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The Relationship Between the Knowledge of Nursing Students About Suicide and Their Stigmatizing Attitudes Towards People Committing Suicide, and Associated Factors: A Sample of Nursing Students from Turkey

Hemşirelik Öğrencilerinin İntihara Yönelik Bilgi Düzeyleri, İntihar Eden Kişilere Yönelik Damgalama Tutumları ve Etkileyen Değişkenlerle İlişkisi: Türkiye Hemşirelik Öğrencileri Örneklemi

Havva Kaçan

ABSTRACT

Aim: *The present study was designed to examine the relationship between the knowledge of nursing students about suicide and their stigmatizing attitudes towards people committing suicide, and the factors affecting it.*

Methods: *The study had a cross-sectional and descriptive-correlational design and was conducted with 446 nursing students. The data were collected using the Socio-Demographic Data Form, the Suicide Stigmatization Scale (SSS), and the Literacy of Suicide Scale (LOSS).*

Findings: *The mean LOSS score was at a moderate level, and was at the lowest level in the dimension of "knowing the symptoms" (1.738±1.267). Students who applied to a psychiatrist before and reported that they had a psychiatric diagnosis had a high mean score on the LOSS. Those who said that they needed psychological support had a higher level of knowledge on suicide than those who did not (p=0.001). The mean ILSS score was at a moderate level and the most approved sub-dimension was "isolation/depression" (3.015±0.459). The stigmatization sub-dimension of the students who did not have a family history of psychiatric treatment was found to be higher and significant when compared to the students who had a family history of psychiatric treatment (p=0.001). A relationship was detected between the students' total scale mean scores on LOSS and the mean scores of the Stigmatization (r=-0.471), isolation/depression (r=-0.37), and sublimation/normalization (r=-0.363) sub-dimensions (p=0.001). A significant relationship was detected between the level of knowledge on suicide and stigmatization (F=126, 260; p=0.000<0.05).*

Conclusion: *The level of knowledge about suicide is effective in reducing stigmatization towards suicide. There is a need for psychoeducational programs to reduce the stigmatizing attitudes of nursing students, who will have important roles in healthcare practices and patient care in the future, and to ensure the adequacy of their knowledge about suicide.*

Keywords: *Turkey; Suicide, stigmatization, nursing student, knowledge level*

ÖZ

Amaç: *Bu çalışma hemşirelik öğrencilerinin intihara ilişkin bilgi düzeyleri ve intihar eden kişilere yönelik damgalama tutumları arasındaki ilişki ve etkileyen faktörlerin incelenmesi amacıyla planlanmıştır.*

Yöntem: *Kesitsel, tanımlayıcı, ilişki arayıcı özellikte olup 446 hemşire öğrencisi ile yapılmıştır. Verilerin toplanılmasında Sosyo-demografik veri formu, İntihara Yönelik Damgalama Ölçeği (İYDÖ), İntihara İlişkin Bilgi Düzeyi Ölçeği (İBDÖ) kullanılmıştır.*

Bulgular: *İBDÖ orta düzeyde olup, en düşük "belirtileri bilme" (1,738±1,267) boyutundadır. Daha önce bir psikiyatriste başvuran ve psikiyatrik bir tanı aldığını bildiren öğrencilerin İBDÖ toplam*

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puan ortalamaları yüksektir. Psikolojik Desteğe İhtiyaç Duyduğunu belirtenlerin ihtiyaç duymayanlara göre intihar yönelik bilgi seviyesi yüksektir (p=0.001). İYDÖ orta düzeyde olup en çok onaylanan "izolasyon/depresyon" (3,015±0,459) alt boyutudur. Ailesinde psikiyatrik tedavi öyküsü olmayan öğrencilerin intihar edenlere yönelik damgalama alt boyutu, ailesinde psikiyatrik tedavi öyküsü olan öğrencilere göre yüksek ve anlamlı bulundu (p=0.001). Öğrencilerin İBDÖ toplam ölçek puan ortalamaları ile İYDÖ Damgalama (r=-0.471), İzolasyon/depresyon (r=-0.37) ve yüceleştirme/normalleştirme (r=-0.363) alt boyut puan ortalamaları arasında ilişki bulunmuştur (p=0.001). İntihara ilişkin bilgi düzeyi ile damgalama arasında anlamlı ilişki bulunmuştur (F=126,260; p=0,000<0.05).

***Sonuç:** İntihara yönelik damgalamanın azaltılmasında bilgi düzeyi etkilidir. Gelecekte sağlık uygulamalarında ve hasta bakımında önemli rolleri olacak öğrenci hemşirelerin İntihara yönelik damgalama tutumlarının azaltılması ve intihar yönelik bilgi düzeylerinin yeterliliğinin sağlanmasında psikoeğitim programlarına gereksinim bulunmaktadır.*

***Anahtar kelimeler:** Türkiye, intihar, damgalama, öğrenci hemşire, bilgi düzeyi*

INTRODUCTION

The World Health Organization defines the act of suicide as "injuring oneself, with varying degrees of lethal intent, with the awareness of an individual's purpose" [1]. Suicide can be seen in a wide range of people, non-clinical population who react to stressful life conditions to patients who have extreme mental disorders [2].

Suicide is the fourth leading cause of death among 15 to 19 year olds [3]. According to the 2018 listing, Turkey ranked 100th among the world countries with a rate of 7.3% in the list of countries where suicide was common. Most of the people who commit suicide face hesitations about committing suicide for some time. However, they cannot express this clearly and are afraid to seek help because they believe that they will not be understood and will be stigmatized negatively [4]. (Stigmatization towards suicide is common and affects those who attempt suicide, relatives of the deceased, and even those who have suicidal thoughts or intents [5]. A suicide attempt should be considered as a clear sign that the attempting individual needs help [2]. Survivors of suicide attempts are often severely stigmatized, for example, as "desiring attention" [6]. Those who attempt or die by suicide are labeled as irresponsible, fragile, impulsive, and attention-seeking [7]. People who commit suicide or attempt suicide are blamed by the society and the stigmatization of these people is usually implicit. The stigmatization attitude expresses a shameful condition for individuals who are stigmatized causing social isolation, limiting life opportunities and escaping from seeking help [8].

It is expected that nursing students who will work in the field of health in the future play effective roles in the early recognition and treatment of suicidal behaviors by evaluating the status of the patient and potential risk groups in the society [9]. Nursing students are also in the risk group because they go through a difficult process in health-related education and practices, and on the other hand, they frequently face individuals who are suicidal in practice areas in the society. In this context, Hacıalioğlu (2018)[10] evaluated the risky behavior score of students as high (165.50±32.05) in his study conducted to determine the risky behaviors of nursing students, and it was reported that the dimension of suicidal tendency (86±10.79) was the highest sub-dimension.[10] In another study conducted by Arslantaş et al. (2019)[9] with a total of 670 students who were studying in the nursing and midwifery department, it was reported that approximately one-fifth of the students had suicidal ideation at some point in their lives, and approximately one-tenth of them attempted suicide [9]. The evaluation of the risk groups in terms of suicide knowledge, intervention and prevention, and determining their characteristics constitute the basis of the subject [9-11]. Also, regardless of the hospital setting, student nurses may face individuals who commit suicide in their social lives as individuals [12]. People who attempt suicide are mostly exposed to the negative attitudes of the society and are accused and stigmatized religiously and socially [2,11]. As a part of society and culture, nurses also have thoughts and attitudes towards patients who have suicidal behaviors. It was observed that the stereotypical beliefs and myths creating prejudices about suicidal behaviors are also present in health professionals [13]. Some healthcare professionals who care for patients with attempted suicide showed negative attitudes or behaviors towards suicide patients because of prejudices [14]. Exclusionist or stigmatizing attitude causes people who have suicidal intents and attempt to isolate themselves from life, their close relationships, friends, family, and from society, and prevents them from expressing their feelings and applying to healthcare institutions for treatment [2,11].

Student nurses, who will work with individuals who have a risk of suicide, must be able to question their patients' suicidal thoughts and make strong decisions when necessary. Asking the patients about suicidal thoughts does not increase the risk of suicide, on the contrary, it has a therapeutic feature as it provides the opportunity to share their problems [5]. It is a helpful approach for nurses to deal with individuals, to help them explain their feelings, to talk about feelings such as anxiety, sadness, and pessimism causing suicidal intent, and to search for solutions in such crisis periods [2]. For this reason, the education of nursing students who are faced with suicide attempts or stigmatized individuals in the future is important [15]. It is extremely important to be able to empathize, be understanding and objective, and give hope and confidence in the approach to these patients [2,5,16]. It was reported that patients apply to hospitals for various reasons before attempting suicide, the most frequently applied area is the emergency department, and patients who have attempted suicide has an increased probability to attempt again [17]. It is necessary for the nurses to identify the cases applying to the emergency department because of suicide attempts, to be directed to the psychiatry clinics to receive psychiatric care, and to be followed up there. It was reported that suicides are mostly associated with mental disorders (e.g. depression and alcohol use disorder), life stresses, loss, conflict, abuse, disaster and violence [18]. Considering that nursing students who will work in every field in the future will be responsible for the care of individuals who have mental disorders, making a holistic assessment will contribute to the understanding of individuals' mental problems and the prevention of suicide.

The present study was conducted to examine the relationship between the knowledge of nursing students about suicide, their stigmatizing attitudes towards people committing suicide, and the variables affecting them.

MATERIALS AND METHOD

Study Design

The study was planned in cross-sectional and descriptive-correlational design. The population of the study consisted of 712 nursing students who were studying in the nursing department of the faculty of health sciences of a state university in the fall semester of the 2021-2022 academic year.

Participants

According to the sampling method with a known universe, the sampling size estimate was calculated according to the formula n=Nt2pq/d2(N-1)+t2pq [19]. By using the sampling formula, the required sample size was found to be n = $712\ (1.96)^2\ (0.5)\ (0.5) / (0.5)^2\ (712\ -1) + (1.96)^2\ (0.5)\ (0.5)$= 250 with a 95% Confidence Interval, ± 5% sampling error, for this non-homogeneous population. The minimum sampling number of this study, which would represent the population of 712 units, was calculated to be 250, and the study was completed with a total of 446 students. It can be stated that it constituted 63.06% of the total population of enrolled nursing students. While university students between the ages of 18-65 years who had not been diagnosed with any psychiatric disorders and who volunteered to participate in the study were included in the study, those who were younger than 18 years of age and older than 65 years of age, who had been diagnosed with a psychiatric disorder, and who did not agree to participate in the study were excluded from the study.

Data Collection Instruments

Student Information Form: This form included a total of eight questions about age, gender, grades, need for psychiatrist/psychologist support, and a history of suicide attempt.

***Literacy of Suicide Scale (LOSS*)**: Literacy of Suicide Scale was developed by Calear et al.[20] to evaluate four suicide knowledge fields with 27 items. The validity and reliability study of the Turkish version of the scale were conducted by Öztürk et al. (2016) [21]. The sub-dimensions of the scale, which consisted of 27 items in total are Signs/Symptoms, Causes/Triggers, Risk Factors, Treatment and Prevention. Each item in the LOSS is evaluated on a 3-point Likert scale ("True", "False" or "I don't know"). The total score ranges between 0 and 27 and is obtained by summing the item scores. A high LOSS score indicates a high level of knowledge about suicide [21]. The Cronbach's Alpha value of the scale was calculated as 0.87 in the present study.

The Suicide Stigmatization Scale (SSS): The scale, which was developed by Batterham et al. in 2013, included a series of statements of one or more words describing someone who committed suicide (e.g. "selfish", "cowardly", "brave") [22]. The validity and reliability study of the Turkish version of the

scale was conducted by Öztürk et al. (2016)[21]. SSS has a 3D structure, one of the sub-dimensions evaluates the stigmatization of people who die by suicide, another sub-dimension includes items related to the association of suicide with isolation or depression, and the last sub-dimension includes items regarding the normalization or sublimation of suicide. For the present study, Cronbach's Alpha values for sub-dimensions were calculated as 0.91 for Stigmatization, 0.90 for isolation/depression, and 0.89 for sublimation/normalization.

Data Collection

Prior to the application, permission was obtained from faculty members, and the date and time of the application were determined together. The study data were collected in classroom environment through face-to-face interviews held by the researchers. Before administering the data collection tools, students were informed about the study, and their informed written consents were taken.

Statistical Analysis

The data obtained in the present study were analyzed by using the SPSS (Statistical Package for Social Sciences) for Windows 22.0 software. Numbers, percentages, mean values, and standard deviation values were used as descriptive statistical methods in the evaluation of the data. The values of $p < 0.05$ were considered significant. The relationships between the dimensions determining the scale levels of the students were examined with correlation and regression analyses. The T-test, One-Way Analysis of Variance (Anova), and Post-Hoc (Tukey, LSD) analyzes were used to examine the differences in scale levels according to the descriptive characteristics of the students. The kurtosis and skewness values of the normal distribution of the scale scores were found to be within the reference value range (+1.5 to -1.5) [23]. The Pearson Correlation Analysis was used to analyze the relationship between LOSS mean scores and SSS mean scores.

Ethics

The study adhered to the Declaration of Helsinki principles. Written approval was obtained from the Non-Interventional Ethics Committee of a University and the Dean of the Faculty where the study was conducted (01/03/2022 date and 14/3 number of decisions). Written informed consent was obtained from the participants who met the inclusion criteria and agreed to participate in the study.

RESULTS

Table 1 presents the distribution of the characteristics of the students participating in the study. A total of 59.4% of the students were female, 48.4% were between the ages of 18-20, and 39.7% were in the first grade. Table 2 provides the mean scale scores of the participants. Table 3 presents the data illustrating correlations between scale scores. Negative and weak correlations were detected between the mean LOSS total scores and SSS sub-dimensions in stigmatization $r=-0.471$ ($p<0.05$), a negative and weak correlation was detected with isolation $r=-0.37$ ($p<0.05$), and a negative and weak correlation was detected with sublimation $r=-0.363$ ($p<0.05$).

Table 4 presents the regression analysis between scale scores. The regression analysis that was made to determine the cause-effect relationship between the total Literacy of Suicide Scale score and stigmatization was found to be significant ($F=126.260$; $p<0.05$). The total change in the level of stigmatization was explained by the total information about suicide at a rate of 22% ($R^2=0.220$). Information on suicide reduces the overall level of stigmatization (ß=-0.039). The regression analysis that was made to determine the cause-effect relationship between the total Literacy of Suicide Scale score and isolation/depression was found to be significant ($F=70.462$; $p<0.05$). The total change in isolation/depression level was found to be 13.5% explained by the total

Table 1. Participants' Demographic Characteristics (*N* = 446)

Groups	Frequency (n)	Percentage (%)
Gender		
Female	265	59,4
Male	181	40,6
Age		
18-20	216	48,4
21-22	152	34,1
23 and above	78	17,5
Grade		
1st Grade	177	39,7
2nd Grade	92	20,6
3rd Grade	40	9,0
4th Grade	137	30,7

Table 2. The Mean Scores Received in The Literacy of Suicide Scale (LOSS), Suicide Stigmatization Scale (SSS) and Its Sub-Dimensions

	N	Mean	SD	Min.	Max.	Scale Min-Max
Literacy of Suicide Scale Total Scale	446	9.637	5.500	0.000	22.000	0-27
Symptoms	446	1.738	1.267	0.000	6.000	0-6
Risk Factors	446	3.224	1.725	0.000	7.000	0-7
Reasons/Triggering factors	446	3.392	2.096	0.000	9.000	0-10
Treatment/Precaution	446	2.686	1.218	0.000	4.000	0-4
Stigmatization	446	2.980	0.452	1.000	5.000	1-5
İsolation/Depression	446	3.015	0.459	1.000	5.000	1-5
Sublimation/Normalization	446	2.809	0.558	1.000	5.000	1-5

Table 3. The comparison of the mean scores of the students on the literacy of suicide scale (LOSS) and suicide stigmatization scale (SSS) scores

		Stigmatization	Isolation/Depression	Sublimation/Normalization
Suicide-Related Knowledge Total	r	-0,471**	-0,370**	-0,363**
	p	0,000	0,000	0,000

**<0.05; **<0.01; Correlation Analysis*

Table 4. The effect of the level of literacy of suicide scale on suicide stigmatization

Dependent Variable	Independent Variable	ß	t	p	F	Model (p)	R^2
Stigmatization	Constant	3.352	87.772	0.000	126.260	0.000	0.220
	Literacy of Suicide Scale Total	-0.039	-11.237	0.000			
Isolation/ Depression	Constant	3.313	81.153	0.000	70.462	0.000	0.135
	Literacy of Suicide Scale Total	-0.031	-8.394	0.000			
Sublimation/ Normalization	Constant	3.163	63.581	0.000	67.374	0.000	0.130
	Literacy of Suicide Scale Total	-0.037	-8.208	0.000			

Linear Regression Analysis

information on suicide (R^2=0.135). The increase in the sum of Literacy of Suicide Scale score decreases the level of isolation/depression (ß=-0.031). Regression analysis performed to determine the cause-effect relationship between total Literacy of Suicide Scale score and sublimation/normalization was found to be significant (F=67,374; p<0.05). 13% of the total change in the level of sublimation is explained by the total information about suicide (R^2=0.130). The increase in the total Literacy of Suicide Scale score decreases the sublimation/normalization level (ß=-0.037).

Table 5 presents the differentiation of suicide-related information and suicide stigmatization scores according to descriptive characteristics. When the relationship between the mean suicide knowledge score and the variables was evaluated, women's total knowledge about suicide scores ($\bar{X}$=10.147) were found to be significantly higher than male students ($\bar{X}$=8.890) (t=2.384; p<0.05; d=0.230; η^2=0.013), the scores of those who were between the ages 21-22 were found to be significantly higher than those between 18-20 and 23 and over (F=5.692; p<0.05; η^2=0.025), and the scores of the 4th grade students

Table 5. The differentiation of suicide-related information and suicide stigmatization scores according to descriptive characteristics

Demographic Characteristics	n	Suicide-Related Knowledge Total Scale	Stigmatization	Isolation /Depression	Sublimation /Normalization
Gender		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Female	265	10.147±5.626	2.971±0.447	3.008±0.433	2.719±0.547
Male	181	8.890±5.237	2.992±0.461	3.026±0.496	2.940±0.549
t=		2.384	-0.475	-0.390	-4.194
p=		**0.018**	0.635	0.696	**0.000**
Age		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
18-20	216	8.912±5.280	2.959±0.432	2.984±0.453	2.785±0.553
21-22	152	10.829±5.245	2.991±0.513	3.054±0.496	2.775±0.588
23 and above	78	9.321±6.220	3.015±0.377	3.025±0.397	2.942±0.496
F=		5.692	0.504	1.055	2.727
p=		**0.004**	0.604	0.349	0.067
Post-Hoc=		(p<0.05)			
Grade		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
1st Grade	177	8.644±5.146	2.989±0.444	3.008±0.460	2.819±0.579
2nd Grade	92	9.957±5.333	2.978±0.485	3.040±0.509	2.809±0.536
3rd Grade	40	8.850±5.545	3.110±0.541	3.091±0.478	2.932±0.612
4th Grade	137	10.934±5.801	2.931±0.406	2.986±0.418	2.759±0.527
F=		4.969	1.675	0.645	1.041
p=		**0.002**	0.172	0.587	0.374
Post-Hoc=		(p<0.05)			
Previous Psychiatrist/psychologist application/diagnosis		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Yes	27	11.000±4.772	2.860±0.514	2.898±0.487	2.764±0.524
No	419	9.549±5.538	2.987±0.448	3.023±0.457	2.812±0.560
t=		1.330	-1.422	-1.369	-0.425
p=		0.184	0.156	0.172	0.671
The Need for Psychological Support		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Yes	128	10.750±5.507	2.964±0.422	3.035±0.422	2.837±0.535
No	318	9.189±5.442	2.986±0.464	3.008±0.474	2.797±0.567
t=		2.731	-0.453	0.566	0.690
p=		**0.007**	0.651	0.572	0.490
Psychiatric Treatment History in Family		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Yes	79	10.430±4.935	2.870±0.421	2.953±0.391	2.708±0.537
No	367	9.466±5.606	3.003±0.456	3.029±0.472	2.830±0.561
t=		1.415	-2.381	-1.340	-1.776
p=		0.127	**0.018**	0.181	0.076

Table 5. Continued

Demographic Characteristics	n	Suicide-Related Knowledge Total Scale	Stigmatization	Isolation /Depression	Sublimation /Normalization
Presence of A Person Committing Suicide in Family/Relatives		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Yes	73	10.480±5.588	3.011±0.461	3.060±0.450	2.922±0.545
No	373	9.472±5.476	2.974±0.451	3.007±0.461	2.787±0.558
t=		1.433	0.644	0.909	1.897
p=		0.153	0.520	0.364	0.058
Previous Attempt/Committing Suicide		Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
Yes	16	9.313±5.534	3.000±0.699	2.938±0.571	2.830±0.842
No	430	9.649±5.505	2.979±0.442	3.018±0.455	2.808±0.546
t=		-0.240	0.184	-0.690	0.153
p=		0.811	0.906	0.491	0.920

F: Anova Test; t: Independent Groups T-Test; Post-Hoc: Tukey, LSD

were significantly higher than those who were in 1st and 3rd grades (F=4,969; p<0.05; η^2=0,033) (p<0.05). The total knowledge about suicide scores of the students who needed psychological support ($\bar{X}$=10.750) were found to be higher and more significant than those who did not ($\bar{X}$=9.189) (t=2.731; p<0.05; d=0.286; η^2=0.017). One of the sub-dimensions of the SSS had the highest mean scores for assessing stigmatization against people who died by suicide, and the following statements were mentioned in this respect "*prone to violence*" (3.092±1.042), "*weird*" (2.996±0.931), "*sinful*" (2.942±1.188), "*cannot be justified/confirmed*" (2.960±1.068). In associating suicide with isolation and depression, the mean scores were found to be close to each other, with the highest scores being in "*loneliness*" (3.861±1.036), "*depressed*" (3.861±1.036), "*suffering*" (3.632±1.045), and "*unhappy*" (3.632±1.045). Among the items for the sublimation/normalization of suicide, the highest scores were found in "*steady*" (3.085±0.998), "*fearless*" (2.697±1.110), "*the excuse is acceptable/understandable*" (2.673±1.032), "*motivated/driven*" (2.670±1.031) (not given as a table).

DISCUSSION

Although suicide is a common problem in society, it was reported that the knowledge of society about suicide is insufficient and this affects an individual's seeking professional help negatively [5,11,20]. In a study that was conducted on university students and university personnel, it was determined that their knowledge about suicide was at a moderate level. In the same study, it was reported that the lowest sub-dimension was symptoms, and the highest sub-dimension was treatment/prevention [20]. In this study, the moderate level of knowledge of the students about suicide was similar to the low mean scores of symptoms (1.738±1.267), and the knowledge of treatment and precautions was found to be low (2.686±1.218). Unlike the present study, Öztürk et al. (2018)[11] found in their study conducted with university students that the level of knowledge about suicide and the sub-dimension of knowing the symptoms were low, and the dimension of treatment and prevention was high. It is similar to the results of the present study and shows that students have more difficulties in knowing the symptoms of suicide, but in answering the items that evaluate treatment and prevention, causes and triggers.

In the study that was conducted by Calear et al. (2014) [20] and Chan et al. (2014)[24], a positive relationship was detected between high suicide knowledge levels and psychological help seeking behaviors. In another study conducted by Öztürk et al. (2018)[11] it was noteworthy that students who had a psychiatric diagnosis by applying to a psychiatrist/psychologist had high levels of knowledge in this respect. This is similar to the finding in the present study that students who had a psychiatric diagnosis by applying to a psychiatrist/psychologist had high levels of knowledge. It was found that those who said that they needed psychological support had a higher level of knowledge about suicide had a significant

relationship compared to those who did not. For this reason, in line with the literature data, it is considered that if the individual has accurate and sufficient information about the risk factors, treatment and preventability of suicide, it will contribute to more positive attitudes and behaviors towards receiving professional help. On the other side that people who feel they need help they are more curious and sensitive about information in mental health, and then they learn more about it.

In the present study, the total mean scores of the students who did not report the presence of a family member or relative who committed suicide, thought of suicide or attempted suicide, and those who did not, were low and no statistical differences were detected. Unlike this study, the study conducted by Öztürk et al. (2018)[11] and Arslantas et al. (2019)[9] found that 23.7% of nursing students had suicidal ideation at some point in their life, and 8.7% attempted suicide. It was found in a similar study that individuals who had suicidal ideation or attempt had a significantly higher level of knowledge about suicide [22]. In the study of Calear et al. (2014)[20] conducted with medical students, it was reported that high level of knowledge about suicide affects help-seeking behaviors positively, and stigmatization attitudes affect the help-seeking behaviors of people negatively. In another study that was conducted with working nurses, it was found that 83% did not receive any training on the care of patients attempting suicide, and those who received training had positive attitudes towards an individual committing suicide [25]. As a result of the present study, it is possible to argue that the knowledge level of student nurses who will face patients who have attempted suicide in the future is not sufficient, and they will not be effective in directing the psychological help needs of both themselves and their patients, and their knowledge about suicide must be increased.

In a study that compared the attitudes of medical school students in Austria, Vienna and India towards stigmatization and suicide, Indian students had a more rejecting attitude towards suicide and almost all of them regarded suicide as a cowardly behavior. It was determined that Austrian students had a more affirming attitude towards suicide [26]. Similarly, in the study that was conducted by Chan et al. (2014)[24] the approval rate for the items in the "stigmatization" sub-dimension was low, and the approval rate for the items in the "isolation/depression" sub-dimension was found to be higher than the other sub-dimensions. In other studies, in which the same scale was used, the approval rate of the "isolation/depression" sub-dimension item scores were found to be higher than the other sub-dimension items [22,27]. In this study, the stigmatization attitudes of the students towards those committing suicide were similar to the previous studies, and the stigmatization sub-dimension was found to be low, and the approval rate for the "isolation/depression" sub-dimension items was high. In this sub-dimension, it was seen that the students participating in our study mostly associated suicide with "loneliness, depression, suffering, hurt and unhappiness", respectively. When the variables affecting the SSS were evaluated, it was found that students who did not have a family history of psychiatric treatment had a high level of stigmatization towards those who committed suicide. This shows that students have a stigmatizing attitude towards suicide of individuals with psychiatric illness. This just shows, again, that people who has no experience with mental health problems in their lives or in relative lives has a worst understanding about suicide and less sensibility to learn about it. The levels of knowledge of the fourth grade students who participated in the study, those in the age group of 21-22 and female students were high. In the nursing curricula, the subject of approach to the individual who has attempted suicide is given to the 4th grades in the scope of mental health and diseases nursing course, and it is possible to argue that the education given makes a difference compared to other classes. However, this also shows that educational activities must be organized to develop knowledge and positive attitudes towards suicide in other grades (1, 2 and 3) because they will encounter sick individuals in practice in the early period. The study of Boğahan et al.[28] supports the result of the study arguing that as the age and grade level of the students increased, their stigmatizing attitudes towards suicide decreased and that male students had a more stigmatizing attitude towards suicide. The fact that male students had low levels of knowledge about suicide and high stigmatization attitudes may have a negative effect to discourage people from talking about their thoughts about suicide. In this context, a one-year report follow-up of the suicide rates among adolescents and young adults was conducted in a sample of the 34 richest countries, and the rate among young men was found to be higher [29]. This may be because of the fact that male students think that if they express their suicidal thoughts, they may be labeled as weak, unbelieving, coming from bad families, or really

"crazy". The stigmatizing attitude prevents them from talking about suicidal thoughts, detecting early signs of suicide, or helping people in despair [30]. Anti-stigmatization training programs were suggested in a study conducted with nursing students to prevent this situation [9].

In the present study, stigmatization, isolation/depression, and sublimation/normalization levels decreased significantly with the increase in LOSS scores. This is an important finding of the present study. The results are similar to the results of the studies of Calear et al. (2014)[20], Chan et al.[24] and Öztürk et al. (2018)[11], and it is possible to argue that an increase in knowledge about suicide reduces negative attitudes towards suicide stigmatization. In a study that was conducted with nurses working in the burn unit, psychiatry and emergency services, it was found that as the level of knowledge about suicide increased, stigmatization was positively affected.[31] Unlike the present study, Karakaya et al. (2022)[15] suggested that all nurses working in general clinics where the suicide literacy level was low must establish training programs for the care of patients at risk of suicide. For this reason, as a result of ensuring the adequacy of the level of knowledge about individuals committing suicide during the education process of nurse students, it may affect the care given to patients and their behaviors of receiving help.

It was determined that student nurses, who would have important roles in healthcare practices and patient care in the future, had a moderate level of knowledge about suicide and had more difficulty in recognizing the symptoms of suicide. It was also found that the stigmatization towards suicide was moderate and they mostly approved of the "isolation/depression" dimension. Stigmatization and sublimation/normalization sub-dimension affirmations were found to be close to each other. It was determined that the stigmatization attitudes towards suicide of students with sufficient suicide knowledge level decreased. Also, students who had a history of receiving professional support had a higher level of knowledge about suicide, having a family member who received psychiatric treatment increased their level of knowledge and positively reduced stigmatizing attitudes. Organizing trainings to reduce the stigmatization attitudes of students towards those who receive psychiatric treatment can reduce their stigmatizing attitudes.

Limitation of the Study

Since the present study was conducted with students who were studying in the nursing department of a university, it is difficult to generalize the results to students studying healthcare education in other parts of the country. The results of this study are only in the sample of Turkey and cannot be generalized to other countries. The results of the present study are limited to the scales used in the study. Another limitation of the study was that it was conducted with students participating in the study within a certain time period.

CONCLUSION

Suicide is an important and preventable public healthcare issue [32]. For this reason, the knowledge level of nursing students about suicide must be increased, especially in intermediate classes. The stigmatizing attitudes of male students who stated that they did not need psychological support and who did not have a family history of psychiatric treatment must be reduced. The important result of the research is that lack of knowledge leads to stigma and stigma leads to lack of knowledge. In addition to planning psycho-educational studies that contain messages to increase the level of knowledge, it is also recommended to reorganize the place and contents of the courses on suicide in the mid-grade curricula to prevent the stigmatizing attitudes of students, and to evaluate the psychological processes of students in the process of caring for an individual who attempted suicide.

Recommendations for Further Research

Having sufficient and accurate information on suicide in the education process will support patients who are at risk of suicide in seeking help and will facilitate their adaptation to the treatment process. Early detection of suicidal symptoms of nursing students, prevention and treatment of suicide-related deaths will be effective in determining support approaches and also on help-seeking behaviors of individuals with suicidal ideation or attempt.

Author contribution

Study conception and design: HK; data collection: HK; analysis and interpretation of results: HK and BB; draft manuscript preparation: HK. The author reviewed the results and approved the final version of the manuscript.

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