



The Relationship Between Spiritual Well-Being and Psychological Capital Among Nursing Students: A Cross-sectional Study

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Abstract

Background: University students' spiritual well-being (SWB) is a potentially decisive factor in strengthening positive concepts, such as psychological capital (PsyCap).

Objectives: This study investigated the relationship between SWB and PsyCap among nursing students.

Methods: The present descriptive cross-sectional study was conducted on 383 nursing students of a four-year educational program using a convenience sampling method from July to December 2021 in Iran. The tools applied in this study were the psychological capital (PsyCap) questionnaire and the spiritual well-being scale (SWBS). Pearson's correlation coefficient and hierarchy of multiple regressions were used to analyze the data.

Results: The results of Pearson's correlation coefficient showed a positive and significant relationship between religious well-being (RWB) and self-efficacy, hope, optimism, and resilience (r ranging from 0.36 to 0.45, $P < 0.01$). Also, the correlation coefficients between existential well-being (EWB) and self-efficacy, hope, optimism, and resilience (r ranging from 0.41 to 0.61, $P < 0.01$) were positive and significant. Hierarchical multiple regression revealed that two areas of SWB were explained: 26.6%, 37.7%, 29.6%, and 17.9% of the variance in the students' self-efficacy, hope, optimism, and resilience, respectively.

Conclusions: SWB is a substantial issue in promoting the students' PsyCap, and it is possible to improve their PsyCap through spirituality-based interventions.

Keywords: Spiritual Well-Being, Psychological Capital, Nursing Students

1. Background

Students are the product of a society's spiritual and human efforts. They are the future decision-makers and organizers of their country (1). Among academic disciplines, nursing is stressful because students in this field are exposed to the educational and clinical environment stress. The clinical environment stress is triggered by insufficient clinical knowledge and experience in caring tasks, inability to use equipment and take responsibility, and fear of making mistakes in providing care and medication. Moreover, this stress level negatively affects the students' cognitive function, learning, and personality development (2). These students

are more prone to mental and emotional disorders than those in other fields. Mental disorders have been reported in several studies among students (3-6). As a psychological resource for coping, spiritual well-being (SWB) is essential in reducing suffering and forcing individuals to see traumatic situations or disturbing events with a positive outlook (1).

SWB is a feeling of connection with others, having a purposeful and meaningful life, and being connected to a higher power. Religious well-being (RWB) and existential well-being (EWB) are two components of SWB. Previous studies have shown that spiritual reinforcement increases a person's ability to adapt and improve psychological

performance (7-9). Therefore, it is essential to address SWB in students and examine its correlation with psychological capital (PsyCap).

Psychological capacities, such as hope, resilience, optimism, and self-efficacy, constitute a factor called PsyCap. Several studies have indicated that PsyCap components can explain the individuals' physical and mental health and ultimately lead to their well-being (10-12). Therefore, the presence of PsyCap among university students can improve their performance and better learning. Hence, this concept can be considered one of the crucial elements of the higher education system (13). SWB and participation in religious activities explained 18% of the variance in quality of life in this sample (14). In a study, students achieved moderate to high scores on SWB, which is similar to previous research (15). The results of another study also showed a negative and significant relationship between PsyCap and academic burnout (16, 17). Also, Jafari revealed the presence of a significant relationship between spirituality and psychological well-being (18).

Nursing education in Iran claims to consider spirituality as a key focus and emphasizes the spiritual growth of nursing students as a basic need. Culture affects spiritual health, religiosity, and hope, and nursing students must become more familiar with these factors and the relationship between them depending on their culture. Furthermore, spirituality can be expressed differently in different cultures and traditions, and since no study has investigated the approaches of nursing education to spirituality in a religious society like Iran, with its own cultural and educational systems, to improve students' cognitive and technical skills, it is necessary first to examine their views on spirituality and its role in improving PsyCap.

2. Objective

This study aimed to explore the relationship between SWB and PsyCap in nursing students.

3. Methods

3.1. Study Design, Setting, and Sample

This cross-sectional correlational design was conducted among nursing students of a four-year educational program in Fars province, Southwest Iran. Data were collected from July to December 2021. Students from five universities of medical sciences in Fars province were invited to participate in the study. The participants were selected using a convenience sampling technique. Moreover, the inclusion criteria included being over 18

years old, studying in the second semester and beyond, having no physical and mental problems, and willingness to participate in the study; the only exclusion criterion of the study included incomplete questionnaires. The sampling frame consisted of nursing students ($n = 603$) of a four-year educational program in Fars province, Southwest Iran. The sample size was calculated to be 360 using the following formula, where $\alpha = 0.05$, $\beta = 0.2$, and $r = 0.15$, according to similar previous studies (19):

$$\text{Sample size} = \left[\frac{Z_{1-\frac{\alpha}{2}} + Z_{1-\beta}}{0.5 \times \ln \frac{1+r}{1-r}} \right]^2 + 3$$

$$n = \left[\frac{1.96 + 0.84}{0.5 \times \ln \frac{1+0.15}{1-0.15}} \right]^2 + 3$$

$$= 360$$

Nevertheless, given the availability of participants and the possible attrition rate of 10%, the required sample size was finally raised to 395. However, 12 questionnaires were excluded due to incompleteness. The questionnaires were distributed through WhatsApp groups and student board pages with an online survey link.

3.2. Measures

The Spiritual Well-Being Scale (SWBS): This scale, developed by Palutzian and Ellison (1982), contains 20 items with two subscales (10 items (odd number) to measure RWB and 10 items (even number) to measure EWB). Eight items (1, 2, 5, 6, 9, 12, 13, 16) are adverse questionnaires (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, and 6 = strongly agree). Conversely, reverse scoring was employed for negatively worded questions (1 = strongly agree, 2 = agree, 3 = somewhat agree, 4 = somewhat disagree, 5 = disagree, and 6 = strongly disagree). The total SWB score ranged from 20 to 120. In sum, the SWB status was categorized as follows: Low (20 - 40), average (41 - 99), and high (100 - 120). Cronbach's alpha coefficients of the original version's RWB, EWB, and total scale were 0.91, 0.91, and 0.93, respectively (20). The total score ranged from 20 to 120. Cronbach's alpha coefficients for the Persian version were also 0.82, 0.87, and 0.90, respectively (21). In addition, Cronbach's alpha coefficient was determined in this study to be 0.88, 0.93, and 0.93 for RWB, EWB, and total SWB, respectively.

The Psychological Capital (PsyCap) Questionnaire: This scale, created by Luthans in 2007, contains four subscales: Optimism (6 items), self-efficacy (6 items), hope (6 items), and resilience (6 items). A score of 1 (strongly disagree) to 6 (strongly agree) was used to

rate the subscales (24 to 124 is the total score range). In sum, the status of PsyCap was categorized as follows: Low (24 - 40), average (40 - 80), and high (>80). The original version's Cronbach's alpha coefficients for hope, resilience, self-efficacy, optimism, and total scale were 0.72, 0.71, 0.75, 0.74, and 0.88, respectively (22). Cronbach's alpha coefficients of the PsyCap questionnaire's Persian version for hope, resilience, self-efficacy, optimism, and total scale were 0.83, 0.73, 0.87, 0.70, and 0.89, respectively (23). In the current study, Cronbach's alpha coefficients were 0.79, 0.71, 0.86, 0.72, and 0.89 for hope, resilience, self-efficacy, optimism, and total PsyCap questionnaire, respectively.

3.3. Statistical Analysis

The subjects' demographic data were examined using descriptive analysis. Furthermore, independent *t*-tests and analysis of variance (ANOVA) were used to explore SWB and PsyCap scores based on various demographic characteristics. In addition, Pearson's correlation coefficient (*r*) investigated the relationship between SWB and PsyCap. Hierarchical regression analyses were also used to find to what extent the scores of the SWB domains could predict the scores of PsyCap domains. The SPSS software version 25 was used to analyze the data.

3.4. Ethical Considerations

The present study was approved by the Institutional Research Ethics Committee of Larestan University of Medical Sciences, Larestan, Iran (IR.LARUMS.REC.1400.018). All subjects were initially provided information about the study purpose and process and were assured of their anonymity and data confidentiality. All participants' electronic consent was obtained at the start of the online survey link if they agreed to participate in the study. In order to reach as many students as possible, reminders were posted every three weeks.

4. Results

4.1. Participants' Characteristics

The data of 383 participants were analyzed. Most participants were female ($n = 213, 55.8\%$), and the number of male students was 170 (44.2%) (Table 1). In addition, the mean age of the participants was 21.49 ± 2.09 years. Findings showed that the means and standard deviations of the total SWB score and the total PsyCap score were 86.76 ± 17.18 and 103.95 ± 17.08 , respectively. Mean scores for SWB and PsyCap components among nursing students are presented in Table 2.

Table 1. Participants' Demographic Characteristics ($n = 383$)^a

Variable and Categories	Values
Age, y (mean \pm SD)	21.49 \pm 2.09
18 - 19	131 (34.2)
20 - 21	164 (42.8)
22 - 23	88 (23.2)
Gender	
Male	170 (44.2)
Female	213 (55.8)
Years of study	
Year 1	116 (30.3)
Year 2	112 (29.2)
Year 3	87 (22.7)
Year 4	68 (17.8)
Marital status	
Single	356 (93)
Married	27 (7)
School of nursing	
Lar	91 (23.8)
Shiraz	83 (21.7)
Jahrom	81 (21.1)
Fasa	50 (13.1)
Gerash	78 (20.4)

^a Values are expressed as No. (%) unless otherwise indicated.

Table 2. Mean Spiritual Well-Being and Psychological Capital Scores Among Nursing Students ($n = 383$)

Variables and Categories	Mean \pm SD
SWB	
RWB	44.44 \pm 9.02
EWB	42.31 \pm 9.50
Total	86.76 \pm 17.18
PsyCap	
Self-efficacy	27.74 \pm 5.57
Hope	25.53 \pm 5.53
Optimism	25.75 \pm 4.50
Resilience	24.92 \pm 4.72
Total	103.95 \pm 17.08

Abbreviations: RWB, religious well-being; EWB, existential well-being; PsyCap, psychological capital.

4.2. Differences Between Spiritual Well-Being and Psychological Capital Domains based on Demographic Characteristics

In all subscales of PsyCap and SWB, the mean score of females was higher than males. Besides, in the study's first year, the mean score in all levels was higher than in other years (Table 3).

4.3. Correlations of Variables

The Pearson's correlation coefficient results demonstrated the positive and significant correlations between SWB and PsyCap (Table 4).

4.4. The Spiritual Well-Being Domains as Predictors of Psychological Capital Domains

The hierarchical regression analyses were performed to predict the PsyCap domains, namely self-efficacy, hope, optimism, and resilience, using SWB domains (RWB and EWB). The results of this analysis are presented in Table 5.

5. Discussion

The present study aimed to investigate the relationship between SWB and PsyCap among nursing students. The data analysis results showed a positive and significant relationship between the components of SWB and PsyCap.

Regarding demographic variables, the results showed that females' scores in all components of SWB and PsyCap were higher than males' scores. In line with the current study, the results of previous studies indicated that the SWB and RWB scores were higher in females than in males (1, 9, 24). It seems that some religious principles and norms associated with women can be more consistent with roles, characteristics, or behaviors that are socially assigned to them (24). Another result of the present study was that the mean scores were higher in the first year than in other years. The studies conducted on nursing students showed that second- and third-year nursing students had weaker cognitive performance compared to the students in lower years, and they are also at risk of stress and burnout (17, 25). Although the findings of this study are not identical in terms of their concepts, as compared to those currently being studied, it seems that during their education, students face many stressors, such as exposure to the patients and the hospital environment, as well as the heavy content of specialized courses.

The findings showed that students who scored higher on the scale reported higher levels of self-efficacy in both aspects of SWB. These results are in line with previous studies (26, 27). Spirituality is a fundamental concept that shows how individuals can cope with problems in

different situations, enables individuals to deal with stress and daily life problems, helps them feel better, and, in turn, manages stress better and enjoys higher self-efficacy (19, 28).

The results showed a positive relationship between SWB and hope, which were consistent with previous studies (29, 30). Other studies demonstrated a direct relationship between inner religiosity, spiritual health, and positive hope. It could be argued that religion develops a logical set of beliefs that helps individuals find purpose in their lives and optimism for the future (31). It seems that individuals' spiritual and religious beliefs are rooted in their cultural and religious contexts. In Iran, as a Muslim country, religious rituals and spiritual strategies can be the foundation of their hope in life in the face of their difficulties.

The present study revealed a positive and significant relationship between religious beliefs and optimism. The results of Gheinaghi et al.'s study were in line with this finding (32). Thus, it can be argued that religious beliefs assure individuals that a powerful force always works for them. Therefore, optimistic individuals are less prone to mental disorders and enjoy better health (32, 33).

Finally, the present study demonstrated a positive and significant correlation between the students' SWB and resilience. This finding is supported by previous studies (34, 35). As a result of the current study, it can be concluded that students prefer to use spiritual coping strategies to deal with unfavorable conditions caused by the hospital's clinical and educational environment and psychological pressures. Besides, another study demonstrated a correlation between SWB and increasing students' resilience (36, 37). It seems that spiritual beliefs clarify the purpose of life for a person and are a source of comfort in painful and threatening situations. When individuals are connected with a superpower and have higher goals and values, they have higher resilience and better performance (34).

5.1. Strengths

One of the strengths of this study is using a large sample size, which can increase generalizability. Another strength is examining the relationships between SWB and PsyCap among nursing students, adding to the knowledge of how SWB can affect PsyCap. So, it can be concluded that religious orientation and spirituality can promote individuals' PsyCap, and this approach can be used to provide services concerning student performance.

5.2. Limitations

The current research has limitations. First, these results cannot be generalized using a convenience sample.

Table 3. Differences in Variables According to Demographic Characteristics (n = 383)^a

Factors	No. (%)	Self-efficacy	Hope	Optimism	Resilience	RWB	EWB
Age group, y							
18 - 20	131 (34.2)	28.03 ± 5.04	26.65 ± 4.90	26.32 ± 4.44	25.51 ± 4.08	45.73 ± 8.77	43.89 ± 9.44
21 - 22	164 (42.8)	27.59 ± 4.38	24.89 ± 5.55	25.28 ± 4.29	24.42 ± 4.97	44.01 ± 8.90	40.82 ± 9.14
23+	88 (23.2)	27.56 ± 7.87	25.06 ± 6.15	25.78 ± 4.90	24.98 ± 5.05	43.35 ± 9.47	42.75 ± 9.94
F (2, 380)		0.282	4.18**	1.98	1.99	2.18	3.96**
Gender							
Male	170 (44.2)	27.28 ± 5.27	25.34 ± 5.42	25.60 ± 4.36	24.99 ± 4.79	43.20 ± 9.28	41.77 ± 10.19
Female	213 (55.8)	28.10 ± 5.78	25.68 ± 5.63	25.87 ± 4.61	25.87 ± 4.61	45.44 ± 8.69	42.75 ± 8.92
t		1.42	0.594	0.577	-0.249	2.42 **	0.997
Years of study							
Year 1	116 (30.3)	28.46 ± 4.83	26.36 ± 5.56	26.50 ± 4.74	25.58 ± 4.36	45.86 ± 8.41	43.64 ± 9.31
Year 2	112 (29.2)	27.16 ± 5.28	25.33 ± 5.54	25.75 ± 4.04	24.77 ± 4.88	44.73 ± 8.96	42.17 ± 10.02
Year 3	87 (22.7)	27.54 ± 4.45	25.09 ± 5.52	25.12 ± 4.55	24.17 ± 4.94	43.13 ± 9.92	41.59 ± 9.37
Year 4	68 (17.8)	27.70 ± 7.97	25.01 ± 5.44	25.27 ± 4.63	25.01 ± 4.67	43.25 ± 8.69	41.20 ± 9.07
F (3, 379)		1.08	1.29	1.94	1.54	2.01	1.24
Marital status							
Single	356 (93)	27.76 ± 5.52	25.62 ± 5.40	25.72 ± 4.39	24.96 ± 4.56	44.37 ± 9.03	42.17 ± 9.33
Married	27 (7)	27.48 ± 6.27	24.33 ± 7	26.18 ± 5.83	24.37 ± 6.55	45.44 ± 8.88	44.25 ± 11.53
t		0.251	1.17	-0.515	0.635	-0.594	-1.01
School of nursing							
Lar	91 (23.8)	27.54 ± 7.33	24.58 ± 5.61	25.54 ± 4.64	24.27 ± 4.89	44.59 ± 9.17	41.58 ± 9.12
Shiraz	83 (21.7)	28.55 ± 4.99	26.56 ± 5.37	26.32 ± 4.43	26.45 ± 4.62	46.93 ± 8.52	44.96 ± 9.67
Jahrom	81 (21.1)	27.09 ± 4.68	25.32 ± 5.64	25.69 ± 4.59	24.67 ± 4.54	42.77 ± 8.11	40.67 ± 8.98
Fasa	50 (13.1)	27.08 ± 4.67	25.56 ± 5.03	25.42 ± 4.09	24.22 ± 4.66	43.84 ± 8.36	41.16 ± 9.45
Gerash	78 (20.4)	28.19 ± 5.11	25.75 ± 5.72	25.66 ± 4.63	24.76 ± 4.57	43.75 ± 10.22	42.80 ± 9.92
F (4, 378)		1.04	1.46	0.458	3.03**	2.49**	2.62**

Abbreviations: RWB, religious well-being; EWB, existential well-being.

^a Values are expressed as mean ± SD. **P < 0.01; ***P < 0.001.**Table 4.** Pearson's Correlations Between Spiritual Well-Being and Psychological Capital Among Nursing Students (n = 383)

Variables	1	2	3	4	5	6
1. Self-efficacy	1					
2. Hope	0.647 ^a	1				
3. Optimism	0.541 ^a	0.699 ^a	1			
4. Resilience	0.504 ^a	0.626 ^a	0.618 ^a	1		
5. RWB	0.411 ^a	0.452 ^a	0.430 ^a	0.361 ^a	1	
6. EWB	0.512 ^a	0.614 ^a	0.542 ^a	0.413 ^a	0.721 ^a	1
Total PsyCap (Total SWB)	0.604 ^a					

Abbreviations: RWB, religious well-being; EWB, existential well-being; PsyCap, psychological capital.

^a P < 0.01

Table 5. The Results of Hierarchical Regression Analyses with Spiritual Well-Being in the Religious Well-Being and Existential Well-Being Domains as Predictors of Participants' Self-efficacy, Hope, Optimism, and Resilience

Variables	β	T	F	R	R ²	ΔR^2	Adjusted R ²
Self-efficacy							
Step 1			77.588	0.411	0.169	0.169	0.167
RWB	0.254	8.80					
Step 2			68.897	0.516	0.266	.097	0.262
RWB	0.054	1.37					
EWB	0.264	7.08					
Hope							
Step 1			97.827	0.452	0.204	0.204	0.202
RWB	0.277	9.89					
Step 2			115.209	0.614	0.377	0.173	0.374
RWB	0.011	0.319					
EWB	0.350	10.28					
Optimism							
Step 1			86.375	0.430	0.185	0.185	0.183
RWB	0.215	9.29					
Step 2			80.073	0.545	0.296	0.112	0.293
RWB	0.041	1.31					
EWB	0.229	7.76					
Resilience							
Step 1			56.949	0.361	0.130	0.130	0.128
RWB	0.189	7.54					
Step 2			41.285	0.422	0.179	0.048	0.174
RWB	0.069	1.95					
EWB	0.158	4.73					

Abbreviations: RWB, religious well-being; EWB, existential well-being.

Therefore, a random sample should be used to guarantee some degree of generalization. The second limitation was the study's descriptive-correlational design. Therefore, it is recommended to assess the relationship between the SWB and PsyCap subscales in the future in a longitudinal study. Third, the self-reporting method of data collection can affect the participants' data accuracy. Fourth, all subjects in this study were Muslim, so it should be repeated in other cultures. Finally, only nursing students were included in this study. Therefore, it is suggested that further research be performed on students in different fields of study.

5.3. Conclusions

In conclusion, there is a positive and significant correlation between the students' SWB and PsyCap. Accordingly, spirituality-based interventions can help improve the students' PsyCap. Hence, future

interventional studies are suggested to fully understand the role of SWB in promoting the students' PsyCap.

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Footnotes

Authors' Contribution: All authors (A.P., M.B., Z.B., A.D., B.T., M.M., and M.E.) have participated in the study conception and design. A.P., M.B., Z.B., and M.E.: Collecting

the data and preparing the first draft of the manuscript. All authors critically revised and checked the proposal, the data analysis and interpretation, and the article design. All authors read and approved the final manuscript.

Conflict of Interests: The authors declared no conflict of interest.

Data Reproducibility: The datasets used or analyzed during the current study are available from the corresponding author upon reasonable request.

Ethical Approval: The study was approved by the Institutional Research Ethics Committee of Larestan University of Medical Sciences, Larestan, Iran, under the ethical code of [IR.LARUMS.REC.1400.018](#).

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Informed Consent: All participants obtained electronic consent at the start of the online survey link.

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