nursing students may be entering into the nursing programs with life experiences instead of just graduating from high school. The historical disproportion of men and women in the nursing profession is noted with 94 men (7.3%); as opposed to 1203 women (92.1%). In the study sample were 2 respondents (0.2%) who identified themselves as transgender. These however are reflective of the current population in nursing. The majority of nursing students in this current study have identified themselves as White/Caucasian followed by Hispanic, Latino/a, or Spanish origin as a distant second (see Table 1). The smallest nursing population was among the Native American/Alaskan Native cohort.

This study was to collect information about the students' sense of belonging using the BES-CPE as one tool. The results revealed a low inverse relationship between a sense of belonging and perceived stress. However further examination the subscales' questions revealed the three highest scoring BES-CPE questions (Q2, Q32, and Q5) correlated to the questions relating to efficacy. The highest question, Q2 "It is important to feel accepted by my colleagues" (4.50 ± 0.64), second highest score was Q32 "I ask my clinical staff for help when I need it" (4.50 ± 0.61), and the third highest score was Q5 "I make an effort to help new students or staff feel welcome" (4.34 ± 0.71). In addition, it was also noted the results from Levett-Jones' original work (2007) had these same questions but in the sequence Q2, Q5, and Q32. A follow up study would provide additional international support for the BES-CPE instrument and add to the body of knowledge on cross cultural student beliefs, values, and educational philosophies regarding clinical placements.

Finally, in regards to the measurement tools used in this study; the BES-CPE measuring a sense of belonging and Perceived Stress Scale measuring the degree of psychological stress, had a Cronbach alpha of 0.90 and 0.89 respectfully. There has not been any published data in the United States using BES-CPE for measuring nursing students' sense of belonging. The findings revealed that there were excellent internal reliability adding to the evidence that this survey tool is an effective means of data collection for nursing students in clinical placements. However in hindsight, perhaps using a different perceived stress tool

specifically for designed nursing students' clinical placements may have yielded more interesting results.

Implications

Clinical placements are stressful environments which can be overwhelming and undermine students' learning and confidence. Understanding the impact of a sense of belonging and perceived stress on students is invaluable for nurse educators, school administrators and hospital managers. Their efforts to promote positive welcoming experiences for students will ultimately have an impact on patient care outcomes. Furthermore, research on the concepts of a sense of belonging and perceived stress would be best understood on a continuum, rather than in a snapshot or situate experience.

Limitations

The intention of this researcher was to examine nursing students enrolled in traditional or generic baccalaureate nursing programs. However, there are multiple entry levels of BSN nursing programs in the United States and it was not clear which program the students were currently enrolled. This may have added to discrepancies in the data, especially with clinical rotations and semesters in nursing education.

Although this research study had a large sample (1296 respondents) using the NSNA, and SurveyMonkey® provided confidentiality and a broad national email distribution, there was no control in reaching the intended or specific traditional BSN students. Measurement of demographic information proved to be challenging as reflected by responses that included a multitude of communication cultures across national nursing programs. Two variables (1) semesters in nursing education; and (2) clinical rotations completed, appeared to be confusing or ambiguous for some of the respondents. The demographic findings on nursing programs and curriculums vary from geographic locations, regions, or states of the teaching institutions. Due to these limitations, the findings cannot be generalized to all BSN students.

Conclusions

In summary, the findings from this study revealed a statistically significant low inverse relationship ($r = -.277$) between a sense of belonging and perceived stress. There were no statistically significant relationships between BES-CPE, PSS, and the students' demographic information. The fact that a large sample of 1595 nursing students opened the survey and 1296 (81%) respondents reported on a sense of belonging and perceived stress in their clinical placements, is noted that these are important to them and significant. In addition, this low inverse relationship between the two variables (BES-CPE and PSS) demonstrates a negative linear relationship. This indicates for every point increase in the BES-CPE, the PSS drops 0.42 of a point. This is a small decrease in stress but any decrease in stress for students is a step in the right direction. The potential for future analysis using a smaller sample size would be feasible and provide better assessment of experiences influencing students in their clinical placements. Additional research could be conducted on nursing programs with the focus on teaching and learning.

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