

A Study on Stress, Self-Perception and Resilience among Undergraduate Nursing Students

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Abstract

Background: The aim of this study was to identify the levels of stress, self-perception and resilience of undergraduate nursing students and to recognize the correlations between them.

Method: The research design is a descriptive correlational study design which used convenience sampling on 198 senior nursing students in South Korea. The used research measures were tools which measure stress, self-perception and resilience. Data collection was conducted from May 13, 2019 to May 24, 2019 using SPSS 21.0 for data analysis.

Findings: The results show that stress is affected by health status, and clinical practice satisfaction. Meanwhile, resilience is affected by health status, interpersonal relationships, personality trait and major satisfaction. Stress and resilience are negatively correlated while self-perception and resilience are positively correlated. Furthermore, an increase in self-perception correlates with an increase in resilience and a decrease in self-perception correlates with a decrease in resilience.

Applications: It is important for nursing leaders of education and practice to find out the sources of stress and coping strategies used by the students so that such leaders can help students effectively manage upcoming problems and situations. In addition, if the social support system that protects nursing students is systemically formed and utilized, it can not only help increase self-perception and resilience of prospective helping professionals but also improve their happiness.

Keywords: *Nursing, Stress, Self-perception, Resilience.*

Introduction

Stress in nursing education is acknowledged as one of the most important issues in in this rapidly changing society. Stress may have an impact on the physio-psychosocial health of the nursing students. During nursing education and training, students experience various stressors which may directly or indirectly impede their learning and clinical performance^[1].

High levels of stress are believed to affect student's psychophysical health and academic functions^[2]. When stress is magnified by factors such as academic, interpersonal, and emotional relationships, it can result in physical and physiological symptoms along with dissatisfaction and maladjustment in college life^[3]. The emotional and physical ways in which we respond to pressure can cause mental and physical symptoms^[4].

The WHO estimated that stress-related disorders will be one of the leading causes of disability by the year 2020. Compared to other students, nursing students bear the burden of balancing both heavy academic studies and clinical practice^[5]. Therefore, it is important to seek for a solution and look into industrial-educational cooperation to cope with nursing students' stress in this modern rapidly changing health care reality.

Nursing students who engage in clinical practice experience more stress compared to other students because they not only have to go through rigorous academics but also as half a member of society must acquire a specific set of information from clinical practice in a short period of time^[6]. If these stresses are not adequately addressed, they will not only negatively affect physical health but may also bring out depression, anxiety, reduced confidence, academic degradation,

and school maladjustment^[7]. Despite being aware that clinical practice is essential, nursing students are afraid of losing confidence and some may even feel conflicted about their major.

There have been many studies on control variables that are thought to either buffer the effects of stress or help students adapt to stress. These studies found out that self-perception and self-efficacy were the control variables^[8]. Self-perception is an important factor in college life and adjustment. Nursing students with high self-perception are found to be satisfied with their major and as a result of low stress levels and response factors from clinical practice, they act confidently and communicate with patients smoothly and energetically^[9]. Seo reported that self-perception was the most influential factor in the clinical performance of nursing college students^[10]. The higher the self-perception was the lower the stress of clinical practice and the higher the major satisfaction. Thus, those with high self-perception have a greater tendency to try out new behaviors and possess high self-efficacy and academic achievement^[11].

Resilience is a concept derived from the point of view that it can buffer or help the adaptation of extreme stress. While there are precedent studies which focus on nursing students' stress from clinical practice and from academic and career problems, there is a lack of study on stress that stems from general university life and clinical practice performance^[12]. In addition, self-efficacy and resilience have been studied as individual factors that predict college life adaptation, but there has been little study that testifies the possibility of self-esteem as an intermedator between academic stress and college adjustment^[13]. Most of the precedent studies aimed its focus on clinical practice, conducting surveys on only self-esteem and practice satisfaction^[14]. Therefore, this study was to identify the levels of stress, self-perception, and resilience of undergraduate nursing students and to recognize the correlations between them.

Method

This study's participants were senior students who are currently enrolled in a nursing college in G city and have had more than 1 year of experience in clinical practice. The appropriate number of participants for this study was calculated, based on significance level (α) .05, effect size .30, power .95 when using G* power 3.1

program^[15]. The final number of participants was 198.

In order to measure the stress of nursing students, the study used a tool of Yoo et al^[16] which was developed to measure the stress of nursing students in South Korea. The self-perception profile tool used the one that Neemann and Harter's^[17] developed for college students, which Eun^[18] modified. To measure the resilience, the study used a version of the Resilience Scale(RS) developed by Wagnild and Young^[19].

Data collection took place from May 13 to May 24, 2019 and focused on senior students who were attending school at the nursing college in South Korea. Before data collection, a self-reporting type questionnaire was used to explain questionnaire contents and writing methods and to receive students' consent to participate in this study.

The participants were informed of the study's necessity, purpose, and method beforehand in order to protect their rights. The research was conducted only after participants voluntarily gave their written consent.

The collected data used SPSS/win 21.0 Program. The differences between stress, self-perception and resilience according to the participants' general characteristics were analyzed by t-test, one-way ANOVA. The correlations between stress, self-perception and resilience of the participants were analyzed by Pearson's correlation coefficient.

Results

1. General Characteristics of the participants

The general characteristics of the participants are as follows [Table 1].

2. Differences between stress, self-perception and resilience according to the participants' general characteristics

Stress according to the participants' general characteristics of health status($F=4.759$, $p=.001$), and clinical practice satisfaction($F=3.856$, $p=.000$) presented statistically significant differences. Self-perception according to all of the general characteristics presented no statistically significant differences as well. Resilience according to the participants' general characteristics of health status($F=6.021$, $p=.001$), interpersonal

relationships ($F=5.189$, $p=.001$), personality ($F=9.021$, $p=.000$) and major satisfaction ($F=9.102$, $p=.001$) presented statistically significant differences. The differences in stress, self-perception and resilience according to the participants' general characteristics are as follows [Table 2].

3. Correlations between stress, self-perception and resilience

The relationship between stress and resilience

was a negative correlation ($r=-.261$, $p=000$). In other words, as stress increases, resilience decreases and as stress decreases, resilience increases. Meanwhile, self-perception and resilience was found to be a positive correlation ($r=.165$, $p=.023$). Thus, as self-perception increases, resilience increases and as self-perception decreases, resilience decreases. The correlations between stress, self-perception and resilience of the participants are as follows [Table 3].

Table 1. General Characteristics of the participants

Characteristics		n	%
Gender	Male	26	13.1
	Female	172	86.9
Health status	Poor	8	4.0
	Neutral	92	46.5
	Healthy	98	49.5
Academic achievement	Low	9	4.5
	Middle	150	75.8
	High	39	19.7
Inter-personal relationship	Poor	2	1.0
	Neural	103	52.0
	Good	93	47.0
Personality	Introverted	102	51.5
	Extroverted	96	48.5
Major satisfaction	Unsatisfied	13	6.6
	Neutral	60	30.3
	Satisfied	125	63.1
Clinical practice satisfaction	Unsatisfied	30	15.1
	Neutral	90	45.5
	Satisfied	78	39.4

Table 2. Differences between stress, self-perception and resilience according to the participants' general characteristics (n=198)

Variable	Categories	Stress	Self-perception	Resilience
		M±SD t/F(p)	M±SD t/F(p)	M±SD t/F(p)
Gender	Male	2.76±1.01 .046	3.85±0.26 .054	5.01±0.61 0785
	Female	2.87±0.54 (.849)	3.91±0.24 (.846)	4.88±0.51 (.301)
Health status	Poor	3.42±0.57	3.79±0.43	4.20±0.37
	Neutral	2.93±0.49 4.759	3.92±0.31 1.036	4.51±0.62 6.021
	Healthy	2.87±1.01 (.001)	3.87±0.25 (.287)	5.01±0.61 (.001)
Academic achievement	Low	2.94±0.78 .668	3.72±0.43 1.893	4.84±0.56 5.621
	Middle	2.39±0.41 (.502)	3.84±0.29 (.128)	4.77±0.52 (.731)
	High	3.05±0.51	3.80±0.03	5.01±0.65
Inter-personal relationship	Poor	3.05±0.04 2.051	3.94±0.02 1.982	4.88±0.02 5.189
	Neutral	3.04±0.74 (.079)	3.81±0.32 (.106)	4.89±0.58 (.001)
	Good	2.79±0.57	3.49±0.21	5.31±0.62
Personality	Introverted	3.51±0.06 3.012	3.89±0.24 2.012	4.25±0.31 9.021
	Extroverted	3.85±0.54 (.052)	3.86±0.25 (.288)	5.04±0.41 (.000)
Major satisfaction	Unsatisfied	3.08±0.03 2.463	3.58±0.21 1.056	4.41±0.27 9.102
	Neutral	3.54±0.49 (.036)	3.91±0.33 (.288)	4.99±0.61 (.001)
	Satisfied	3.01±0.59	3.92±0.34	5.08±0.71
Clinical practice satisfaction	Unsatisfied	3.64±0.25 3.856	3.85±0.24 .416	4.97±0.41 2.215
	Neutral	2.98±0.59 (.000)	3.76±0.24 (.649)	4.88±0.59 (.051)
	Satisfied	2.88±0.59	3.57±0.24	5.34±0.5.

Table 3. Correlations between stress, self-esteem and resilience (n=198)

Variables	Stress	Self-perception	Resilience
Stress	1	.112(.135)	-.261(.000)
Self-perception	.112(.135)	1	.165(.023)
Resilience	-.261(.000)	.165(.023)	1

Discussion

The purpose of this study was to identify the levels of and relations between stress, self-perception, and resilience of undergraduate nursing students. Also, the study attempted to provide basic data that will help others seek a direction in decreasing the stress levels of nursing students and help them adapt to college life. The study's results found that there were significant differences in stress according to health status, major satisfaction, and clinical practice satisfaction. Also, there were significant differences in resilience according to health status, interpersonal relationship, personality, and major satisfaction. The significant correlation between stress and resilience was found to be a negative correlation and a positive correlation for self-perception and resilience. In other words, as stress increases, resilience decreases and conversely, as stress decreases, resilience increases. For self-perception and resilience, an increase in self-perception resulted in an increase in resilience and conversely, a decrease in self-perception resulted in a decrease in resilience.

There was a statistically significant difference in stress according to the participants' general characteristics of health status, major satisfaction and clinical practice satisfaction. In terms of gender, the stress for male college nursing students was 2.76 and 2.87 for female nursing students, indicating that stress was not dependent on gender. In terms of health status, a poor health status scored a lower score in stress while a good health status scored a higher score, indicating a sequential relationship. Chow et al reported similarly in his study that a nursing student's academic stress affected health status^[12].

Students in the high academic achievement group showed the highest tendency for stress while students in the middle group presented the lowest level of stress, indicating an inconsistent tendency among different scholastic achievements. Thus, the differences were not statistically significant. Students with a higher level of interpersonal relationship had a tendency to experience less stress. Also, students who were more satisfied with their major demonstrated a lower tendency for stress.

In this study, stress related to clinical practice especially decreased as clinical practice satisfaction increased. Stress was 3.64 for the unsatisfied group, while the average decreased to 2.88 for the satisfied group. The results of this study suggest that a sufficient consultation between the practical institution and the school should be required, focusing on how an increase in clinical practice satisfaction can help reduce clinical practice stress. Also, there is a need to explore a variety of directions, such as pre-clinical practice mentoring, in order to help students cope with clinical practice stress.

The descriptive statistics of self-perception according to general characteristics showed that there was a difference between academic achievement groups. Self-perception tended to increase more according to academic achievement. Lee reported in a study similar to this study that self-perception has a direct effect on learning immersion and an indirect effect on academic achievement^[11]. There is a slight increase of self-perception from unsatisfactory major to satisfactory major satisfaction but it is not statistically significant. However, the study was able to grasp that a higher major satisfaction leads to a positive direction in self-perception, which raises the importance of increasing major satisfaction.

Resilience according to the general characteristics of the study's participants showed statistically significant differences in health status, interpersonal relationships, personality, and major satisfaction. According to health status, the unhealthy group scored 4.20 points while the healthy group sequentially scored higher with 5.01 points. Therefore, since health status is an important variable in increasing resilience, it is necessary to plan and manage an appropriate health program for these students.

Resilience also demonstrated differences according to interpersonal relationships. The average interpersonal relationships group scored 4.89 points. The considerable influence of interpersonal relationships on students' resilience raises the need for an appropriate mediation. Resilience according to personality showed differences as well with the introverted group scoring 4.25 points and the extroverted group 5.04 points. Therefore, freshmen students should take personality type tests like MBTI in the beginning of the term so schools can use those results to host appropriate programs that can help out introverted students or those with narrow interpersonal relationships^[20]. Resilience according to major satisfaction also showed that students with a higher major satisfaction tended to be more positively resilient.

The analysis of the correlation between stress, self-perception, and resilience reveals that an increase in stress levels correlates with a decrease in resilience. Conversely, a decrease in stress levels correlates with an increase in resilience. An important attribute of resilience is the process when one returns to everyday life after a difficult situation, so there is a great need to manage various resilience improvement programs in order to help alleviate the stress of nursing students.

The correlation between stress and self-perception did not satisfy a statistically significant level. This study found that resilience of nursing students increases as self-perception increases and vice versa. Efforts to enhance the image of the nursing profession will result in improved job satisfaction, which is linked to better quality of care and improved health outcomes.

Conclusion

The significance of this study is that first, it examines

the experiences of nursing students who engage in clinical practice in this rapidly changing healthcare environment. The study evaluates the stress students experience from college life or clinical practice and provides an analysis of its relationship with variables. Secondly, it provides basic data for nursing colleges on how to efficiently lead and manage students. Thirdly, this study is of significance in the aspects of research, education, and practice in that it provides industrial institutions in charge of clinical practice for nursing students with basic data on how to efficiently manage nursing students. Therefore, there is a need for interest and strategy in improving the quality of life for prospective helping professionals who will play an important role in the future.

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