Original Article

The effect of problem-solving ability on suicide, depression, and hopelessness in cigarette, alcohol, or substance addicts and relationships with each other

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Abstract

Objectives: This research was conducted to investigate the effects of problem-solving skills on smoking, drinking alcohol, suicide, and hopelessness.

Methods: This descriptive study was conducted between January 2015 and May 2015 with 483 inpatients who received treatment and agreed to participate in the study. The data were collected using a Sociodemographic Information Form, Problem Solving Inventory (PSI), Suicide Probability Scale (SPS), Beck Depression Inventory (BDI), and Beck Hopelessness Scale (BHS). The Mann-Whitney U Test, Kruskal-Wallis H Test, and Spearman's Correlation method were used in the analysis of the data.

Results: In the study, 48.8% were 21-30 years of age, a majority were male (96.1%), and 53.6% were single. Among the participants, 67.3% were living with their families and 64% had a nuclear family. The majority of the participants were unemployed (73.3%) and 40.2% percent completed high schools. In addition, 59.6% had low economic status. Smoking, alcohol, or substance use, age, gender, marital status, educational status, and economic situation affected problem-solving skills, probability of suicide, and depression and hopelessness levels. Smoking, drinking alcohol or substance abuse correlate with problem-solving ability, probability of suicide, depression and hopelessness. In addition, there are also correlations between problem-solving ability and depression; probability of suicide and depression; probability of suicide and hopelessness and depression and hopelessness.

Conclusion: Nurses who work at alcohol and substance abuse centers should provide problem-solving training to their patients and their families. Thus, possible depression, hopelessness, and suicide that these individuals may face can be prevented.

Keywords: Addiction; depression; nursing; problem solving; suicide.

What is known about the subject?
• Problem-solving ability of children using substance is low.

What does this paper add to our knowledge?
• Sociodemographic characteristics of substance addicts affect their problem-solving ability, possibility of suicide, depression and level of hopelessness.

How does the paper contribute to practice?
• The possibility of depression, hopelessness, and suicide that might be seen in those people could be prevented thanks to the support given by nurses to substance addicts and their families.

Problem-solving ability, which is acquired during development periods as an important social skill and personality trait, significantly affects social adaptations of individuals and their success in daily life.[1,2] This skill is used dynamically and actively in solving problems encountered in life. It helps one to overcome problems and achieve progress allowing healthier and more productive lives.[3,4] Today, the demand for individuals who can think critically and analytically, who are creative, and can solve the problems they face necessitates individual development of problem-solving skills such

as adopting a democratic attitude, having critical and creative thinking, making decisions, and questioning.[5] Individuals who are more outgoing and have a positive self-perception in interpersonal relationships regard themselves as adequate in problem-solving as well as in adopting appropriate working methods. In addition, they see themselves as more decisive, careful, intuitive, consistent, and as perceiving things consistently and systematically such that they can overcome difficulties and become more successful.[4,6,7]

The level of hope is closely related to a person's problem-solving ability and their actions. Therefore, ineffective problem solving will cause psychological inconsistencies and hopelessness. Studies conducted in Turkey and abroad show that problem-solving, depression, suicide tendency, problems in interpersonal relations, and anger are interrelated.[8] Inadequate problem-solving is regarded as a significant component and predictor for suicide behaviors. Inadequacy in problem-solving skills triggers conflicts in interpersonal relationships, in other words, depressive status, which pushes the individual towards suicide. The feeling of hopelessness results from repeated failures to solve problems and inadequate problem-solving skills. Those inclined to suicide often feel hopeless and have lost control.[4,8,9]

The studies conducted on smoking, drinking alcohol, or substance use, which have drawn attention because they have become more common recently, found that problem-solving skills, hopelessness, and suicide are interrelated, affect each other, and have an effect on many social, biological, and psychological factors.[8,10–14]

Problem-solving ability constitutes the basis of nursing practices and especially psychiatric nursing, which occurs in direct contact with alcohol and substance addicts and their families.[15–17] Using effective problem-solving methods, nurses caring for individuals receiving treatment for their dependency will help these individuals and their families/relatives to overcome the problems they may face after treatment. These nurses will also help the families/relatives use these problem-solving skills to cope with risk factors related to suicide, hopelessness, and depression that they may face throughout their lives. This study aimed to evaluate the effect of problem-solving ability on suicide, depression, and hopelessness in cigarette, alcohol, and drug addicts. The following questions were asked:

1. Does problem-solving ability have an effect on suicide, depression, and hopelessness in cigarette, alcohol, and substance addicts?

2. Is there a relationship between age, gender, marital status, level of education, economic status, and problem-solving ability, suicide, depression, and hopelessness in cigarette, alcohol, and substance addicts?

Materials and Method

The Aim and Type of the Study

This study was carried out descriptively to evaluate the effect of problem-solving ability on suicide, depression, and hopelessness in cigarette, alcohol, and substance addicts.

The Place and Time of the Study

The study was conducted in the inpatient services of psychiatric clinics of two university hospitals in Ankara and Bolu between 01 January and 31 May 2015.

The Population and Sample of the Study

The study population consisted of the patients receiving treatment at the inpatient services of psychiatric clinics at two university hospitals in Ankara and Bolu (n=526). Samples were not drawn from the study population. The individuals receiving inpatient treatment who agreed to participate in the study formed the sample group (n=483). The inclusion criteria were: i) being in the 18-65 age range, ii) having been diagnosed with cigarette, alcohol, or substance addiction, iii) receiving treatment in a psychiatry clinic, iv) having no difficulties in communication, v) having no physical illness that could lead to progressive death, and vi) agreeing to participate in the study.

Data Collection Tools

The data were collected using a Sociodemographic Information Form, Problem Solving Inventory, Suicide Probability Scale, Beck Depression Inventory, and Beck Hopelessness Scale.

Sociodemographic Information Form: This form was prepared by the researcher and included 33 questions to gather information about the participants such as the place where they live, family status, working status, economic status, having a diagnosed illness or not, and questions regarding their problems of cigarette, alcohol, or substance use.

Problem-Solving Inventory (PSI): The scale, developed by Heppner and Peterson (1982), is a self-report instrument for the measurement of what people think about their problem-solving behaviors and approaches.[18] It is organized as a 6-point Likert type scale with 35 items. The response options are: "I always behave like that," "I usually behave like that," "I often behave like that," "I sometimes behave like that," "I rarely behave like that," and "I never behave like that." The score is calculated over 32 items. Items 1, 2, 3, 4, 11, 13, 14, 15, 17, 21, 25, 26, 30 and 34 are reverse-scored, and the scores range between 32 and 92. Negative scores are reversed in the calculation. Low scores refer to effectiveness in problem-solving and the behavior and attitudes associated with successful problem-solving. Higher scores reflect an inability to find effective solutions for problems.[9,19] The version that was used in this study was developed by Heppner and Peterson and its Turkish version was adapted by Şahin, Şahin,[20] and Heppner. The Cronbach Alpha reliability coefficient of PSI was 0.63 in this study.

Suicide Probability Scale (SPS): SPS, which was developed by Cull and Gill[21] (1990), is also a self-assessment instrument for

the measurement of the attitudes and behaviors of individuals with a risk of suicide. Organized as a 4-point Likert type scale, SPS includes 36 items which are scored using "none," "a little of the time," "most of the time," and "all of the time." The scale yields two types of scores: weighted score and standardized T-score. Using T-scores, a probability score is generated showing whether an individual is in the group of people who statistically attempt suicide for both total and subscale scores, which is compared to the table in the manual. In this study, the total scale score was calculated using a grading key ranging from 1 to 4. The total score ranged between 36 and 144. SPS was first adapted into Turkish by Eskin[22] (1993). In this study, the Cronbach Alpha reliability score was 0.85.

Beck Depression Inventory (BDI): The BDI, developed by Beck[23] (1961), is used to determine depression risks and measure the signs and changes in severity of depression. The scores in BDI range between 0 and 63. The cut-off point is 17; scores 17 and above indicate depression. The reliability of the Turkish version of the BDI, which consists of 21 questions with scores ranging from 0 to 3, was conducted by Hisli[24] (1989). In this study, the Cronbach Alpha reliability coefficient was 0.88.

Beck Hopelessness Scale (BHS): The BHS, developed by Beck et al. (1974), measures future expectations of adolescents and adults.[25] The scale consists of 20 items, which are scored with 0-1 points. The score in the scale ranges between 0 and 20. Each score compatible with the item is scored as 1, and those not compatible with the item are scored as 0. The mean score obtained is regarded as the "hopelessness score." Items 1, 6, 13, 15, and 19 are associated with the feelings about future; 2, 3, 9, 11, 12, 16, 17, and 20 are related to loss of motivation, and items 4, 7, 8, 14, and 18 refer to expectations for the future.[4] The scale was adapted to Turkish by Seber et al.[25] (1993).[26] The Cronbach Alpha reliability was 0.88 in this study.

Implementation of the Study

Preliminary implementation of data collection tools was conducted with 10 addicts. After the pre-implementation stage, necessary changes were made to the sociodemographic information form and the addicts included in the pre-application were excluded from the sample. The study was conducted with individuals who received treatment in the inpatient services of the hospitals where official permission was obtained. After the participants were informed about the study and their written and verbal consent was obtained, they were given the Sociodemographic Information Form, PSI, SPS, BDI, and BHS, and asked to complete the forms. It took approximately 25-30 minutes for the participants to fill out the forms.

Data Evaluation

The data were analyzed using SPSS 20. The Kolmogorov-Smirnov test was used to determine whether the PSI, SPS, BDI, and BHS scores had normal distributions. Results showed that the scores of the scales were not compatible with normal distribution and analyses were conducted using non-parametric methods. Frequency tables and descriptive statistics were used in the evaluation of the data. Since Mann-Whitney U Test, Kruskal-Wallis H Test, and the direction, degree, and significance of the relationship between the scales were not normally distributed, Spearman's Correlation method, Multiple Response frequency tables, logistic regression method, and Cronbach's Alpha coefficient were used. The results were evaluated at the significance level of $p < 0.05$.

Ethical Considerations

Approval from the Gazi University Ethics Committee was obtained with the decision numbered March 11, 2015/30233. In addition, written permission was obtained from the General Secretariat of both Ankara and Bolu Public Hospitals Union in order to conduct the study. Informed consent forms, completed by the participants, were also obtained before the study.

Limitations of the Study

Limitations of the study were: i) the number of participants in the study was high, ii) the number of female addicts admitted to inpatient services was low, and iii) the participants had difficulty understanding and filling out the PSI because they had not had training on problem-solving.

Results

The mean age of the participants was 29.29 ± 10.61 and 48.8% of the participants were aged 21-30 (n=236). In the study, 96.1% were male and 53.6% were single. In addition, 67.3% were living with their families and 64.0% of them had a nuclear family. Among the participants, 73.3% were unemployed, 40.2% completed high schools, and 59.6% had low economic status. It was determined that 30.4% of the participants were cigarette, alcohol, and substance addicts, and 35.0% were cigarette and substance addicts. The study showed that 67.3% first started smoking cigarettes, which served as a gateway to future addictions, and the mean age of starting to smoke was 13.98 ± 2.89.

The Relationship Between Sociodemographic Characteristics and PSI, SPS, BDI, and BHS

Table 1 shows the comparison between the sociodemographic characteristics of the participants and the scales. There was a statistically significant difference between the scores of PSI, SPS, BDI, and BHS according to age groups (p=0.01). The mean PSI score of the individuals over 40 years of age was significantly lower than the other age groups, indicating they had better problem-solving skills. The mean SPS score in the 15-20 age range was significantly lower than in the 21-30 and 31-40 age ranges, indicating a lower risk of suicide. The mean

Table 1. Sociodemographic Characteristics of the Participants and their Problem-Solving Inventory (PSI), Suicide Probability Scale (SPS), Beck Depression Inventory (BDI), and Beck Hopelessness Scale (BHS) Scores (n=483)

Sociodemographic characteristics	n	PSI	SPS	BDI	BHS
		(Mean±SD)	(Mean±SD)	(Mean±SD)	(Mean±SD)
Age					
15–20 years (1)	94	105.56±7.93	75.82±11.56	18.31±9.08	6.56±4.28
21–30 years (2)	236	103.99±17.53	91.55±13.04	29.22±9.27	8.64±5.29
31–40 years (3)	71	108.96±10.86	98.49±5.31	38.56±6.95	12.03±4.36
Over 40 years (4)	82	98.80±13.64	78.02±14.70	25.72±11.56	10.05±4.97
Statistical test		X^2=23.004	X^2=149.294	X^2=157.838	X^2=52.241
Probability		p=0.01	p=0.01	p=0.01	p=0.01
Difference		(1,2,3-4)	(1-2,3) (2-3,4) (3-4)	(1-2,3,4) (3-2,4)	(1-2,3,4) (2-3)
Gender					
Female	19	120.53±7.78	90.47±8.27	25.42±5.92	8.16±2.27
Male	464	103.47±14.64	87.08±14.89	27.97±11.27	9.01±5.26
Statistical test		Z=-5.450	Z=-0.625	Z=-1.642	Z=-0.427
Probability		p=0.01	p=0.532	p=0.101	p=0.669
Marital status					
Married (1)	107	103.10±14.07	83.47±16.22	28.28±11.20	8.22±4.61
Single (2)	259	103.36±15.33	85.90±14.98	25.46±11.17	7.81±5.25
Widow(er)/Divorced (3)	117	106.85±14.02	93.54±10.16	32.85±9.11	12.26±4.05
Statistical test		X^2= 7.998	X^2=35.889	X^2=44.590	X^2=64.497
Probability		p=0.018	p=0.01	p=0.01	p=0.01
Difference		(1-3)	(3-1,2)	(3-1,2)	(3-1,2)
Level of education					
Primary school (1)	86	104.36±11.65	91.55±16.21	31.68±10.44	11.48±4.67
Secondary school (2)	172	103.33±17.57	83.44±14.24	26.19±12.10	8.28±5.26
High school (3)	194	104.94±13.53	87.14±13.81	26.99±10.11	8.54±5.11
College graduate (4)	31	103.06±13.72	96.55±11.36	32.16±10.11	8.65±4.71
Statistical test		X^2=0.823	X^2=35.072	X^2=21.009	X^2=25.559
Probability		p=0.844	p=0.01	p=0.01	p=0.01
Difference			(1-2,3) (2-3,4) (3-4)	(1-2,3) (4-2,3)	(1-2,3,4)
Economic status					
Low (1)	288	104.63±13.63	91.73±13.01	30.26±9.89	10.03±5.10
Medium (2)	183	102.95±16.48	80.19±14.79	24.77±12.00	7.57±4.91
High (3)	12	110.75±13.57	85.75±10.16	18.08±8.02	5.17±4.55
Statistical test		X^2=2.043	X^2=80.725	X^2=36.820	X^2=32.396
Probability		p=0.360	p=0.01	p=0.01	p=0.01
Difference			(1-2)	(1-2) (1,2-3)	(1-2,3)
Addictive substance					
Alcohol (1)	20	107.90±10.39	79.85±11.32	21.05±9.91	5.00±5.49
Substance (2)	11	118.91±10.00	85.73±14.21	16.27±4.34	7.36±2.80
Cigarette-Alcohol (3)	136	103.77±15.07	87.07±15.62	31.41±11.68	10.64±5.18
Cigarette-Substance (4)	168	101.25±15.83	83.59±14.32	23.96±10.25	6.54±3.96
Cigarette-Alcohol-Substance (5)	147	106.20±13.10	92.61±13.08	30.90±9.58	10.89±5.08
Statistical test		X^2=14.937	X^2=7.167	X^2=20.342	X^2=17.102
Probability		p=0.005	p=0.127	p=0.01	p=0.002
Difference		(2-1,3,4,5)		(1-2,3,5) (2-3,4,5) (4-3,5)	(1-2,3,5) (4-3,5)

SD: Standard deviation.

BDI score of the individuals in the 15-20 age range was significantly lower than in other age groups, although all were considered depressed. The mean BHS score of the 15-20 age range was significantly lower than other age groups, indicating they have more hope for the future.

A statistically significant difference was found in PSI in terms of gender (p=0.01). The mean PSI scores of the females were significantly higher than the scores of the men. However, there was no statistically significant difference between the SPS, BDI, and BHS scores according to gender (p>0.05).

The difference between the PSI, SPS, BDI, and BHS scores were statistically significant in terms of marital status (p=0.018). The mean PSI score of the married was significantly lower than those of the widow(er)/divorced. The mean SPS, BDI, and BHS scores of the widow(er)/divorced were significantly higher than those of the married individuals and singles were.

A statistically significant difference was found between the scores of SPS, BDI, and BHS according to education levels of the participants (p=0.001). The mean SPS score of those who completed primary school was significantly higher than those who completed secondary school and high school. The mean SPS score of those who completed secondary school was significantly lower than those who completed high schools and were college graduates. The mean BDI and BHS scores of those who completed primary school were significantly higher than those who completed secondary school, high school and were college graduates.

A statistically significant difference was found between the scores of SPS, BDI, and BHS according to economic status of the participants (p=0.01). The mean SPS, BDI, and BHS scores of those who had low economic status were higher than those whose economic status was high.

There was a statistically significant difference between the scores of PSI, BDI, and BHS according to the substances used (p=0.001). The mean PSI score of substance users was higher than those who were cigarette and alcohol addicts. The mean BDI score of the alcohol addicts was significantly higher than those who were substance users. The mean BDI score of alcohol addicts was significantly lower than those of the cigarette-alcohol addicts and cigarette-alcohol-substance addicts. The mean BHS score of the alcohol addicts was significantly lower than those of the cigarette-alcohol addicts and cigarette-alcohol-substance addicts.

Relationship Between the PSI, SPS, BDI, and BHS Scores

Table 2 shows the correlation between the scales. There was no significant correlation between the PSI, SPS, and BHS scores (p>0.05). There was a negative relationship between the PSI and BDI scores (r=-0.110; p=0.015). However, there was a positive relationship between the scores of SPS and BDI (r=0.658; p=0.01) and BHS (r=0.506; p=0.01). Similarly, there was a positive relationship between the scores of BDI and BHS (r=0.582; p=0.01).

Table 2. The correlation between the PSI, SPS, BDI and BHS scores of the participants

Spearman's Correlation (n=483)	PSI	SPS	BDI	BHS
PSI		r=.040 p=.384	r=-.110 p=.015	r=.034 p=.450
SPS	r=.040 p=.384		r=.658 p=.01	r=.506 p=.01
BDI	r=-.110 p=.015	r=.658 p=.01		r=.582 p=.01
BHS	r=.034 p=.450	r=.506 p=.01	r=.582 p=.01	

PSI: Problem-Solving Inventor; SPS: Suicide Probability Scale; BDI: Beck Depression Inventory; BHS: Beck Hopelessness Scale.

Discussion

There was an inversely proportional relationship between problem-solving ability and depression level in cigarette, alcohol, or drug addicts, whereas no significant relationship was found between problem-solving ability, hopelessness, and probability of suicide.

A negative and significant relationship was determined between the scores of PSI and BDI. As the level of problem-solving ability increased, the level of depression decreased. According to Tezel et al.[27] (2009), problem-solving abilities of students who do not have depression are higher than those who do have depression. Nezu and Wilkins[28] emphasized a close relationship between problem-solving ability and mental health and stated that individuals with ineffective problem-solving abilities are at risk for depression. Moreover, they found that those who can use effective problem-solving methods and have a high level of problem-solving ability can cope with the negative effects of depression.

A positive significant relationship was found between the scores of SPS and BDI. As the probability of suicide increased, the level of depression increased. Hocaoğlu and Tekin[29] (2007) found that depression and suicide were related and that the frequency of depression prevalence in the group who thought about suicide was higher.

The study found a positive and significant relationship between the scores of SPS and BHS. As the probability of suicide increased, hopelessness level increased accordingly. Similarly, a study conducted by Batıgün[30] (2005) found that as the suicide probability increased, hopelessness increased as well. Hocaoğlu and Tekin[29] (2007), in their study, showed that hopelessness was strongly related to suicide.

This study found a positive and significant relationship between the scores of BDI and BHS. As the level of depression increased, hopelessness increased accordingly. Solmaz et

al.[31] (2000) found a directly proportional relationship in their studies.

The finding that the participants over 40 years perceived themselves as more competent in problem solving than other age ranges can be attributed to the fact that they have experienced more problems in their lives compared to younger people. The young, on the other hand, could have started smoking, drinking alcohol, or substance use in order to cope with the problems they encountered in their lives. Oğuztürk et al.[8] (2011) as well as Çam and Tümkaya[32] (2006) reported students found themselves more competent in problem solving as they grew older. However, Dündar[4] (2008) found that as individuals grew older, problem-solving ability decreases. The studies carried out by Bilge and Arslan[33] (2000) and Soyer and Bilgin[34] (2010) showed that problem-solving ability does not differ according to age.

In our study, the suicide probability score was the highest in the 31-40 age range, which could be explained by the fact that moral values, a rush to possess property, marriages that did not work well, concerns related to children, and the responsibility towards the family were intensely experienced in this age group. A study by Batıgün[30] (2005) showed that individuals between 15 and 40 years had higher suicide probability than individuals aged 41-65 years. In contrast, in another study conducted by Batıgün[35] (2002), the suicide probability of individuals in the 13-24 age range was higher than that of the age group older than 24 years. Zeyrek et al.[36] (2009) and Öksüz and Bilge[37] (2014) did not find a significant relationship between age and suicide probability in their studies.

In examining depression levels in this study, the level and severity of depression was the lowest in the 15-20 age range and the highest in the 31-40 age range. This result supports previous studies using BDI.[38] Erözkan[39] (2005) conducted a study with university students and found no significant relationship between age and depression. In addition, hopelessness was lower in the 15-20 age range compared to other age groups. In contrast, Batıgün[30] (2005) found the hopelessness scores of the individuals in the 15-25 age range were higher than in other age ranges. The studies conducted by Dundar[4] (2008) and Çelikel and Erkorkmaz[14] (2008) found no significant difference in the level of hopelessness according to age groups.

Women perceived themselves as less adequate than men in solving problems. This difference could have resulted from the roles given to women in Turkish society. Men are considered brave, inquisitive, self-confident, and reassuring whereas women are calmer, moderate, home-loving, and considerate. The results of the studies conducted by Yalçın et al.[40] (2010) and Pulur et al.[19] (2012) are in compliance with the findings obtained in this study. However, Oğuztürk et al.[8] (2011), Çam and Tümkaya[32] (2006), and Tavlı[41] (2007) reported that gender is not an effective factor in problem-solving ability.

The married individuals found themselves more competent than widow(er)/divorcees in problem-solving. This finding can be attributed to the fact that in Turkish society, the responsibility of women and men together increases due to marriage and that this sense of responsibility may lead to controlled behaviors. Akın et al.[42] (2007) found similar results. However, Kelleci and Gölbaşı[16] (2004) showed no statistically significant difference between married and single individuals.

We also found that suicide probability and the levels of depression and hopelessness of widow(er)/divorced were higher than the married and singles. According to the study of Atasoy et al.[43] (2014), the probability and attempts of suicide are more common among single people. However, Polatöz, Kuğu, Doğan, and Akyüz (2011) found no significant relationship between marital status and suicide probability. [44] Açık et al.[38] (2003) found depression was more common among the divorced or widows. These findings support our results. The study of Şahin[45] (2002) showed that marital status did not significantly affect the scores of hopelessness. Özben and Argun[46] (2003) reported that levels of hopelessness of married teachers was higher than those of single teachers.

The suicide probability of individuals who completed primary schools was higher than those who completed secondary and high schools, and the suicide probability for secondary school graduates was higher than those who completed high schools and were college graduates. Furthermore, the suicide probability for those who completed high school was lower than for college graduates. The results of the study performed by Batıgün[30] (2005) are similar to our results. However, Deniz, et al.[47] (2001) reported that most of the participants in their studies were illiterate or were primary school graduates. In examining BDI in terms of education status, the level and severity of depression of individuals who completed primary schools and those who were college graduates were higher than those who completed secondary and high schools. Yakar et al.[48] (2007) did not find a statistically significant difference between educational level and depression in their study, whereas, according to the results of Açık et al.[38] (2003), as the education level decreases, the level of depression increases. According to the literature, the BHS scores of those who completed primary and high schools are higher than university graduates.[30] The results of this study are compatible with the literature.

Saracaloğlu and Kanmaz[49] (2012) and Yılmaz et al.[1] (2009) found that socio-economics level did not affect PSI. This study also found a similar result. The probability of suicide as well as level and severity of depression and hopelessness in individuals with low economic status was higher than in those with moderate economics status. Results of the studies conducted by Atasoy et al.[43] (2014) and Çelikel and Erkorkmaz[14] (2008) were similar to our study.

This study also found that the substance addict group perceived themselves as more inadequate than the other addict groups. Deficiencies in problem-solving ability can lead to consequences such as substance use in young people. Indi-

viduals can turn to smoking, drinking alcohol, or substance use, which are regarded as ineffective ways of emotionally coping with or solving their problems. Yıldırım et al.[7] (2011) found similar results in their studies in which smoking, drinking alcohol, or substance use were related to depression and hopelessness. The results of the study by Arıkan et al.[50] (2000) are similar to the present study. According to the literature, alcohol or substance use may periodically create depressive episodes. Research and clinical observations suggest alcohol or substance use may cause severe depressive symptoms that may extend days after the alcohol or substance was used.[51] Gümüş[52] (2014) found no relationship between smoking and hopelessness, but the level of hopelessness among the students who used alcohol was higher than those who did not.

Consequently, age, gender, and marital status affect problem-solving ability. In addition, age, marital status, level of education, and economic status affect probability of suicide, level of depression, and level of hopelessness among individuals who smoke cigarettes, drink alcohol, or use substances.

Problem-solving ability and levels of depression and hopelessness are affected by smoking, drinking alcohol, and substance use. The study found an inversely proportional relationship between problem-solving ability and the level of depression, and directly proportional relationships between probability of suicide and level of depression, probability of suicide and level of hopelessness, and the level of depression and level of hopelessness.

Nurses who care for individuals with smoking, alcohol, and substance use problems should organize and implement training programs to strengthen the problem-solving abilities of these people and their families. Studies examining the efficacy of these training programs should be organized. In addition, in-service programs for nurses are recommended to provide a holistic and comprehensive nursing approach regarding addiction and its effects on addicts and their families. Finally, studies similar to this study should be conducted with equal or close to equal number of patients considering the gender factor.

Conflict of interest: There are no relevant conflicts of interest to disclose.

Peer-review: Externally peer-reviewed.

Authorship contributions: Concept – N.G.; Design – N.G.; Supervision – N.G.; Fundings - N.G.; Materials – S.F.; Data collection &/or processing – S.F.; Analysis and/or interpretation – S.F.; Literature search – S.F.; Writing – S.F.; Critical review – S.F.

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