Original Article

An Example of Nursing Students' Self-Esteem: Does University Education Make a Difference?

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Abstract

Background: The nursing education process is an important part of the formation of self-esteem. However, nursing students encounter some problems caused by the school and hospital environment during their education. Nursing education is very stressful with these aspects. Such a stressful education may negatively affect a student's self-esteem.

Objective: This descriptive study is aimed to determine the self-esteem levels of senior nursing students in high school and undergraduate programs, and to analyse the correlation between sociodemographic characteristics and self-esteem.

Methods: This study was conducted in a city in the Aegean Region. The study population consisted of senior nursing students in two health vocational high schools and a school of nursing in the spring semester of the 2013–2014 academic year. The study sample consisted of students who agreed to participate in the study and answered all of the questions ($n = 158$). Data were collected using a questionnaire form on the sociodemographic characteristics of the students and the Coopersmith Self-Esteem Inventory.

Results: Of the students in the health vocational high schools and the school of nursing, 55.8% and 57% had a high self-esteem, respectively. The self-esteem scale scores of the students in the school of nursing were higher than those of the students in the health vocational high schools; however, the difference was not statistically significant.

Conclusion: Despite not being statistically significant, the Self-Esteem Inventory scores of the school of nursing students were higher than those of the health vocational high schools' students in this study.

Key words: Nursing, nursing education, nursing student, self-esteem.

Introduction

Self-concept refers to the thoughts of individuals about themselves, and self-esteem refers to how individuals evaluate and to what level they value themselves (Cuceloglu, 2003; Altunay & Oz, 2006).Individuals with a high self-esteem make fewer mistakes, are more successful, and feel more valuable. In addition, these individuals are successful and can easily cope with stress, develop friendships, and enjoy life (Cuceloglu, 2003; Altunay & Oz, 2006; Ni et al., 2010).

Hypotheses:

Ho: There is no difference between the self-esteem values of the senior nursing students that study at SoNs and of the senior students studying at HVHSs.

H1: The self-esteem values of the senior nursing students that study at SoNs are higher than the values of the students that study at HVHSs.

H2: The socio-demographic characteristics (e.g. age, sex, economic level) of students affect their self-esteem values.

Background

The nursing education process is an important part of the formation of self-esteem (Altunay & Oz, 2006). However, nursing students encounter some problems caused by the school and hospital environment during their education (Chaves et al., 2013). The most frequently encountered problems include housing, opportunities to study, courses, problems about clinical practices and internship, dealing with patients, and communication with hospital personnel (Valizadeh et al., 2016).

Nursing education is very stressful with these aspects. Such a stressful education may negatively affect a student's self-esteem (Cam et al., 2000; Papazisis et a.l, 2008, 2014; Valizadeh et al., 2016; Sakellari et al., 2017). Valizadeh et al. (2016) stated that making a mistake during clinical practice, fear of making mistakes, not being accepted in clinics, and insufficient student-instructor interaction cause a low level of self-respect. Kelly (1992) reported that the senior nursing students ($n = 23$) had a lack of self-confidence. Chris et al. (2012) found in their study, conducted with the first-year nursing students from different religions, that all students had a low level of self-esteem, which was caused by personal, professional, and environmental factors.

The personality, decision-making skills, and self-concept should be developed for nurses to carry out their independent functions. Although nurses have an indispensable place in the health system, most cannot exhibit their professional identity and realise their own power. This may prevent nurses from playing an active role in the health system and on their team (Hughes et al., 2003; Altunay & Oz, 2006).

Personal and professional development, self-confidence, and self-esteem of nursing students affect their communication with patients in their future professional life (Sener et al., 2011). Studies conducted with nursing students show a positive relationship between self-esteem and self-confidence (Karagozoglu et al., 2008; Unal, 2012). The health service provided by nurses with a high self-esteem may involve more qualified and more professional approaches (Cam et al., 2000; Karagozoglu et al., 2008).

Nursing education is provided at different levels in Turkey. Health vocational high schools (HVHS) provide a 4-year education after the secondary school, of which 60% is allocated for nursing theories and practice and 40% for high school education. This shows that only half of the high school education is allocated for nursing education.

Vocational practice is entirely based on a master-apprentice relationship. Education in HVHS starts at the age of 14 or 15 years, and finishes at the age of 17 or 18 years. This means that nurses, who graduate from HVHS start their education at a young age, and after a short vocational education, become part of a very important profession that deals with human health (Kocaman, 2003; Ulker, 2014). It was decided that the students accepted into these schools would be trained and graduate as nursing assistants as of 2014 (resmigazete.gov.tr). The group included in this study was the last group that would graduate from HVHS with the title of a nurse.

Schools of Nursing (SoN) accept students through the nationwide university entrance exam after high school. These are university-level schools that provide theoretical and practical nursing education of 4,600 hours in 4 years. These schools provide undergraduate education based on the Nursing National Core Education Program (NNCEP) criteria.

The aim of this commission is to determine the minimum standards of nursing education within the national framework pursuant to the European Union Criteria and to standardise nursing education throughout the country (HUÇEP, 2003) Although studies were found on the self-esteem of nursing students in the schools that provide undergraduate education (Altunay & Oz, 2006; Karagozoglu et al., 2008; Dincer & Oztunc, 2009; Torun et al., 2012; Unal, 2012) and of students in HVHS in Turkey (Karadagli, 1993), none included both groups of students.

The present descriptive study aimed to determine the self-esteem levels of senior nursing students in high schools and undergraduate programs and to analyse the relationship between the sociodemographic characteristics and self-esteem.

Materials and Method

Place and Sample of the Study

This study was conducted in a city in the Aegean Region. The study population consisted of senior nursing students in two HVHSs ($n = 100$) and a

school of nursing (*n* = 100) in the spring semester of the 2013–2014 academic year. The study sample consisted of students who agreed to participate in the study and answered all of the questions (*n* = 158).

Participants' inclusion and exclusion criteria

1.   Being a senior nursing student in two HVHSs (n = 100) and a SoN (n = 100) in the spring semester of the 2013–2014 academic year.

2.   To agree to participate in the study.

Data Collection Tools

Data were collected simultaneously using a questionnaire form under the supervision of the researchers when the students were in the classroom. The form was divided into two sections. The first section included 18 questions on personal characteristics of students and information about the school.

The Coopersmith Self-Esteem Inventory (SEI), which was tested for reliability by Turan and Tufan (1987), was used to determine the self-esteem level of the students.

The SEI (Self-Esteem Inventory) is an inventory prepared and developed by Coopersmith to be applied to various age groups, particularly adults. The inventory consisted of 25 statements that can be marked as "like me" or "not like me." Each true statement is given "4" points and each wrong statement is given "0" points. The highest and lowest scores on the inventory are 100 and 0, respectively.

Evaluation is made according to the self-esteem being lower or higher than the average. A score lower than the average score shows a low self-esteem and a score higher than the average score shows a high self-esteem (Turan & Tufan, 1987). The Cronbach's alpha coefficient was found to be 0.76 for the HVHS students and 0.81 for the SoN students in this study.

Data Analysis

Data were analysed using the SPSS 21 package. The continuous variables were evaluated using the average and standard deviation, and the categorical variables were evaluated using numbers and percentage.

The Shapiro-Wilk test was used to analyse the conformity of the variables to normal distribution. To compare the independent groups, the significance test for the difference of two means was used when the parametric test assumptions were met, and the Mann-Whitney *U* test and Kruskal-Wallis (KW) analysis of variance were used when the parametric test assumptions were not met. The categorical variables were evaluated using the chi-square test.

Ethical Consideration

Written approvals were obtained from the directors of the schools included in the study and the Clinical Ethics Committee of the relevant university. Written and oral consents of the students were also obtained. Written consents were obtained from the parents of the students below the age of 18 years in the HVHS.

Results

Of the 158 students who agreed to participate in the study, 95 were HVHS students and 63 were SoN students.

The HVHS students were between 16 and 19 years old, while 87.3% of the SoN students were between 20 and 23 years old. Of the HVHS and SoN students, 89.5% and 69.8% were female students, respectively.

Of the HVHS and SoN students, 85.3 and 84.1 stated having nuclear families, respectively. The students with two or three siblings formed the highest percentage in both groups. The rate of the students with both parents alive was 97.8% for the HVHS students and 93.7% for the SoN students.

The rate of students whose parents had graduated from high school and above was low in both groups. The rate of students from middle-income families was 50.5% of the HVHS students, and 74.6% of the SoN students.

Of the students in HVHS and SoN, 55.8% and 57% had a high self-esteem, respectively. The scores on the SEI (69.39 ± 18.37) was found to be higher for the SoN students than that for the HVHS students (66.02 ± 17.56), but the difference was not statistically significant (*p* > 0.05) (Table 1).

Table 1. Relationship between schools and scores of the students on the SEI

Self-esteem scores	HVHS		SoN		Total	Significance
Min–max	16–96		24–100		16–100	$P = 0.168$
$X \pm$ **SD**	66.02 ± 17.56		69.39 ± 18.37		67.37 ± 17.90	$Z = -1.379$
Low-score average N (%)	42	44.2	27	42.9		$\chi^2 = 0.028$
High-score average N (%)	53	55.8	36	57.1		$P = 0.867$
Total	95	100.0	63	100.0		

SEI, self-esteem inventory; SD, standard deviation; SoN, schools of nursing; HVHS, health vocational high schools.

Table 2. Comparison of the SEI scores according to the sociodemographic variables

Variables	HVHS (*n* = 95)				SoN (*n* = 63)			
	n	%	SEI score $X \pm SD$	Significance level	*n*	%	SEI score $X \pm SD$	Significance level
Age (year)*								
16–19	95	100	66.02 ± 17.56	–	–	–	–	$Z = -2.092$
20–23	–	–	–		55	87.3	67.78 ± 18.58	$P = 0.036$
24 and older	–	–	–		8	12.7	80.5 ± 12.9	MWU
Gender								
Female	85	89.5	65.88 ± 16.95	$Z = -0.633$	44	69.8	66.27 ± 20.0	$t = -2.627$
Male	10	10.5	67.20 ± 23.15	$P = 0.527$ MWU	19	30.2	76.63 ± 11.0	$P = 0.011$ Independent
Type of family								
Nuclear family	81	85.3	65.92 ± 17.63	$\chi^2 = 2,209$	53	84.1	68.37 ± 18.71	$Z = -1.354$
Extended family	8	8.4	73.50 ± 11.30	$P = 0.331$	9	14.3	76.44 ± 16.30	$P = 0.176$
Fragmented family	6	6.3	57.33 ± 21.56	KW	1	1.6	–	MWU
Number of children in the family								
Single child	8	8.4	73 ± 19.45	$\chi^2 = 1.880$	4	6.3	66.00 ± 15.49	$\chi^2 = 2.021$
Two to three	82	86.3	65.51 ± 17.54	$P = 0.391$	48	76.2	67.83 ± 19.87	$P = 0.364$
Four and more	5	5.3	63.2 ± 15.59	KW	11	17.5	77.45 ± 8.81	KW
Mother's education level								
Not literate–primary school	66	69.5	64.9 ± 18.39	$\chi^2 = 2.881$ $P = 0.237$	49	77.8	67.26 ± 18.38	$\chi^2 = 4.463$ $P = 0.107$
Secondary school	12	12.6	73.67 ± 15.01	KW	8	12.7	72.00 ± 19.94	KW
High school and above	17	17.9	64.94 ± 15.27		6	9.5	83.3 ± 9.93	
Father's education level								
Primary school	45	47.4	65.33 ± 19.01	$\chi^2 = 0.428$	34	54.0	66.58 ± 19.71	$\chi^2 = 4.573$
Secondary school	22	23.2	68.00 ± 16.42	$P = 0.934$	2	3.1	86.00 ± 8.48	$P = 0.206$
High school	14	14.7	62.86 ± 19.62	KW	17	27.0	67.29 ± 18.61	KW
University	14	14.7	68.29 ± 12.69		10	15.9	79.20 ± 8.39	
Average income level of the family								
Income lower than expenses	35	36.8	63.54 ± 16.16	$\chi^2 = 3.725$ $P = 0.155$	9	14.3	61.33 ± 23.74	$\chi^2 = 1.2$ $P = 0.549$
Income equal to expenses	48	50.5	66.83±16.21	KW	47	74.6	70.80 ± 17.78	KW
Income higher than expenses	12	12.6	70.00±25.78		7	11.1	70.28 ± 14.02	
Place of the longest residence								
Village–town	27	28.4	66.07 ± 17.48	$\chi^2 = 0.137$	12	19.0	59.66 ± 16.57	$\chi^2 = 6.528$
Small city	18	18.9	67.55 ± 15.39	$P = 0.934$	33	52.4	69.81 ± 17.23	$P = 0.038*$
Big city	50	52.6	65.44 ± 18.60	KW	18	28.6	75.11 ± 19.81	

KW, Kruskal–Wallis; MWU, Mann–Whitney U; SEI, self-esteem inventory; SD, standard deviation; SoN, schools of nursing; HVHS, health vocational high schools.

*The reason for the difference was evaluated using Kruskal–Wallis (KW) analysis of variance.

Table 3. Comparison of the nursing students' reasons for choosing this profession and opinions about the profession and their school with their SEI scores

Variables	HVHS (n = 95)				SoN (n =63)			
	n	%	SEI score $X \pm$ SD	Significance level	n	%	SEI score $X \pm$ SD	Significance level
Graduated from[*]								
Health vocational high schools			–		2	3.2	66.0 ± 25.45	χ^2 = 0.012 P = 0.912 KW
General high school			–		32	50.8	68.62 ± 21.7	
Anatolian high school			–		29	46.0	70.48 ± 14.1	
Order of preference of the department of nursing at the time of the university entrance exam*								
1st preference			–	–	15	23.8	68.53 ± 18.75	χ^2 = 0. 972 P = 0.615 KW
2nd to 5th preference			–		20	31.7	71.40 ± 19.91	
6th and lower			–		28	44.5	68.43 ± 17.6	
Satisfaction with the school life								
Satisfied	49	51.6	69.06 ± 16.07	t = 1.761 P = 0.082 Independent	26	41.3	71.84 ± 17.97	Z = −1.114 P = 0.265 MWU
Not satisfied	46	48.4	62.78 ± 18.64		37	58.7	67.67 ± 18.69	
Satisfaction with studying in the department of nursing								
Satisfied	70	73.7	67.71 ± 16.47	Z = −1.361 P = 0.173 MWU	33	52.4	72.84 ± 17.34	Z = −1.63 P= 0.103 MWU
Not satisfied	25	26.3	61.28 ± 19.89		30	47.6	65.60 ± 19.01	
Engagement in any art or sports branch								
Engaged	44	46.3	66.18 ± 16.14	Z = −0.026 P = 0.979 MWU	33	52.4	72.60 ± 17.69	Z = −1.526 P = 0.127 MWU
Not engaged	51	53.7	65.88 ± 18.85		30	47.6	65.86 ± 18.75	
Receiving a scholarship or credit								
Receiving	18	18.9	68.66 ± 19.02	Z = −0.701 P = 0.484 MWU	53	84.1	70.33 ± 17.58	Z = −0.793 P = 0.428 MWU
Not receiving	77	81.1	65.40 ±17.27		10	15.9	64.40 ± 22.50	

KW, Kruskal–Wallis; MWU, Mann–Whitney U; SEI, self-esteem inventory; SD, standard deviation; SoN, schools of nursing; HVHS, health vocational high schools.

*Students who had studied in vocational high schools.

All of the HVHS students were between 16 and 19 years old and had an average score of 66.02 ± 17.56 on the SEI. Of the SoN students, those between 20 and 23 years old had an average score of 67.78 ± 18.58, and those 24 years and older had an average score of 80.5 ± 12.9 on the SEI. The SEI scores of the SoN students 24 years and older were higher than those between 20 and 23 years old, and the difference was statistically significant ($p = 0.036$) (Table 2).

 Among the HVHS students, the average SEI score of males was 67.20 ± 23.15 and that of females was 65.88 ± 16.95, and the difference was not statistically significant ($p = 0.527$). Among the SoN students, the average SEI score of males was 76.63 ± 11.0 and that of females was 66.27 ± 20.0, and the difference was statistically significant (p = 0.011) (Table 2).

The type of family, number of children in the family, education levels of parents, and average monthly income levels of parents did not affect the SEI score of both the HVHS and SoN students (p > 0.05) (Table 2).

Although the place of the longest residence did not affect the SEI scores of the HVHS students ($p > 0.05$), it affected the SEI scores of the SoN students (p = 0.03). The difference was caused because of the students living in big cities according to the KW test (Table 2).

The sections "graduated from" and "order of preference of the department of nursing at the time of the university entrance exam" was not filled out for the HVHS students since they had not graduated at the time of the study. The aforementioned two sections for the SoN students did not affect the SEI scores (p > 0.05). The satisfaction of both the HVHS and the SoN students with their school life or studying in the department of nursing, engagement in any art or sports branches, and receiving a scholarship or credit did not affect the SEI scores (p > 0.05) (Table 3).

Discussion

Relationship between the schools and scores of the students on the SEI

Half of the HVHS students in this study had a score higher than the average on the SEI. Karadaglı (1993), in his study on the self-esteem levels of all nursing students who studied in three HVHSs within the body of different institutions and agreed to participate in the study (n:589), found that the Rosenberg subscale score averages

of all students did not change throughout their educational lives. The difference between the findings of the studies may be because the present study included only the senior nursing students.

In the present study, the SEI scores of approximately two-thirds of the SoN students were higher than the average. Despite not being statistically significant, the SEI scores of the SoN students were higher than that of the HVHS students ($p > 0.05$) (Table 1). This may be because higher education develops self-esteem, increasing both professional and social knowledge and experience (Cam et al., 2000; Yılmaz, 2000; Karadag et al., 2008; Karagozoglu et al., 2008; Ilhan et al., 2016). The SEI scores of nursing students who received a 4-year university education in Turkey were found to be generally between 60 and 70 in previous studies (Karadag et al., 2008; Ozkan & Ozen, 2008; Dincer & Oztunc, 2009; Torun et al., 2012). Similar studies conducted in other countries reported that the 4-year university education positively affected students' self-esteem (Arthur & Thorne, 1998; Van Eckert et al., 2012; Ilhan et al., 2016). These findings are similar to the findings of the present study. However, some studies also found the self-esteem of nursing students to be low (Hughes et al., 2003; Ni et al., 2010; Chris et al., 2012). Lack of practical skills, negative behaviors of the hospital staff towards students, and the perception of students to be an extra in clinics were stated as factors that negatively affected the self-esteem of the students (Timmins & Kaliszer, 2002; Edwards et al., 2010; Chris et al., 2012).

Comparison of the SEI scores according to the sociodemographic variables

The findings of this study showed that all of the HVHS students were 19 years old and younger, and that the age of entry to school was 15 and 16 years. One of the most important reasons for the development of negative or positive self-esteem is that individuals compare themselves with social values and some standards as they grow older (Cevher & Bulus, 2007). The studies conducted abroad with nursing students indicated that the age of entry to the nursing schools was 18 years and above (Edwards et al., 2010; Milisen et al., 2010; Chris et al., 2012). A younger individual is not likely to deal with the situations that s/he is responsible for giving care, since s/he is not physically and psychologically completely developed at that age (Karadagli,

1993). In the present study, the HVHS students who graduated from the school were younger than the SoN students starting the school. The HVHS students try to adapt to a program full of theoretical and clinical practices, and experience the fear of making a mistake in an environment full of patients and diseases. Along with these negativities, receiving criticism from other health staff regarding themselves and their nursing may also negatively affect the self-esteem of these adolescents (Karadagli, 1993; Timmins & Kaliszer, 2002). Implementing the law that was published in the Turkish Official Gazette dated January 18, 2014 (resmigazete.gov.tr), which empowered the HVHS graduates to work as nursing assistants, is considered to be important to prevent this situation. The HVHS curriculum has been reorganised in line with this law. In addition, after this law has come into force, basic nursing education is provided in high schools, and therefore, the quality of patient care services is expected to increase.

In the present study, the SEI score increased as the age of the SoN students increased, and this finding was statistically significant ($p = 0.036$) (Table 2). Dincer and Oztunc (2009) reported in their study conducted with SoN nursing students that the SEI score of the students who had a short time left for graduation were, though not statistically significant, higher than the other students, and one of the factors that led them to get higher scores was age. Some other studies also reported that the fourth-year nursing students had the highest SEI scores (Karadag et al., 2008; Torun et al., 2012). These findings suggested that the self-esteem values increased with age.

The present study showed that the male HVHS and SoN students had higher SEI scores than the respective female students. Although the difference was not statistically significant for the HVHS students (p = 0.527), it was statistically significant for the SoN students ($p = 0.011$). This difference may be because male children are raised more freely than female children in Turkish society. Some similar studies conducted with nursing students, however, indicated that the female students had higher scores on the SEI (Karagozoglu et al., 2008; Torun et al., 2012). This difference may be caused by the place of the study and the sociocultural variability among the students.

The present study revealed that the type of family, the number of children in the family, the educational level of parents, and the average monthly income levels of the parents did not affect the SEI scores of the students.

Although the place of the longest residence was not significant for the SEI scores of the HVHS students ($p > 0.934$), it was significant for the SEI scores of the SoN students ($p = 0.038$). The SEI scores of the SoN students living in big cities were significantly higher than that of the other students in this study. Similar studies also found the SEI scores of the students who lived in big cities for most of their lives to be significantly higher than that of the other groups (Yılmaz, 2000; Dincer & Oztunc, 2009). This may be because the students who lived in urban areas for most of their lives are under less control and pressure than those living in rural areas. Traditional values are less valid in urban areas; young people in urban areas are expected to play more active and independent roles, and urban areas have more educational and other opportunities (Yılmaz, 2000; Dincer & Oztunc, 2009).

Comparison of the nursing students' reasons for choosing this profession and opinions about the profession and their school with their SEI scores

The present study indicated that the high school that the students had graduated from, the order of preference of the department of nursing at the time of the university entrance exam, satisfaction with school life or studying in the department of nursing, engagement in any art or sports branches, and receiving a scholarship or credit did not affect the scores of the students of the SEI.

Limitations

The study sample size was limited because it included the students of only one SoN and two HVHSs.

Conclusion

Of the students in HVHS and SoN, 55.8% and 57% had a high self-esteem, respectively. Despite not being statistically significant, the SEI scores of the SoN students were higher than those of the HVHS students in this study. The sociodemographic characteristics (gender, type of family, the number of children in the family, the education level of the parents, the average income level of the family, and the place of the longest residence) were found not to affect the SEI scores of the HVHS students. The age,

gender, and the place of the longest residence had a statistically significant effect on the SEI scores of the SoN students.

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