




Examining the Effectiveness of Spirituality-Oriented Psychological Counseling on Test Anxiety Components and Problem-Solving Skills in Female Junior High School Students

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ABSTRACT

Objective: The present study aimed to determine the effectiveness of spirituality-oriented psychological counseling on test anxiety components and problem-solving skills in female junior high school students in District 3 of Tabriz.

Methods and Materials: The research method was quasi-experimental with a pre-test, post-test, control group, experimental group, and follow-up period design. The statistical population of the study included all female junior high school students in District 3 of Tabriz, totaling 8,256 students across 30 schools. From these schools, two were randomly selected, and 20 students from each school were voluntarily chosen as the research sample. To measure test anxiety, the Spielberger Anxiety Inventory was used, while the Heppner and Petersen Problem Solving Inventory was employed to assess problem-solving skills. For the intervention, Galanter and Siegel's spirituality therapy package was utilized. Multivariate analysis of variance (MANOVA) and the Bonferroni post-hoc test were used to analyze the research hypotheses.

Findings: The results indicated that spirituality-oriented psychological counseling is effective and enduring on the components of test anxiety and problem-solving skills in female junior high school students.

Conclusion: The findings indicate that spirituality-oriented psychological counseling effectively reduces test anxiety and enhances problem-solving skills in female junior high school students. These effects are sustained over time, highlighting the potential of this intervention for long-term benefits in managing anxiety and improving cognitive abilities among adolescents.

Keywords: Spirituality-Oriented Psychological Counseling; Test Anxiety; Problem-Solving Skills; Female Students.

1. Introduction

Junior high school serves as a critical link between education and the real-life environment, characterized by significant social, emotional, physical, and intellectual changes in students. This period involves the growth and development of cognitive abilities and the establishment of the student's position in society (Nguyen, 2005). It is a highly sensitive phase as students strive to form and solidify personal identity and interpersonal relationships while also establishing social perspectives for future life outside of school using multiple cognitive abilities (Albarelllo et al., 2020).

Academic issues constitute a significant portion of the pressures during adolescence. The difficulty and complexity of courses, intense competition among learners, inflexible teachers, unconventional evaluation criteria, and an unsupportive classroom environment are among these pressures. These pressures, along with rapid cognitive and social changes, create a challenging situation for adolescent students that may even lead to academic failure or dropout (Rashidzade, 2020). Additionally, children and adolescents experience various types of anxiety during their growth, notably school-related anxiety, with test anxiety being a prominent type. Anxiety is a common phenomenon that leads to poor academic performance or school dropout worldwide (Dawood et al., 2016). Anxiety is a state that almost everyone experiences at least once in their life (File & Hyde, 1978). Test anxiety, characterized by distress, fear, and restlessness, is experienced by students who fear failing exams. It has a significant impact on academic performance and achievement (Trifoni & Shahini, 2011).

In recent years, test anxiety and its dimensions have been a broad area of research. Test anxiety is a significant educational problem prevalent among students, affecting their health and psychological well-being. It is considered situational anxiety with cognitive and emotional dimensions. The emotional dimension, known as worry, is a physiological reaction or arousal related to stress (Lowe et al., 2007). This arousal aspect of test anxiety is physiological, causing feelings of tension, psychological pressure, apprehension, nervousness, increased heart rate, and similar symptoms. The cognitive dimension involves self-related distortions and negative thoughts about academic and intellectual abilities. The behavioral aspect of test anxiety aligns with the cognitive dimension and focuses on skills affecting and altering autonomic stress responses,

something cognitive interventions fail to address (Mirzaei & Ghamari, 2020; Moin et al., 2023; Zou et al., 2017).

Research shows that individuals who focus on anxiety-provoking stimuli during anxious feelings cannot concentrate on the main topic, which increases performance-related fear. Since fear of failure has different structures and meanings, there is little agreement among psychologists about its structure (Huang, 2021). Fear of failure often seems one-dimensional, but multiple multidimensional models have been proposed. These models are useful as they identify who experiences fear of failure. From a cognitive-motivational-relational perspective, fear of failure is linked to an individual's assessment of threatening factors and their ability to achieve important goals when experiencing performance failure. Fear of failure is a major cause of test anxiety. Academically, a student who experiences fear of failure lacks motivation for academic success and scientific progress, considering success and failure in exams equally unimportant and showing no interest in studying. However, if there is no anxiety about failure, it leads to minimal and constructive anxiety during exams (Alexander & Onwuegbuzie, 2007; Farid et al., 2018; Ghadampour et al., 2018; Mahvash et al., 2024).

Another variable related to academic achievement is the students' problem-solving skills. The application of problem-solving began in the late 1960s as part of the cognitive-behavioral movement for behavior modification. The founders of this approach emphasized the necessity of problem-solving skills in personal skills training programs (Yeung et al., 2023). According to McMurrin and Christoph, as cited in Klink (2013), problem-solving is a cognitive-behavioral process where an individual or group attempts to find effective solutions to everyday life problems. A problem arises when an individual has a goal but lacks a clear way to achieve it. The solution is the outcome of the problem-solving process, applicable in specific problematic situations. The problem-solving method is a logical and systematic thinking process that helps an individual search for multiple solutions when facing problems and choose the best one. Having the necessary problem-solving skills increases self-confidence and self-control over behavior. However, lacking these skills or using inappropriate methods to solve problems can lead to difficulty adapting to the environment and threaten mental health. Acquiring problem-solving skills enables individuals to cope with problems (Nguyen, 2005; Yeung et al., 2023).

Educational psychologists use various teaching methods to eliminate anxiety, one of which is spirituality-oriented

psychological counseling. Humans have multiple dimensions, including the spiritual dimension, which is as important as physical, psychological, and social dimensions. The spiritual dimension creates meaning in life and increases an individual's ability to face problems (Torabi et al., 2023). Spirituality is defined as an internal belief system that brings vitality, purpose, and meaning to people's lives (Kasapoğlu, 2022). Research indicates that religious and spiritual individuals are in better physical and psychological health. Positive spiritual coping is associated with reduced depression and anxiety and increased psychological well-being (Rias et al., 2020). Spirituality is recognized as a complementary therapy in healthcare and a key factor in reducing mental disorders, particularly anxiety (Watson et al., 2019). In essence, spirituality, through faith and religious practices, places individuals in a good state of physical and psychological health (Koenig, 2020).

Spirituality provides a set of words and frameworks through which individuals can understand the meaning and concept of their lives. It appears that spiritual needs have both internal and external values and meanings. Hence, spirituality is considered an effective resource for coping with physical and psychological responses. Spirituality can lead to greater psychological adaptation by providing supportive resources and indirectly influencing hope. Researchers argue that religion and spirituality are important resources for adapting to stressful life events, and spiritual health significantly impacts life meaning and quality. Therefore, religious and spiritual resources are crucial for adaptation throughout life, increasing an individual's life satisfaction (Memari et al., 2016). In this regard, Moin et al. (2023) found that spirituality therapy and acceptance and commitment therapy significantly affect existential anxiety in women with breast cancer, with no significant difference in the effectiveness of these two methods on existential anxiety. It is recommended to use spirituality therapy and acceptance and commitment therapy to reduce existential anxiety in breast cancer patients (Moin et al., 2023). Torabi et al. (2023) examined the impact of spiritual care programs on the death anxiety of stroke patients in a randomized controlled trial. The results indicated no significant difference in the mean death anxiety scores of stroke patients between the groups initially. However, immediately and one month after the intervention, the difference between the groups was significant, with a significant reduction in death anxiety in the experimental group, whereas no significant difference was observed in the control group (Torabi et al., 2023). Acharya (2021) investigated the impact of spirituality

therapy on anxiety reduction, finding it effective. Hamill (2017) examined the effectiveness of group counseling on problem-solving skills among Korean students, showing that group counseling effectively enhances problem-solving skills (Acharya, 2010).

Examining the educational system in Iran reveals a significant gap in reducing academic anxiety and strengthening spirituality among children and adolescents. Thus, attention to and research on various educational elements and their roles in students' test anxiety are crucial. This study aims to answer the question: Is spirituality-oriented psychological counseling effective and lasting on the components of test anxiety and problem-solving skills in female junior high school students?

2. Methods and Materials

2.1. Study Design and Participants

This quasi-experimental study employed a pre-test, post-test, follow-up design with experimental and control groups. The statistical population included female junior high school students in District 3 of Tabriz, totaling 8,256 students across 30 schools. Two schools were randomly selected, and 20 students from each school voluntarily participated. The volunteers from one school were randomly assigned to the experimental group, and those from the other school to the control group. The dependent variable questionnaires (test anxiety and problem-solving skills) were administered before the intervention, immediately after, and two months post-intervention to assess the impact of the spirituality-oriented psychological counseling.

The spirituality therapy was conducted in 14 ninety-minute group sessions based on the specified package. Initially, a briefing session was held to familiarize the sample individuals with the research plan, highlight the topic's importance, and obtain their cooperation. Participants completed the test anxiety and problem-solving skills questionnaires and were randomly assigned to the experimental and control groups. The experimental group attended all sessions, while the control group received no intervention. Finally, both groups were assessed using a post-test.

2.2. Measures

2.2.1. Test Anxiety

The Spielberger Test Anxiety Inventory, developed in 1980, consists of 20 items describing reactions before,

during, and after an exam. It has two subscales: worry and emotionality, assessing individual differences in test anxiety. Responses are given on a five-point Likert scale (never, rarely, sometimes, often, always), scored from 1 to 5. A higher score indicates higher test anxiety, with a minimum and maximum score of 20 and 100, respectively. Items 1, 3, 5, 7, 9, 12, 16, 17, and 19 reflect worry, while items 2, 4, 6, 8, 10, 11, 13, 15, 18, and 20 reflect emotionality. Reigster et al. (1991) reported a Cronbach's alpha reliability of 0.92 and a test-retest reliability of 0.80 after one month. Abolghasemi (2002) reported a Cronbach's alpha reliability of 0.92 and a test-retest reliability of 0.90 after one month. The concurrent validity with the State-Trait Anxiety Inventory was reported as 0.86 for boys and 0.77 for girls. Further studies confirmed the content, concurrent, construct, diagnostic, and factor validity of this inventory. Kavyani and Mousavi (2008) reported a validity coefficient of 0.72, indicating high validity (Moin et al., 2023; Rashidzade, 2020).

2.2.2. Problem-Solving Skills

The Heppner and Petersen Problem Solving Inventory, developed in 1982, assesses respondents' perceptions of their problem-solving behaviors. It contains 35 items scored on a five-point Likert scale from strongly agree (5) to strongly disagree (1), with a minimum and maximum score of 35 and 175, respectively. Factor analysis revealed three subscales: Problem Solving Confidence (PSC) with 12 items (11, 10, 5, 9, 34, 33, 27, 24, 23, 19, 12, 35). Approach-Avoidance Style (AA) with 17 items (1, 2, 4, 6, 7, 8, 13, 15, 16, 17, 18, 20, 21, 22, 28, 31, 30). Personal Control (PC) with 6 items (3, 14, 25, 29, 32, 26). Aram (2015) reported a reliability coefficient of 0.87 for this inventory. (Taher et al., 2015)

2.3. Intervention

2.3.1. Spirituality-Oriented Psychological Counseling

The spirituality therapy program used in this study was based on Galanter and Siegel's (2009) spirituality therapy program (Galanter & Siegel, 2009; Memari et al., 2016; Moin et al., 2023; Rashidzade, 2020; Torabi et al., 2023).

Session 1: Introduction and Discussion on Spirituality and Religion

The first session began with an introduction and pre-test to establish a baseline. The therapist and group members got acquainted with each other, and a discussion was held on the concept of the study variables. The session covered the

definitions of spirituality and religion, their similarities and differences, and their impact on human life and mental health. The session concluded with a summary by the therapist and agreement on the next meeting.

Session 2: Self-Awareness and Inner Voice

This session focused on self-awareness, helping members recognize their positive and negative traits. Various types of self-awareness and methods to achieve it were discussed. Participants were given exercises to enhance their self-awareness.

Session 3: Continuation of Self-Awareness

Building on the previous session, this meeting continued the discussion on self-awareness and its effects. Members further explored the concepts introduced and their implications.

Session 4: Insight into Resolving Inner Conflicts and Adaptation

The session addressed conflicts in life, providing examples with the help of group members. Methods to identify, confront, and resolve conflicts for better adaptation to life were discussed. The importance of resolving conflicts for life adjustment was emphasized.

Session 5: Continuation of Conflict Resolution

This session continued the previous discussion on conflict resolution. Participants were given practical exercises to help them manage and resolve conflicts effectively.

Session 6: Meaning-Making in Life Events Based on Values, Goals, and Beliefs

Participants shared personal life events and the methods they used to cope and adapt. The therapist discussed the significance of events based on the participants' values and beliefs and how these influence their lives.

Session 7: Continuation of Meaning-Making

The discussion on meaning-making from the previous session continued. Members further explored how their values, goals, and beliefs influence their interpretation of life events.

Session 8: Emphasizing Personal Responsibility in Overcoming Obstacles

This session focused on personal responsibility when facing obstacles, highlighting individual differences in handling challenges. The role of personal traits in overcoming barriers and accepting responsibility was discussed. Participants received exercises on facing and overcoming obstacles.

Session 9: Continuation of Personal Responsibility

Building on the previous session, this meeting continued the discussion on personal responsibility and individual

traits. Further exercises were provided to reinforce the concepts.

Session 10: Altruism and Group Spiritual Activities

The session explored the concept of altruism and its impact on individual health. Members shared their experiences with altruism. The discussion highlighted altruism as a charitable and spiritual act, with examples provided.

Session 11: Discovering Inner and Outer Blessings

Participants were asked to reflect on their abilities, possessions, and qualities and consider how they have utilized these blessings in their lives. The therapist led a discussion and summary on the importance of recognizing and appreciating these blessings.

Session 12: Continuation of Discovering Blessings

The session continued the exploration of inner and outer blessings. Participants engaged in exercises to deepen their understanding and appreciation of their gifts.

Session 13: Learning Methods of Support, Empathy, and Prayer

Participants shared their experiences of giving and receiving support. The therapist discussed methods of supporting others and the importance of empathy. The role of prayer and seeking support from a higher power was emphasized. Members were encouraged to express their inner struggles, and the therapist provided comfort through prayer.

Session 14: Continuation of Support, Empathy, and Prayer

This final session continued the discussion on support, empathy, and prayer. Participants engaged in further exercises, and a post-test was administered to assess the impact of the sessions.

2.4. Data analysis

The spirituality therapy was conducted in 14 ninety-minute group sessions based on the specified package. Initially, a briefing session was held to familiarize the sample individuals with the research plan, highlight the topic's importance, and obtain their cooperation. Participants completed the test anxiety and problem-solving skills questionnaires and were randomly assigned to the experimental and control groups. The experimental group attended all sessions, while the control group received no intervention. Finally, both groups were assessed using a post-test.

3. Findings and Results

To examine and describe the data obtained from the study groups, the mean scores and standard deviations were used. These data are presented in [Table 1](#), showing the descriptive statistics for the components of test anxiety and problem-solving skills.

Table 1

Descriptive Statistics of Pre-Test and Post-Test Scores for Test Anxiety Components

Group	Components	N	Pre-Test	Post-Test	Follow-Up
Control Group	Worry	20	32.23 (5.32)	29.32 (5.73)	29.12 (5.87)
	Emotionality	20	31.56 (6.40)	30.65 (7.44)	29.78 (6.31)
	Total Anxiety	20	61.71 (10.44)	60.68 (12.08)	59.23 (12.18)
Experimental Group	Worry	20	32.54 (7.03)	29.65 (3.77)	28.78 (7.11)
	Emotionality	20	32.81 (6.64)	29.47 (2.65)	27.12 (6.32)
	Total Anxiety	20	63.62 (11.65)	59.57 (2.03)	58.13 (12.52)
Control Group	Confidence	20	34.81 (1.82)	35.65 (3.06)	36.66 (3.88)
	Avoidance	20	45.29 (2.92)	47.98 (2.89)	48.35 (3.26)
	Personal Control	20	16.54 (3.81)	18.65 (4.24)	18.98 (3.54)
	Total Problem-Solving	20	102.23 (8.83)	104.35 (3.77)	105.54 (2.75)
Experimental Group	Confidence	20	36.58 (1.75)	37.68 (3.03)	39.12 (3.87)
	Avoidance	20	46.31 (2.28)	48.28 (1.76)	49.36 (1.76)
	Personal Control	20	17.36 (2.87)	18.98 (2.37)	19.23 (3.32)
	Total Problem-Solving	20	105.34 (1.12)	106.12 (1.95)	106.65 (1.95)

Based on the results in [Table 1](#), the mean post-test and follow-up scores for test anxiety components are significantly lower than the pre-test scores. Additionally, the

mean post-test and follow-up scores for problem-solving skills components are higher than the pre-test scores.

Before testing the research hypothesis, the assumption of normal distribution was examined using the Shapiro-Wilk

test. The results indicated that the significance levels in all three groups (pre-test, post-test, and follow-up) were greater than 0.05, confirming the normal distribution of data in all variables and groups.

Furthermore, the assumptions of covariance analysis, including homogeneity of regression slopes, Box's test, and Levene's test, were examined. The results showed that the probability value greater than 0.05 for the interaction effect (group * pre-test) indicates the assumption of homogeneity of regression slopes is met. Therefore, there is a linear

relationship between the dependent variable (post-test) and the covariate (pre-test) within groups. The Box's test results also showed that the variance-covariance matrices of the variables are equal and do not significantly differ, allowing for the use of multivariate covariance analysis. Additionally, Levene's test results indicated that the equality of variances is maintained at the 95% confidence level. After confirming the assumptions of variance homogeneity and variance-covariance matrix equality, the covariance analysis validity indices were used.

Table 2

Covariance Analysis Validity Indices

Tests	Value	F	df (effect)	df (error)	Significance	Eta Squared
Pillai's Trace	1.001	14.036	8	112	.001	.201
Wilks' Lambda	.009	131.577	8	110	.001	.905
Hotelling's Trace	109.567	739.575	8	108	.001	.982
Roy's Largest Root	109.556	1533.788	4	56	.001	.991

As shown in Table 2, the obtained F ratio is significant at the 99% confidence level. Therefore, the groups (experimental and control) differ in at least one of the dependent variables (anxiety components). Consequently, the second hypothesis is confirmed, indicating that spirituality-oriented psychological counseling affects test

anxiety in female junior high school students. However, this statistic does not specify which dependent variables differ. Thus, the following analysis investigates which test anxiety components (worry and emotionality) are affected separately by the independent variable (groups). The results of the between-subjects effects are presented below.

Table 3

Multivariate Covariance Analysis Results at Post-Test Based on Variables

Dependent Variables	Sum of Squares	df	Mean Square	F Value	Significance	Effect Size
Worry	6452.333	2	3226.167	379.036	.001	.929
Emotionality	5479.500	2	2739.750	476.479	.001	.943
Confidence	5847.733	2	2923.867	891.298	.001	.968
Avoidance	21140.867	2	10570.433	1335.310	.001	.852
Personal Control	10749.633	2	5374.817	924.037	.001	.970

As seen in Table 3, the between-subjects effects for worry and emotionality between the groups are significant at $P < .001$. In other words, spirituality-oriented psychological counseling affects test anxiety in female junior high school students. The emotionality component has the highest effect size. Similarly, the between-subjects effects for confidence,

avoidance, and personal control are significant at $P < .001$, indicating that spirituality-oriented psychological counseling impacts problem-solving skills in female junior high school students. Personal control has the highest effect size. The Bonferroni intra-group test was used to examine the sustainability of the effects.

Table 4

Bonferroni Test Results for Pairwise Mean Comparisons at Different Measurement Stages by Group

Variable	Stages	Exp. Mean Difference	Significance	Control Mean Difference	Significance
Worry	Post-Test - Follow-Up	.20	.112	.87	.213
Emotionality	Post-Test - Follow-Up	.87	.165	2.35	.365
Confidence	Post-Test - Follow-Up	1.01	.156	1.44	.145
Avoidance	Post-Test - Follow-Up	.37	.189	1.08	.169
Personal Control	Post-Test - Follow-Up	.33	.216	.25	.201

According to Table 4, in the experimental group, the differences in scores for the test anxiety components (worry and emotionality) between the post-test and follow-up stages are significant, indicating the sustained impact of spirituality-oriented psychological counseling. In the control group, the differences in test anxiety scores between the post-test and follow-up stages are also significant, suggesting the lasting effect of spirituality-oriented psychological counseling on test anxiety. Additionally, in the experimental group, the differences in scores for problem-solving skills components (confidence, avoidance, and personal control) between the post-test and follow-up stages are significant. Since there are no significant differences between post-test and follow-up scores, the sustained impact of spirituality-oriented psychological counseling on problem-solving skills is confirmed. In the control group, the differences in problem-solving skills scores between the post-test and follow-up stages are significant, indicating the lasting effect of spirituality-oriented psychological counseling on problem-solving skills.

4. Discussion and Conclusion

This study, conducted on female junior high school students in District 3 of Tabriz, is an applied research study employing a quasi-experimental pre-test post-test design with a control group, experimental group, and follow-up period. The first and second hypotheses were examined, showing that spirituality-oriented psychological counseling effectively and sustainably impacts test anxiety and problem-solving skills in female junior high school students.

The first hypothesis indicated that spirituality-oriented psychological counseling effectively and sustainably reduces test anxiety in female junior high school students. Consistent with these findings, Moin et al. (2023) found that spirituality therapy and acceptance and commitment therapy significantly affect existential anxiety in women with breast cancer, with no significant difference between the effectiveness of the two methods on existential anxiety. It is recommended to use spirituality therapy and acceptance and commitment therapy to reduce existential anxiety in breast cancer patients (Moin et al., 2023). Torabi et al. (2023) found that while initial death anxiety scores between stroke patients did not differ significantly, the difference became significant immediately and one month post-intervention, with a significant reduction in death anxiety in the experimental group but not in the control group (Torabi et

al., 2023). These results align with some other findings (Acharya, 2010; Rashidzade, 2020).

Explaining these findings, test anxiety is a significant cognitive and emotional variable, with research starting seriously by Sarason and Mandler (1952). They believed test anxiety consists of cognitive and physical components. The cognitive component involves feelings of inefficacy, helplessness, punishment expectation, and lack of confidence, while the physical component involves emotional arousal and physiological responses. According to Sarason and Mandler (1952), test situations evoke two types of drives: task-oriented drives leading to task completion behaviors and learned anxiety drives resulting in task-inappropriate responses, such as helplessness, intense physiological reactions, low confidence, and attempts to escape the test situation. Sarason and Mandler (1952) described test anxiety as self-occupation characterized by self-doubt and negative cognitive assessments, often leading to poor academic performance. Weiner and Carton (2012) noted that test anxiety involves worrisome thoughts, increased heart rate, and emotional outbursts during or after exams, which can significantly disrupt daily and academic life. Larson et al. (2010) identified test anxiety as a factor that causes cognitive interventions, leading to learning disruptions, poor academic performance, and school avoidance. Test anxiety, a situational anxiety, is closely related to millions of students' academic performance and progress. As an unpleasant experience, test anxiety affects various domains, from knowledge acquisition and information processing to individual motivation and attitudes (Dawood et al., 2016; Mirzaei & Ghamari, 2020; Zou et al., 2017).

The second hypothesis indicated that spirituality-oriented psychological counseling effectively and sustainably enhances problem-solving skills in female junior high school students. Consistent with this finding, Nguyen (2023) found that group problem-solving skills training improves self-efficacy in decision-making processes among adolescents and young adults aged 16-22, showing that ineffective problem-solving styles predict destructive behaviors like aggression and substance abuse (Nguyen, 2005).

Explaining these findings, adolescence is a crucial life stage impacting individuals, families, and society. Properly nurturing adolescents during this critical period requires various psychological characteristics for individual and interpersonal adaptation, particularly school adjustment. Effective problem-solving skills increase self-confidence and self-control, enabling individuals to constructively

address life's challenges. Conversely, lacking these skills or using inappropriate problem-solving methods can lead to environmental adaptation issues and threaten mental health. Acquiring problem-solving skills allows individuals to handle life problems constructively, while managing and controlling emotions helps individuals appropriately express their emotions, think positively, act correctly, and contribute effectively to societal progress.

5. Limitations & Suggestions

This study faced several limitations including:

- Limiting the sample to female students.
- Restricting the research population to junior high school students in District 3 of Tabriz.

Based on the results of the first hypothesis indicating the effectiveness and sustainability of spirituality-oriented psychological counseling on test anxiety, it is recommended to use spirituality therapy as an intervention program to reduce students' test anxiety. Additionally, based on the results of the second hypothesis indicating the effectiveness and sustainability of spirituality-oriented psychological counseling on problem-solving skills, it is suggested to enhance students' problem-solving skills alongside psychological counseling using spirituality therapy. It is also recommended to replicate this study with male students and other educational levels.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. This study was approved by the Islamic Azad University, Gorgan branch (IR.IAU.CHALUS.REC.1402.016).

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed in this article.

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