Nursing students' commitment and the mediating effect of stress ☆

Jason M. Riley[a],*, Desiree Collins[b], Jamie Collins[c]

[a] *Sam Houston State University, 236W Smith Hutson Building, Huntsville, TX 77320, United States of America*
[b] *University of Canterbury, Private Bag 4800, Christchurch 8140, New Zealand*
[c] *UC Business School, University of Canterbury, Private Bag 4800, Christchurch 8140, New Zealand*

A B S T R A C T

Objectives: Knowing there is a shortage of qualified nurses throughout the
healthcare industry, it is imperative that program administrators understand the factors that affect nursing students as they select and commit to their academic major. They should consider key influences on potential students as new recruiting and retention tactics are developed and employed. Thus, we develop the current study to understand factors that shape students' commitment to nursing. Specifically, we attempt to discern how potential career growth, students' understanding of available occupational specialties, family members, and instructors affect nursing students' commitment to their chosen academic program. In addition, we analyze the mediating effect of stress in order to explain why some factors have more influence than others do. By conducting this research, we hope to provide insight into how to better recruit potential students and retain existing students already enrolled in nursing programs.
Design/setting/methods: Data collection took place in 2016 at one public and one private nursing program. The sample is understanding of available occupational specialties of 167 nursing student who completed a structured survey. Career growth, occupational specialties, instructors' and family influence were measured to understand how they affected major commitment and by extension intention to stay with their nursing program. We also assessed the potential mediating effect of stress on students' commitment to the nursing major. Ordinary least squares regression (SPSS version 22) was then used to evaluate both direct and mediated relationships.
Results: Based on the analysis, potential career growth, students' understanding of available occupational specialties, and family members directly affect nursing students' level of commitment to their chosen academic major. Results indicate that when students learn about the growth potential of the nursing profession or the different occupational specialties available that they will be more committed to the chosen major. The students likely believe the nursing profession aligns with their personal ambitions and skillsets. In addition, results indicate that stress fully mediates the level of commitment a student has towards nursing as an academic major. Evidence from the nursing students in this study indicates that their level of commitment to nursing programs is harmed by high levels of experienced stress. Students may feel that they identify with this area of study, but if they are stressed they may believe they lack the necessary abilities to succeed and/or perceive the nursing profession as undesirable to them personally.
Conclusion: Understanding factors that influence students' commitment to an academic major is important to administrators as they work to improve the number of students enrolled in accredited nursing programs. Specifically, they can use insights from this study to better develop recruitment and retention programs by enabling students to garner feelings of pride, enthusiasm, and positively identify with the nursing profession.

1. Introduction

Due to a growing population of older patients and a rise in chronic illnesses, demand for quality healthcare continues to increase (Grant, 2016). In addition to growing demand, others point to a lack of qualified instructors (Jeffreys, 2007) and limited capacity within nursing programs (Grant, 2016) to explain why there is shortage of nurses. In response, program administrators are looking to ensure that undergraduates stay with their chosen nursing program, by understanding what drives these students to decide on and commit to their academic

selection (Fontaine, 2014).

Since satisfied students have a greater sense of belonging to their college (Soria and Stebleton, 2013), are better motived in class, and tend to have higher grade-point averages (Suhre et al., 2007), administrators have an incentive to understand what factors influence students' as they develop intentions for and actually commit to a specific major. However, while the prospect of selecting a major might seem easy, actually deciding can be a daunting process.

In response, we investigate the relationships between potential career growth, students' understanding of available occupational

---

☆ **Topic/question:** The current study is designed to discern how potential career growth, students' understanding of available occupational specialties, family, and instructors affect nursing students' commitment to their academic major. In addition, we analyze the mediating effect of stress on the proposed relationships in order to explain why students decide on nursing as an academic major. **Design:** To understand the influence of the proposed relationships, we surveyed 167 students at two nursing programs and then analyzed both direct and mediating affects.

* Corresponding author.
E-mail addresses: riley@shsu.edu (J.M. Riley), jamie.collins@canterbury.ac.nz (J. Collins).

specialties, family, and instructors on nursing students' commitment to their academic major. Future career growth and students' understanding of available occupational specialties speaks to the advancement potential perceived to exist in the nursing profession. We presume students want to understand the professional opportunities available to them in order to improve the fit between their capabilities and the needs of the nursing profession. This research is novel since it provides healthcare organizations and administrators insight about factors that may influence recruitment and retention efforts. By understanding potential professional opportunities, nursing students choose specific specialties and improve their commitment to the overall nursing profession. Further, knowing that an occupation's growth potential can also expand the number of professional options available to them, we expect students will be more committed to nursing since he or she will be able to choose a career path that fits with their preferred lifestyle. We expect such circumstances would likely improve nursing students' overall expected life satisfaction levels.

Hartung and Leong (2005) have put forth a call for researchers to investigate why and how individuals select different occupational specialties. By understanding the different specialties available, nursing students will be able to select a specialty that interests them and best matches their skill set. Lastly, we tease out the influence of family and instructors on commitment. Examples of nursing specialties include pediatric, critical care, cardiac, forensic, or trauma nursing.

We also explore how stress mediates the proposed relationships. Stress influences the performance and welfare of students as they matriculate through their academic program. Studies suggest that stress leads to higher attrition rates amongst nursing students (Deary et al., 2003). While existing research indicates that stress can effect individuals either positively or negatively (Burnard et al., 2008), we assume stress will negatively influence students' commitment and resulting behavior. Specifically, stress will weaken the nursing students' perceptions about potential career growth and their understanding of different occupational specialties available to them. To comprehend the potential affects, we leverage the theory of reasoned action (TRA) and assert that an individual's attitude about a behavior has a direct effect upon the person's intention to perform that behavior (Hackman and Knowlden, 2014). This occurs since students will question whether the nursing field best fits with their personality and long-term career goals.

2. Background/literature

The *theory of reasoned action* (TRA) is used explain how individuals are expected to behave based on pre-existing attitudes about a phenomenon (Fishbein and Ajzen, 1977; Ajzen and Fishbein, 1980). Proponents insist that individuals engage in specific behaviors because they expect certain outcomes to occur as a result of performing the behavior (Gillmore et al., 2002). According to Azjen and Madden (1986), an individual's intention to perform a specific behavior precedes the actual behavior. By understanding the factors that influence individuals' attitude creation, we garner insight about individual potential behavior.

In addition to characteristics directly attributed to the individual, TRA accounts for the influence of normative pressures from important people in their lives. Here subjective norms represent the individual's perception of external social pressure (Ghazanfari et al., 2010). The individual believes they should engage or not engage in a behavior because of what other people think. Students listen to and assimilate the advice and guidance (normative pressure) provided by these referents in order to minimize social alienation, maintain self-concept, and align their social identity to established norms (Mahatanankoon et al., 2012).

Academic major commitment reflects the sense of pride, enthusiasm, and identity a student has about a chosen field of study (Conklin et al., 2013). Understanding why students commit to an academic major can help us understand their intentions to move towards or away from

career fields.

Career growth speaks to individuals' perception about future advancement and development opportunities. We anticipate that many students will align themselves with careers that have long-term growth potential since they are motivated to get a job after completing their academic pursuits.

When it comes to nursing, there are many different *occupational specialties* available: cardiac care, family, pediatric, and critical care are just a few. We anticipate understanding the different specialties available and what makes them unique is important as students' progress towards a career in nursing. By understanding the characteristics associated with the different specialties, nursing students can identify and select a specialty that aligns to their skillset.

For students *stress* occurs because there is negative interaction between the individual and his or her environment. Students encounter stress because of academic factors like homework, tests, and clinical practices and non-academic elements such as personal relationships, family, and work. While existing research has shown that stress can affect job satisfaction and commitment to the nursing profession (Ho et al., 2009), we expect it will affect attitude formation and the student's willingness to engage in specific behaviors. See Table 1 for the final list of survey items.

2.1. Career growth and students' intention to commit

Prior research describes career growth as a multi-dimensional construct, which captures an employee's efforts to acquire new skills, make progress towards specific career goals, and the firm's energies in rewarding the employees' progression with compensation and promotion (Weng and McElroy, 2012). Students look for evidence which supports and/or confirms their decision making process. Thus, when a profession shows elevated growth potential, students will likely have more positive perceptions about the academic major. Students may find evidence about potential growth online at career websites, within industry publications, or from practitioners who are working in or are familiar with the profession. From the TRA perspective, high growth potential strengthens students' existing beliefs about a profession's attractiveness and further induces them to have a positive opinion about their chosen major. If the student has already chosen their major, evidence suggesting growth potential, would reinforce the student's intention to pursue a particular academic pursuit. In addition, if the student has not chosen a major, information about growth potential should improve their chances of selecting a particular major (Pinxten et al., 2015). Using this logic, we hypothesize:

H1a. Students' intention to commit to an academic major is positively related to their perception of career growth in their chosen profession.

2.2. Understanding of available occupational specialties and students' decidedness

When nursing students have more knowledge about the different occupational specialties available to them, they likely will be more committed about their academic decision. While existing research shows that familiarity with available occupational specialties is associated with improved confidence levels (Shivy and Sullivan, 2005), nursing students will actively look for specialties that maximize current talents and minimize undesirable work conditions. From a TRA viewpoint, when a nursing student decides on his or her academic major they are showing their intent, which is an antecedent to behavior. Therefore, understanding what occupational specialties are available should embolden students to commit to the nursing profession. Based on this reasoning, we hypothesize:

H2a. Students' intention to commit to an academic major is positively related to their understanding of available occupational specialties in

Table 1
Nursing commitment survey items.

Item	Item Name	Loading	Mean	StdDev
Career potential measured as degree of agreement on a seven-point Likert-type scale: (1-strongly disagree - strongly agree)				
CareerGrow1	Job growth is important to nursing professionals	0.582	6.39	0.87
CareerGrow2	Nursing careers are limitless	0.693	6.24	0.90
CareerGrow3	There are many job prospects in nursing	0.888	6.56	0.69
CareerGrow4	I expect that nurses have many career opportunities	0.883	6.55	0.65
Occupational specialties measured as degree of agreement on a seven-point Likert-type scale: (1-strongly disagree - strongly agree)				
OccSpecial1	I need information about the occupational specialty I want to enter.	0.479	3.44	1.63
OccSpecial2	I do not feel I know enough about the specialties that I am considering.	0.866	4.24	1.67
OccSpecial3	I still need information on how to find an occupation that matches my abilities	0.94	4.00	1.67
Instructors' influence measured as degree of agreement on a seven-point Likert-type scale: (1-strongly disagree - strongly agree)				
Instructor1	Prior to entering the nursing program, my professors and I discussed different jobs within nursing	0.603	4.23	1.98
Instructor2	Prior to entering the nursing program, my professors and I discussed how my academic major may lead to a nursing career	1.00	4.65	1.95
Instructor3	My prior professors think highly of the careers associated with my academic major	0.424	6.21	0.96
Family influence measured as degree of agreement on a seven-point Likert-type scale: (1-strongly disagree - strongly agree)				
Family1	My siblings support my decision to pursue my academic major.	0.3953	5.99	1.35
Family2	My parents support my decision to pursue my academic major	0.640	6.76	0.59
Family3	My grandparents support my decision to pursue my academic major	0.725	6.41	1.04
Family4	My extended family (e. g. aunt, uncle, cousin) supports my decision to pursue my academic major	0.8018	6.40	0.90
Stress influence **measured** as degree of agreement on a seven-point Likert-type scale: (1-strongly disagree - strongly agree)				
Stress1	I feel stressed about picking a nursing specialty	0.814	4.43	1.77
Stress2	I feel that the pressure of picking a nursing specialty is negatively impacting my studies.	0.730	3.06	1.50
Stress3	I often worry about picking a nursing specialty.	0.895	3.95	1.90
Intention measured as degree of agreement on a seven-point Likert-type scale: (1-strongly disagree - strongly agree)				
Intention1	I have decided on the best career path for me personally.	0.930	5.68	1.30
Intention2	I have decided on an occupational specialty (e.g., pediatrics, oncology, etc.).	0.409	4.64	1.59
Intention3	I am certain that I chose the best academic major for myself	0.616	5.96	1.17
Commitment measured as degree of agreement on a seven-point Likert-type scale: (1-strongly disagree - strongly agree)				
Commit1	I am comfortable with my career choice.		6.20	0.83
Control variables				
Control1	Gender (Female = 129; Male = 14)			
Control2	At which age did you first select your academic major?		23.20	3.44
Control3	Ethnicity (Non-Hispanic white = 95, Hispanic = 29, Black or African American = 14, Asian = 4; Hawaiian/Pacific Islander = 1)			

their chosen profession.

Next, we investigate how instructors' guidance and family influence affects students' commitment to an academic major. Both of these normative factors and are believed to put social pressure on an individual as they form attitudes about a subject (Ajzen, 2011). Family members and instructors' influence individuals to perform or not perform a behavior by discussing a phenomenon. Extant TRA literature suggests that individuals interpreted these discussions as perceived social pressure (Ajzen, 2011).

2.3. Instructors' guidance and students' commitment

Classroom instructors influence students as they matriculate thought their program of study. Be it formal classroom instruction or informal discussions, instructors convey their beliefs about curriculum and the related profession. Existing research has found faculty guidance reduced stress levels for first year medical students (Moffat et al., 2004) and improve knowledge acquisition capabilities (Noureddine et al., 2016).

As students matriculate through a nursing program, they form attitudes about the profession. However, attitude formation is not a linear process. Rather students gather ideas from books, lectures, practitioners, and instructors, and then ask questions iteratively as they form larger mental models. Since the students regularly engage with instructors, they have the opportunity to ask clarifying questions from these knowledgeable referents. In addition, as part of these discussions instructors provide informal insight about how a student may fit with certain occupational specialties and/or why he or she may want to or not pursue some nursing positions. Thus, instructors provide evidence

as the student forms positive or negative attitudes about nursing. Based on this logic, we hypothesize:

H3a. Students' intention to commit to an academic major is positively related to instructors' guidance about their chosen profession.

Existing studies have shown that undergraduate students believe that family members positively affect the career development process both directly by discussing educational materials and indirectly by providing emotional support (Schultheiss et al., 2001). The opinions of parents, sibling, grandparents, and extended family members can influence students as they develop beliefs about their academic major. Further, if a family member has relevant professional experience that they can significantly influence the student's attitude and resulting behavior. Leveraging this reasoning, we hypothesize the following:

H4a. Students' intention to commit to an academic major is positively related to families' beliefs about their chosen profession.

2.4. Mediating effect of stress

Stress alludes to negative physical and psychological responses to environmental demands or situations (Liu et al., 2015). Much research has illustrated how stress affects students. Stressors such as work, social activities, and deadlines associated with homework and exams negatively affect students' educational experience (Stoliker and Lafreniere, 2015) and can lead to burn out and emotional exhaustion (Lin and Huang, 2014). When stress levels are high, students experience decreased self-esteem levels (Claudat et al., 2016) along with physical and psychological distress (Chang et al., 2005). Stress likely affects students as they decide on and commit to their academic major. Explicitly we

anticipate that stress will negatively affect decidedness since it distracts students from focusing on academic achievement.

As for nursing students, we suppose they experience stress since their work directly affects patient outcomes, which can delay recovery and in some cases lead to mortality. Thus, students fear they may make a mistake and hurt a patient. When viewed with a TRA lens, stress alters both attitude and behavior formation and will undermine an individuals' belief in a concept. Using TRA terminology, an attitudes' belief strength and the likely resulting behavior will be reduced when stress increases. Leveraging the above logic, we hypothesize four mediating relationships:

H1b. Stress negatively mediates the effects of potential career growth on students' intention to commit.

H2b. tress negatively mediates the effects of understanding of occupational specialties on students" intention to commit.

H3b. Stress negatively mediates the effects of instructors' guidance on students' intention to commit.

H4b. Stress negatively mediates the effects of families influence on students' intention to commit.

Lastly, we explore the relationship between students' intention and commitment. Following logic espoused by TRA, we evaluate how individuals' attitude affects resultant behavior. As discussed above, decidedness is an attitude, which we expect will affect the students' commitment to a career in nursing. When decidedness levels are high, we anticipate that nursing students will be firm about the career decision. Conversely, when student are not decided about their academic major, they will be less committed to the resultant behavior. Based on this logic, we hypothesize:

H5. As students' intention to commit increases, so does students' commitment level.

3. Methods

Using Qualtrics.com, we collected data and asked students to provide information about the different variables and pertinent demographics. We collected 167 responses from students enrolled in classes offered at two separate nursing programs. Responses were gathered from a large regional public program in the southwestern U.S. and a small private nursing program in the northeast U.S. during the 2016–2017 academic year. By collecting and analyzing data from two nursing programs, we anticipate that our findings are more generalizable to a larger population of nursing students.

3.1. Structural model

In Fig. 1, we propose a model where four antecedents directly affect students' intention to commitment. Potential career growth and students' understanding of occupational specialties speak to students' familiarity with the nursing profession. We also include both family and instructors to understand the normative pressures derived from people important to the student. Then, we position stress between the antecedents and the intention construct. We hypothesize that stress negatively mediates the various relationships (H1b–H4b). Lastly, we propose a linkage between intention and commitment to an academic major (H5).

We analyzed all responses and demographic controls and determined that 129 of the respondents were female and 14 were male. In addition, survey participants were between the ages of 18 and 30, with an average age of 23. Lastly, just over 66% of respondents were non-Hispanic white, 20% African American, 10% Hispanic, 3% Asian, and one respondent identified themselves as Hawaiian/Pacific islander.

Using SPSS 22, we then assessed convergent and discriminant validity of our measures using confirmatory factor analysis (see Table 2). We evaluated convergent validity and sought to understand if the various indicators load well onto the measures of interest. Based on existing composite reliability values (0.738–0.856), we determine our measures represent the constructs well.

In addition, we further investigate the square root of the average variance extracted (AVE) to evaluate measures' validity. Leveraging best practices set forth by Fornell and Larcker (1981), we use the cutoff of 0.50 and advocate that the variables capture a minimum of 50% of possible variance. Since, all of the square roots of the AVE are above 0.50 (0.582–0.709), the latent variables represent the constructs of interest, rather than random error. We conclude that discriminant validity is present, since the square root of the AVEs is greater than the off diagonal loading values.

4. Data/results

We used ordinary least squares regression (SPSS 22) to evaluate both the direct and mediated relationships. We report the findings associated with the direct hypotheses in Table 3.

For the linkage between potential career growth and intention (H1a), we found the effect to be significant, ($\beta = 0.0273$, $p = 0.046$). This indicates a one-unit increase in potential career growth leads to a 0.273 unit increase in intention to commit to nursing. Leveraging a TRA frame, this suggests nursing students' value career growth potential when forming attitudes. When a student values career growth potential they have a positive attitude about the profession and believe they will be able to find and hold employment over time (Kumar & Kumar, 2013). Further, when career growth potential is high, nursing students may be able to assume that they will have greater leverage when negotiating with hiring firms (via factors such as location, pay, and flexible hours).

Next, we evaluated the relationship between understanding of occupational specialties and intention (H2a). Upon inspection of model 2, the affect is significant, ($\beta = 0.268$, $p < 0.001$). When nursing students take the time to learn about the different occupational specialties available to them, they will have a more positive view about their chosen major. We expect that when students learn about the idiosyncrasies of the different specialties, they use the information to choose one that they believe best fits with their skillsets and interests. When fit is high, we expect nursing students would be more committed to their chosen academic program because they identity with a particular field of study. They do this since they believe they are capable of providing care to the patients within that specialty (i.e., some nurses would see themselves working in cardiac care unit, while others may prefer caring for infants in the neonatal area).

Upon inspecting the relationship between instructors' guidance and intention to commit (Model #3), we found the connection to be insignificant, ($\beta = 0.019$, $p = 0.781$). Thus, instructors do not directly affect students as they decide which academic program to pursue. We suppose that many students may have already selected their academic major. Hence, guidance provided by instructors is too late to influence intention formation and resultant behavior selection.

While there is much research demonstrating the influence of instructors on student decision-making, our research highlights a difference between nursing students and those pursuing other academic majors. Since nursing is highly specialized, we envision that many know that they want to pursue the profession before the start the curriculum. Conversely, many other academic majors do not require students to declare them major until after the first or second year.

For H4a, the analysis indicates that family does have a direct effect on intention to commit ($\beta = 0.537$, $p < 0.001$). As expected, family members influence students as they form attitudes about and actually commit to their academic major. We suspect referents offer evidence
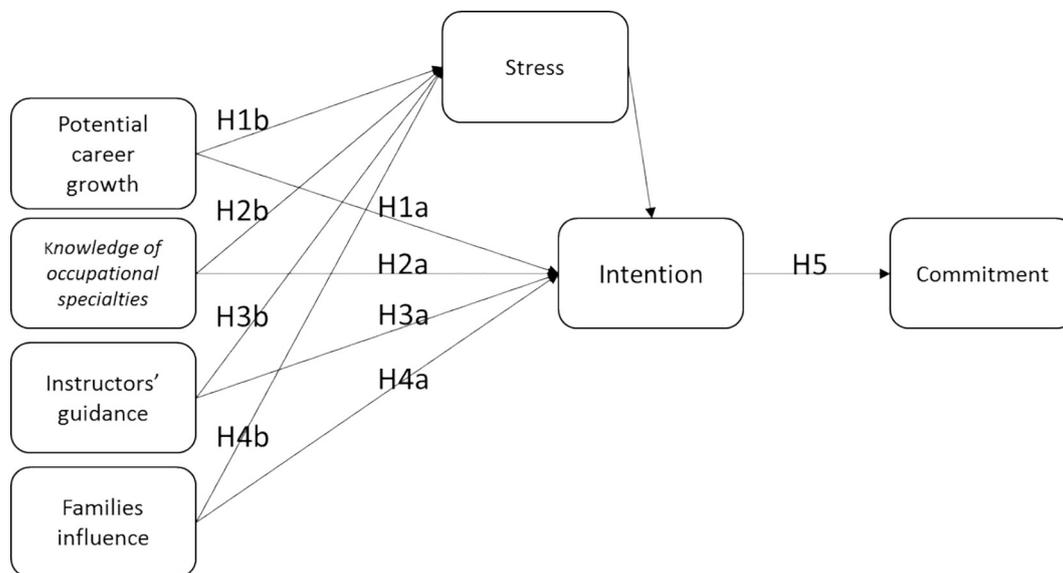
Fig. 1. Proposed model.

suggesting why the student should or should not pursue a career in nursing. Further, as students contemplate different nursing specialties, knowledgeable family members may provide insight why the student may fit in within one area over another.

When evaluating the mediating effect of stress on the relationship between career growth and intention to commit (H1b), we found the effect to be negligible and thus do not report any results. However, when considering H2b we found that stress does diminish the effect that students' understanding of occupational specialties (UOC) has on intention to commit (see Table 4). We determined how both understanding and stress simultaneously predict intention ($\beta = -0.075$). This indicates that stress partially mediates the relationship between occupational specialties and students' intention to commit. One possible explanation is that stress undermines students' belief that they are capable of providing the type of care necessary within the occupational specialty. Stated differently, stress reduces the perception of demand-ability congruence (Conklin, Dahling, and Garcia, 2013).

For the linkage between instructors' guidance and intention (H3B), we found that stress fully mediated the connection ($\beta = -0.077$). Thus, students will likely seek the advice of instructors when stress levels are high. We expect students are looking for advice confirming that they have chosen the right profession. Instructors calm students by addressing their fears and discussing how the student's capabilities align with the needs of the nursing profession.

When investigating the connection between family and intention (H4b), the analysis indicates that a fully mediated relationship exists ($\beta = -0.0983$). We articulate that this makes sense since students frequently look to their family when times are tough. Similar to fully

Table 3
DV: intention.

	Model 1	Model 2	Model 3	Model 4	Model 5
R-square	0.028	0.128	0.001	0.131	0.223
Degrees of freedom	1	1	1	1	4
Constant	3.668	4.384	5.333	1.993	1.178
Potential career growth	0.273*				0.029
Understanding of occupational specialties (UOC)		0.268*			0.232*
Instructors' guidance			0.019		0.064
Families influence				0.537*	0.444*

* = p < .05.

mediated relationship above, family members help students work through their fears about potential careers and the future in general. If family members are familiar with the healthcare profession, they can provide detail about how the students would be able to complete specific nursing tasks.

Lastly, for the linkage between intention and commitment (H5), we found the affect to be significant and positive, ($\beta = 0.470$, $p < 0.001$). This finding allows us to confirm the linkage between attitude formation and behavior, which we postulated using TRA as our theoretical frame. For program administrators, once you get students to learn and think about how they will fit in as a nurse and within the profession, the better the chance that they will commit to their chosen academic pursuits.

Table 2
Confirmatory factor analysis.

Construct	# of items	Cronbach alpha	Composite reliability	AVE	Career growth	Occ special	Instructors	Family	Stress
Career growth	4	0.825	0.852	0.654	0.809				
Occ special	3	0.794	0.821	0.668	0.086	0.817			
Instructors	3	0.665	0.738	0.582	0.205	−0.163	0.763		
Family	4	0.667	0.743	0.531	0.530	0.195	0.014	0.728	
Stress	3	0.850	0.856	0.709	0.038	−0.501	0.283	−0.075	0.842

1. Correlations bottom left triangle, 2. Negative correlations between factors, 3. Square root of average variance extracted (AVE) on diagonal. This converts the AVE to the standard deviation scale, so it can be compared to correlations located in bottom left triangle.

Table 4
Mediating effect of stress.

UOC > stress > intention to commit	Beta	SE beta	β	R^2
Step 1: UOC predicts intention	0.268	0.059	0.357	0.128
Step 2: UOC predicts stress	−0.456	0.083	−0.417	0.174
Step 3: stress predicts intention	−0.309	0.051	−0.451	0.203
Step 4: UOC predicts stress, which in turn predicts intention				
UOC	0.153	0.061	0.205	0.238
Stress	−0.251	0.055	−0.366	
Result			−0.0750	
Guidance > stress > intention to commit	Beta	SE beta	β	R^2
Step 1: guidance predicts intention	0.019	0.067	0.023	0.001
Step 2: guidance predicts stress	0.311	0.093	0.27	0.073
Step 3: stress predicts intention	−0.309	0.051	−0.451	0.203
Step 4: guidance predicts stress, which in turn predicts intention				
Instructors' guidance	0.124	0.061	0.157	0.226
Stress	−0.338	0.053	−0.493	
Result			−0.077	
Family > stress > intention to commit	Beta	SE beta	β	R^2
Step 1: family predicts intention	0.537	0.116	0.362	0.131
Step 2: family predicts stress	−0.586	0.171	−0.275	0.076
Step 3: stress predicts intention	−0.309	0.051	−0.451	0.203
Step 4: UOC predicts stress, which in turn predicts intention				
Family	0.383	0.111	0.258	0.265
Stress	−0.261	0.051	-0.381	
Result			−0.0983	

5. Discussion

The results found with the current study support the proposition that academic major commitment is related to students' understanding of the nursing profession and stress. Specifically, student value potential career growth, their understanding of the available occupational specialties, instructors, and family when forming attitudes about and actually committing to their major. This information should help nursing program administrators as they develop strategies to recruit and retain potential students. Further, the work also acknowledges the negative affect that stress has the various relationships. Thus, administrators should take time to address students concerns about potential and actual stressors.

5.1. Limitations

Since all the data collected in this study was through a self-reported survey instrument, we acknowledge the potential for common method bias. To address these concerns, we did use multiple questions for each construct of interest and tested the various measures using confirmatory factor analysis. In addition, we point out that data were collected from just two nursing programs. Additional data from other programs, could improve the generalizability of the findings.

6. Conclusion

Despite the limitations of this research, the results contribute to our understanding of how students actually form attitudes about and commit to their academic major. We highlight the process with nursing students, recognizing that program administrators are looking for ways to recruit and retain these highly sought after students. These findings suggest that when these students experience stress they may be inclined to rethink their academic pursuits and the nursing profession altogether. However, this study also sheds light on what administrators can do to lessen attrition rates. Specifically, they can show students the growth opportunity and occupational specialties within the nursing profession. In addition, they should recognize the capability of both instructors and parents to influence students.

References

Ajzen, I., 2011. The Theory of Planned Behaviour: Reactions and Reflections.

Ajzen, I.F., Fishbein, M.M., 1980. Understanding Attitudes and Predicting Social Behavior. Prentice-Hall, Englewood Cliffs, NJ.

Azjen, I.F., Madden, T., 1986. Prediction of goal-directed behavior: attitudes, intentions, and perceived behavioral control. J. Exp. Soc. Psychol. 22, 453–474.

Burnard, P., Edwards, D., Bennett, K., Tothova, V., Baldacchino, D., Bara, P., Mytevelli, J., 2008. A comparative, longitudinal study of stress in student nurses in five countries: Albania, Brunei, Czech Republic, Malta, & Wales. Nurse Educ. Today 28 (2), 134–145.

Chang, E.M., Hancock, K.M., Johnston, A., Daly, J., Jackson, D., 2005. Role stress in nurses: review of related factors and strategies for moving forward. Nurs. Health Sci. 7 (1), 57–65.

Claudat, K., White, E.K., Warren, C.S., 2016. Acculturative stress, self-esteem, and eating pathology in Latina and Asian American female college students. J. Clin. Psychol. 72 (1), 88–100.

Conklin, A.M., Dahling, J.J., Garcia, P.A., 2013. Linking affective commitment, career self-efficacy, and outcome expectations: a test of social cognitive career theory. J. Career Dev. 40 (1), 68–83.

Deary, I.J., Watson, R., Hogston, R., 2003. A longitudinal cohort study of burnout and attrition in nursing students. J. Adv. Nurs. 43 (1), 71–81.

Fishbein, M., Ajzen, I., 1977. Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Addison-Wesley, Reading, MA.

Fontaine, K., 2014. Effects of a retention intervention program for associate degree nursing students. Nurs. Educ. Perspect. 35 (2), 94–99.

Fornell, C., Larcker, D.F., 1981. Structural equation models with unobservable variables and measurement error: algebra and statistics. J. Mark. Res. 18 (3), 382–388.

Ghazanfari, Z., Niknami, S., Ghofranipour, F., Hajizadeh, E., Montazeri, A., 2010. Development and psychometric properties of a belief-based physical activity questionnaire for diabetic patients (PAQ-DP). BMC Med. Res. Methodol. 10 (1), 104.

Gillmore, M.R., Archibald, M.E., Morrison, D.M., Wilsdon, A., Wells, E.A., Hoppe, M.J., Murowchick, E., 2002. Teen sexual behavior: applicability of the theory of reasoned action. J. Marriage Fam. 64 (4), 885–897.

Grant, R., 2016. The U.S. is Running Out of Nurses, Cont'd. Extracted From the Following Website on April 19, 2018. https://www.theatlantic.com/notes/2016/02/the-us-is-running-out-of-nurses-contd/462255/.

Hackman, C.L., Knowlden, A.P., 2014. Theory of reasoned action and theory of planned behavior-based dietary interventions in adolescents and young adults: a systematic review. Adolesc. Health Med. Ther. 5, 101.

Hartung, P.J., Leong, F.T.L., 2005. Introduction: career specialty choice. J. Vocat. Behav. 1 (67), 1–3.

Ho, W.H., Chang, C.S., Shih, Y.L., Liang, R.D., 2009. Effects of job rotation and role stress among nurses on job satisfaction and organizational commitment. BMC Health Serv. Res. 9 (1), 8.

Jeffreys, M.R., 2007. Tracking students through program entry, progression, graduation, and licensure: assessing undergraduate nursing student retention and success. Nurse Educ. Today 27 (5), 406–419.

Kumar, A., Kumar, P., 2013. An examination of factors influencing students selection of business majors using TRA framework. Decis. Sci. J. Innov. Educ. 11 (1), 77–105.

Lin, S.H., Huang, Y.C., 2014. Life stress and academic burnout. Act. Learn. High. Educ. 15 (1), 77–90.

Liu, M., Gu, K., Wong, T.K., Luo, M.Z., Chan, M.Y., 2015. Perceived stress among Macao nursing students in the clinical learning environment. Int. J. Nurs. Sci. 2 (2), 128–133.

Mahatanankoon, P., Watanapa, B., Sathapornvajana, S., 2012. Gender gap in information technology (It) majors: a preliminary study on cross-cultural perspective. PACIS 153.

Moffat, K.J., McConnachie, A., Ross, S., Morrison, J.M., 2004. First year medical student stress and coping in a problem - based learning medical curriculum. Med. Educ. 38 (5), 482–491.

Noureddine, N., Hagge, D.K., Brady, D., 2016. Developing simulation-based Interprofessional education: nursing and SLP students. Int. J. Nurs. Clin. Pract. 3, 177. https://doi.org/10.15344/2394-4978/2016/177.

Pinxten, M., De Fraine, B., Van Den Noortgate, W., Van Damme, J., Boonen, T., Vanlaar, G., 2015. 'I choose so I am': a logistic analysis of major selection in university and successful completion of the first year. Stud. High. Educ. 40 (10), 1919–1946.

Schultheiss, D., Kress, H.M., Manzi, A.J., Glasscock, J., 2001. Relational influences in career development: a qualitative inquiry. Couns. Psychol. 29 (2), 214–239.

Shivy, V.A., Sullivan, T.N., 2005. Engineering students' perceptions of engineering specialties. J. Vocat. Behav. 67 (1), 87–101.

Soria, K.M., Stebleton, M.J., 2013. Social capital, academic engagement, and sense of belonging among working-class college students. Coll. Stud. Aff. J. 31 (2), 139.

Stoliker, B.E., Lafreniere, K.D., 2015. The influence of perceived stress, loneliness, and learning burnout on university students' educational experience. Coll. Stud. J. 49 (1), 146–160.

Suhre, C.J., Jansen, E.P., Harskamp, E.G., 2007. Impact of degree program satisfaction on the persistence of college students. High. Educ. 54 (2), 207–226.

Weng, Q., McElroy, J.C., 2012. Organizational career growth, affective occupational commitment and turnover intentions. J. Vocat. Behav. 80 (2), 256–265.