



Spiritual intelligence and psychological wellbeing of Pakistani University students

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Abstract

The objective of this study was to find out the predictive role of spiritual intelligence for psychological wellbeing in university students and also to assess gender differences. For that reason, data of $N= 250$ ($M_{age} = 21.8$; $SD= 1.9$) students of undergraduate programs was taken from different universities of Pakistan. Due to COVID-19 pandemic, data was collected online (google form) by using purposive sampling technique and sample was comprised of 77 men and 173 women. Spiritual Intelligence (King, 2008) and Ryff's 42-item Psychological Wellbeing Scale (Ryff, 1989, Muzzafar & Rana, 2019) were utilized for measuring variables of the study. Results were analyzed via SPSS (version 21), Hierarchical Regression and t-Test were carried out. The study results revealed that spiritual intelligence is a significant positive predictor of psychological wellbeing. It was also found that male students have high level of spiritual intelligence and psychological wellbeing in comparison to female students. Results of this study provide an implication for instructors as well as educationists to design activities which provide facilitation in increasing spiritual intelligence of students.

Keywords Pakistani · Psychological wellbeing · Spiritual intelligence · University students

Introduction

In the late twentieth century, a new concept of studying human intelligence was introduced i.e., "Spiritual Intelligence," which is now recognized as a third type of intelligence after rational and emotional intelligence (Peerzadah et al., 2018). Spiritual intelligence refers to the collection of mental skills that concentrate on insubstantial, high-quality life fields, such as self-consciousness, critical thought, and shifting context (King, 2008). The four elements on which spiritual intelligence is founded are essential existential thought, personal sense development, transcendental consciousness, and extension of conscious states (King, 2008). Spiritual intelligence is incorporated into the model of multiple intelligences as an integral element of existential intelligence, which is focused on the

"eventual problems" of human existence, as per the theory of Multiple Intelligences (Gardner, 1999).

Psychological wellbeing is about self-acceptance, quality development, and stronger links to others, the sense of independence in the mental process and its behavior, the ability to deal with the prejudices and challenges of a person and to regulate them according to one's values. It is positively correlated with self-compassion and self-acceptance (Halim, 2013). Psychological well-being has six dimensions: autonomy, environmental mastery, personal growth, self-acceptance, purpose in life, and positive relations with others (Ryff, 1989). Research has shown that psychological well-being can be influenced by several factors like life events (Frazier et al., 2012), psychological processes (Qasim et al., 2022), and illnesses.

Previous studies have also found a positive link between spiritual intelligence and psychological well-being. Siddiqui and Khan (2018) surveyed 360 Pakistani university students and found that spiritually intelligent students had higher PWB. Similarly, Hagani et al., (2013) found that Iranian nurses with higher spiritual intelligence had better PWB and lower burnout and stress.

Furthermore, studies from various cultural contexts have also reported a positive relationship between spiritual

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intelligence and PWB. Abdollahi et al. (2019) found that Iranian university students with higher spiritual intelligence had higher PWB in the dimensions of environmental mastery, personal growth, and life purpose. Karimzadeh et al. (2021a,b) found that Malaysian university students with higher spiritual intelligence had higher PWB, lower anxiety, and depression. Moreover, individuals with good psychological wellbeing tend to have a stronger immune system and are better equipped to handle stress and adversity (Serafini et al., 2018). Thus, it is important to prioritize psychological wellbeing in order to prevent negative clinical outcomes and maintain a healthy immune system (Serafini et al., 2020)

In the case of Pakistani university students, who often face high levels of stress and anxiety due to academic pressure (Ashraf et al., 2022), and social expectations, cultivating spiritual intelligence may serve as a coping mechanism to enhance their PWB. Previous literature has shown that spiritual intelligence can help individuals develop a sense of self-transcendence, which involves a shift from self-centeredness to a broader, more interconnected perspective (Nasiri et al., 2019a,b). This shift may help Pakistani university students overcome feelings of isolation and disconnection, leading to a greater sense of meaning and purpose in life. Moreover, spiritual intelligence has been found to promote positive coping strategies such as mindfulness, which may reduce anxiety and improve emotional regulation (Moeini et al., 2019a,b).

So, the current study was aimed to fill the existing gap in the empirical domain of Pakistani society. Therefore, it was much needed to provide an understanding regarding the significance of spiritual intelligence for psychological wellbeing. Moreover, to find the gender differences on spiritual intelligence and psychological wellbeing.

Hypotheses

H1 Spiritual Intelligence is likely to predict psychological wellbeing in university students of Pakistan

H2 There is likely to be a gender differences on spiritual intelligence and psychological wellbeing.

Method

Sampling strategy and sample size

Purposive sampling technique was used to select participants for the study. G-Power Analysis and existing literature were used to calculate the size of a sample. In G-Power analysis, the effect size was $p=0.30$ medium, alpha level was 95 which gave sample size 115. But the size of sample taken for the study was $N=250$, including men ($n=77$) and women ($n=173$). Due to

COVID-19 pandemic, data was collected online (google form) through social media sites and emails.

Inclusion, exclusion criterion

Study included student who were of age 18 to 32 (as proposed by previous literature) who were studying in public and private universities of Pakistan. Study did not include students who were having chronic physical problems, doing any type of diploma course or were doing their degrees in private program.

Measures

Demographic sheet

The demographic sheet contains 12 questions; name, age, gender, religion, education, number of siblings, birth order, marital status (married or unmarried), monthly income, current residency, family system (nuclear or joint), and profession.

Spiritual intelligence self-report inventory (King, 2008)

A 24 item scale developed by David B. King in 2008. It has four sub-scales: Critical Existential Thinking, which has 7 items, Personal Meaning Production has 5 items, 7 items of Transcendental Awareness and 5 statements of Conscious State Expansion. Item response is based upon Likert scale of 5 points that ranges from (Not at all true for me = 0) to (Completely true for me = 4). Only one item has reverse coding. Cronbach's alpha value of the scale is .92 while split half reliability is .91. CET, PMP, TA and CSE which are individual subscales possess high reliability and having sufficient alpha coefficient of .78, .78, .87 and .91 respectively.

SISRI's scoring interpretation indicates that high score on the scale means good spiritual intelligence. Permission for using and translating this scale had been taken from the author of the scale. In this study, .86 was declared as the Cronbach's alpha, while its subscales' reliabilities were .63, .74, .57 and .75 respectively.

Ryff's psychological wellbeing scale (PWB; Ryff, 1989)

This scale was designed by Carol Ryff & Keyes in 1989. The total items are 42, which are distributed into six dimensions with 7 items each i.e. Autonomy, Environmental mastery, Positive relation with others, Personal growth, Purpose in life and Self-acceptance. The item response is based upon Likert scale of 6 point that has 1 for Strong disagree and 6 for Strongly agree. Twenty-one (21) items have reversed coding. Scale is having Cronbach's alpha of .79.

When talking about high and low well-being score, high well-being reflects to the top 25% scores and low well-being refers to scores which are in the bottom 25% of the distribution. Another alternative of defining high and low well-being scores is 1.5 standard deviation above the mean is considered as high well-being scores while 1.5 standard deviation below the mean is low well-being. Permission for using this scale had been taken from the author of the scale, while for using its Urdu translated version, permission was taken from Muzaffar & Rana, who translated it in 2019. In the present study model, the Cronbach's alpha value was .83, while its subscales' reliabilities were .45, .36, .51, .54, .52 and .51 respectively.

Procedure of data collection

Formal permission from research ethical committee of academic institution for conducting research was taken. Then formal permission was taken from respective authors for using and translating their tools. After authors' permission, study tools were translated into Urdu language. During translation process, forward and backward translation was done by two bilingual experts according to MAPI guidelines. Due to COVID-19 pandemic, it was not possible to visit universities for data collection, that's why data was collected online.

Piloting was done on 15 participants for checking the reliability of the translated scales' items and other research logistics. No changes were suggested in piloting. Online form was created that included important instructions, demographics and questionnaires, and then were shared with universities' students through social media sites and emails. A total of 255 data was collected in 21 days, in which 5 forms were discarded as they were submitted twice. So, the original data was 250.

Results

The following study was focused mainly on finding out predictive role of spiritual intelligence in psychological wellbeing of university students ($N=250$). The study results which were calculated by using SPSS 21. Initially, Descriptive statistics was done and then psychometric properties were calculated. Further inferential statistics was done to test the hypotheses of the study through Hierarchical Regression and Independent Sample t-test.

Descriptive statistics

See Table 1 in "tables" file.

Table 1 Descriptive and frequencies of demographics

Variables	<i>f</i> (%)	<i>M</i> (<i>SD</i>)
Age		21.83 (1.90)
Gender		
Male	77 (30.8)	
Female	173 (69.2)	
Religion		
Muslim	248 (99.2)	
Non-Muslim	2 (.8)	
Education		
B.S	125 (50.0)	
BSc (Hons)	6 (2.4)	
B.A/B.Sc	18 (7.2)	
M.A/M.Sc	82 (32.8)	
DPT	17 (6.8)	
CMA	2 (.8)	
Educational Institution		
Public	171 (68.4)	
Private	79 (31.6)	
Birth order		
Only child	2 (.8)	
First	76 (30.4)	
Middle	122 (48.8)	
Last	50 (20.0)	
Family system		
Nuclear	152 (60.8)	
Joint	98 (39.2)	
Family income		68432.0 (54606.56)
Province		
Sindh	4 (1.6)	
Punjab	59 (23.6)	
KPK	179 (71.6)	
Balochistan	5 (2.0)	
Federal Territory	3 (1.2)	
Residency during education		
Hostel	82 (32.8)	
Home	168 (67.2)	
Marital Status		
Single	198 (79.2)	
Engaged	40 (16.0)	
Married	12 (4.8)	
Profession		
Student	220 (88.0)	
Job along with education	30 (12.0)	

f = Frequency *M* = Mean, *S. D* = Standard Deviation

Correlation analysis

Correlation analysis was done between demographics and psychological wellbeing, and spiritual intelligence and psychological wellbeing.

The results of correlation analysis showed that among demographics, gender was found to be significantly negatively correlated with psychological wellbeing while number of sibling was significantly positively associated with psychological wellbeing. Moreover, spiritual intelligence was found to be significantly positively associated with psychological wellbeing, which showed that students with high spiritual intelligence have high level psychological wellbeing. See Tables 2 and 3 in “tables” file.

Regression analysis

It was hypothesized that there would be a predictive relationship between spiritual intelligence and psychological wellbeing. Hierarchical regression (Enter) was used in order to assess the predictive role of spiritual intelligence.

In step 1, gender and number of siblings were entered in order to control their effect. The model was significant as $F(2, 247) = 3.07, p < .05$ with R^2 change of .02, means as it explained 2% variance in the model.

Step 2 shows that spiritual intelligence was as strong positive predictor of psychological wellbeing ($\beta = .30, p < .001$). The model was significant as $F(1, 246) = 24.19, p < .001$ with R^2 change of .08 means as it explained 8% variance in the model. See Table 4. in “tables” file. For emerged regression model, see Fig. 1 in “figure” file.

Independent sample t-test analysis

It was hypothesized that there would be a gender difference in university students, on spiritual intelligence and psychological well-being. Independent sample t-test was used in order to assess whether there would be statistical gender differences in male and female students.

The assumption of homogeneity of variance was assumed and normal distribution of data was ensured by using Q-Q plot. The independent T-test resulted in a significant gender dissimilarity found in the context of spiritual intelligence and psychological wellbeing, which showed that male students had high level of spiritual intelligence and psychological wellbeing in comparison to female students, with medium effect size. See Table 5 in “tables” file.

Discussion

In Pakistan, students usually start university in late adolescence or young adulthood. The rapid biological and psychological changes and development occurring at this time can make it difficult to pinpoint the emergence of mental health problems, and this can result in an escalation of negative consequences before issues are detected (Irfan, 2016)

Table 2 Relationship between demographics and psychological wellbeing

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14	M	S.D
1.Age	-	-.12*	-.03	.17**	.02	.11*	-.06	.02	.05	-.10*	-.09	.08	.25**	.00	21.83	1.90
2.Gender		-	.03	-.25**	.34**	.09	-.02	.19**	.13*	.09	-.30**	-.02	.18**	-.11*	1.69	.46
3.Religion			-	-.02	-.06	.07	.07	.02	.11*	-.04	-.033	-.04	-.03	.07	1.01	.08
4. Education				-	-.06	.00	-.03	-.03	.09	.01	.02	.07	-.02	.04	2.46	1.55
5. Educational Inst					-	-.04	-.04	.07	.13*	.05	-.25**	.07	.04	-.00	1.32	.46
6.No. of siblings						-	.19**	.04	.06	.14*	-.14*	-.07	.08	.11*	4.88	2.06
7.Birth order							-	-.09	.05	-.08	.09	-.15**	.02	-.08	1.88	.72
8.Family system								-	-.02	.14*	-.15**	.09	.03	-.00	1.39	.48
9.Family income									-	.10	-.07	-.10	-.00	-.01	68432.0	54606.56
10. Province										-	-.05	.05	-.07	.00	2.78	.56
11. Resi.during edn.											-	.00	.04	-.10	1.67	.47
12.Marital status												-	-.01	-.04	1.26	.53
13. Profession													-	-.06	1.12	.32
14. Sum of PWB subscales														-	172.08	23.36

Note: Educational inst= Educational institution, Resi. during edn = Residency during education.

**p<.01 *p<.05

Table 3 Relationship between spiritual intelligence and psychological wellbeing

Measures	1	2	3	4	5	6	7	8	9	10	11	12	M	S.D
1. CET (SQ)	-	.51**	.49**	.53**	.81**	.21**	.04	.18**	.05	.16**	.14*	.18**	26.91	5.02
2. PMP (SQ)		-	.56**	.62**	.82**	.38**	.21**	.38**	.21**	.39**	.28**	.43**	19.58	3.91
3. TA (SQ)			-	.45**	.78**	.28**	.05	.19**	.07	.09	.13*	.19**	23.35	4.66
4. CSE (SQ)				-	.79**	.27**	.18**	.12*	.09	.20**	.19**	.24**	18.50	4.01
5. Sum of SQ subscales					-	.35**	.14*	.27**	.13*	.25**	.22**	.31**	88.34	14.15
6. Autonomy(PWB)						-	.44**	.41**	.31**	.34**	.53**	.69**	26.76	5.10
7. Envir.Mas.(PWB)							-	.40**	.44**	.37**	.48**	.71**	25.66	4.95
8. Per.Growth(PWB)								-	.36**	.55**	.47**	.73**	29.64	5.34
9. PRWO (PWB)									-	.42**	.38**	.68**	29.66	5.81
10. Pur. in Life(PWB)										-	.44**	.73**	30.54	5.54
11. Sel-accept.(PWB)											-	.76**	29.82	5.53
12. Sum of PWB subscales												-	172.08	23.36

SQ= Spiritual Intelligence.CET= Critical Existential Thinking, PMP= Personal Meaning Production, TA= Transcendental Awareness; CSE = Conscious State Expansion PWB= Psychological Wellbeing, Envir. Mast.= Environmental Mastery; PRWO= Positive Relations with Others, Pur. In Life= purpose in Life, Sel. Accept= Self-acceptance.
 **p<.01 *p<.05

Spiritual intelligence, being a positive variable, help in formation of individual’s identity status and overall improves human’s quality of life (Khalajani & Farhangi, 2017; Singh et al., 2013). It includes various dimensions, such as transcendence, meaning, and purpose in life that has been found to have a significant impact on psychological well-being (PWB) among university students (Soylemez & Koc, 2019). The importance of investigating the relationship between SI and PWB in students is crucial

since it can enhance their overall mental health and academic performance. In the context of Pakistani students, this relationship becomes more pertinent due to the growing stress and mental health issues among university students, still it is less studied in Pakistan and empirical evidences are minimal. Thus, it was necessary to investigate this relationship to fill the research gap and provide evidence-based interventions for the betterment of students’ psychological well-being in Pakistan (Smith et al., 2021). So, the main objective of the study was to examine the role of spiritual intelligence in the prediction of psychological well-being in Pakistani students.

Table 4. Hierarchical Regression predicting psychological wellbeing among University students

Variables	Psychological Wellbeing	
	ΔR^2	<i>B</i>
Step 1	.02*	
Gender		.11
Number of siblings		.10
Step 2	.08***	
Gender		.07
Number of siblings		.06
Spiritual Intelligence		.30***
Total R^2	.11	
<i>N</i>		250

*p<.05; **p<.01; ***p<.001; β = Standardized Coefficient; ΔR^2 = R Square change; R^2 = R Square

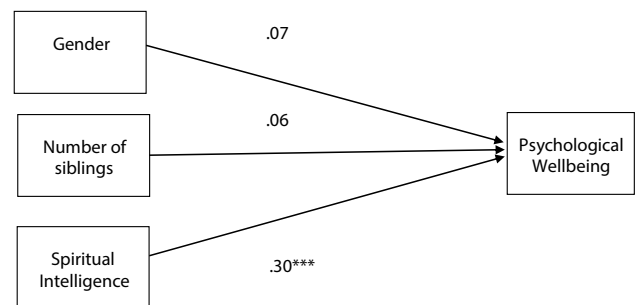


Fig. 1 Emerged regression model showing spiritual intelligence as predictor of psychological wellbeing

Table 5 Gender differences on spiritual intelligence and psychological wellbeing of university students

Scales	Men		Women		<i>T</i>	<i>P</i>	95 % CI		<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>LL</i>	<i>UL</i>	
Spiritual Intelligence	67.32	12.47	63.01	14.68	-2.24	.02*	-.52	-8.10	0.31
Psychological Wellbeing	176.26	22.94	170.23	23.37	-1.89	.059*	-.23	12.30	0.26

* $p < 0.05$, ** $p < 0.01$, *** $p < .001$

population, men/women ratio is mix, as evident from other studies (Chachhar et al., 2013; Jawaid et al., 2013; Malik, 2018).

Present study found a significant positive prediction of spiritual intelligence in psychological well-being. These results are evident in previous studies. Abdollahiet al., (2019) found that spiritual intelligence involved the ability to connect with a higher purpose and meaning beyond oneself, which can provide a source of fulfillment and satisfaction and contribute to psychological well-being. Moreover, spiritual intelligence may provide students with coping mechanisms to deal with stress. Srivastava and Singh (2020) suggested that spiritual practices such as mindfulness and prayer can help students cope with academic demands and other challenges, which can improve psychological well-being.

They also revealed that by enhancing spiritual intelligence, students would have improved psychological wellbeing which would play a vital role in their good academic performance and social life (Astin, et al. 2011; Olson, 2008). That might be due to the sense of meaning and purpose provided by spirituality.

Furthermore, spirituality can be a source of social support and community. Mohammadi et al., (2016) found that spirituality can provide a sense of belonging and connectedness, which can contribute to better psychological well-being. Social support has been linked to lower levels of stress and depression, which suggests that the social aspect of spirituality may be particularly beneficial for students' psychological well-being.

Overall, research suggests that spirituality can play a positive role in promoting psychological well-being in university students by providing a sense of meaning and purpose, coping mechanisms for stress, and social support (Jahangir et al., 2020; Soodet al., 2012; Sahebalzamani et al., 2013).

Moreover, results also concluded that male students have high spiritual intelligence and psychological wellbeing as compared to female students, which are aligned with the previous results (Ahangar, 2015; Jahanger & Parray, 2018), who also found the same outcomes.

Conclusion

In conclusion, having spiritual intelligence may contribute to the enhancement of psychological well-being among Pakistani university students by providing a sense of meaning and purpose in life and promoting positive coping strategies.

Moreover, study result state that male students exhibit more spiritual intelligence and psychological wellbeing as compare to their counterpart.

Limitations and suggestion

The study has several limitations, which need to be covered in future studies. As the study was conducted during the unexpected novel COVID-19 pandemic, there was a complete lockdown throughout the world. Data was collected online, So, there might be some lacking in comprehending the scales' items by the participants. Moreover, it was difficult in online data collection, so the number of samples desired was reduced by almost half of the figure. Furthermore, the data was collected from only one city of Pakistan, which affect the generalizability of the data.

The male and female ratio was not equal which is why a clear and better result pertinent to gender difference was not clear. The primary reason behind this unequal gender ratio is that it was not very easy to collect data online as mentioned earlier. Therefore, further study should compare the gender difference with equal gender proportions.

Thus, physical data collection is needed to study these variables with the same population and in different areas of Pakistan to enhance the generalizability of the sample.

Implication

This study will make a significant contribution as it emphasized an understanding of the importance of spiritual intelligence and its potential impact on enhancing well-being of the students. As improving, spiritual abilities may enhance the psychological well-being of society. Therefore, the study implied that educational institutions and mental health professionals consider incorporating interventions that aim to develop spiritual intelligence as a means of promoting psychological well-being and keep them mindful during lectures among university students in Pakistan. This study also provides a direction to the researchers to cover the limitations of the current study, and provide some fruitful, pragmatic, and applied results.

Data availability The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to their containing information that could compromise the privacy of research participants.

Declarations

Ethical approval Formal permission was taken from the research ethical committee of the institute where the study was conducted.

Conflict of interest We have no conflict of interest, as the research was part of M. S degree program, and no one provided any kind of financial support for this research.

This work has not been published before, and not under consideration for publication anywhere else. Moreover, its publication has been approved by all co-authors, and by the responsible authorities at the institute where the work has been carried out.

Informed consent An informed consent was obtained from the participants of the study before taking part in the study.

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