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Review of the Effect of Problem-Solving Training Group on the Social Problem-Solving Skills of Female Convicts

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Abstract

This study aims to examine the effectiveness of the psycho-education group-based program aimed at improving the social problem-solving skills of female prisoners. The applied program is adopted by Çekici & Güçray (2012) based on the five-stage approach model in social problem-solving (D'zurilla & Nezu, 2007; Nezu et al., 2007). The research is in the semi-experimental design, and one of the types of the experimental design, "real experimental model with pretest-posttest control group" was used. The implementation was carried out with 36 convicts in Karataş Prison in Adana province in the Women's Open Penal Institution. Since the sample did not show a normal distribution, it was evaluated by the Wilcoxon Signed Rows Test, one of the non-parametric analysis methods used to compare the difference between the scores of the two sets of measurements. As a result of the analysis, it was found that the use of a positive orientation-rational problem-solving style to the problem, which is a positive coping style, increased social problem-solving skills in female convicts who participated in social problem-solving group practices, and their use of inattentive and avoidant styles, which are negative orientation to the problem and negative coping styles, decreased. This did not change in the results of the monitoring measurement in which the persistence of the effect was evaluated. The findings were interpreted in light of the literature data.

Keywords: *Female Convict, Social Problem Solving, Social Problem-Solving Styles, Psycho-Education Group.*

Öz

Bu çalışmanın amacı, kadın mahkumların sosyal problem çözme becerilerinin geliştirilmesini amaçlayan psiko-eğitim grubu temelli programın etkililiğinin değerlendirilmesidir. Uygulanan program, Çekici ve Güçray'ın (2012), sosyal problem çözmede beş aşamalı yaklaşım modelini (D'zurilla & Nezu; Nezu et all., 2007) temel alarak hazırladıkları programdan uyarlanarak geliştirilmiştir. Araştırma yarı deneysel desende olup, deneysel desenin türlerinden biri olan "öntest-sontest kontrol gruplu gerçek deneysel model" kullanılmıştır. Uygulama, Adana ili Karataş Cezaevinde Kadın Açık Ceza İnfaz Kurumu'ndaki 36 hükümlü ile gerçekleştirilmiştir. Örneklemin normal dağılım göstermemesi sebebiyle iki ölçüm setine ait puanlar arasındaki farkı karşılaştırmak amacıyla kullanılan parametrik olmayan analiz yöntemlerinden Wilcoxon İşaretli Sıralar Testi ile değerlendirilmiştir. Analiz sonucunda sosyal problem çözme beceri eğitimi grup uygulamalarına katılan kadın hükümlülerin sosyal problem çözmede olumlu bir baş etme tarzı olan probleme olumlu yönelim-rasyonel problem çözme tarzı kullanımın arttığı, probleme olumsuz yönelim ve olumsuz başa çıkma tarzları olan dürtüsel-dikkatsiz ve kaçınan tarzların kullanımının azaldığı bulunmuştur. Etkinin kalıcılığının değerlendirildiği izleme ölçümü sonuçlarında da bu durum değişmemiştir. Elde edilen bulgular alanyazın verileri ışığında yorumlanmıştır.

Anahtar Kelimeler: *Kadın Hükümlü, Sosyal Problem Çözme, Sosyal Problem Çözme Tarzları, Psiko-Eğitim Grubu.*

Introduction

Throughout history human beings have faced various problems in meeting their most basic needs. These problems have emerged in different forms over time in the stage of modernization of society, progress and complexity of social life, and socialization of man. People face these problem situations in various content and frequency in social life. Problems in social life can be a source of stress, so the person activates the problem-solving skills that exist in the face of problems. As well as the existence of the problem, how the person tries to solve the problem, in other words, the problem-solving styles, is also an important factor. In this direction, the person's approach to the problems and how they react become as significant as the problems they encounter.

Researchers have generally defined social problem-solving as a self-directed, cognitive-behavioral process in which individuals, couples, or groups try to find effective solutions to various problems encountered in their daily lives (D'Zurilla, 1986; D'Zurilla & Nezu, 1982). In this process, the individual searches for solutions for himself and tries to choose the most effective solution. Social problem-solving is perceived as an activity that occurs at the level of consciousness, is rational, and serves a purpose. Problem-solving goals are aimed at improving the problematic situation, reducing the emotional distress it produces, or reducing both (D'Zurilla & Chang, 1995; D'Zurilla et al., 2004).

The social problem-solving theory states that there are generally two structures in solving problems. The first of these is the orientation to the problem and the second is the problem-solving style. D'Zurilla & Goldfried (1971) defined problem orientation as a meta-cognitive process that encompasses the study of a person's general problems, assessments, and feelings about the problems he or she experiences, as well as a set of relatively stable cognitive and emotional schemata that reflect his or her problem-solving ability. This process serves as an important motivation in the process of social problem-solving. Problem orientation is divided into two positive problem orientation and negative problem orientation. *Positive orientation* is based on constructive cognitive evaluation in the form of seeing the problem as a part of life rather than a threat, believing that it is solvable. Negative orientation is based on unconstructive cognitive assessment in the form of seeing the problem as a threat, not believing that it is solvable, expectations of negative outcomes, and frustration (Chang & D'Zurilla, 1996; D'Zurilla & Maydeu-Olivares, 1995; Sadowski et al., 1994).

Problem-solving styles are also divided into two: positive and negative. A positive problem-solving style involves considering the situation from a realistic point of view and applying the necessary problem-solving steps to solve the problem. The negative problem style refers to the inability to evaluate the situation from a realistic point of view and to exhibit an inattentive and avoidant structure (D'Zurilla et al., 2004).

Problem-solving is a very important process for social life. That is because people who cannot solve their problems are more likely to exhibit criminal behavior. The phenomenon of crime is seen in every segment of society, in every race and religion, in every community, and no human community living in the world is exempt from this crime phenomenon (Kepenekçi & Özcan, 2000). A person is defined as a living being in society and may have different views with social expectations at various periods of his life and even show various destructive and aggressive behaviors against the social order (Jhangiani & Tarry, 2022; Kaner, 1992).

The lack of a clear consensus on what are the causes that enable the phenomenon of crime also makes it difficult to define the phenomenon of crime. The phenomenon of crime considered a sociological process at the same time as it is a legal process, emerges as a result of the interaction of the personality structure formed by the biological and psychological structure of the individual and the social structure formed by social, economic, and cultural factors. Recently, there has been an increasing number of ideas that the social structure plays a more active role in the formation of crime (Çoğan, 2006; Kızmaz, 2005). With the development of gender equality and the inclusion of women in life, the social roles undertaken by men in the previous periods are now made by

women, and their legal as well as illegal behaviors have started to attract attention. Accordingly, female delinquency has also become a problem. On the other hand, studies conducted so far (Allen et al., 2002; D'Zurilla et al., 1998; Sumi, 2012) have revealed that women's social problem-solving skills are lower than those of men.

The inability to solve social problems can often be associated with distress. In this context, researchers have also suggested that ineffective problem-solving results in stressful outcomes and psychological maladjustment (Chan, 2001; Dermitzaki et al., 2009). Conversely, effective social problem-solving skills may protect inmates against the negative emotional effects of prison and facilitate better coping in prison settings (McMurran et al., 2005; Pont et al., 2015). Improving the social problem-solving skills of convicts is also an important determinant of their ability to cope with imprisonment. Individuals who have difficulty coping with imprisonment and life events in prisons may suffer from various mental illnesses and self-harm (Hawton et al., 2014; Pont et al., 2015). Research shows that people who attempt suicide may have poorer problem-solving skills in a more general way (Chu et al., 2018; Gustavson et al., 2016; Hirsch et al., 2012; Labella et al., 2013; Kwok et al., 2015; Linehan et al., 1987; McLeavey et al., 1987; Pollock & Williams, 2001).

Teaching problem-solving skills abroad is used in situations involving behavior disorder, substance abuse, gambling, and criminal offenses, and problem-solving training are provided more frequently in education and prison settings (Mcguire, 2005). In this context, social problem-solving programs have become one of the most important areas in offender treatment and rehabilitation. Cognitive-behavioral programs designed to improve social problem-solving skills are seen to be carried out with experimental and semi-experimental studies and positive results are obtained (Chinaveh, 2010; Lo ̈sel, 1995; McGuire, 2002; Ross & Ross, 1989). McMurran & Duggan (2005) noted that problem-solving therapy or training can be used in the process of acquiring cognitive or social/interpersonal skills, providing significant advantages in establishing standard forms of intervention in criminal justice facilities such as prisons, community-based supervision, and safe mental health settings. Evidence of the effectiveness of cognitive behavioral programs in the rehabilitation of convicts has also been found in several meta-analyses (Andrews et al., 1990; Pearson et al., 2002). Overall, the results of these studies suggest that problem-solving is an important factor in adaptation and that problem-solving training is important in improving a person's adaptive functioning and, ultimately, in reducing and preventing psychological and behavioral disorders (D'Zurilla & Chang, 1995).

When we look at the studies on problem-solving in the literature, it is seen that women use negative coping styles more often than men, and their problem-solving skills are lower (D'Zurilla et al., 1998; Kelleci, 2003; Robichaud et al., 2003). It is also complicated for women who have lower problem-solving skills to cope with the unique problems of prisons in prisons. In this process, female convicts experience various life pressures caused by various stress factors such as loss of independence, separation from family, being in an overcrowded environment, lack of social support, disciplinary punishment, and physical health problems (Constantino et al., 2016; Nuria et al., 2016; Santos et al., 2019). In addition, studies have shown that female suicide rates are higher than males (Cheng et al., 2009; Kwok & Shek, 2010). Problem-solving training is of great importance in dealing with these problems. For this reason, social problem-solving training for female prisoners is thought to contribute to the literature.

In this study, the Five-Step Approach to the Social Problem Solving model which D'Zurilla and Golfried first structured in 1971 and revised over time (D'Zurilla & Nezu, 2007; Nezu et al., 2007), which was finally adopted by Alıcı ve Güçray (2012), and in which some changes were made by the researcher in its content, was examined whether the social problem-solving skills training had a positive effect on the development of social problem-solving skills of women convicted of a crime; the permanence of this effect was also examined. In this context, the effectiveness of the program was tested with the following experiments:

- *Hypothesis 1*: There is a significant difference between the pre-test and post-test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style, and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the experimental group after applying the social problem-solving psycho-education group program.
- *Hypothesis 2*: There is no significant difference between the pre-test and post-test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the control group in which the social problem-solving psycho-education group program is not applied.
- *Hypothesis 3*: There is no significant difference between the post-test and follow-up test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the experimental group in which the social problem-solving psycho-education group program is applied.
- *Hypothesis 4*: There was no significant difference between the post-test and follow-up test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the control group in which the social problem-solving psycho-education group program was not applied.

Method

In this study, social problem-solving psycho-education based on the Five-Step Approach to Social Problem-Solving was applied to determine whether group experience had an effect on the social problem-solving levels of women convicted of a crime. In the study, one of the types of experimental design, "pretest-posttest, follow-up test measured and semi-experimental design with control group" was used. While the independent variable of the study was social problem-solving psycho-education group experience, the dependent variable was the social problem-solving levels of female convicts.

The research was conducted on two groups of female prisoners. One of the groups formed is the experimental group, and the other is the control group. The experimental group was applied with the Five-Step Approach to Social Problem-Solving Model (D'Zurilla & Nezu, 2007; Nezu et al., 2007) and the "social problem-solving psycho-education program" developed by Çekici & Güçray (2012) and in the content of which some changes were made by the researcher. The program was structured in the form of 9 sessions, and the 1st was implemented by the author. No interventions were applied in the control group.

In the study, three measurements (pre-test-post-test-follow-up test) were made to female prisoners in the experimental group and control group. With this approach, it is possible to compare the experimental and control groups with the help of a pre-test before the experimental process, which allows it to be suggested that if the groups are similar at the beginning, it is due to the experimental process that the two groups are likely to be observed between the post-test measurements.

In this experimental study, internal and external validity conditions were tried to be met. To ensure internal validity, the same measurement tool was applied to the participants in the group room under the supervision of the group leader in the experimental and control groups. No information was given on what the measurement tools applied to prevent them from being prone to positive behavior in the scale-filling process were

measured. In addition, the participants in the experimental group were asked not to share the practices and procedures in the psycho-education group life process with anyone other than the group members. To ensure external validity, to reduce the Hawthorne effect, which affects the power of generalizability, participants were not told which group they were in. To control the "Measurement-Response Interaction Effect", 10 days were left between the pre-test application and the beginning of the sessions, 1 week between the post-tests and the end of the sessions, and 2 months between the last test and the follow-up test. With the realization of the follow-up test after 2 months, the effect of the changes due to the "time-intervention interaction" was tried to be controlled, and the participants were not informed about the research experiments and the application process and prevented them from "developing special tendencies that would affect their performance".

Research Model

In the study, one of the types of experimental design, "pretest-posttest, follow-up test measured and semi-experimental design with control group (2x3)" was used. In this pattern, the first factor represents independent groups of operations (experiment and control), while the other factor shows repeated measurements of the dependent variable under different conditions (pre-test, post-test, and follow-up measurements). The reason for the choice of semi-experimental design is the use of this technique especially in social sciences and educational sciences in cases where it is not possible to assign the experimental and control group randomly with the random technique (Büyüköztürk et al., 2012; Karasar, 2004). Research pattern is presented in Table 1.

Groups	Pre-Test	Process	Post-Test	Process	Follow-up test
Experiment	Social Problem-Solving Scale	Social Problem-Solving Psycho-Training Program	Social Problem-Solving Scale	No Processes	Social Problem-Solving Scale
Control	Social Problem-Solving Scale	No Processes	Social Problem-Solving Scale	No Processes	Social Problem-Solving Scale

Table 1. *Research pattern.*

Study Group

The working group consists of 36 female convicts who volunteered to participate in the study at the Women's Open Penal Institution in Karataş Prison in Adana Province between 2018-2019. The mean age of the participants in the experimental group was 34.72, and the average age of the participants in the control group was 35.50. Within the scope of this study, sociodemographic information about the experimental and control groups is presented in Table 2:

Table 2. *Sociodemographic information about experimental and control groups.*

Variables	Experimental Group		Control Group	
	N	%	N	%
Educational Background				
Literate	6	33.3	6	33.3
Primary education	9	50	8	44.4
High School	2	11.1	4	22.2
University	1	5.6	-	-
Marital Status				
Married	7	38.9	4	22.2
Single	3	16.7	5	27.8
Reserved	8	44.4	9	50.0
Age Range				
20-29	5	27.8	3	16.7
30-39	8	44.4	10	55.6
40-49	5	27.8	5	27.8
Total	18	100	18	100

When Table 2 is examined, it can be seen that 6 (33.3%) of the experimental group members were literate, 9 (50%) of them were primary education graduates, 2 (11.1%) of them were high school graduates, and 1 (5.6%) was university graduate; 7 (38.9%) of them were married, 3 (16.7%) were single, 8 (44.4%) were separated, 5 (27.8%) were

between 20-29 years old, 8 (44.4%) were in the 30-39 age range, 5 (27.8%) were in the 40-49 age range, and 6 (33.3%) of the control group members were literate, 8 (44.4%) were primary school graduates, 4 (22.2%) were high school graduates, 4 (22.2%) were married, 5 (27.8%) were single, 9 (50%) were separated, 3 (16.7%) were between 20-29 years old, 10 (55.6%) were between 30-39 years old, and 5 (27.8%) were 40-49 years old.

Selection of participants and creation of groups: The necessary permissions were obtained before starting the research. The participants in the study were contacted via announcement, and the participants who volunteered to participate in the study stated that they wanted to participate in the study with a petition. Pre-test measurements were taken by applying the Social Problem-Solving Inventory-Short Form to 52 convicted female participants who volunteered for the selection of the participants in the study groups. In addition to this measurement tool, the personal information form prepared by the researcher was used to determine and control personal variables. This information form includes various questions to determine the factors that may have an impact on the results of the research, such as whether participants have participated in such a skill training before, whether they have received any psychiatric diagnosis in the past or now, and whether they have not experienced a traumatic event recently. Participants who were undergoing psychiatric treatment, who had recently experienced severe traumatic experiences, etc., and who were outside the normal distribution curve were not evaluated.

At the end of these stages, the group of 36 people was divided into two an 18-person experimental group and 18-person control group according to the matching method. The first session of the study was held on 10/19/2018 at the Karataş Women's Open Penal Institution Seminar Hall. Following this date, the participants in the experimental group were studied for eight weeks, and after the last session on 28.12.2018, the last tests were applied to the experimental and control group after one week. Follow-up measurement was made after a mean of 2 months.

Psycho-Education Group Sessions and Content

The social problem-solving psycho-education program developed by Alıcı & Güçray (2012) was applied to female convicts by making updates in the content of this study. The overall objective of the applied psycho-education group program is to help participants develop social problem-solving skills in a group environment. In the creation of the content of the program, books and articles on social problem-solving and problem-solving were used from basic sources (Chang et al., 2004; Cormier & Nurius, 2003; D'Zurilla & Nezu, 2007; Gorsky, 2003; Jones & Robinson, 2000; Nezu et al., 2007).
Social problem-solving psycho-training program consists of 8 sessions (Çekici & Güçray, 2012). In this study, with the idea that the participants are female prisoners and that they will need more sharing due to their environment, a session was added to help the participants express their experiences with their own reflections in the group process and to look at their own processes from the outside before the goodbye session, and it was designed as a program consisting of a total of nine weeks.

The group leader worked as a Social Worker in prisons for about 12 years and continues to work in the institution where the research was conducted. The leader has been trained in the fields of dance, movement therapy, and in psychodrama, she has reached the level of "Trainer". The leader also completed family counseling and supervision training at IF Weinheim Institute for Systemic Training. Based on these experiences, the sessions were arranged in a way that the female prisoners could understand, and sample problems, incidents were selected from the situations they encountered or may encounter. At the same time, breathing exercises in exercises and warm-up games were supported with body movements. For inmates who have been in prison for a long time, living with rules and being in order helps them feel safe. Therefore, when some prisoners move from a closed prison to an open penal institution, they have difficulty in adapting to the reduction of rules and restrictions and return to the closed penal institution.

Breathing exercises and doing the same movements both build confidence and help them warm up physically and mentally on the other hand. While making arrangements in all these contents, contributions were made by two faculty members in the field of Psychological Counseling and Guidance. In the program arrangement part, a joint decision was made about the activity writing, selection and duration control. The sample situations and sample sentences to be discussed in the sessions were evaluated together, and whether the content of the activities was suitable for the purpose or not was discussed together. The implementation process of the program was also carried out under the supervision of two faculty members in the field of PCG. Permission was obtained from the participants to carry out this supervision. The program was held in nine sessions. The group process was continued with one session each week. The sessions usually lasted between 2 and 2.5 hours. The details of these sessions are explained below:

First session: The purpose of this session is to introduce the members, to determine the rules and procedure, and to introduce the intervention program. After the warm-up game and introduction, the basic logic of the psychoeducation program and the group rules are explained. Then, information was given about social problem-solving, the place of problem-solving in human life, the basic characteristics of the social problem-solving psycho-education program, theoretical basis, and these were explained with examples. The session ended with a summarization by enabling the members to determine their personal goals.

Second session: The objectives of this session are to help participants evaluate themselves in problem situations about their orientation to problems and problem-solving styles and to observe themselves in relation to the feelings and thoughts they feel in a problem situation and what solutions they apply. The session started with a warm-up and a summary of the previous session, then information was given to them to evaluate their own problem-solving skills and to monitor themselves, and this information was supported with sample applications, homework was given on this subject, and the session was concluded by summarizing.

Third session: The aim of this session is to help participants recognize the factors that prevent them from having a positive problem orientation. The session started with the warm-up activity, summarization of the previous session and sharing of assignments. Then, according to Nezu and D'Zurilla (2007), low self-esteem, negative thinking and negative emotional reactions that prevent positive orientation to the problem were explained, the shares of the participants about each factor were taken, and the work was reinforced with the "thought, emotion and behavior wheel poster", thinking errors, thought record forms. Afterwards, the session was summarized, homework was given about their own thought errors, the thought errors of others, the thought errors in the songs they listened to, and the games were played using psychodrama techniques, and the session was ended to increase the motivation of the participants about the group and to see different perspectives through the flexibility of role-playing roles.

Fourth session: The aim of this session is to help participants transform irrational thoughts into rational thoughts that negatively affect their positive orientation to the problem. The session started with the warm-up activity, summarization of the previous session and sharing of assignments. Then, information about the positive orientation to the problem and cognitive structuring was given. Irrational thoughts, which are basically divided into 4, were explained as "imposition", "terrification", "low threshold of inhibition" and "general valuation of oneself and others", and examples of how each irrational thought was transformed into rational thoughts were given, and participants were asked to translate them into rational thoughts by giving examples of irrational thoughts. In addition, the process was reinforced with exercises in which irrational thoughts were transformed into rational thoughts. Afterwards, the session was summarized, 2 assignments related to the topic of the session were given, the "circle of trust" exercise was performed to move the group cohesion and trust building forward, and the session was ended.

Fifth session: The aim of this session is to help participants become aware of their emotions that negatively affect their positive orientation to the problem. The session started with the warm-up activity, summarization of the previous session and sharing of assignments. Afterwards, information was given about the emotions that negatively affected the positive orientation to the problem. The pre-prepared list of emotions was read by a volunteer participant, and "I language" exercises were done to cope with the emotions that prevented us from turning to the problem positively. Afterwards, the session was summarized, homework related to the topic of the session was given, "I play, you play like me" exercise was done to leave the group with positive emotions, and the session was ended.

Sixth session: The aim of this session is to help participants to apply the steps of dealing with anger, anxiety and depressive state from the negative emotions that accompany the problem-solving process and social problem-solving. The session started with the warm-up activity, summarization of the previous session and sharing of assignments. Afterwards, information was given about problem-oriented and emotion-oriented and personal coping reactions. From relaxation exercises, deep breathing and smiling exercises were applied, steps of social problem-solving were explained, sample applications were made. Afterwards, the session was summarized, relaxation exercises related to the topic of the session were given as homework, and the session was ended.

Seventh session: The aim of this session is to help participants develop different perspectives on the problem-solving process. The session started with the warm-up activity, summarization of the previous session and sharing of assignments. Afterwards, information was given about the six-hat thinking method in problem-solving; groups of 6 people were formed to share their problems, and others were asked to offer alternative thinking opportunities to the participant who shared the problem. After the sharing was completed, the session was summarized, a problem encountered in connection with the subject of the session was given as homework according to the six-hat thinking technique, and the session was ended.

Eighth session: The aim of this session is to help the participants express their experiences in the group process with their own reflections and to look at their own processes from the outside. The session started with the warm-up activity, summarization of the previous session and sharing of assignments. Afterwards, the participants were divided into small groups to share their experiences in 7 sessions to share what was reflected on them in the sessions so far. After the sharing, they expressed them interchangeably in the large group. The session was then summarized and concluded.

Ninth session: The aim of this session is to evaluate the general evaluation and individual achievements. The session started with the warm-up activity and the summary of the previous session. Afterwards, the past sessions were summarized; the social problem-solving skills of the participants and the gains they gained from group life were shared, and the extent to which the members achieved their personal goals was discussed. The general evaluation of the group process was made by the leader and the members, the exercise called "warm chair" was applied to leave the group with positive emotions, and the process was ended by saying goodbye to the members.

Data Collection Tools

In this study, personal information forms and Social Problem-Solving Inventory Short Form (SPSI) were used as data collection tools.

Socio-Demographic Information Form: Within the scope of this research, a personal information form was used to determine and control personal variables as well as a measurement tool for the convicts who volunteered to participate in the study. In the personal information form prepared by the researcher, various questions are included to determine the factors that are considered to affect the results of the research, such as whether they have participated in such a skills training group before, their health status in general,

whether they have received psychiatric treatment in the past or now, etc.

Social Problem-Solving Inventory – Short Form (SPSI): The Social Problem-Solving Inventory was developed by D'Zurilla et al. (2002) to determine the problem orientations and problem-solving styles of individuals. The scale consists of 5 sub-scales. These sub-scales include Positive Orientation to Problem (POP), Negative Orientation to Problem (NOP), Rational Problem Solving (RPS), Inattentive Style (IS), and Avoidant Style (ST). The scale has a total of 25 items. Items are answered by ticking one of the five categories such as 0 (Not completely eligible), 1 (Less eligible), 2 (Partially eligible), 3 (Very eligible), and 4 (Completely eligible). The total score can be taken from the scale or the total score for each subscale. The highest total score that can be taken from the scale is 100, and the lowest total score is 0. A high score indicates a "good level" of social problem-solving ability, while a low score indicates a "low level" of social problem-solving ability. The highest score that can be achieved from each sub-scale is 20 while the lowest score is 0. A high score on the problem-positive orientation and rational problem-solving subscales indicates good social problem-solving skills, while a low score indicates a low level of social problem-solving skills. In addition, a high score in the subscales of negative orientation to the problem, inattentive style, and avoidant style indicates that the problem-solving skill is at a low level, and a low score indicates that the social problem-solving skill is at a high level.

The adaptation study of the Social Problem-Solving Inventory-Short Form was carried out by Çekici (2009). As a result of the factor analysis process carried out on the data obtained from three separate sample groups in the research, a 4-factor structure emerged in which the positive orientation to the problem and rational problem-solving factors were collected in one factor. These include the 1st Factor: positive orientation to the problem-rational problem solving (POPRPS); the 2nd Factor: negative orientation to the problem (NOPS); the 3rd Factor: inattentive style (IS); the 4th Factor: the avoidant style (AS). Confirmatory Factor Analysis Compliance Indices Values CFI =.95, RMSEA =.057, SRMR= .056, NNFI=.95,

GFI=.90, and these values were found to adequately explain the model. Within the scope of the reliability studies of the scale, the internal consistency Cronbach Alpha coefficients of the subscales were calculated. The internal consistency coefficient values obtained for each sub-scale were found to be =.81 for POP-RPS, = .76 for NOP, .74 for AS, and = .61 for IIS. These correlation coefficient values show that the properties measured by the items in the subscales are similar/consistent. In addition, the item total score correlation values of the measurement tool were significant at the level of .01, and as a result of the reliability analysis performed by the test re-test method, the reliability coefficient of the scale was found to be .85 (Çekici, 2009).

Data Analysis

The pretest, post-test, and follow-up data collected from the experimental and control groups with the Social Problem-Solving Inventory-Short Form (SPSI) were evaluated according to the hypotheses of the research and with Wilcoxon Signed Rows Test using SPSS 20.0 program. The Wilcoxon Signed Rows Test is one of the non-parametric analysis methods used to compare the difference between the scores of two sets of measurements when the sample is not normally distributed (Karasar, 2004).

Table 3. *Pre-test, post-test and follow-up test score averages and standard deviations of the Social Problem-Solving Inventory sub-dimensions of the experimental and control group participants.*

	Experimental Group						**Control Group**					
SPSI-	Pre-Test		Post-Test		Follow-up test		Pre-Test		Post-Test		Follow-up test	
Subscales	$\bar{X}$	Ss	$\bar{X}$	Ss	$\bar{X}$	Ss	$\bar{X}$	Ss	$\bar{X}$	Ss	$\bar{X}$	Ss
POP-RPS	33.55	10.17	38.55	7.28	36.77	7.71	38.70	9.42	37.38	7.53	36.83	7.82
NOP	12.77	2.67	10.00	2.47	10.94	4.95	11.22	4.88	10.94	5.87	11.16	4.80
IS	13.07	4.58	8.88	2.39	11.61	4.60	11.09	5.56	11.72	4.81	11.83	4.32
AS	12.50	5.91	8.05	2.38	9.72	3.69	9.92	5.14	10.56	4.88	10.00	3.42

Findings

The arithmetic mean, standard deviation scores of the participants in the experimental and control group from the Positive Orientation to Problem-Rational Problem-Solving (POPRPS), Negative Orientation to the Problem (NOP), Inattentive Style (IS) and Avoidant Style (AS) sub-dimensions of the Social Problem-Solving Inventory (SPSI) in the pre-test, post-test and follow-up test are shown in Table 3.

In Table 3, the scores of pre-test, post-test and follow-up test of the experimental and control groups in the sub-dimensions of positive orientation-rational problem-solving, negative orientation to the problem, inattentive style, avoidant style are given. Accordingly, the following experiments were tested to examine whether there was a significant difference between the measurements and groups.

Hypothesis 1. "There is a significant difference between the pre-test and post-test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the experimental group after applying the social problem-solving psycho-education group program." The Wilcoxon Signed Rows test was used to test the first hypothesis of the study, and the findings are presented in Table 4.

When Table 4 is examined, it can be seen that there is a significant difference between pretest and post-test scores of sub-scales in the Social Problem-Solving Inventory-Short Form such as Positive Orientation to the Problem-Rational Problem-Solving (z=-2.01, p<.05), Negative Orientation to Problem (z=-2.52, p<.05), Inattentive Style (z=-2.72, p<.05) and Avoidant Style (z=-2.70, p<.05) in the experience group, and this difference is in favor of the post-test scores. With this result, it was revealed that the participants in the experimental group had an increase in the average scores of positive orientation-rational problem-solving to the problem, and there was a decrease in the average scores of negative orientation, inattentive style, and avoidant style to the problem. This result shows that the first experiment of the research has been confirmed.

Table 4. *Wilcoxon Signed Ranks test analysis results of the pretest and post-test scores of the Social Problem-Solving Inventory (SPSI) subscales of the experimental group.*

Group	SPSI-Subscales	Pretest-Posttest	n	Order Average	Total Order	z	p
Experiment	POP-RPS	Negative Order	4	8.50	34.00	-2.01	.044*
		Positive Order	13	9.15	119.00		
		Equal	1				
	NOP	Negative Order	12	8.75	105.00	-2.52	.010*
		Positive Order	3	5.00	15.0		
		Equal	3				
	IS	Negative Order	12	11.17	134.00	-2.72	.006*
		Positive Order	5	3.80	19.00		
		Equal	1				
	AS	Negative Order	14	10.54	147.50	-2.70	.007*
		Positive Order	4	5.88	23.50		
		Equal	0				

* Based on negative sequences

Hypothesis 2. "There is no significant difference between the pre-test and post-test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the control group in which the social problem-solving psycho-education group program is not applied." The Wilcoxon Signed Rows test was used to test the second hypothesis of the study, and the findings are presented in Table 5.

When Table 5 is examined, it has been observed that there is not a significant difference between pretest and post-test scores of sub-scales in the

Social Problem-Solving Inventory-Short Form such as Positive Orientation to the Problem-Rational Problem-Solving (z=-1,164, p>.05), Negative Orientation to Problem (z=.-831, p>.05), Inattentive Style (z=.806, p>.05) and Avoidant Style (z=-. 415, p>.05) in the control group.

Table 5. *Wilcoxon Signed Ranks test analysis results of the pretest and post-test scores of the Social Problem-Solving Inventory-Short Form (SPSI) subscales of the control group.*

Group	SPSI-Subscales	Pretest-Posttest	n	Order Average	Total Order	z	p
Control	POP-RPS	Negative Order	4	11.38	45.50	-1.164	.244
		Positive Order	13	7.54	90.50		
		Equal	1				
	NOP	Negative Order	6	8.67	52.00	-.831	.406
		Positive Order	10	8.40	84.00		
		Equal	2				
	IS	Negative Order	7	8.50	59.50	-.806	.420
		Positive Order	10	9.35	93.50		
		Equal	1				
	AS	Negative Order	5	12.00	60	-.415	.678
		Positive Order	11	6.91	76		
		Equal	2				

* Based on negative sequences

Therefore, this finding revealed that there was no change in the scores of the control group that did not undergo experimental processes, and the second hypothesis of the study was confirmed.

Hypothesis 3. "There is no significant difference between the post-test and follow-up test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the experimental group in which the social problem-solving psycho-education group program is applied." The Wilcoxon Signed Rows test was used to test the third hypothesis of the study, and the findings are presented in Table 6.

Table 6. *Wilcoxon Signed Ranks test analysis results of the post-test and follow-up test scores of the Social Problem-Solving Inventory-Short Form (SPSI) subscales of the Experimental Group.*

SPSI-Subscales	Post-test - Follow-up Test	n	Order Average	Total Order	z	p
POP-RPS	Negative Order	11	10.18	112.00	-1.156	.248
	Positive Order	7	8.43	59.00		
	Equal	0				
NOP	Negative Order	7	7.43	52.00	-.456	.649
	Positive Order	8	8.50	68.00		
	Equal	3				
IS	Negative Order	5	8.30	41.50	-1.920	.060
	Positive Order	13	9.96	129.50		
	Equal	0				
AS	Negative Order	7	8.43	59	-1.157	.247
	Positive Order	11	10.18	112		
	Equal	0				

* Based on negative sequences

When Table 6 is examined, it is observed that there is no significant correlation between pretest and post-test scores of sub-scales in the Social Problem-Solving Inventory-Short Form such as Positive Orientation to the Problem-Rational Problem-Solving (z=-.349, p>.05), Negative Orientation to Problem (z=-.456, p>.05), Inattentive Style (z=-1.920, p>.05) and Avoidant Style (z=-1.157, p>.05) in the experimental group. The findings obtained show that the increased scores of the participants in the experimental group after the experimental procedure were permanent. This result confirms the third hypothesis of the study.

Hypothesis 4. "There was no significant difference between the post-test and follow-up test scores from the Positive Orientation to the Problem-Rational Problem-Solving, Negative Orientation to the Problem, Inattentive Style and Avoidant Style sub-dimensions of the Social Problem-Solving Inventory among the participants in the control group in which the social problem-solving psycho-education group program was not applied." The Wilcoxon Signed Rows test was used to test the

fourth hypothesis of the study, and the findings are presented in Table 7.

Table 7. Wilcoxon Signed Ranks test analysis results of the post-test and follow-up test scores of the Social Problem-Solving Inventory-Short Form (SPSI) subscales of the Control Group.

SPSI Subscales	Post-test - Follow-up Test	n	Order Average	Total Order	z	p
POP-RPS	Negative Order	10	9.80	98.00	-.546	.585
	Positive Order	8	9.13	73.00		
	Equal	0				
NOP	Negative Order	5	6.10	30.50	-.673	.501
	Positive Order	7	6.79	47.50		
	Equal	6				
IS	Negative Order	1	2.00	2.00	-.577	.564
	Positive Order	2	2.00	4.00		
	Equal	15				
AS	Negative Order	9	9.44	85	-.883	.377
	Positive Order	7	7.29	51		
	Equal	2				

* Based on negative sequences

When Table 7 is examined, it is observed that there is no significant correlation between pretest and posttest scores of sub-scales in the Social Problem-Solving Inventory-Short Form such as Positive Orientation to the Problem-Rational Problem-Solving (z=-.546, p>.05), Negative Orientation to Problem (z=-.673, p>.05), Inattentive Style (z=-.577, p>.05) and Avoidant Style (z=-.883, p>.05) in the experimental group. The findings have revealed that the scores of the participants in the control group continued in a similar way. This result confirms the fourth hypothesis of the study.

Discussion and Conclusion

The findings of this study, which was conducted to examine the effects of social problem-solving skills training group practices on the social problem-solving skills of convicted women, have supported the hypothesis that female convicts participating in social problem-solving skills training group practices would increase the use of a positive orientation-rational problem-solving style to the problem, which is a positive coping style in social problem solving, and their use of inattentive and avoidant styles as a negative orientation to the problem and negative coping styles would decrease, it was found that this condition continued in the follow-up test. In this context, there are similar studies in Turkey that support the results of the research, such as Akgün (2018) and Kızılkaya et al. (2022). Akgün (2018) investigated the effect of a 6-session group work on the social problem-solving skills of female convicts. According to the findings of the study, group work contributed positively to female convicts' positive approach to the problem and their rational behavior. On the other hand, it was observed that there was a decrease in their negative approach to problems. A significant difference was also found in the sum of the social problem-solving scale. Kızılkaya et al. (2022) also investigated the effect of an 8-session psycho-education program on the social and problem-solving skills of female convicts. As a result of the research, they found that the psycho-education program increased the social skills and problem-solving skills of female convicts. According to the results obtained from this study, it can be thought that the psycho-education program prepared is effective in increasing the social problem-solving skills of female convicts.

D'Zurilla & Nezu (2007) indicated that the problem-solving skills training prepared should mainly help the participants to develop a positive attitude towards the problem and to gain the ability to solve their problems by applying rational problem-solving steps. In particular, the researchers emphasized the necessity of working on irrational thoughts in problem-solving skills training to correctly define problems without twisting.

In the applied social problem-solving skills training group applications, social problem-solving was taken in five steps, and what should be done at each step was explained. In the group sessions, sample problem-solving activities were presented to the volunteer members, and asked to

apply what they learned, and it was seen that the volunteer members were able to make the examples by the social problem-solving steps. In addition, sample social problem situations were given to the members as homework assignments, and it was seen that the members could do these assignments successfully.

Studies indicate that problem-solving skills are a learned process and that the problem-solving skills of individuals will be developed through various group experiences (Bingham, 2004; Biggam & Power, 2002; Gorsky, 2003; D'Zurilla and Nezu, 2007; Nezu et al., 2007; Webster-Stratton, 2005). According to these results, it can be considered that social problem-solving training creates a statistically significant difference in the positive coping of the participants in the experimental group, that is, it improves the problem-solving skills, and in this case, it causes a decrease in the participants' negative orientation to the problem and negative coping styles. It is thought that these score changes seen in the subscales are due to the content of the applied social problem-solving skill training group applications. The findings are consistent with other research results in the literature (Arean et al., 1993; Bannan, 2010; Cameron et al., 2008; Çekici, 2009; Hay et al., 2000; Hayward et al., 2008; Heppner et al., 1988; Kızılkaya et al., 2022; Liberman et al., 2001; Meyers et al., 2011; O'Connor, 1996; Spiropoulos et al., 2005;).

In the follow-up measurement, there was no significant difference found between the positive orientation-rational problem-solving skills of the participants to the problem, that is, the positive coping style scores and the negative coping styles scores. The fact that there is no significant difference between the final test scores and the follow-up test scores shows that the change continues even after 2 months as a result of the problem-solving skill training program applied using cognitive and behavioral techniques. This is consistent with research results (Bannan, 2010; Bingham & Power, 2002; Öztaban & Adana, 2015; Pine, 2016).

D'Zurilla & Nezu (2007) state that working on the rational-unrealistic thoughts of the participants in problem-solving skills training will reduce the twists of the problem. Researchers state that unrealistic thoughts, which complicate the process of perceiving reality and therefore make it difficult to accurately perceive and describe the problem faced by the person, play a key role in problem-solving. In light of this information, in the sessions of the intervention program in the study, exercises were carried out to explain the connection between the positive orientation to the problem and thoughts and feelings to correctly define the problems faced by the participants. In these exercises, brief information was given to the participants and then they were supported to share experiences within the group. In studies where the sharing of personal experiences was carried out in smaller groups, the participants felt safe and expressed themselves clearly. In this context, the positive therapeutic factors provided by the group atmosphere are thought to contribute positively to the development of the participants.

As a result, in this study, in general, it has been observed that social problem-solving skill training group practices increased the positive coping style scores of the female convicts and decreased the negative coping style and negative orientation to the problem scores and this situation continued in the follow-up test.

This study was applied to a limited group of female prisoners in an open prison. The results obtained are limited to this study group. Therefore, in subsequent research, applications in different, large working groups with adolescents, male prisoners, male and female prisoners together may enrich the literature. It can also be applied to individuals who remain in closed prisons and are on probation. In addition, the relationship of social problem-solving psycho-education program with different variables such as anger, anxiety, coping with stress, depression, hopelessness and its effect on these variables may also be new research topics. To support the validity and reliability of the experimental process, more in-depth information about the process can be obtained through various qualitative techniques such as interviews, focus group interviews, session and group evaluation forms. In this study, a 2-month follow-up study was conducted, a follow-up study can be performed at intervals such as six months and one

year, and the findings regarding the permanence of the program can be evaluated. This study is designed in a quasi-experimental design. Subsequent studies can examine the effectiveness of the program using stronger experimental patterns. However, it can be enriched by increasing the number of sessions. In this study, the psycho-education program is based on the Five-Step Approach to Social Problem-Solving model (D'Zurilla & Nezu, 2007; Nezu et al., 2007). This approach can be integrated with different theories in future studies and different training programs can be prepared.

References

Akgün, R. (2018). Grup çalışmasının kadın hükümlülerin sosyal sorun çözme becerilerine etkisi. *Journal SMART*, *4*(9), 129-137.

Akgün, R., Kardeş, T. Y., Çifci, E. G. (2019). Kadın mahkûmların sosyodemografik özelliklerine göre problem çözme becerisinin incelenmesi üzerine bir çalışma. *Türkiye Adalet Akademisi Dergisi*, 0(39), 109 - 128.

Allen, S. M., Shah, A. C., Nezu, A. M., Nezu, C. M., Ciambrone, D., Hogan, J., & Mor, V. (2002). A problem-solving approach to stress reduction among younger women with breast carcinoma: a randomized controlled trial. *Cancer*, *94*(12), 3089-3100.

Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work?: A clinically-relevant and psychologically-informed meta-analysis. *Criminology,* 28, 369–404.

Arean, P. A., Perri, M. G., Nezu, A. M., Schein, R. L., Christopher, F., & Joseph, T. X. (1993). Comparative effectiveness of social problem-solving therapy and reminiscence therapy as treatments for depression in older adults. *Journal of Consulting and Clinical Psychology*, *61*(6), 1003.

Bannan, N. (2010). Group-based problem-solving therapy in self-poisoning females: A pilot study. *Counselling and Psychotherapy Research*, *10*(3), 201-213.

Biggam, F. H., & Power, K. G. (2002). A controlled, problem-solving, group-based intervention with vulnerable incarcerated young offenders. *International Journal of Offender Therapy and Comparative Criminology,* 46, 678–698.

Bingham, A. (2004). *Çocuklarda Problem Çözme Yeteneklerinin Geliştirilmesi* (6. Baskı). (A. Ferhan Oğuzkan). Türkiye Cumhuriyeti Millî Eğitim Bakanlığı Yayınları (Orijinal eserin basım tarihi 1958).

Büyüköztürk, Ş., Kılıç-Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2023). *Eğitimde Bilimsel Araştırma Yöntemleri.* Pegem Akademi.

Cameron, J. I., Shin, J. L., Williams, D., & Stewart, D. E. (2004). A brief problem-solving intervention for family caregivers to individuals with advanced cancer. *Journal of Psychosomatic Research*, *57*(2), 137-143.

Chan, D. W. (2001). Dimensionality and correlates of problem solving: the use of the Problem Solving Inventory in the Chinese context. *Behavior Research and Therapy,* 39, 859–875.

Chang, E. C., & D'Zurilla, T. J. (1996). Relations between problem orientation and optimism, pessimism and trait affectivity. *Behaviour Research and Therapy,* 34, 185-194.

Chang, E. C., D'Zurilla, T. J., & Sanna, L. J. (2004). *Social problem solving: Theory, research, and training*. American Psychological Association.

Cheng, Y., Tao, M., Riley, L., Kann, L., Ye, L., Tian, X., ... & Chen, D. (2009). Protective factors relating to decreased risks of adolescent suicidal behaviour. *Child: Care, Health and Development*, *35*(3), 313-322.

Chinaveh, M. (2010). Training problem-solving to enhance quality of life: Implication towards diverse learners. *Procedia Social and Behavioral Sciences,* 7, 302-310.

Chu, C., Walker, K. L., Stanley, I. H., Hirsch, J. K., Greenberg, J. H., Rudd, M. D., & Joiner, T. E. (2018). Perceived problem-solving deficits and suicidal ideation: Evidence for the explanatory roles of thwarted belongingness and perceived burdensomeness in five samples. *Journal of Personality and Social Psychology*, *115*(1), 137.

Constantino, P., Assis, S. G., & Pinto, L.W. (2016). O impacto da prisão na saúde Mental Dos

Presos de estado do Rio de Janeiro. *Ciencia & Saude Coletiva,* 21(7):2089-2099.

Cormier, S., & Nurius, P. (2003). Reframing, cognitive modelling, and problem-solving strategies. *Interviewing and Change Strategies for Helpers: Fundamental Skills and Cognitive Behavioral Interventions*, *5*, 391-421.

Çam, S. (2016). İletişim becerileri eğitimi programının öğretmen adaylarının ego durumlarına ve problem çözme becerisi. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, *2*(12).

Çekici, F. (2009). *Problem çözme terapisine dayalı beceri geliştirme grubunun üniversite öğrencilerinin sosyal problem çözme becerileri öfkeyle ilişkili davranış ve düşünceler ile sürekli kaygı düzeylerine etkisi* [Yayımlanmamış doktora tezi]. Çukurova Üniversitesi.

Çekici, F., & Güçray, S. S. (2012). Problem çözme terapisine dayalı beceri geliştirme grubunun üniversite öğrencilerinin sosyal problem çözme becerileri öfkeyle ilişkili davranış ve düşünceler ile sürekli kaygı düzeylerine etkisi. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *21*(2), 103-128.

Çoğan, O. (2006). *Çocuk suçluluğunun nedenleri ve Edirne Ceza Mahkemelerinde açılan davaların bu yönde incelenmesi* [Yayımlanmamış doktora tezi]. Ankara Üniversitesi.

Dermitzaki, I., Leondari, A., & Goudas, M. (2009). Relations between young students' strategic behaviours, domain-specific self-concept, and performance in a problem-solving situation. *Learning and Instruction,* 19, 144-157.

D'Zurilla, T. J., & Chang, E. C. (1995), The relations between social problem solving anda coping. *Cognitive Therapy and Research,* 19, 547-562.

D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology,* 78, 107-126.

D'Zurilla, T. J. (1986). *Problem Solving Therapy: A Social Competence Approach to Clinical Intervention.* Springer Publishing.

D'Zurilla, T. J., & Maydeu-Olivares, A. (1995). Conceptual and methodological issues in social problem-solving assessment. *Behavior Therapy*, *26*(3), 409-432.

D'Zurilla, T. J., Maydeu-Olivares, A., & Kant, G. L. (1998). Age and gender differences in social problem-solving ability. *Personality and Individual Differences*, *25*(2), 241-252.

D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, T. (2002). *Social Problem-Solving Inventory Revised (SPSI-R): Manual.* Multi-Health Systems.

D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (2004), Social problem solving: Theory and assessment. In E. C. Chang, T. J. D'Zurilla, & L. J. Sanna (Ed.), *Social problem solving: Theory, research and training.* American Psychological Association.

D'Zurilla, T. J., & Nezu, A. (1982). Social problem solving in adults. In P. C. Kendall (Eds.), *Advances in cognitive-behavioral research and therapy,* (Vol:1, pp.202-274). Academic Press.

D'Zurilla, T. J., & Nezu, A. M. (2007). *Problem- Solving Therapy: A Positive Approach to Clinical Intervention* (3rd edition). Springer Publishing Company.

Gorski, T. T. (2003), *Problem Solving Group Therapy: A Group Leader' s Guide for Developing and Implementing Group Treatment Plans*. Herald House/Indepence Press.

Gustavson, K. A., Alexopoulos, G. S., Niu, G. C., McCulloch, C., Meade, T., & Areán, P. A. (2016). Problem-solving therapy reduces suicidal ideation in depressed older adults with executive dysfunction. *The American Journal of Geriatric Psychiatry*, *24*(1), 11-17.

Hay, I., Byrne, M., & Butler, C. (2000). Evaluation of a conflict-resolution and problem-solving programme to enhance adolescents' self-concept. *British Journal of Guidance & Counselling*, *28*(1), 101-113.

Hayward, J., McMurran, M., & Sellen, J. (2008). Social problem solving in vulnerable adult prisoners: Profile and intervention. *The Journal of Forensic Psychiatry & Psychology*, *19*(2), 243-248.

Hawton, K., Linsell, L., Adeniji, T., Sariaslan, A., & Fazel, S. (2014). Self-harm in prisons in England and Wales: An epidemiological study of prevalence, risk factors, clustering, and subsequent suicide. *The Lancet,* 383 (9923), 1147–1154.

Heppner, P. P., Baumgardner, A. H., Larson, L. M., & Petty, R. E. (1988). The utility of problem-solving training that emphasises selfmanagement principles. *Counselling Psychology Quarterly*, 1(2-3), 129-143.

Hirsch, J. K., Chang, E. C., & Jeglic, E. L. (2012). Social problem solving and suicidal behavior:

Ethnic differences in the moderating effects of loneliness and life stress. *Archives of Suicide research*, *16*(4), 303-315.

Jhangiani, R., & Tarry, H. (2022). Principles of social psychology (1st international H5P edition). BCcampus. https://opentextbc.ca/socialpsychology/

Kaner, S. (1992). Suçluluğu açıklayan yaklaşımlar. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 25(2), 473-496.

Karasar, N. (2004). *Bilimsel Araştırma Yöntemleri.* Nobel Yayıncılık.

Kelleci, M. (2003). *Birinci basamak sağlık hizmetlerinde kadınların sorun çözme becerilerini geliştirmenin depresif semptomlara etkisi.* [Yayımlanmamış doktora tezi]. İstanbul Üniversitesi.

Kepenekçi, Y. K., & Özcan, A. Y. (2000). Okullarda suçun önlenmesi. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, *33*(1), 153-163.

Kızılkaya, M., Ünsal, G., & Karaca, S. (2022). The effect of psychoeducation on the social skills and problem-solving skills of female prisoners. *Journal of Psychiatric Nursing*, *13*(1).

Kwok, S. Y., & Shek, D. T. (2010). Cognitive, emotive, and cognitive-behavioral correlates of suicidal ideation among Chinese adolescents in Hong Kong. *The Scientific World Journal*, *10*, 366-379.

Kwok, S. Y., Yeung, J. W., Low, A. Y., Lo, H. H., & Tam, C. H. (2015). The roles of emotional competence and social problem-solving in the relationship between physical abuse and adolescent suicidal ideation in China. *Child Abuse & Neglect*, *44*, 117-129.

Labelle, R., Breton, J. J., Pouliot, L., Dufresne, M. J., & Berthiaume, C. (2013). Cognitive correlates of serious suicidal ideation in a community sample of adolescents. *Journal of Affective Disorders*, *145*(3), 370-377.

Liberman, R. P., Eckman, T. A., & Marder, S. R. (2001). Rehab rounds: Training in social problem solving among persons with schizophrenia. *Psychiatric Services*, *52*(1), 31-33.

Linehan, M. M., Camper, P., Chiles, J. A., Strosahl, K., & Shearin, E. (1987). Interpersonal problem-solving and parasuicide. *Cognitive Therapy and Research,* 11(1), 1-12.

Lo ̈sel, F. (1995). The efficacy of correctional treatment: A review and synthesis of meta-evaluations. In J. McGuire (Eds), *What works: Reducing reoffending* (pp. 70–111). John Wiley & Sons.

McGuire, J. (2002). What is problem-solving? A review of theory, research and applications. *Criminal Behaviour and Mental Health,* 11, 210–235.

McGuire, J. (2005). Social problem solving and offending: Evidence, evaluation and evolution. In M. McMurran., & M. J. McGuire (Eds), *Social problem solving: Basic concepts, research and applications*. John Wiley & Sons.

McLeavey, B. C., Daly, R. J., Murray, C. M., O'Riordan, J., & Taylor, M. (1987). Interpersonal problem-solving deficits in self-poisoning patients. *Suicide and Life Threatening Behavior,* 17, 33–49.

McMurran, M., & Duggan, C. (2005). The manualisation of offender treatment. *Criminal Behaviour and Mental Health,* 15, 17–27.

McMurran, M., Egan, V., & Duggan, C. (2005). Stop & Think! Social problem solving therapy with personality-disordered offenders. In M. McMurran, & J. McGuire (Eds.), *Social problem solving and offending: Evidence, evaluation, and evolution* (pp. 207–220). Wiley.

Meyers, F. J., Carducci, M., Loscalzo, M. J., Linder, J., Greasby, T., & Beckett, L. A. (2011). Effects of a problem-solving intervention (COPE) on quality of life for patients with advanced cancer on clinical trials and their caregivers: simultaneous care educational intervention (SCEI): Linking palliation and clinical trials. *Journal of Palliative Medicine*, *14*(4), 465-473.

Nezu, A. M., Nezu, C. M., & D'Zurilla, T. J. (2007). *Solving Life's Problems: A 5 Step Guide To Enhanced Well-Being*. Springer Publishing Company.

Nuria, M. W., Handayani, P. K., & Rahmawati E. I. (2016). Perbedaan Tingkat Stres narapidana di Lembaga Pemasyarakatan Klas IIA Jember ditinjau dari Lama Vonis. *Repository Unmuhjember*, 1-10.

O'Connor, W. (1996). A problem-solving intervention for sex offenders with an intellectual disability. *Journal of Intellectual and Developmental Disability*, *21*(3), 219-235.

Öztaban, Ş., ve Adana, F. (2015). Lise öğrencisi erkek ergenlerde problem çözme eğitiminin; problem çözme becerisi, kişilerarası ilişki tarzı ve öfke kontrolü üzerine etkisi. *Turkish Journal of Research & Development in Nursing*, *17*(1).

Pearson, F. S., Lipton, D. S., Cleland, C. M., & Yee, D. S. (2002). The effects of behavioral/ cognitive-behavioral programs on recidivism. *Crime and Delinquency,* 48, 476–496.

Pollock, L. R., & Williams, J. M. G. (2001). Effective problem solving in suicide attempters depends on specific autobiographical recall. *Suicide and Life-Threatening Behavior,* 31, 386–396.

Pont, J., Stöver, H., Gétaz, L., Casillas, A., & Wolff, H. (2015). Prevention of violence in prison–The role of health care professionals. *Journal of Forensic and Legal Medicine*, *34*, 127-132.

Robichaud, M., Dugas, M. J., & Conway, M. (2003). Gender differences in worry and associated cognitive-behavioral variables. *Journal of Anxiety Disorders*, *17*(5), 501-516.

Ross, R. R., & Ross, R. D. (1989). Delinquency prevention through cognitive training. *Educational Horizons,* 67, 124–130.

Sadowski, C., Moore, L. A., & Kelley, M. L. (1994). Psychometric properties of the Social Problem-Solving Inventory (SPSI) with normal and emotionally disturbed adolescents. *Journal of Abnormal Child Psychology*, 22, 487-500.

Santos, M. M. D., Barros, C. R. D. S., & Andreoli, S. B. (2019). Correlated factors of depression among male and female inmates. *Revista Brasileira de Epidemiologia*, 22, e190051.

Spiropoulos, G. V., Spruance, L., Van Voorhis, P., & Schmitt, M. M. (2005). Pathfinders and problem solving: Comparative effects of two cognitive-behavioral programs among men and women offenders in community and prison. *Journal of Offender Rehabilitation*, *42*(2), 69-94.

Sumi, K. (2012). Relationship of social problem-solving ability with interpersonal relationships: A prospective study among Japanese women and men. *Psychological Reports*, *111*(3), 929-937.

Webster-Stratton, C. (2005). *The Incredible Years: A troubleshooting Guide for Parents of Children Ages 3-8 Years.* Incredible Years Press.