Effectiveness of educational training courses aimed at developing spiritual intelligence and reducing anxiety and depressive disorders among students

Introduction. Spiritual Intelligence plays a pivotal role in mitigating depression and irrational thoughts, significantly contributing to improved student achievement. This research aims to determine whether or not spiritual intelligence can help college students deal with mental health issues like depression and illogical thinking while simultaneously boosting their academic performance.

The sample of the study and methods. The study sample comprised of (62) male and female university students, and they were randomly distributed into two groups: controlling and experimental. Two scales were used: The scale of depression where its items were distributed on four dimensions, are bodily dimension, verbal dimension, the withdrawal dimension, and the psychological dimension, and the scale of irrationality thinking, it had been prepared and joined (60) statements measuring irrational thinking to emphasize the validity of the content.

Results. The results show that following the intervention, there were notable improvements in the experimental group’s levels of despair and irrational thinking. After the intervention, the average depression score for the experimental group dropped from 90.41 to 67.13, a statistically significant decrease. The control group’s decline was less pronounced, falling from 87.85 to 84.26. The average scores for irrational thinking in the experimental group fell from 201.65 to 153.92, while in the control group they were mostly unchanged. It is worth mentioning that there was a more notable decline in depression in females as compared to males. Among college students, the survey found an average spiritual intelligence level of 3.38, with variations noted according to gender and academic performance. Academic success is strongly predicted with critical existential thinking ($R^2=5.6\%$), according to regression research.

Practical significance. This study presents important findings regarding the potential of spiritual intelligence to help college students cope with mental health challenges such as sadness and illogical thinking. This study offers important information for mental health practitioners and educators since it shows that spiritual intelligence can lower depression scores and illogical thoughts. Based on the results, student support programs that include interventions focused on spiritual intelligence may help students’ mental health and academic performance. For schools, this could mean providing a more all-encompassing plan to ensure their pupils thrive in school.

Keywords: spiritual intelligence, depression, irrational thinking, academic achievement, university students

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INTRODUCTION

In an increasingly complex world, mental well-being remains a vital concern for educators, psychologists, and policy-makers alike [1]. The recent surge in interest surrounding spiritual intelligence, defined as the ability to access higher meanings, values, and transcendental purposes, offers a potential remedy for the pervasive issues of depression and irrational thought. Notably, international organizations such as [1], the Council of Europe [2], and the International Association of Universities (IAU) [3] have stressed the importance of a more holistic approach to education, championing the integration of both intellectual and spiritual faculties. This emphasis highlights the potential of spiritual intelligence as a pivotal tool for personal transformation and as a cornerstone for global educational initiatives promoting resilience and mental stability in students across the globe [4].

Parmelee & Lawton [5] view depression as an essential psychological disturbance that catches adults, and 30% to 50% of adults suffer from symptoms of depression, which may lead to suicide. And the adults suffer from the psychological part, from a state of fallback in the social and psychological harmony; so, his ability to exploit his bodily, mental and psychological possibilities is facing pressures of life to a degree he cannot completely meet with environmental requirements or achieving a suitable amount of satisfying his different needs [6].

And theories explain fear of exams from different sides, for the biologic theories concentrate the bodily cells and their exposure to spoilage, and the various systems of the body are exposed to weakness [7], but the theory of withdrawal indicates to adults that they tend to withdraw from the social stands, and that leads to depression [8].

And depression is considered from the prevalent psychological and mental disturbances that affect about half of the adults who live in care institutions of adults, and depression affects their life and makes them feel sorrow and despondence, affects sleeping, concentration, and levels of energy. It makes it difficult for those caught with depression to obtain the correct diagnosis and suitable therapy [9].

And it is clearly shown that the adults are unable to find suitable means to adapt as a person, so his social & psychological problems increase, so we see the adults tends to seclusion, unsociability, and non-wishing to talk with anybody, but satisfaction with inventing irrational thinking about himself [10].

And the theory of rational therapy is considered a method in guidance and psychological therapy developed by Albert Ellis. Where he indicated the role of irrational thinking in emotional disturbances, it is evident in the pattern of Ellis for the personality known as (ABCD) theory, but (A) it is meant by it the incident or experience, (B) means ideas and beliefs, that is annexed to the incident or experience and (C) means (the emotional and behavioral consequences) felt by the individual as a result of the incident, the most distinguishing of the theory of emotional and rational therapy is the activity of the psychological physician in carrying out the irrational thinking by the seeker of advice (D) (Disputing) and training him on confronting challenges in the future, and the physician has to swiftly attack the irrational thinking of the seeker of advice [11].

Spiritual intelligence is more than a pure individual mental ability; it connects the individual with the creator and the ego by the spirit. And spiritual intelligence consists
of traits and numerous abilities and exists at variant degrees, and they are awareness, benefaction, meaning, excellence, or highness and fact [12].

Spiritual intelligence grows and increases at the individual in three stages; they are the beginning stage: concentration here is on oneself (ego) through approaching the Al-Mighty God and thanking him. The second stage: is levels of solidarity, which indicates solidarity with religion and concern about others. And the third stage: is after solidarity and indicates transference from pure commitment with religious matters to awareness with oneself (ego) [13].

The pattern of the spiritual intelligence triangle is performed on the following:
1. Spiritual alertness: it represents the spiritual, emotional side. 2. Spiritual abilities: represent the spiritual, cognitive side. 3. Spiritual existence: represents the spiritual, behavioral side [14].

**The Problem of Study and Its Significance**

Considering the growing number of university students who are concerned about mental health concerns including depression and irrational thinking, the study "The Effectiveness of Spiritual Intelligence in Reducing Depression and Irrational Thinking" is likely an attempt to address this concern. The mental and intellectual health of students can be seriously affected by these problems. An individual's spiritual intelligence is linked to a number of factors related to the individual and the surrounding environment. The current study aims to examine its relationship with achievement. Perhaps the justification for choosing achievement as a variable is that the main components of spiritual intelligence, as indicated by studies, are mental components that are cognitive in nature, from here the idea of this study emerged. The following questions also come to the researcher’s mind when studying spiritual intelligence: Does the level of the components of spiritual intelligence differ depending on the gender of the student and his level of achievement? Therefore, this study attempted to answer these questions.

**The Study Questions**

The study seeks to answer the following questions:
1. What is the level of spiritual intelligence among the students at Al-Balqa Applied University?
2. Does the level of spiritual intelligence (and each of its fields) differ among students at Al-Balqa Applied University, depending on the student’s gender and level of achievement?
3. What is the predictive ability of spiritual intelligence for academic achievement among students at Al-Balqa Applied University?

**The Hypothesis of the Study**

The study sought to investigate the correctness of both hypotheses:
1. There exists no difference with statistical significance at the level (0.05) among means of study individuals’ degrees on the scale of depression in the post measurement, ascribed to the spiritual intelligence scale, type of the group, and gender and interaction among them.
2. There exists no difference with statistical significance at the level (0.05) among means of study individuals’ degrees on the scale of irrational thinking towards fear of exams in the post measurement, ascribed to spiritual intelligence, the type of the group, gender, and interaction among them.
**The Objective of Study**

The primary goals of this research are:

1. Examine the possibility of spiritual intelligence as a tool for college students to manage mental health challenges, including illogical thinking and depression.
2. In order to determine whether spiritual intelligence and academic achievement can be concurrently enhanced among university students.

Through these two lenses, we hope to better understand how spiritual intelligence might positively impact college students' emotional well-being and their ability to succeed academically.

**Definition of Terms**

Spiritual intelligence is the ability to apply and employ skills and spiritual characteristics that increase the individual's effectiveness in life [15].

Adults: they are the individuals whose ages range between 18-23 students [16], in this study, they are university students.

Depression: it is an emotional case in which the individual suffers from intense sorrow, delay of response, and pessimist inclinations, and the matter may reach with him to commit suicide [17]. And it is procedurally defined with the degree obtained by the adults on the scale of depression that was prepared for this study's purposes.

Irrational thinking: is a group of inclinations, beliefs, negative evaluations, and aggressive feelings towards a thing or stand makes the individuals reject all that relates to it [18], and it is procedurally defined with the degree obtained by the individual on the scale of irrational thinking, prepared for this study.

**Previous Studies**

Soriano-Sánchez & Jiménez-Vázquez [19] research aimed to determine the significance of EI among preteens and teenage pupils, as well as its correlation with various psychological factors, and to provide the most defining tools for assessing it. Following the PRISMA criteria, this review was conducted. In the end, 24 studies were culled from 687 documents that met the predetermined criteria. The results, based on a sample size of 26,510 adolescents (ranging in age from 10 to 19 years), show that EI is important for the health and happiness of this demographic. In terms of emotional intelligence tests, the Trait-Meta-Mood-Scale (TMMS-24) was by far the most popular. To confirm these conclusions, additional research is needed. Lastly, this study's conclusions should be considered by future intervention programs to support these findings.

Sethi & Pandey [20] study aimed to compare and contrast the two student groups with respect to their levels of spirituality and illogical ideas. Students majoring in management and engineering will fill out a survey to participate in the study. The survey will inquire about their views on irrationality and spirituality, as well as their habits and beliefs in these areas. Information about the students' academic history and personal traits will also be gathered through the survey. In order to find out if the two groups are comparable or different in terms of spirituality and illogical ideas, we will utilize statistical analysis methods to look at the data. This study will help shed light on the connection between students' spirituality and their illogical views in the fields of engineering and management. The study also delves into the sub-factors, such as a person's spiritual openness and perspective, the distinction between religiousness and spirituality, and the various forms of illogical behavior and how to recognize them. Studying the parallels and variations in spirituality, illogical beliefs,
and academic and personal achievement among students majoring in engineering and management, this research aims to add to the continuing conversation on the topic.

Research aimed (Jacob & Hussain [21]) to establish a connection between spirituality, aggressiveness, contentment in one's work, psychological well-being, and happiness with one's life in general. The research utilized several instruments, including The Spiritual Intelligence Self-Report Inventory, Minnesota Satisfaction Questionnaire (21), Buss-Perry Scale, DASS21, and The Satisfaction with Life Scale. People in the workforce, ranging in age from 20 to 50, were the subjects of the study. Pearson correlation, Linear Regression, and SPSS were used to evaluate the data that was collected. The results showed a small but statistically significant correlation between spirituality and happiness in one's work and overall life satisfaction. Spirituality, anxiety, and stress were also found to have a weakly negative association. Spirituality, despair, and aggressiveness were not, however, determined to be statistically significant.

This exploratory study (Leung & Li [22]) investigated the possible healing mechanisms of a spiritual intervention based on faith for those suffering from depression, as well as its applicability and feasibility. It also presented initial signs of effectiveness. The six-week program addressed topics such as reestablishing a rapport with the divine, overcoming obstacles, finding meaning in adversity, cultivating an attitude of appreciation, and avoiding relapse. We enlisted seven adults who were exhibiting mild to severe signs of depression. Focus groups were used to carry out the qualitative evaluation, which included the administration of rating scales at baseline, post-intervention, and the 3-month follow-up. Using Friedman's ANOVA, we examined the time-dependent mean difference scores of the treatment's efficacies. Topics covered by the focus group discussion included therapeutic elements, the significance of spiritual interventions, and the impact of participating in spiritual groups. Both the intervention and 3-month follow-up mean depression (PHQ-9) ratings decreased significantly, according to the data. Improvements in self-esteem, coping skills, and understanding of depression were reported by participants. Based on the available data, it appears that the faith-based spiritual intervention helped participants reduce depression symptoms and strengthen their connections to themselves, others, and the world around them.

The purpose of this literature study (Ratnawat [23]) is to look into how students' spiritual intelligence relates to their academic success. According to the research, there is a positive correlation between spiritual intelligence and academic achievement. Research shows that students with higher levels of spiritual intelligence do better in school because their cognitive ability, creativity, critical thinking, and problem-solving skills are all improved. In addition to influencing academic success, spiritual intelligence is associated with psychological health. Nonetheless, there is evidence in the research to imply that cultural, gender, and educational level are just a few of the variables that may impact the complicated relationship between spiritual intelligence and academic achievement. Consequently, this association has to be further investigated.

Chakma et al. [24] conducted a study aimed to use a cross-sectional survey design to assess teachers' and students' SI levels, as well as to investigate the impact of designation on SI and its dimensions. A total of 1266 students and 330 instructors had their data collected randomly using a self-designed SI evaluation system. Almost as many instructors as students were found to have low, medium, or high SI levels, according to the results. There was also no correlation between the level of SI and the participants' designations, according to the results. The results also showed that the participants' designations significantly affected
various SI dimensions. Additional research can investigate whether factors like age and education level are responsible for this effect.

Anwar & Rana [25] conducted a study aimed to examine gender variations in spiritual intelligence and its prediction power for college students' mental health. That is why information was gathered from 250 undergraduates (Mage = 21.8; SD = 1.9) from various universities in Pakistan. A total of 77 males and 173 women made up the sample, which was selected via a purposive sampling technique and collected online (using Google Form) in response to the COVID-19 pandemic. King (2008) and Ryff (1989, 1989, 2019) used Spiritual Intelligence and Ryff's 42-item Psychological Wellbeing Scale, respectively, to measure the study's variables. Hierarchical Regression and a t-Test were employed in the analysis of the results performed in SPSS (version 21). The study's findings show that spiritual intelligence is a strong indicator of mental health. Additionally, compared to female students, male students exhibited higher levels of psychological wellness and spiritual intelligence. The study's findings have important implications for educators and curriculum developers looking to help their pupils develop a higher level of spiritual intelligence.

Ma & Wang [26] conducted a study addressed the foregoing limitation by providing a concise overview of the theoretical and empirical foundations of this field of study, outlining the key concepts, their constituent parts, and prior research in the field. To far, educational research on spiritual intelligence as a distinct subset of IQ has been scant. A student's second language education can benefit greatly from it because of the way it links a person's emotional and spiritual well-being to their academic and occupational success. But there hasn't been much research looking at this concept in connection to student-related variables like academic engagement. By outlining current gaps and providing future directions and consequences, the study aimed to raise awareness among educational practitioners and scholars about spiritual intelligence, its effects on second language teaching, and learner psychological characteristics.

Obaid [27] examine how spiritual intelligence affects academic self-efficacy in university students, utilizing gender and area of specialization as independent factors. Additionally, we want to know how type and specialization traits affect spiritual intelligence and academic self-efficacy in students and how they relate. This study's researcher created and verified two metrics to meet research objectives. We validated and calculated the measures using retesting and Vaccronbach. The researcher concluded, among other things, that students in this study have exceptional intellectual and spiritual intelligence after the two measurements and statistical analysis. The study suggests neither gender nor expertise affect spiritual intelligence. The gender variable did not significantly affect academic self-efficacy. Student academic selfcompetence changed dramatically across scientific and human specialization variables, preferring the former. Based on gender and expertise, cognitive self-efficacy is linked to positive emotions in the full group. The researcher gave several suggestions based on the investigation. One was to build scientific curriculum that would boost students' spiritual intelligence and academic self-efficacy from the start, according to their developmental age. The researcher suggested using the two factors they generated for this study for future research.

Amram [15] study reviewed key models of SI, and studies supporting its adaptability and biological correlates. Puzzling results in some areas warrant exploration, especially the degree to which various models converge and the extent to which a single SI model may be truly universal.
Comments on the previous studies

Emotional and spiritual intelligence are highlighted as crucial in educational and psychological settings in this compilation of works. As an example, Soriano-Sánchez & Jiménez-Vázquez brought attention to the effect that emotional intelligence has on the health of teenagers. While this was going on, Sethi and Pandey investigated how students of engineering and management dealt with illogical beliefs and spirituality. Taken as a whole, these researches add to our knowledge of the ways in which mental and emotional factors impact scholastic and personal achievement. The unique aspect of this synthesis is its integration of emotional, spiritual, and cognitive intelligence across many demographics, ranging from students to professionals. This complete view reveals how these dimensions effect mental health, academic engagement, and professional development.

The Sample of Study

Several study individuals amounted to (62) university students (31) males and (31) females had been chosen and had been distributed into an experimental group and a controlling group.

Instruments of Study

Firstly: Scale of Depression:

After reviewing the theoretical literature about depression towards fear of exams, this scale was designed. In light of that, the times had been confined, the scale items amounted to (41) items, and the total degree on the scale amounts between 41-123, together with noticing that the highest degree points to the height of depressions level. And the items of the scale were distributed on four dimensions, are bodily dimension, verbal dimension, the withdrawal dimension, and the psychological dimension, and investigation of the validity of the content by presenting the scale on twelve arbitrators and amending the formation of some items, and omitting some of them and replacing them with others. Finally, reliability by employing the internal consistency coefficient (Cronbach Alpha) and the reliability coefficient had been extracted that amounted (0.94).

Secondly: Scale of Irrationality Thinking:

The scale had been prepared and joined (60) statements measuring irrational thinking to emphasize the validity of the content. The scale had been presented to (12) arbitrators, and omitting some of them and replacing them with others, the reliability coefficient had been counted, and the coefficient of internal consistency (Cronbach) amounted to (0.72).

Thirdly: Spiritual intelligence scale:

The scale was applied to a survey sample of (20) male and female students from Al-Balqa Applied University from outside the study sample. The researcher verified the apparent validity of the scale by presenting it to ten arbitrators in the field of educational psychology, at Al-Balqa Applied University. Their comments on the scale were based on modifying the linguistic wording of some items, and all of them were considered.

Procedures of the Study

Using pre/post design, researchers compared the experimental group’s and the control group’s levels of depressive symptoms and illogical thinking, and effect of spiritual intelligence on academic performance. The research Applied analysis of covariance (ANCOVA) to compare experimental and control group scores on measures of illogical thinking and depression.
Design of the Study

The semi-experimental curriculum had been employed, that is, by employing the design of both groups, the experimental and controlling.

THE RESULTS OF THE STUDY

Table (1) clears the investigation of the correctness of the first hypothesis.

Table 1
Arithmetic means and the standard deviations for the degrees on the scale of depression in the Pre and posterior measurement according to the group and gender

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Variables</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Arithmetic Mean</td>
<td>Standard Deviation</td>
</tr>
<tr>
<td>Group Gender</td>
<td>Experimental</td>
<td>90.41</td>
<td>11.86</td>
</tr>
<tr>
<td></td>
<td>Controlling</td>
<td>87.85</td>
<td>11.44</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>91.27</td>
<td>13.27</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>87.01</td>
<td>7.96</td>
</tr>
</tbody>
</table>

To recognize the effect of interaction between the group and gender on the scale of depression in the posterior criterion together with the effect of Pre-criterion, ANCOVA variation analysis had been employed, and results had been cleared in Table (2).

Table 2
Variation analysis of ANCOVA to show differences significance among means on the scale of depression in the posterior measurement according to the group and gender and interaction between them both

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Square Total</th>
<th>Degrees of Freedom</th>
<th>Squares Average</th>
<th>“F” Value</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>5692.57</td>
<td>1</td>
<td>5692.57</td>
<td>148.96</td>
<td>0.001</td>
</tr>
<tr>
<td>Group</td>
<td>7478.2</td>
<td>1</td>
<td>7478.71</td>
<td>195.70</td>
<td>0.001</td>
</tr>
<tr>
<td>Gender</td>
<td>279.42</td>
<td>1</td>
<td>279.43</td>
<td>7.31</td>
<td>0.001</td>
</tr>
<tr>
<td>Gender X Group</td>
<td>88.46</td>
<td>1</td>
<td>88.46</td>
<td>2.31</td>
<td>0.001</td>
</tr>
<tr>
<td>Error</td>
<td>2101.80</td>
<td>55</td>
<td>38.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12634.5</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from Table (3) that differences between both groups, the experimental and the controlling in depression, are statistically significant, where the "F" value amounted to 195.70. Therefore, it is statistically significant at the level (0.001), and what relates with the significance of differences between males and females in depression, it had been statistically significant, where the "F" value amounted to (7.31). Therefore, it is significant at the level of (0.001) thing that indicates that there is a difference in the students’ response on the irrational thinking scale ascribed to gender, the Table also shows the non-existence of differences with statistical significance at the significance level (0.05) in depression ascribed to the effect of interaction between the group and gender, as "F" value amounted to (2.13), and it is not statistically significant.
Table (3) clears the investigation of the correctness of the second hypothesis.

Arithmetic means and standard deviations for the degrees of the sample individuals on the scale of irrational thinking in both criteria Pre and posterior according to gender and the group

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Variables</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Experimental</td>
<td>201.65</td>
<td>153.92</td>
</tr>
<tr>
<td>Gender</td>
<td>Controlling</td>
<td>203.06</td>
<td>200.62</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>205.76</td>
<td>186.86</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>198.95</td>
<td>167.70</td>
</tr>
</tbody>
</table>

And to recognize the effect of interaction between the group and gender on the scale of irrational thinking towards fear of exams, the posterior criterion ANOVA for variation analysis had been done, and results were as shown in Table (4).

The ANCOVA Variation analysis to clarify the significance of differences among averages degrees on the scale of irrational thinking towards fear of exams in the posterior criterion according to the group and the gender and interaction between them both

<table>
<thead>
<tr>
<th>Sources of Variation</th>
<th>Square Total</th>
<th>Degrees of Freedom</th>
<th>Squares Average</th>
<th>“F” Value</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>6383.7</td>
<td>1</td>
<td>6383.17</td>
<td>14.79</td>
<td>0.00</td>
</tr>
<tr>
<td>Group</td>
<td>355.87</td>
<td>1</td>
<td>355.86</td>
<td>0.82</td>
<td>0.37</td>
</tr>
<tr>
<td>Gender</td>
<td>31706.35</td>
<td>1</td>
<td>31706.35</td>
<td>734.46</td>
<td>0.00</td>
</tr>
<tr>
<td>Gender X Group</td>
<td>705.02</td>
<td>1</td>
<td>706.01</td>
<td>1.64</td>
<td>0.21</td>
</tr>
<tr>
<td>Error</td>
<td>23739.91</td>
<td>55</td>
<td>431</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>69644.17</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (4) clears the existence of differences statistically significant at the level (0.05) among means of degrees of both groups; the experimental and the controlling, where the "F" value amounted to (73.47), and it is statistically significant at the level (0.05). But what relates to the significance of differences between males and females on the scale of irrational thinking. It is clear from Table (4) Non-existence of differences with statistical significance at the level (0.05) ascribed to the difference of gender, and Table also shows the non-existence of effect with significance to the interaction between gender and the group at the level of (0.05).

Results of variation analysis ANCOVA showed the existence of difference with high statistical significance among means of degrees of both groups: the experimental and the controlling on the scale of depression, and this results can be explained based on the effectiveness leaning on the spiritual intelligence at the experimental group individuals, where activities practiced by individuals through the guiding sessions shared in achieving perception and understanding the best of their emotions and others, and recognizing weakness and power points at them and perceiving that every problem
is connected with irrational thinking, and this agrees with what Ellis indicated, that problems individuals live the cause of them is not stands and incidents, but the way of thinking of incidents adults live.

The results had agreed with the results of the [11] study that aimed to recognize the effect of protection style on the level of depression in adults. Furthermore, these results also agreed with the [16] study, that its results indicated the effectiveness of the cognitive program in decreasing depression in adults.

Results showed that the impact of the spiritual intelligence was more evident and greater in reducing depression in females. The results indicated the effectiveness of spiritual intelligence in decreasing depression and irrational thinking, and the level of depression differs between males and females.

Also, the study results showed non-existence of differences with statistical significance in depression ascribed to the impact of the interaction between the group and gender; it is explained that the effect of each group and gender was independent of the other in its depression behavior.

Ellis [28] indicated that the psychological disturbances cannot be secluded from how the individual thinks about himself and the world.

**Results of the first question:** What is the level of spiritual intelligence among the students at Al-Balqa Applied University?

To answer this question, the arithmetic means and standard deviations were calculated for the totals and scores of all sample members on the spiritual intelligence scale. It was found that the level of spiritual intelligence among the students of Al-Balqa Applied University in Jordan was average, as the arithmetic average of the sample’s responses reached (3.38). This was clear in table 5.

**Results related to the second question:** Does the level of spiritual intelligence differ among students at Al-Balqa Applied University, depending on the student’s gender and level of achievement?

To answer this part, the arithmetic means and standard deviations of the students’ scores on the spiritual intelligence scale were calculated according to the variables of gender and level of academic achievement, as shown in Table (3).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Level</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>3.13</td>
<td>0.79</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>3.42</td>
<td>0.59</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.38</td>
<td>0.62</td>
</tr>
<tr>
<td><strong>Achievement level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td></td>
<td>3.48</td>
<td>0.64</td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td>3.39</td>
<td>0.53</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>3.04</td>
<td>0.74</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3.38</td>
<td>0.62</td>
</tr>
</tbody>
</table>

It is clear from Table (5) that the arithmetic mean of the level of spiritual intelligence for males was (3.13), while it was higher for females than for males, as it reached (3.42).
It is also evident from Table (5) that there are apparent differences in the arithmetic averages of the performance of the study sample members on the spiritual intelligence scale according to the variables of gender and level of achievement. To determine the significance of these differences, a two-way analysis of variance was used for the effect of gender and level of achievement in spiritual intelligence, and Table (6) shows this.

### Table 6

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean of squares</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>0.87</td>
<td>1</td>
<td>0.88</td>
<td>2.40</td>
<td>0.123</td>
</tr>
<tr>
<td>Achievement level</td>
<td>3.16</td>
<td>2</td>
<td>1.58</td>
<td>4.33</td>
<td>*0.014</td>
</tr>
<tr>
<td>ERROR</td>
<td>92.13</td>
<td>252</td>
<td>0.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3041.15</td>
<td>256</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear from Table (6) that there are no statistically significant differences at the significance level (α = 0.05) due to the effect of gender on the level of spiritual intelligence. It is also evident from Table (6) that there are statistically significant differences at the level of significance (α = 0.05) due to the effect of the achievement level variable on the level of spiritual intelligence. To show the direction of the differences, post-hoc comparisons were used using the Schiffe method, as shown in Table (7).

### Table 7

<table>
<thead>
<tr>
<th>Level</th>
<th>Mean</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>3.40</td>
<td>-</td>
<td>0.08</td>
<td>*0.44</td>
</tr>
<tr>
<td>Medium</td>
<td>3.33</td>
<td>-0.08</td>
<td>-</td>
<td>*0.35</td>
</tr>
<tr>
<td>Low</td>
<td>3.03</td>
<td>*-0.44</td>
<td>*-0.35</td>
<td>-</td>
</tr>
</tbody>
</table>

It is clear from Table (7) that there are statistically significant differences at the significance level (α = 0.05) in the level of spiritual intelligence between students with a high level of achievement and those with a low level of achievement for the benefit of those with a high level of achievement. It is also clear that there are statistically significant differences at the significance level (α = 0.05) between those with an average achievement level and those with a low achievement level, and in favor of those with an average achievement level.

**Results related to the third question:** What is the predictive ability of spiritual intelligence for academic achievement among students at Al-Balqa Applied University?

To reveal the predictive ability of the dimensions of spiritual intelligence to academic achievement, an analysis was used

Regression, and Table (8) shows the results of this analysis.

It is noted from Table (8) that the field of critical existential thinking explains (5.6%) of the variance in achievement, which is a statistically significant percentage. The field of
producing personal meaning explained 4.3% of the variance in achievement, which is a statistically significant percentage. It is also noted that the field of transcendent awareness explained 3% of the variance in achievement, which is a statistically significant percentage.

Table 8

The predictive ability of the dimensions of spiritual intelligence to academic achievement

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Standard regression coefficient beta</th>
<th>Nonstandard regression coefficient</th>
<th>R</th>
<th>R²</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical existential thinking</td>
<td>-0.226</td>
<td>-0.203</td>
<td>0.238</td>
<td>0.058</td>
<td>-2.88</td>
<td>0.004</td>
</tr>
<tr>
<td>Production of personal meaning</td>
<td>-0.168</td>
<td>-0.138</td>
<td>0.207</td>
<td>0.43</td>
<td>2.180</td>
<td>0.030</td>
</tr>
<tr>
<td>Transcendence</td>
<td>0.174</td>
<td>0.155</td>
<td>0.058</td>
<td>0.003</td>
<td>2.144</td>
<td>0.033</td>
</tr>
<tr>
<td>Expanding the state of consciousness</td>
<td>-0.038</td>
<td>-0.034</td>
<td>0.135</td>
<td>0.018</td>
<td>0.486</td>
<td>0.627</td>
</tr>
</tbody>
</table>

DISCUSSION

Interesting findings about the effects of spiritual intelligence-based treatments on depressive symptoms and illogical thought processes are presented in the study. In line with Ellis's beliefs on cognitive techniques in controlling adult depression, the experimental group showed a significant decrease in depression and irrational thinking compared to the control group. Soriano-Sánchez & Jiménez-Vázquez and Sethi & Pandey, for example, have both highlighted the significance of emotional intelligence, and their findings are consistent with our findings.

But, by drawing attention to gender disparities in the effects of these treatments, the study departs from other prior research. This finding offers a fresh viewpoint to the current research on the subject and implies that the spiritual intelligence is positively affect girls than males.

Consistent with Ratnawat's findings, which show a positive association between spiritual intelligence and academic success, this study found that students' average spiritual intelligence levels were significantly predictive of their academic achievement. This study did not discover significant gender-based variations in spiritual intelligence levels, which suggests that these interactions are nuanced and context-dependent. In contrast, Anwar and Rana observed gender disparities in mental health and spiritual intelligence. In conclusion, the study adds to and supports previous research in the area by providing important insights into the function of spiritual intelligence in relation to mental health and academic achievement.

CONCLUSION

Results showed that both depressive symptoms and illogical thought patterns were substantially reduced in the spiritual intelligence intervention group as compared to the control group. It is worth mentioning that women experienced a greater alleviation of depression. The study also discovered that academic achievement was positively correlated with spiritual intelligence. Spiritual intelligence ranged from moderate on average across pupils, with differences seen by gender and grade point average. The importance of spiritual intelligence to psychological well-being and academic achievement is better understood as a result of this research.
REFERENCES


26. Ma, Q., & Wang, F. (2022). The role of students’ spiritual intelligence in enhancing their academic engagement:


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