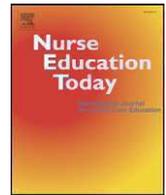
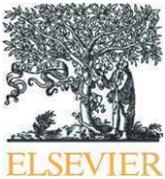




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## Factors related to academic success among nursing students: A descriptive correlational research study



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### summary

**Background:** The current rise in employment is improving forecasts for the future supply of registered nurses; however sizeable shortages are still projected. With the intention of improving academic success in nursing students, related factors need to be better understood.

**Objectives:** The purpose of the correlational study was to describe the relationship between emotional intelligence, psychological empowerment, resilience, spiritual well-being, and academic success in undergraduate and graduate nursing students.

**Design/setting:** A descriptive correlational design was utilized. The study was set in a private Catholic university. Participants: There were 124 participants. There were 59% undergraduate and 41% graduate students.

**Methods:** Background data, in addition to the Spreitzer Psychological Empowerment Scale, the Wagnild and Young Resilience Scale, and the Spiritual Well-Being Scale and the Mayer–Salovey–Caruso Emotional Intelligence Test, was collected from students who met study criteria.

**Results:** In a combined sample, academic success was correlated with overall spiritual well-being, empowerment and resilience. Although academic success was not correlated with overall emotional intelligence, it was correlated with the emotional intelligence branch four (managing emotions) score. When undergraduate and graduate students were considered separately, only one correlation was found to be significantly related to academic success in the undergraduate sample, namely, emotional intelligence branch one (perceiving emotions). When examining the data from just graduate level nurses, significant relationships were found between total emotional intelligence with academic success, resilience with academic success, and psychological empowerment with academic success.

**Conclusion:** The significant relationship between psychological empowerment, resilience, spiritual well-being and academic success in this study supports the statements in the literature that these concepts may play an important role in persistence through the challenges of nursing education. Research is needed to examine if strategies to enhance empowerment, resilience, and spiritual well-being can increase academic success in a test–retest design.

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### Introduction

The current rise in employment is improving forecasts for the future supply of registered nurses; however sizeable shortages are still projected for the following decade in the United States as well as in other countries such as China (Buerhaus et al., 2009; Leong, 2012). A recent study by Buerhaus et al. (2009) predicts that by 2025 the United States will have

a nursing shortage twice as large as the shortfall in the middle 1960s. In order to alleviate the shortage, nursing programs will need to increase the supply of qualified nurses. Although college enrollments continue to grow, the attrition rate from nursing programs nationwide hovers around 50% (Newton and Moore, 2009). Both nationally and internationally (Gillen, 2012; O'Donnell, 2012), attrition rates in nursing programs are of concern as they reduce the supply of nurses.

Additionally, the nursing profession should be concerned about attrition rates for masters and doctoral nursing students as well. Attrition rates for master's programs range from 10 to 75% (Croxtton, 2013) and rates for doctoral programs range from 40 to 70% (Berman and Radda, 2012). Given the growing shortage of nursing faculty and family physicians, the above statistics are of concern. Graduate prepared nurses will be needed to replace the large number of retiring faculty in Canada and the United States (Cathro, 2011). In additions, nurse

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practitioners are needed to help alleviate the family physician shortage. By 2020, the United States is projected to confront a shortage of 91,500 doctors (Arvantes, 2012).

In an effort to address the shortages of nurses with undergraduate and graduate nursing degrees, nursing programs have been measuring student retention, attrition, and graduation rates. Nursing programs are not the only ones taking note of such measures. External credentialing organizations such as the Commission on Collegiate Nursing Education mandates the calculation of graduation rates for all nursing programs (Robertson et al., 2010). The presumption is that measures such as graduation rates will help to guide nursing programs in monitoring how successful their curriculums are and to provide feedback on improving or maintaining strategies that facilitate student success (Robertson et al., 2010). Nurse educators need to examine ways to promote student success by improving our current methodologies and practices. In order to do so, the factors that influence nursing academic success need to be better understood.

## Background/Literature

Many university's admission departments dedicate substantial time and money for the recruitment and admission of nursing students (Shelton, 2012). Furthermore, admission staff are tasked with the ever more difficult charge of distinguishing applicants who can be successful (Bauchmoyer et al., 2004; Hopkins, 2008). Traditionally, a student's high school grade point average (GPA) and standardized test scores such as the Scholastic Aptitude Test (SAT) and the American College Test® (ACT) have been identified as predictors of academic success (Noble and Sawyer, 2004; Sparkman et al., 2012; Timer and Clauson, 2011). In addition, the literature review indicates that science knowledge is a predictor of nursing program success (Byrd et al., 1999; Lewis and Lewis, 2000; Phillips et al., 2002; Potolsky et al., 2003; Wong and Wong, 1999; Wolkowitz and Kelley, 2010). Hence, the above data are frequently utilized to help recruit qualified applicants.

Recruiting qualified applicants is just the beginning step in fostering program completion (Shelton, 2012). After students are admitted, they ought to be afforded resources that will foster their persistence in the nursing program as well as promote their academic success (Shelton, 2012). Retention as well as attrition of nursing students has been associated with demographic, academic, financial, cognitive, and personality/behavioral factors (Cameron et al., 2011; Jeffreys, 2012; Pitt et al., 2012; Williams, 2010). Historically, many researchers have focused on intelligence quotient (IQ) when examining what promotes academic success (Ahmed et al., 2011). However, more recently scholars have begun to contemplate non-cognitive or psychosocial factors such as emotional intelligence, psychological empowerment, resilience, and spiritual well-being as a way to further academic success (Ahmed et al., 2011; Barchard, 2003; Bemak, 2005; Cleary et al., 2008; Deb, 2012; Kneipp et al., 2009; Sparkman et al., 2012; Suliman, 2010; Young, 2009).

More specifically, researchers found that managing emotions was positively correlated with academic success (Ahmed et al., 2011; Mayer et al., 2004). Other scholars have focused on how classroom techniques can promote psychological empowerment thus promoting academic success. Although, to date no research studies were found that examined the relationship between empowerment and academic success. Still other researchers have examined the relationship between academic success and resilience has been which demonstrated a positive correlation between the variables (Deb, 2012). Finally, scholars have linked spiritual well-being to many areas of functioning (Dunn et al., 2007; Kneipp et al., 2009; Paloutzian and Ellison, 1982; Taliaferro et al., 2009; VonDras and Schmitt, 2007) and support the relationship between spiritual well-being and academic success.

Despite these studies and opinions, there is a paucity of research regarding the relationship of emotional intelligence, psychological

empowerment, resilience, spiritual well-being and academic success in the context of nursing students. Given the potential value of such factors in advancing academic success and therefore influencing outcomes such as retention, attrition, and graduation rates, research is warranted as it may provide insight into non-cognitive strategies that could be of potential benefit to this population.

## Methods

### Design and Sample

A descriptive correlational design was utilized. A convenience sample of 244 undergraduate and 272 graduate nursing students in a medium-sized, private, Catholic university in New England were recruited to participate in the study. The undergraduate group consisted of 169 students in a traditional first professional degree program (60 sophomores, 51 juniors, and 58 seniors) and 75 students in a RN to BSN program. The graduate group consisted of 229 students in Master's programs (96 in the Family Nurse Practitioner Program, 60 in the Clinical Nurse Leader Program, 37 in the Patient Care Service Administration Program, and 36 in the Nursing Education Program) and 43 in the Doctor of Nursing Practice Program. All undergraduate and graduate nursing students were included in the study with the following exceptions. Freshman nursing students were excluded as they have not begun their nursing courses. Students less than 18 years of age were excluded as they are unable to provide informed consent given that they are considered minors. A power computation (Cohen, 1992) was completed via gPower 3.0.5 (Faul et al., 2009) and revealed that 109 participants were required established on an alpha equal to 0.05, effect size moderate (0.3), and power equal to 0.09.

### Instruments

The instruments utilized were the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT), Spreitzer Psychological Empowerment Scale, Wagnild and Young Resilience Scale, the Spiritual Well-Being Scale (SWBS), as well as a background data sheet. The MSCEIT is an ability-based appraisal of emotional intelligence that is comprised of 141 items designed to assess total emotional intelligence along with the four branches of emotional intelligence: perceiving emotions, using emotions to assist thought, understanding emotions, and managing emotions (Mayer et al., 2002, 2003). Face validity is evident in the tasks used by the MSCEIT to evaluate emotional intelligence (Mayer et al., 2000). Content validity is exhibited by the MSCEIT's thoughtful depiction of the Four Branch Model (Mayer et al., 2000). Discriminant, incremental, and convergent validity of the MSCEIT have been verified (Brackett and Mayer, 2003). The split-half reliability coefficients for the entire test is  $r = .91$  and for the four branches range from  $r = .80$  to  $.91$  (Mayer et al., 2000).

The Spreitzer's Psychological Empowerment Scale was used to measure psychological empowerment. The scale contains 12 seven-point rating scale items (3 items per dimension) ranging from 1 (very strongly disagree) to 7 (very strongly agree) (Spreitzer and Quinn, 2001; Spreitzer, 2007). The instrument contains the following four subscales: meaning, competence, self-determination, and impact. The overall score for each subscale is divided by 3 to obtain an average score for that subscale. The total score represents the psychological empowerment at that moment in time which will not necessarily be the same at a different point in time (Spreitzer and Quinn, 2001). A second order confirmatory factor analysis revealed that the four subscales are distinct and add to a general sense of empowerment (Spreitzer, 2007). The Cronbach alpha reliability for the overall psychological empowerment ranged from 0.85 to 0.91 (Laschinger et al., 2004).

The Wagnild and Young Resilience Scale was used to measure resilience. The scale contains 14 seven-point rating scale items ranging from 1 (strongly disagree) to 7 (strongly agree). The instrument consists of

the following five themes of resilience: self-reliance, meaning, equanimity, perseverance, and existential aloneness (Wagnild and Young, 1993). Content and construct validity have been verified (Black and Ford-Gilboe, 2004; Humphreys, 2003; Monteith and Ford-Gilboe, 2002). The reliability yielded alpha coefficients ranging from 0.85 to 0.94 (Wagnild and Young, 1993).

The Spiritual Well-Being Scale (SWBS) was used to measure spiritual well-being. The scale contains 20 six-point rating scale items that assess overall perceived spiritual well-being as well as two subscales of spirituality specifically religious well-being and existential well-being (Ellison, 1983; Paloutzian and Ellison, 1982). The religious well-being subscale offers a self-appraisal of the individual's relationship with God. The existential well-being subscale offers a self-appraisal of the individual's feeling of life-purpose, life-satisfaction, and relationship to others. The SWBS items are non-denominational and can be used with individuals from a variety of backgrounds and faiths (Ellison, 1983). Face validity is apparent in the item content (Ellison, 1983; Paloutzian and Ellison, 1982). The reliability yielded alpha coefficients ranging from a high of 0.99 for the religious well-being subscale and total spiritual well-being to a low of 0.73 for the existential well-being subscale (Ellison, 1983; Paloutzian and Ellison, 1982).

Background data gathered were gender, age, ethnicity, marital status, type of nursing program, and self-reported grade point average.

#### Procedure

Once Institutional Review Board (IRB) authorization was acquired, an IRB approved script inviting students to participate in the study was sent electronically to those students who met the criteria for the study. Nursing professors not connected to the research were asked to tell the students about the study during their nursing classes. The students were informed that the researchers were nursing professors and notified that no distinguishing information would be gathered that would enable the researchers to associate them with their responses. Once the email invitation was received and read, interested students accessed the attached web link that lead them to the study website where a consent letter was presented. The students were informed that they were required to be 18 years of age or older to partake and to carefully review the information. Only those students that provided consent were allowed to proceed forward to complete the background data, Spreitzer Psychological Empowerment Scale, Wagnild and Young Resilience Scale, and Spiritual Well-Being (SWB) Scale. The above background data and scales were provided on SurveyMonkey™. The SSL encryption feature was turned on and IP addresses were not gathered in order to ensure a secure transmission. SurveyMonkey™ has established environmental and physical safety measures in an effort to protect data.

After completing the above, participants were given a web link to the MSCEIT as the publisher of that instrument mandates that it be given as a separate test on the publisher's server. The final four digits of the participants' social security number were used to connect the databases.

#### Statistical Analysis

The SurveyMonkey™ responses were transferred in raw and summary format into an Excel spreadsheet that was then downloaded into PASW Statistics 18. The MSCEIT was tabulated by Multi-Health Systems Inc. (MHS). MHS supplied a report with raw data and standard scores in an Excel document that was then transferred into PASW Statistics 18. The MSCEIT raw data resides at MHS with the exception of the Excel document that was provided to the researcher. MHS was not able to access any data other than the MSCEIT. Descriptive statistics and Pearson's correlations were calculated utilizing PASW Statistics 18.

#### Data/Results

##### Response Rate

Thirty six percent of the students ( $n = 186$ ) answered the initial website survey. Nevertheless, the ultimate response rate reduced to 24% ( $n = 124$ ) as 44 participants did not go on to take the MSCEIT which was housed on the second website and 18 participants either did not follow the coding instructions or had the same last four digit of their social security number which resulted in information that could not be positively paired. The final data set contained 124 nursing students (response rate of 24%) which was greater than the 109 participants needed on power computation.

##### Characteristics of the Sample

The sample mean age was 30 years old with a range from 18 to 59 years old and a standard deviation of 12.50. Sixty five percent (80 of the 124 participants) were 18 to 30 years of age. Ninety seven percent ( $n = 120$ ) of the participants were women and 3% ( $n = 4$ ) of the participants were men. Sixty five percent ( $n = 80$ ) were single, 29% ( $n = 36$ ) were married, 5% ( $n = 6$ ) were divorced, 1% ( $n = 1$ ) was widowed, and 1% ( $n = 1$ ) did not specify. Eighty eight percent ( $n = 109$ ) were Caucasian. Additionally, 1% ( $n = 1$ ) was classified as an Asian, 7% ( $n = 8$ ) as African American/Black, 4% ( $n = 5$ ) as Hispanic or Latino, and 1% ( $n = 1$ ) as Pacific Islander/Hawaiian. These results are presented in Table 1.

Fifty nine percent ( $n = 73$ ) of the participants in the study were from the undergraduate nursing program. Of this, 4% ( $n = 5$ ) were sophomores, 32% ( $n = 39$ ) were juniors, 21% ( $n = 26$ ) were seniors, and 2% ( $n = 3$ ) were undergraduate RN to BSN students. Forty percent ( $n = 50$ ) of the participants in the study were from the graduate programs. Of this, 11% ( $n = 13$ ) were from the family nurse practitioner program, 8% ( $n = 10$ ) were from the patient care services program, 6% ( $n = 7$ ) were from the clinical nurse leader program, 5% ( $n = 6$ ) were from the education program, and 11% ( $n = 14$ ) were from the doctor of nursing practice program. One percent ( $n = 1$ ) did not specify the nursing program. These results are presented in Table 1.

Table 1  
Characteristics of the participants ( $N = 124$ ).

Characteristic	Frequency	Percent
Gender		
Female	120	97.0
Male	4	3.0
Marital status		
Single	80	65.0
Married	36	29.0
Divorced	6	5.0
Widowed	1	1.0
Not identified	1	1.0
Race		
Caucasian	109	88.0
Asian	1	1.0
Hispanic/Latino	5	4.0
Black	8	7.0
Pacific Islander/Hawaiian	1	1.0
Nursing program		
Undergraduate sophomores	5	4.0
Undergraduate juniors	39	32.0
Undergraduate seniors	26	21.0
Undergraduate RN to BSN	3	2.0
Graduate: FNP	13	11.0
Graduate: PCS	10	8.0
Graduate: CNL	7	6.0
Graduate: Education	6	5.0
Graduate: DNP	14	11.0
Not identified	1	1.0

Academic success was measured by the student's GPA. Higher scores indicate greater academic success. The mean grade point average (GPA) was 3.52. Emotional intelligence was measured by the MSCEIT. Greater scores suggest possible increased ability of emotional intelligence. The mean score (scaled) for emotional intelligence was 95.75,  $SD \pm 12.61$  indicating moderate emotional intelligence. Spiritual well-being was measured by the SWBS. Greater scores indicate increased spiritual well-being. The mean score for SWB was 91.08,  $SD \pm 16.94$  indicating moderate SWB. Psychological empowerment was measured by the Spritzer's Psychological Empowerment Scale. Greater scores suggest possible increased psychological empowerment. The mean score for overall psychological empowerment was 5.24,  $SD \pm 0.84$  indicating the group was in the lowest 40% of people taking the psychological empowerment scale. Resilience was measured by the Wagnild and Young Resilience Scale. Greater scores indicate possible increased resilience. The mean score for resilience was 83.67,  $SD \pm 8.87$  indicating moderately high resilience.

#### Emotional Intelligence, Psychological Empowerment, Resilience, Spiritual Well-being and Academic Success

When looking at the entire sample, overall emotional intelligence was not correlated with academic success. The relationship between emotional intelligence branch scores and academic success were computed. Branch four (managing emotions) score had a weak but statistically significant correlation with academic success,  $r(121) = .276$ ,  $p = .002$ . This result is presented in Table 2. The other branch scores were not significantly correlated with academic success. The relationship between psychological empowerment and academic success is weak but statistically significant,  $r(121) = .194$ ,  $p = .033$ . The relationship between resilience and academic success is weak but statistically significant,  $r(121) = .243$ ,  $p = .007$ . Finally, the relationship between overall spiritual well-being and academic success is weak but statistically significant,  $r(121) = .198$ ,  $p = .029$ . These results are presented in Table 2. The relationship between the spiritual well-being subscales (religious and existential well-being) and academic success were computed but revealed no statistical relationship.

When looking at just the undergraduate student sample, overall emotional intelligence was not correlated with academic success; however, branch one (perceiving emotions) was statistically related and demonstrated a small to moderate effect size  $r(73) = -.232$ ,  $p = .048$ . Academic success was not significantly correlated with psychological empowerment, resilience, or overall spiritual well-being in the undergraduate subgroup.

In contrast, when looking solely at graduate nursing students, overall emotional intelligence was moderately correlated with academic success  $r(47) = .348$ ,  $p = .017$ . In addition, branch two (facilitating thoughts) and branch four (managing emotions) demonstrated a moderate and statistically significant correlation with academic success,  $r(47) = .360$ ,  $p = .013$  and  $r(47) = .317$ ,  $p = .030$  respectively. Resilience and academic success demonstrated a strong correlational relationship,  $r(47) = .467$ ,  $p = .001$ , as did psychological empowerment

and academic success,  $r(47) = .438$ ,  $p = .002$ . The relationship between academic success and the spiritual well-being test (overall, religious and existential well-being subscales) revealed no statistically significant relationship.

Finally, in trying to examine the unique predictors of academic success, exploratory stepwise regressions were conducted. Unfortunately, in separate undergraduate and graduate student analyses, regression models did not predict additional levels of variance accounted for beyond the most highly related bivariate correlations.

#### Discussion

The current study found that total emotional intelligence was related to academic success in graduate nursing students with branches two (facilitating emotions) and four (managing emotions) being significantly related to academic success with moderate effect sizes. This supports the research completed by Brackett et al. (2012) in which students with higher emotional intelligence are better equipped to manage the emotions that accompany their lives thus enabling them to concentrate, learn and excel at school.

In undergraduate students, however, total emotional intelligence was not related to academic success yet branch one was related to academic success, with a relatively small effect size. This result is consistent with the study completed by Ahammed et al. (2011) in which the analysis revealed that academic success (as measured by GPA) was not correlated to overall emotional intelligence (as measured by the MSCEIT). Given the fact that this study narrowly defined academic success as a student's GPA, it did not take into consideration other aspects of nursing performance. A student's GPA will take into account that a student has completed cognitive based evaluations such as examination but will not necessarily capture the more personal and emotional aspect of nursing care. As a result, at the undergraduate level, alternative or additional variables to GPA that may directly contribute to academic success ought to be considered when evaluating the relationship between emotional intelligence and academic success (Ahammed et al., 2011).

Emotional intelligence branch one (identifying emotions) was negatively related to academic success in undergraduate students but emotional intelligence branch 2 (facilitating thoughts) and branch 4 (managing emotions) were related to academic success in graduate students. It is unclear if this indicates that student nurses' emotional intelligence develops over time (through their career, education, and/or life experiences) or if this reflects a cohort issue. It is conceivable that graduate nursing students possess and utilize a qualitatively different subset of emotionally intelligent characteristics that promote academic success. Individuals with higher emotional intelligence tend to choose professions that require social interactions like nursing (Mayer et al., 2004); and, individuals with elevated emotional intelligence levels tend to have motivational goals (Mayer et al., 2004). Logically, therefore, nurses pursuing a graduate degree may have a vision to improve themselves that could ultimately foster academic success. Moreover, adult learners in graduate education deal with many life stressors such as work, home and school demands. It is believed that those who are better able to handle such difficulties come to their education programs emotionally prepared to learn thus promoting their success.

For undergraduates, the remainder of the data analyses did not find meaningful, statistically significant relationships between the primary study variables and academic success. For graduate nursing students however, the current study found that psychological empowerment was related to their academic success. This result supports that classroom techniques that promote empowerment such as requiring students to establish outcome goals, to utilize self-reflective activities, and to engage in monitoring their progress ought to be considered (Cleary et al., 2008). In order to empower nursing students, faculty may need to facilitate the growth and development of students who in turn will become more self-directed and self-defined (Bemak, 2005). Opportunities to talk with faculty should be encouraged as

Table 2

Correlations Between Academic Success (GPA), Emotional Intelligence (MSCEIT) Branch 4 (Managing Emotion), Psychological Empowerment (Spritzer's Psychological Empowerment Scale), Resilience (Wagnild and Young Resilience Scale), and SWB (SWB scale) Scores (N = 124).

	Academic success score
Emotional intelligence (branch 4)	0.276**
Psychological empowerment	0.194*
Resilience	0.243**
Spiritual well-being	0.198*

N = 124.

\* Correlation is significant at the 0.05 level (two tailed).

\*\* Correlation is significant at the 0.01 level (two-tailed).

deeper conversations allow students to set the agenda and discuss their concerns (Bemak, 2005). One strategy to provide such empowerment is to establish a Student Faculty Advisory Committee in which students and faculty meet on a regular basis and address student concerns and issues.

The current study found that resilience was strongly related to academic success in graduate nursing students. The results of this study support Deb's (2012) finding that individuals with high resilience show better academic performance and success. However, this study had a sample of nursing students rather than adolescents preparing for medical/engineering entrance examinations and both studies had different measurements of resilience. Based on these results, faculty could consider fostering situations that provide the student with a sense of competence, with the opportunity to feel successful, and with the ability to cope with diverse problems or challenges (Novotny, 2011). Providing students with a positive environment not only allows students to retreat from their adverse situation for a moment in time, but also allows students the chance to alter their view of the world in a more desirable manner (Novotny, 2011). Resilience can be reinforced by cultivating particular personality characteristics as well as by increasing contact with the student (Novotny, 2011). One strategy to help provide the above is by encouraging extracurricular activities that have faculty involvement.

The current study did not find that spiritual well-being was related to academic success in either the graduate or undergraduate groups by themselves, but was significant when the overall sample was considered. This result concurs with statements in the literature that reported a positive relationship between spiritual well-being and various areas of functioning (Dunn et al., 2007; Kneipp et al., 2009; Paloutzian and Ellison, 1982; Taliadro et al., 2009; VonDras and Schmitt, 2007) and augments the limited body of research that has considered the relationship between spiritual well-being and academic success. These results intimate that college professors and counseling centers might benefit from being cognizant not only of students' psychological well-being, but also their spiritual well-being (Kneipp et al., 2009). College professors and counseling centers may wish to partner with campus ministry to provide services to students (Kneipp et al., 2009).

#### Selected Limitations

Due to the convenient nature of the sample and the relatively small sample size, the participants may not be reflective of all nursing students. Thus, the results should be cautiously generalized. In addition, the setting which was a private Catholic university is not representative of the setting of all nursing program and may have influenced the spiritual well-being scores. Spiritual support may be offered differently in a Catholic university versus a non-religiously affiliated university. Likewise, students who identify with a spiritual connection may be more likely to enroll in a religious university. Another limitation is around self-reporting which can be susceptible to potential bias. In this study, self-report was utilized in the spiritual well-being, resilience, and psychological empowerment scale as well as with the self-reported GPA scores. Lastly, there was a procedural limitation in that participants were mandated to access two websites which potentially negatively impacted the response rate.

#### Future Research

Additional research regarding strategies to reduce student attrition and to promote student academic success is necessary (Cameron et al., 2011). If nursing schools are going to allocate funds to help address this problem in an efficient and effective manner, they will want to make sure their strategies are based in evidence. Far more should be done to appreciate the nature of the predicament and to identify strategies to improve the outcomes (Cameron et al., 2011). Future research is needed to examine if strategies to enhance empowerment, resilience,

and SWB can increase academic success in a test–retest design. In addition, emotional intelligence, psychological empowerment, SWB, and resilience ought to be examined in relationship to other outcomes measures such as workplace performance and health benefits.

#### Conclusion

In conclusion, attrition rates remain high despite the fact that universities are implementing strategies to reduce attrition such as better selection of high quality students, peer mentors, personal tutors, and focusing on improving clinical placements (Eick and Williamson, 2012; Robinson and Niemer, 2010). More needs to be done to promote nursing students success. Little has been written on addressing non-cognitive or psychosocial factors that promote academic success, other than suggesting interventions such as referring students for counseling and for stress release (Rouse and Rooda, 2010). Perhaps focusing on the positives such as emotional intelligence, empowerment, resilience, and spiritual well-being may hold the key. Having a better understanding of the role of emotional intelligence, psychological empowerment, resilience, and spiritual well-being in student success may be helpful in developing curricula and teaching/learning practices that promote retention in nursing programs (Taylor and Reyes, 2012).

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