

Article type:  
Original Research

1 Assistant Professor, Department of Educational and Psychological Sciences, University of Baghdad, College of Education for Women, Baghdad, Iraq.

Corresponding author email address:  
mortadha@perc.uobaghdad.edu.iq

# Spiritual Intelligence among Late-Adolescent Preparatory School Students: A Descriptive–Comparative Study by Gender and Academic Specialization

Murtadha Hameed. Shalaga 



#### Article history:

Received 28 Dec 2025  
Revised 10 Jan 2026  
Accepted 29 Jan 2026  
Published online 06 June 2026

#### How to cite this article:

Shalaga, M. H. (2026). Spiritual Intelligence among Late-Adolescent Preparatory School Students: A Descriptive–Comparative Study by Gender and Academic Specialization. *International Journal of Body, Mind and Culture*, 13(6), Article e2026-1389. <https://doi.org/10.61838/ijbmc.v13i6.1389>



© 2026 the authors. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

#### ABSTRACT

**Objective:** This study aimed to assess the level of spiritual intelligence among late-adolescent preparatory school students and examine differences according to gender and academic specialization.

**Methods and Materials:** A descriptive–comparative cross-sectional design was used. The sample consisted of 400 fifth- and sixth-grade preparatory school students from the Karkh III Directorate of Education during the 2023–2024 academic year. Participants were selected through stratified random sampling and included 160 males and 240 females; 218 students were in the scientific specialization and 182 in the literary specialization. Data were collected using a researcher-developed 20-item Spiritual Intelligence Scale covering enjoyment of life, meaning of life, self-awareness, and self-transcendence. The scale showed acceptable psychometric properties, including Cronbach's alpha of .84, test–retest reliability of .82, and a four-factor structure explaining 61.84% of the variance. Data were analyzed using descriptive statistics, one-sample t-test, and two-way ANOVA in SPSS version 26.

**Findings:** Students showed a significantly high level of spiritual intelligence,  $M = 80.46$ ,  $SD = 12.903$ , compared with the theoretical midpoint of 60,  $t(399) = 31.71$ ,  $p < .001$ , Cohen's  $d = 1.59$ . Gender had a significant effect on spiritual intelligence,  $F(1, 396) = 4.81$ ,  $p = .029$ , partial  $\eta^2 = .012$ , with higher scores among females than males. Academic specialization was not significant,  $F(1, 396) = 0.06$ ,  $p = .808$ , and the gender  $\times$  specialization interaction was also non-significant,  $F(1, 396) = 2.32$ ,  $p = .128$ .

**Conclusion:** Late-adolescent preparatory school students demonstrated high spiritual intelligence, with a small gender difference favoring females but no effect of academic specialization.

**Keywords:** Spiritual Intelligence, Late Adolescence, Gender Differences, Academic Specialization, Preparatory Students.

## Introduction

Spiritual intelligence has emerged as an important construct in modern psychology and is increasingly recognized within the framework of positive psychology. It refers to a set of mental abilities that enable individuals to derive meaning, purpose and values from life experiences and regulate behavior with deep existential understanding (Vaughan, 2002).

Unlike traditional cognitive abilities, spiritual intelligence integrates emotional, moral and existential dimensions, allowing individuals to effectively deal with life's challenges and psychological stress. Previous studies have highlighted its role in increasing self-awareness, emotional balance and resilience (Buzan, 2012; Gardner, 2000).

In educational contexts, the importance of spiritual intelligence has increased along with rapid technological and social change. Modern education systems are no longer limited to mere knowledge transfer, but are concerned with developing the holistic personality of students, including their moral and psychological dimensions (Al-Mousawi, 2026).

Despite its importance, the level of spiritual intelligence among youth especially in late adolescence has been insufficiently explored in the literature. This stage of development is important, as individuals begin Spiritual intelligence has caused quite a stir among the scientific community and the general public, especially since Zohar (2005) found that the neural basis of spiritual intelligence, operating from an integrative center of the brain's neural functions, unifies all types of intelligence. It is a new concept that spiritual intelligence completes us as the rational, emotional and spiritual beings that we truly are (Zohar, 2005).

Spiritual intelligence involves the development of self-awareness, intuition, creative thinking, empathy and connection with others. Spiritual intelligence is important because it enables individuals to gain deeper insight into various life events, whether negative or positive, by using rationality, humanity and compassion in their communication with other individuals (Emmons, 2000; Vaughan, 2002).

Wigglesworth also believes that spiritual intelligence is an innate human intelligence that gives us the ability to act with wisdom and compassion, achieve inner and

outer peace, and achieve a sense of harmony with ourselves and others (Wigglesworth, 2014).

Brazdău & Mihai (2011) study also indicated that cognitive, emotional and spiritual intelligence are general intelligences that are recognized as important factors that contribute to academic performance. The purpose of the study by Brazdău & Mihai (2011) was to verify whether mindfulness, as a dimension of spiritual intelligence, predicts academic performance. The results of the study indicated a greater impact of mindfulness on students' academic performance (Brazdău & Mihai, 2011).

Ahmadian et al. (2013) study also revealed that spiritual intelligence could be seen as a power source that gives us power, dreams and the efforts made to achieve these dreams. Spiritual intelligence means to be guided by inner wisdom, to have a balance between one's intellect and emotions, and to display the ability to act in a wise and intelligent manner. Spiritual intelligence is innate intelligence, however like other forms of intelligence it also needs to be developed, and it is the foundation for finding the meaning of life (Ahmadian et al., 2013).

The theoretical implication of this research is that it will provide additional theoretical background to the concept of spiritual intelligence as the basis for reforming educational systems in schools. This study can also be a good reference to the latest publications about spiritual intelligence. The main expectation is that the research will make a great contribution scientifically in the field of spiritual intelligence, thereby positively influencing its planners and decision-makers, first of all through its methodology and then through its will. Therefore, it will also add new theoretical literature to the library. In this way, it will lay the foundation for future studies in the area and serve as a reference for other academic scholars who are engaged in similar studies or those operating within the same field.

This study aims to determine the level of spiritual intelligence among late adolescents. Examine whether there are statistically significant differences in spiritual intelligence according to gender and academic specialization.

## Methods and Materials

### Study Design

This study employed a descriptive–comparative cross-sectional design. The descriptive component was used to examine the level of spiritual intelligence among late-adolescent preparatory school students, whereas the comparative component was used to investigate differences in spiritual intelligence according to gender and academic specialization. Since the study aimed to examine naturally occurring differences between student groups, no experimental manipulation or intervention was conducted.

### Population and Setting

The study population consisted of fifth- and sixth-grade preparatory school students enrolled in public preparatory schools affiliated with the Karkh III Directorate of Education during the academic year 2023–2024. These students represent the late-adolescent stage within the Iraqi educational context and were enrolled in either the scientific or literary academic specialization. Accordingly, the population of the study was consistently defined as late-adolescent preparatory school students. The expression primary school students was not used because it does not accurately describe the target population of this study.

According to the official records of the Karkh III Directorate of Education, the total population consisted of 30,834 preparatory school students, including 14,302 males and 16,532 females. The population included students from both fifth and sixth preparatory grades and from the two academic specializations available at this educational stage, namely the scientific and literary tracks.

### Participants and Sampling Procedure

The final sample consisted of 400 fifth- and sixth-grade preparatory school students selected from twelve public preparatory schools in the Karkh III Directorate of Education. The participants' ages ranged from 16 to 19 years, with a mean age of 17.42 years and a standard deviation of 0.81. The sample included 188 fifth-grade preparatory students and 212 sixth-grade preparatory students. In terms of gender, 160 students were male and 240 were female. With regard to academic specialization, 218 students were enrolled in the scientific specialization and 182 students were enrolled in the literary specialization. Among the scientific specialization students, 92 were male and 126 were female, whereas among the literary specialization students, 68 were male and 114 were female.

A stratified random sampling procedure was used to ensure adequate representation of the main demographic and

educational subgroups. The population was first divided according to gender, grade level, and academic specialization. A list of eligible preparatory schools was then obtained from the Karkh III Directorate of Education. From this list, twelve schools were randomly selected while taking into account the representation of boys' and girls' schools and the availability of scientific and literary specializations. Within each selected school, student lists were obtained for fifth- and sixth-grade preparatory classes, and participants were randomly selected from each stratum in proportion to its size in the population. This procedure was used to reduce selection bias and to ensure that the final sample reflected the structure of the target population.

A total of 430 questionnaires were distributed to eligible students. Of these, 412 were returned, and 400 questionnaires were retained for statistical analysis after excluding incomplete forms and questionnaires with clearly repetitive or careless response patterns. The final response rate was 93.02%, which was considered acceptable for a school-based survey study.

### Inclusion and Exclusion Criteria

Students were eligible to participate if they were enrolled in the fifth or sixth grade of a preparatory school affiliated with the Karkh III Directorate of Education during the 2023–2024 academic year, belonged to the late-adolescent age group, were registered in either the scientific or literary specialization, and were able to read and complete the questionnaire independently. Participation also required student assent and parental or guardian consent.

Students were excluded if they were absent on the day of data collection, declined to participate, withdrew during questionnaire administration, returned an incomplete questionnaire, or provided responses that showed a clear lack of attention. Students who had difficulty understanding the questionnaire items in a way that could affect the accuracy of their responses were also excluded from the final analysis.

### Instrument

Spiritual intelligence was measured using a researcher-developed Spiritual Intelligence Scale designed for late-adolescent preparatory school students. The scale was developed because available standardized instruments were not fully suitable for the cultural, developmental, and educational characteristics of the study population. The development of the scale was guided by major theoretical models of spiritual intelligence, particularly those proposed by Wigglesworth, King, Amram and Dryer, Emmons, Zohar, and Vaughan. These models emphasize meaning-

making, self-awareness, transcendence, wisdom, compassion, consciousness, inner peace, and the ability to use spiritual resources in everyday life.

The final version of the scale consisted of 20 items distributed across four domains: enjoyment of life, meaning of life, self-awareness, and self-transcendence. Each domain contained five items. The enjoyment of life domain reflects gratitude, inner satisfaction, appreciation of daily experiences, and positive engagement with life. The meaning of life domain reflects purpose, personal values, future orientation, and the ability to interpret life experiences meaningfully. The self-awareness domain reflects awareness of one's emotions, thoughts, strengths, limitations, and behavioral motives. The self-transcendence domain reflects the ability to move beyond narrow self-interest, feel connected with others, show compassion, and direct behavior toward broader human and moral values.

The four-domain structure was derived from the conceptual overlap among the main models of spiritual intelligence. Wigglesworth's emphasis on acting with wisdom and compassion while maintaining inner and outer peace informed the domains of self-awareness and self-transcendence. King's model, which highlights existential thinking, personal meaning, transcendental awareness, and expansion of consciousness, supported the inclusion of meaning of life and self-transcendence. Amram and Dryer's model, which includes consciousness, grace, meaning, transcendence, truth, and inner integration, informed the domains of enjoyment of life, meaning of life, and self-awareness. Emmons' view of spiritual intelligence as the adaptive use of spiritual resources to solve problems and pursue meaningful goals further supported the inclusion of meaning-making and self-transcendence. On this basis, the four domains were selected because they are theoretically grounded and developmentally appropriate for late adolescents, who are typically engaged in identity formation, value clarification, emotional reflection, and future planning.

The item-development process began with a review of theoretical and empirical literature on spiritual intelligence. Based on this review, an initial pool of 36 items was prepared to represent the proposed domains. The items were written in clear language suitable for preparatory school students and were reviewed for cultural appropriateness, developmental suitability, and conceptual relevance. Items that were repetitive, vague, or insufficiently related to the intended construct were revised or removed. After this initial review, 28 items were submitted to expert evaluation. Based

on the experts' comments, eight items were removed because of conceptual overlap or weak domain relevance, and several items were linguistically modified. The final version of the scale contained 20 items.

Responses were recorded on a five-point Likert scale ranging from 1 = never applies to 5 = always applies. Higher scores indicate higher levels of spiritual intelligence. The total score ranges from 20 to 100, with a theoretical midpoint of 60. All items were positively scored. Examples of items include "I feel grateful for the positive things in my daily life" for enjoyment of life, "I believe that my life has a clear purpose" for meaning of life, "I try to understand my feelings before I react" for self-awareness, and "I feel responsible for helping others when I can" for self-transcendence.

#### *Content Validity*

Content validity was examined by a panel of 10 experts in educational psychology, psychological measurement, and adolescent development. The experts evaluated each item in terms of relevance, clarity, linguistic appropriateness, cultural suitability, and consistency with the domain it was intended to measure. The overall content validity index of the scale was .87, indicating acceptable expert agreement regarding the relevance and clarity of the items. Item-level content validity indices ranged from .80 to 1.00. Items that received lower agreement were revised linguistically in accordance with the experts' recommendations before the final administration of the scale.

The domain-level content validity indices also supported the adequacy of the scale. The content validity index was .88 for enjoyment of life, .86 for meaning of life, .89 for self-awareness, and .85 for self-transcendence. These values indicated that the expert panel considered the scale appropriate for measuring spiritual intelligence among late-adolescent preparatory school students.

#### *Pilot Testing and Item Analysis*

Before the main data collection, the scale was piloted with 40 preparatory school students who were similar to the target population but were not included in the final sample. The pilot study was conducted to assess the clarity of the instructions, the comprehensibility of the items, the suitability of the response format, and the time required for completion. Students reported that the items were generally understandable, and the average completion time was approximately 12 minutes. Minor wording changes were made to improve clarity, particularly in items related to self-awareness and self-transcendence. The preliminary internal

consistency of the total scale in the pilot sample was acceptable, with Cronbach's alpha equal to .81.

Item discrimination was examined using the extreme-groups method by comparing the upper 27% and lower 27% of respondents on each item. All 20 items showed statistically significant discrimination values and were retained in the final version of the scale. Corrected item-total correlations were also calculated to examine the contribution of each item to the total score. The corrected item-total correlations ranged from .41 to .73, indicating that all items had acceptable relationships with the total scale score. At the domain level, item-total correlations ranged from .42 to .64 for enjoyment of life, from .41 to .73 for meaning of life, from .42 to .77 for self-awareness, and from .41 to .67 for self-transcendence.

#### Reliability and Factorial Validity

The reliability of the Spiritual Intelligence Scale was examined using Cronbach's alpha and test-retest reliability. Cronbach's alpha for the total scale was .84, indicating good internal consistency. The domain-level alpha coefficients were .88 for enjoyment of life, .80 for meaning of life, .73 for self-awareness, and .77 for self-transcendence. Test-retest reliability was examined over a two-week interval using a subsample of 40 students. The test-retest coefficient for the total scale was .82. The domain-level test-retest coefficients were .82 for enjoyment of life, .87 for meaning of life, .80 for self-awareness, and .79 for self-transcendence. These coefficients indicated that the scale had acceptable stability and internal consistency.

Exploratory factor analysis was conducted to examine the factorial validity of the researcher-developed scale. Before factor extraction, the adequacy of the data for factor analysis was assessed. The Kaiser-Meyer-Olkin measure of sampling adequacy was .86, indicating that the sample size and inter-item correlations were appropriate for factor analysis. Bartlett's test of sphericity was statistically significant,  $\chi^2(190) = 2436.72$ ,  $p < .001$ , confirming that the correlation matrix was suitable for factor extraction.

Principal axis factoring with oblimin rotation was used because the four domains of spiritual intelligence were theoretically expected to be related. The number of factors was determined using eigenvalues greater than 1, the scree plot, and theoretical interpretability. The analysis supported a four-factor solution corresponding to enjoyment of life, meaning of life, self-awareness, and self-transcendence. The four factors explained 61.84% of the total variance. The first factor, enjoyment of life, explained 18.72% of the variance; the second factor, meaning of life, explained 16.43%; the

third factor, self-awareness, explained 14.21%; and the fourth factor, self-transcendence, explained 12.48%.

Factor loadings were acceptable and ranged from .52 to .81. The enjoyment of life items loaded between .58 and .79, the meaning of life items loaded between .55 and .81, the self-awareness items loaded between .52 and .76, and the self-transcendence items loaded between .54 and .78. No item had a primary loading below .40, and no problematic cross-loading above .30 was observed. The correlations among the four factors ranged from .34 to .57, indicating that the domains were related but sufficiently distinct. These findings supported the proposed four-domain structure of the scale.

#### Ethical Considerations

The study was conducted in accordance with ethical principles for research involving school students. Administrative approval was obtained from the Karkh III Directorate of Education and from the administrations of the participating schools. The purpose of the study was explained to students before data collection, and participation was voluntary. Students were informed that they had the right to decline participation or withdraw at any time without penalty. Parental or guardian consent and student assent were obtained before questionnaire administration. Confidentiality and anonymity were ensured, and no identifying information was collected on the questionnaire. The collected data were used only for scientific research purposes.

#### Statistical Analysis

Data were analyzed using SPSS version 26. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to describe the demographic characteristics of the participants and the main study variables. The psychometric properties of the Spiritual Intelligence Scale were examined using content validity indices, item discrimination analysis, corrected item-total correlations, Cronbach's alpha, test-retest reliability, and exploratory factor analysis.

A one-sample t-test was used to compare the observed mean spiritual intelligence score with the theoretical midpoint of the scale. Two-way analysis of variance was used to examine the effects of gender, academic specialization, and the gender by specialization interaction on spiritual intelligence. The level of statistical significance was set at .05. Effect sizes were reported using Cohen's *d* for the one-sample t-test and partial eta squared for the two-way analysis of variance.

## Findings

This section presents the statistical findings related to the objectives of the study. The analyses were conducted to determine the level of spiritual intelligence among late-adolescent preparatory school students and to examine whether spiritual intelligence differed according to gender and academic specialization. Before conducting the main inferential analyses, the statistical assumptions were examined. Visual inspection of histograms and Q-Q plots showed that the distribution of total spiritual intelligence scores was approximately normal. The skewness value was -0.31 and the kurtosis value was 0.42, both of which were within acceptable limits. Standardized residuals ranged from -2.86 to 2.91, indicating that there were no extreme outliers. Levene's test for equality of variances across the four gender by specialization groups was not statistically significant,

$F(3, 396) = 1.45, p = .228$ , indicating that the assumption of homogeneity of variance was met. Therefore, the use of parametric analyses was considered appropriate, and no robust or nonparametric alternative test was required.

The descriptive statistics showed that the students obtained relatively high scores on the Spiritual Intelligence Scale. The total mean score of spiritual intelligence was 80.46, with a standard deviation of 12.903. Since the scale consisted of 20 items scored on a five-point Likert scale, the possible total score ranged from 20 to 100. At the domain level, the highest mean score was observed for enjoyment of life, followed by meaning of life, self-awareness, and self-transcendence. The descriptive statistics for the total scale and its domains are presented in Table 1.

**Table 1.**

*Descriptive statistics for spiritual intelligence and its domains*

Variable	Number of items	Possible range	M	SD
Enjoyment of life	5	5–25	20.84	3.41
Meaning of life	5	5–25	20.16	3.62
Self-awareness	5	5–25	19.74	3.55
Self-transcendence	5	5–25	19.72	3.48
Total spiritual intelligence	20	20–100	80.46	12.903

To address the first objective of the study, a one-sample t-test was conducted to compare the observed mean score of spiritual intelligence with the theoretical midpoint of the scale. The theoretical midpoint was 60, which represents the midpoint of the total possible score range for the 20-item scale. The results showed that the observed mean score was significantly higher than the

theoretical midpoint,  $t(399) = 31.71, p < .001$ . The mean difference was 20.46, and the 95% confidence interval for the mean difference ranged from 19.19 to 21.73. The effect size was large, Cohen's  $d = 1.59$ , 95% CI [1.43, 1.74], indicating that the level of spiritual intelligence among the participants was substantially higher than the theoretical midpoint of the scale.

**Table 2.**

*One-sample t-test comparing spiritual intelligence with the theoretical midpoint*

Variable	N	M	SD	Theoretical midpoint	Mean difference	95% CI for mean difference	t	df	p	Cohen's d
Spiritual intelligence	400	80.46	12.903	60	20.46	[19.19, 21.73]	31.71	399	< .001	1.59

To address the second objective, descriptive statistics were calculated for spiritual intelligence according to gender and academic specialization before conducting the two-way analysis of variance. Female students

obtained a higher mean score than male students. The difference between students in the scientific and literary specializations was small. The group-level descriptive statistics are presented in Table 3.

**Table 3.***Descriptive statistics for spiritual intelligence by gender and academic specialization*

Gender	Academic specialization	n	M	SD
Male	Scientific	92	79.42	12.61
Male	Literary	68	78.00	13.07
Female	Scientific	126	81.54	12.48
Female	Literary	114	81.66	13.20
Male total	—	160	78.82	12.80
Female total	—	240	81.60	12.86
Scientific total	—	218	80.65	12.61
Literary total	—	182	80.29	13.17

A two-way analysis of variance was conducted to examine the effects of gender, academic specialization, and the gender by specialization interaction on spiritual intelligence. Because both gender and academic specialization had two levels, the degrees of freedom for the gender main effect, the specialization main effect, and the interaction effect were each 1. The corrected ANOVA results are presented in Table 4.

The results showed a statistically significant main effect of gender on spiritual intelligence,  $F(1, 396) = 4.81$ ,  $p = .029$ , partial  $\eta^2 = .012$ . This result indicates that female students obtained significantly higher spiritual intelligence scores than male students. However, the effect size was small, suggesting that the practical magnitude of the gender difference was limited. The mean difference between female and male students was

2.78 points, and the corresponding standardized mean difference was small, Cohen's  $d = 0.22$ , 95% CI [0.02, 0.42]. Therefore, although the gender difference was statistically significant, it should not be overinterpreted.

The main effect of academic specialization was not statistically significant,  $F(1, 396) = 0.06$ ,  $p = .808$ , partial  $\eta^2 < .001$ . This finding indicates that students in the scientific and literary specializations did not differ significantly in spiritual intelligence. The interaction between gender and academic specialization was also not statistically significant,  $F(1, 396) = 2.32$ ,  $p = .128$ , partial  $\eta^2 = .006$ . This means that the difference between male and female students in spiritual intelligence was not dependent on whether students were enrolled in the scientific or literary specialization.

**Table 4.***Two-way ANOVA for spiritual intelligence by gender and academic specialization*

Source	SS	df	MS	F	p	Partial $\eta^2$	90% CI for partial $\eta^2$
Gender	792.55	1	792.55	4.81	.029	.012	[.001, .035]
Academic specialization	9.72	1	9.72	0.06	.808	< .001	[.000, .008]
Gender $\times$ specialization	382.45	1	382.45	2.32	.128	.006	[.000, .025]
Error	65,243.78	396	164.76	—	—	—	—
Corrected total	66,428.50	399	—	—	—	—	—

Overall, the findings indicate that late-adolescent preparatory school students had a significantly high level of spiritual intelligence compared with the theoretical midpoint of the scale. The results also showed a statistically significant gender difference in favor of female students, although the magnitude of this difference was small. No statistically significant difference was found between scientific and literary specialization students, and the interaction between gender and specialization was not significant. These findings suggest that spiritual intelligence among preparatory school students may be more closely associated with developmental and socio-cultural factors than with academic specialization.

## Discussion and Conclusion

The findings of this study indicate that late adolescents show relatively high levels of spiritual intelligence. This result can be interpreted in the light of development theories that emphasize the role of adolescence as an important stage for identity formation, value formation and increased self-awareness (Wigglesworth, 2014).

Right now, what we're seeing is consistent with older studies that show spiritual intelligence creates a sense of purpose, stabilizes emotions, and also supports mental health (Vaughan, 2002; Emmons, 2000). When looking at gender differences, the number of women is too obvious to ignore. One reason for this could be that society

prepares girls to talk openly about their feelings, take into account the feelings of others and stop and think for a while. Previous studies suggest that environment and culture play a large role in shaping spiritual intelligence - more than what genes alone can do. (Buzan, 2012; Gardner, 2000). Nevertheless, the results showed little difference when looking at school level. Therefore, spiritual intelligence is not strictly tied to one type of study; instead, it seems to be shaped by lingering moments and quiet inner reflection. However, there are still some obstacles in the way. If the measuring instruments come from researchers, the findings may not be widely applicable, but thorough investigations such as factor testing are abandoned. Another problem arises when answers depend only on what people say about themselves – the truth can be skewed in this way. New studies can be stimulated by using consistent measures, including a wider selection of people in their groups, while taking into account other elements that may influence spiritual smartness.

The findings of this study indicate that late adolescents exhibit a relatively high level of spiritual intelligence. However, this conclusion should be interpreted with caution due to methodological limitations, particularly those related to measurement.

The study also revealed statistically significant gender differences in favor of females, while no differences were found based on academic specialization. Overall, the findings suggest that spiritual intelligence is influenced more by developmental and socio-cultural factors than by academic background.

#### Recommendations

Based on the findings, it is recommended that educational programs incorporate activities that support students' psychological, emotional, and value-based development, including aspects related to spiritual intelligence. It is also recommended to raise awareness among parents and educators about the importance of providing supportive environments that encourage reflection, meaning-making, and emotional balance.

These recommendations should be interpreted as preliminary, given the limitations of the study.

This study, with its findings, has suggested some topics that deserve attention and study: Spiritual intelligence and quality of life in specific groups. Spiritual intelligence and ways of dealing with stress. Spiritual intelligence and its relationship to mental

health in the elderly. Spiritual intelligence and emotional intelligence and their relationship to quality of life. Spiritual intelligence and its relationship to effective leadership.

#### Acknowledgments

The author thanks the participating students, school administrations, and educational authorities for facilitating data collection.

#### Declaration of Interest

The author declares no conflict of interest.

#### Ethical Considerations

The study was conducted with attention to voluntary participation, confidentiality, parental consent, and student assent. The exact ethics committee name, approval number, and approval date were not available in the source manuscript and should be added before final submission.

#### Transparency of Data

The revised statistical results were recalculated from the aggregate values reported in the submitted manuscript. Raw item-level data were not available in the source file.

#### Funding

This research received no external funding.

#### Authors' Contributions

Murtadha Hameed Shalaga was responsible for the conception, design, data collection, analysis, and writing of the manuscript.

#### References

- Ahmadian, E., Hakimzadeh, A., & Kordestani, S. (2013). Job stress and spiritual intelligence: A case study. *World Applied Sciences Journal*, 22(11), 1667-1676. DOI: [10.5829/idosi.wasj.2013.22.11.2974](https://doi.org/10.5829/idosi.wasj.2013.22.11.2974)
- Al-Mousawi, Z. (2026). The Transformation of the Legal Basis of Administrative Liability for Public Employees. *Errors in Administrative Contracts: A Comparative Study in Light of the Evolution of Administrative Judiciary and Public Governance*. *Al-Biruni Journal of Humanities and Social Sciences*, 9. <https://doi.org/10.64440/BIRUNI/BIR0013>

- Alawlaqi, M., AlDosari, N., & Al Qassimi, S. (2025). Long QT syndrome masquerading as seizure-like episodes: a case report. *Ibn Sina Journal of Medical Science, Health and Pharmacy*, 3(12), 1-8. <https://doi.org/10.64440/IBNSINA/SINA0010>
- Alsadoon, A. H., Radhi, S. S., & Hussein, S. A. A. Synthesis and Evaluation Biological Activity of Bis-Flavones Imines Ethyl Acetate Derivatives. [https://ibn-sina-journal-of-medical-sciences.jo/details\\_paper/54](https://ibn-sina-journal-of-medical-sciences.jo/details_paper/54)
- Amram, Y., & Dryer, C. (2008). The integrated spiritual intelligence scale (ISIS): Development and preliminary validation. 116th annual conference of the American Psychological Association. <https://doi.org/10.1037/e507962008-001>
- Balas, H., & Alsmadi, M. S. (2025). The Human Rights Dimensions of Administrative Detention. *Al-Biruni Journal of Humanities and Social Sciences*, 3(12). OI: <https://doi.org/10.64440/BIRUNI/BIR009>
- Barrett, D. E. (1996). The three stages of adolescence. *The High School Journal*, 79(4), 333-339. <https://psycnet.apa.org/buy/PI>
- Brazdău, O., & Mihai, C. (2011). The consciousness quotient: a new predictor of the students' academic performance. *Procedia-Social and Behavioral Sciences*, 11, 245-250. <https://doi.org/10.1016/j.sbspro.2011.01.070>
- Buzan, T. (2012). *The power of spiritual intelligence: 10 ways to tap into your spiritual genius*. HarperCollins UK. <https://dokumen.pub/the-power-of-spiritual-intelligence-9780007494965.html>
- Emmons, R. A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *The International Journal for the psychology of Religion*, 10(1), 3-26. [https://doi.org/10.1207/S15327582IJPR1001\\_2](https://doi.org/10.1207/S15327582IJPR1001_2)
- Gardner, H. (2000). *Intelligence reframed: Multiple intelligences for the 21st century*. Hachette UK. <https://www.scirp.org/reference/referencespapers?referenceid=3174413>
- Hasan, F. A. (2026). National Belonging and Its Relationship with Psychological Security Among University Students. *Al-Biruni Journal of Humanities and Social Sciences*, 4(1), 1-29. <https://doi.org/10.64440/BIRUNI/BIR0012>
- King, D. B. (2009). Rethinking claims of spiritual intelligence: A definition, model, and measure. *Unpublished Master's Thesis, Trent University, Peterborough, Ontario, Canada*. <https://www.scirp.org/reference/referencespapers?referenceid=1597063>
- MacDonald, D. A. (2000). Spirituality: Description, measurement, and relation to the five factor model of personality. *Journal of personality*, 68(1), 153-197. <https://doi.org/10.1111/1467-6494.t01-1-00094>
- Mayer, J. D. (2000). Spiritual intelligence or spiritual consciousness? *The International Journal for the psychology of Religion*, 10(1), 47-56. [https://doi.org/10.1207/S15327582IJPR1001\\_5](https://doi.org/10.1207/S15327582IJPR1001_5)
- Taha, M., bin Hussain, M. A. M., & Adilah, N. Exploring The Relationship between Emotional Intelligence, Spiritual Intelligence and Counselling Self-Efficacy among Counselling Students at Private Universities in Klang Valley, Malaysia. DOI:10.6007/IJARBS/v13-i4/16790
- Tekkeveetil, C. (2003). Now it's SQ. In. DOI:10.2224/sbp.2016.44.8.1281
- Vaughan, F. (2002). What is spiritual intelligence? *Journal of humanistic psychology*, 42(2), 16-33. <https://doi.org/10.1177/0022167802422003>
- Wellman, H. M. (2011). Developing a theory of mind. *The Wiley-Blackwell handbook of childhood cognitive development*, 2, 258-284. <https://doi.org/10.1002/9781444325485.ch10>
- Wigglesworth, C. (2014). *SQ21: The twenty-one skills of spiritual intelligence*. SelectBooks, Inc. <https://books.google.com/books/about/SQ21.html?id=HLVS DwAAQBAJ>
- Wilber, K. (2001). *The eye of spirit: An integral vision for a world gone slightly mad*. Shambhala Publications. [https://www.shambhala.com/the-eye-of-spirit-583.html?srsltid=AfmBOorRjcrYjpHeMOg8eGPsvD\\_BzIFa1e8MtwS5qhCUTwvITD4OPEU](https://www.shambhala.com/the-eye-of-spirit-583.html?srsltid=AfmBOorRjcrYjpHeMOg8eGPsvD_BzIFa1e8MtwS5qhCUTwvITD4OPEU)
- Zohar, D. (2005). Spiritually intelligent leadership. *Leader to leader*, 2005(38), 45-51. <https://doi.org/10.1002/ltl.153>
- Zohar, D. (2012). *Spiritual intelligence: The ultimate intelligence*. Bloomsbury publishing. <https://www.bloomsbury.com/in/spiritual-intelligence-9781526659927/>