

The Effect of Peer Support to Interpersonal Problem Solving Tendencies and Skills in Nursing Students

B. Özlük, A. Karaaslan

Abstract—This study has been conducted as a supplementary and relationship seeking study with the purpose of measuring the tendency and success of support among peers amid nursing students studying at university in solving interpersonal problems. The population of the study (N:279) is comprised of nursing students who are studying at one state and one private university in the province of Konya, while its sample is comprised of 231 nursing students who agreed to take part in the study voluntarily. As a result of this study, it has been determined that the peer support and interpersonal problem solving characteristics among students were at medium levels and that the interpersonal problem solving skills of students studying in the third year were higher than those of first and second year students. While the interpersonal problem solving characteristics of students who are aged 20 and over were found to be higher, no difference could be determined in terms of the interpersonal problem solving skills and tendencies among students, based on their gender and where they reside. A positive – to a medium degree – and significant relationship was determined between peer support and interpersonal problem solving skills, and it is possible to say that as peer support increases, so do the skills and tendencies to solve problems.

Keywords—Interpersonal problem, nursing students, peer support, problem solving.

I. INTRODUCTION

THE hurdle faced by an individual, in order to reach a desired objective, is known as a problem [1]. According to Morgan, a problem is fundamentally a position of conflict whereby an individual is faced with an obstacle in reaching a certain objective [2]. The obstacle makes it more difficult to reach the objective. Under such circumstances, the solution to the problem is through finding the best way to overcome the obstacle, where an individual is met with some obstacles while endeavoring to reach a certain objective or understanding means that this person is faced with a problem [3]. Problem solving is a cognitive and behavioral process which covers the determination of effective methods of solution, the selection of those which may be suitable and the making of decisions in this respect, require a high level of thinking [4]. It is not sufficient for an individual to know how to solve problems to be able to solve the ones a person is faced with. If an individual is of the opinion that one does not possess any personal responsibility in the creation and for the solution of the problem, while assessing it, that person will not endeavor

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to solve the problem [5]. While individuals with a high degree of skill in solving problems are more successful than other individuals in interpersonal relationships and their academic lives, it has been determined that those who evaluate themselves as being unsuccessful in solving problems, possess behavior which is subject to more inner conflict, excessively sensitive in interpersonal relationships, depressive and obsessive, and that they display hostile and negative attitudes [6]-[8].

The interpersonal problems and disagreements experienced at university are a natural and unavoidable part of university life. Students, who have different interests, wishes, aims, visions, values and identity characteristics from each other can come face to face and interact with each other while sharing the same classroom during the day [9]. Peer relationships come to the fore during this period when close relationships, and especially fast and intensive changes are experienced. This prepares the ground for the establishment of the identity of an individual, to a significant degree [7]. Sandtrock defines peers as a community of individuals, who are in the same age group and who interact with each other socially and psychologically, within the framework of common objectives. While a group of peers includes certain risks within the context of social support outside of the family, it also provides positive opportunities and possibilities. One of these is peer support [10]. Peer support is the whole of the support and encouragement which is ongoing between individuals who are of the same age or level of maturity, and who share the same values, lives, lifestyles and social contexts [11], [12]. While peer support gives rise to significant and lasting effects in the multidimensional development of an individual at every age, it also possesses importance from the aspect of students contributing to each other in the social, cultural, economic and psychological respect [12]. University students attach great importance to their peers, are influenced by them to a great extent and generally spend their time with their peers and attempt to solve their problems related to life by receiving support from them [13]. Within this context, peer support confronts us as an important choice in order to eliminate the destructive and negative impacts which may be created by the destructive social interaction between the students on their social, emotional and moral development. These positive gains of peer support are utilized in an effective manner in overcoming the orientation related problems of students and facilitating learning, and the resolution of interpersonal problems between individuals or groups which have not been able to be resolved [14].

Peer relationships have an impact in every period of human

life. The positive gains of peer support are utilized in an effective manner in overcoming the orientation related problems of students and facilitating learning, and the resolution of interpersonal problems between individuals or groups, which have not been able to be resolved. Within this framework, students who receive the necessary support from their colleagues will be able to combat issues such as solving interpersonal problems more easily, and will be more successful [15].

II. METHOD

A. Type of Research

This study is a descriptive and correlational study type.

B. Place of Research

The study has been conducted among students in the department of nursing in one state and one private university, in the province of Konya.

C. Research Population and Sample

The population of the study is comprised of 271 nursing students studying at the department of nursing in one state and one private university, while the sample of the study is comprised of 231 nursing students who agreed to take part in the study voluntarily and who have completed the questionnaire form in full.

D. Data Collection Technique and Instruments

The data was collected using a six question socio-demographic information form, which contained the characteristics of the participants, the peer support scale developed by [14], for the purposes of measuring the mutual support of nursing students with each other. The Turkish validity and reliability of the scale was tested by [16], and the interpersonal problem solving inventory developed by [17] for the purposes of measuring the interpersonal problem solving tendencies and skills of university students. The fact that the general total scores of the scales are high reveals that peer support and interpersonal problem solving skills are high.

E. Research Variables

The independent variables of the study are comprised of the socio-demographic characteristics (age, gender, which year the student is studying, the university attended, place of residence and bursary status) and peer support. The dependent variable of the study is the interpersonal problem solving inventory.

F. Ethical Dimension of the Research

Written permission for the study has been obtained from the institutions where the study was conducted, and an ethics committee approval was obtained from the Meram Faculty of Medicine Ethics Committee. Verbal permissions were obtained from the participants and permission to use the scales used in the study was obtained from the authors who performed their Turkish validity and reliability tests.

G. Research Questions

- At what level is the peer support among nursing students and their interpersonal problem solving tendencies and skills?
- Is there a significant difference between the socio-demographic characteristics of the nursing students and their interpersonal problem solving tendencies and skills?
- Is there a relationship between the peer support of the nursing students with their interpersonal problem solving tendencies and skills?

H. Statistical Evaluation the Data

Data obtained from the research were uploaded to the electronic environment and analyzed by means of SPSS.20 package software. The data were evaluated within 95% confidence interval, and significance was evaluated at $p < 0.05$ level. Numbers, percentages, averages, one-way ANOVA, Pearson correlation analysis and regression analysis have been used in assessing the data.

III. FINDINGS

The mean age of the nursing students in the peer support and the interpersonal problem solving tendencies and skills study is 19.71 ± 1.21 (18-25), while 81.4% ($n=188$) of them are female, 58.4% ($n=135$) are first year students, 57.1% ($n=132$) reside in the halls of residence, 62.8% ($n=145$) do not receive bursaries and 81.8% ($n=189$) attend a state university. (Table I).

TABLE I
 THE DISTRIBUTION OF SOCIODEMOGRAPHIC CHARACTERISTICS OF NURSING STUDENTS (N: 231)

Characteristics		N	%
Age	18-19 years old	115	49.8
	20 age old	62	26.8
	21 age old and ↑	54	23.4
Gender	Female	188	81.4
	Male	43	18.6
Grade	First grader	135	58.4
	Second grader	52	22.5
	Third grader	44	19.0
Place of residence	Family	73	31.6
	Dormitory	132	57.1
	With friends	26	11.3
Bursary status	Yes	86	37.2
	No	145	62.8
The university being attended	State university	189	81.8
	Private university	42	18.2

TABLE II
 PEER SUPPORT SCALE AND THE DISTRIBUTION OF SUB-DIMENSIONS (N:231)

Scale and Sub-dimensions	Av.±sd	Min.	Max.
Physical Support	25.51±6.25	9	36
Academic Support	11.40±2.64	4	17
Emotional Support	11.07±3.03	4	16
Total Score	47.72±11.42	19	68

The Cronbach's alpha coefficient of the scales within the study are 0.89 for the peer support scale and 0.91 for the interpersonal problem solving inventory and it has been determined that they are highly reliable.

TABLE III
 INTERPERSONAL PROBLEM SOLVING INVENTORY AND THE DISTRIBUTION OF
 SUB-DIMENSIONS (N: 231)

Scale and Sub-dimensions	Av.±sd	Min.	Max.
Negative Approach to the Problem	43.33±13.15	17	80
Constructive Problem Solving	54.71±10.82	29	80
Lack of Self-Confidence	15.73±5.97	7	32
Not Taking on Responsibility	12.50±4.53	5	25
Insistent-Perseverant Approach	20.96±4.61	9	30
IPSI Total Score	147.25±28.32	80	238

The sub-dimension and total scores and arithmetic means obtained by the students from the Peer Support Scale are shown in Table II. It has been determined that the mean sub-dimension scores of the Peer Support Scale range from 19 to 68, and that the mean total score is 47.72±11.42.

The sub-dimension and total scores and arithmetic means obtained by the students from the Interpersonal Problem Solving Inventory are shown in Table III. It has been

determined that the mean sub-dimension scores of the Interpersonal Problem Solving Inventory range from 80-238, and that the mean total score is 147.25±28.32.

When the socio-demographic characteristics of the students who took part in the study are evaluated (Table IV), it is seen that there is a statistically significant difference ($p < 0.05$) in the lack of self-confidence and not taking on responsibility sub-dimensions of the nursing students according to their ages and the years they are studying in. In the comparison made between the groups, it has been determined that this difference is present in students between the ages of 18 years and 19 years and first year students, in the lack of self-confidence sub-dimension, and in first year nursing students in the not taking on responsibility sub-dimension. No statistically significant difference was found between other socio-demographic findings (gender, place of residence, bursary status and university being attended) and the interpersonal problem solving sub-dimensions.

TABLE IV
 COMPARISON OF THE AVERAGE TOTAL AND SUB-DIMENSION SCORES OF THE NURSING STUDENTS IN THE INTERPERSONAL PROBLEM SOLVING INVENTORY AND THEIR SOCIO-DEMOGRAPHIC CHARACTERISTICS (N: 231)

	N	IPSI X±SD	NATTP X±SD	CPS X±SD	LoSC X±SD	NTorR X±SD	IPA X±SD
AGE							
18-19 years old ^a	115	149.0±29.8	44.1±13.9	54.3±10.8	16.7±6.2	12.9±4.5	20.8±4.6
20 years old ^b	62	148.1±28.6	43.8±12.3	54.6±10.9	16.1±6.1	12.6±4.7	21.3±4.4
≥21 years old ^c	54	142.5±24.2	41.3±12.2	55.5±10.7	13.1±4.2	11.4±4.3	20.2±4.7
F		1.013	1.094	.204	7.022	1.993	.258
p		.365	.337	.816	.001	.139	.773
SD					a>b.c		
GRADE							
First grader ^a	135	150.3±31.1	44.7±14.0	54.5±10.7	17.1±6.4	13.1±4.6	20.8±4.5
Second grader ^b	52	145.7±26.5	42.5±11.7	54.3±12.0	14.7±5.1	12.3±4.4	21.8±5.0
Third grader ^c	44	139.4±18.3	39.9±11.4	55.7±9.6	12.4±3.3	10.8±3.9	20.4±4.2
F		2.62	2.399	.278	.12.520	4.479	1.218
p		.075	.093	.757	.000	.012	.298
SD					a>b.c	a>b.c	

TABLE V
 CORRELATION ANALYSIS BETWEEN INTERPERSONAL PROBLEM-SOLVING INVENTORY AND PEER SUPPORT SCALE

	Total IPSI r and p	Physical Support r and p	Academic Support r and p	Emotional Support r and p
Total IPSI	-			
Physical Support	.207 and .002	-		
Academic Support	.337 and .000	.591 and .000	-	
Emotional Support	.209 and .001	.829 and .000	.579 and .000	-
Total PSS	.200 and .002	.961 and .000	.708 and .000	.912 and .000

A positive relationship with a medium degree of significance was found (Table V) between physical, academic and emotional support, which are among the sub-dimensions of the interpersonal problem solving characteristics of the students and the peer support scale, and the total scores of the scale. Additionally, a positive relationship with a high degree of significance was found between the following sub-dimensions of the Peer Support Scale: physical support and academic support ($r = 0.591$, $p < 0.000$); emotional support ($r = 0.829$, $p < 0.000$); and the total scores of the scale ($r = 0.961$,

$p < 0.000$).

It can be seen from Table VI that peer support is influential in the interpersonal problem solving characteristics of the nursing students ($R^2 = 0.114$, $F = 9.54$, $p < 0.001$). According to this a one unit increase in peer support gives rise to an increase of 337 units in the interpersonal problem solving characteristics of the students. Peer support has an 11.4% influence on the interpersonal problem solving characteristics of the students.

TABLE VI
REGRESSION ANALYSIS RELATED THE EFFECT ON INTERPERSONAL PROBLEM SOLVING OF PEER SUPPORT IN NURSING STUDENTS

Model	Unstandardized Coefficients		Standardized Coefficients		
	β	Std. Error	B	t	Sig.
(Constant)	2.472	.158		15.689	.000
Peer Support	.169	.055	.337	3.089	.002

The independent variables: Interpersonal problem solving
R= .337 R²=.114, F=9.69, p<0.001

IV. DISCUSSION

As a result of the statistical analyses performed, the mean score of the peer support scale of the nursing students has been determined as 47.72±11.4. It can be seen that the peer support among nursing students is above medium levels. Similar results, which support our study, are also seen in [16].

The mean interpersonal problem solving inventory score has been determined as 147.25±28.32. It can be said that the range of the total score obtained from the total of the scale is 80 to 238 and the fact that the total score, which has been obtained is at medium levels, shows that the students perceive themselves as problem solvers at an intermediate level. The mean problem solving inventory scores of nursing students were also found to be at medium levels in [18]-[22]. While this is consistent with the results of our study, [23] and [24] found the means of the total problem solving scores of the students in the study they conducted with Medical College students, to be lower.

In our study, a statistically significant difference has been found in the lack of self-confidence sub-dimension between the mean ages and mean total scores of the students. It has been determined as a result of this study that 18-19 years old students have less self-confidence than those aged 20 or over, and that their levels of self-confidence increased together with age and their levels of knowledge. It has also been determined in [25], [21] and [26] that the problem solving skills of students increased with age. However, in contrast with these studies, it has been determined in studies conducted with different students that age is not influential in the resolution of problems [20]-[27].

In the statistical comparison between the years in the study, it was seen that the means of the total scores of the sub-dimensions of lack of self-confidence and not taking on responsibility in the interpersonal problem solving inventory of the nursing students of year one students was higher than those of year two and three students. It has been seen that our study is consistent in this respect with [21], [28], [29], which state that the year makes a difference in problem solving skills, but that there are also [20], [27], [30], which state that it does not make a difference, when looking at the other studies in this area. In accordance with these results, it can be considered that university education has a positive impact on problem solving skills and that these skills can be developed through education.

No significant difference could be found in our study between the gender variable and the tendency and skill to resolve interpersonal problems. This is consistent with most

other studies on problem solving, which also did not find a significant difference between gender and problem solving [11], [18], [21], [27], [31].

When the results of the study are evaluated in general, it can be seen that there is a relationship between peer support and the interpersonal problem solving tendencies and skills of nursing students. It is shown that as peer support increases, so do the tendencies and skills of the students to solve interpersonal problems. The importance of bringing approaches to increase peer support in the resolution of the interpersonal problems among nursing students is revealed in accordance with this result. Therefore, it will be appropriate to undertake organisations and studies directed at students gaining positive problem solving skills, with services such as peer advice, peer training and peer discovery at universities.

V. RESULTS

The following results were obtained in light of the findings revealed by this study:

- The mean age of the nursing students who took part in the study is 19.712, with 81.4% of them being female, 58.4% being first year students, 57.1% residing in halls of residence, 62.8% not receiving bursaries and 81.8% attending a state university.
- The mean of the total score obtained by the nursing students in the Peer Support Scale is 47.72±11.42, and this score shows that peer support among nursing students is above intermediate levels;
- The mean of the total score obtained by the nursing students in the Interpersonal Problem Solving Inventory is 147.25±28.32, and this score shows that the interpersonal problem solving tendencies and skills of nursing students are at intermediate levels;
- While there is a significant difference between problem solving characteristics based on age and year of study, there is no significant differences between the universities in the areas of gender, place of residence, whether the students receive bursaries and the universities they attend;
- There is a positive relationship at a significant level to a medium degree, between the interpersonal problem solving characteristics of the students and physical, academic and emotional support, which are sub-dimensions of the peer support scale and the total scale scores; and,
- It has been determined that peer support has an impact on the interpersonal problem solving characteristics of student nurses (R²=0.114, F=9.54) and that peer support has an 11.4% influence on the interpersonal problem solving characteristics of the students.

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