Prognostic Role of Spiritual Intelligence Components in Pregnant Women's Depression, Anxiety, and Stress

Batul Khodakarami[1], Faegheh Golalizadeh Bibalan[1*], Farzaneh Soltani[1], Alireza Soltanian[2], Hussein Mohagheghi[3]

1 Department of Midwifery, Faculty of Nursing and Midwifery, Hamedan University of Medical Sciences, Hamedan, Iran.
2 Modeling of Noncommunicable Diseases Research Center, School of Public Health, Hamadan University of Medical Sciences, Hamadan, Iran.
3 Department of Psychology, Faculty of Economics and social science, Bu-ali sina University, Hamadan, Iran.

Abstract

Background and Objectives: Physiological changes and psychological adaptations during pregnancy period expose pregnant mothers to increased risk of depression, anxiety, and stress. Presently, spiritual intelligence is addressed as one of the most influential issues in mental and emotional health of individuals. This study was conducted aimed at examination of the relationship between spiritual intelligence, on the one hand, and depression, anxiety, and stress, on the other, among pregnant women.

Methods: This descriptive-correlative study was performed on 182 pregnant women using Stratified Random Sampling method. Depression, Anxiety, and Stress Scale (DASS-21) and King Spiritual Intelligence Self-Report Inventory were used to evaluate and compare research's variables. SPSS, version 16, and descriptive-analytical statistical methods were employed to analyze data.

Results: Results indicated that there was a negative, significant relationship between all scales of spiritual intelligence components and subscales of depression and stress during pregnancy period (P<0.05). There was a negative, significant relationship between critical existential thinking and personal meaning production, on the one hand, and stress, on the other, in pregnancy period (P<0.05). Multiple regressions analysis indicated that predictor variables explain criterion variables in a significant way.

Conclusion: Pregnant women with higher degrees of spiritual intelligence tend to have lower degrees of depression, anxiety, and stress during their pregnancy period.

Keywords: Anxiety, Depression, Pregnancy, Spiritual Intelligence, Stress

*Correspondence: Should be addressed to Mrs. Faegheh Golalizadeh Bibalan. **Email:** golalizadeh2010@gmail.com

Introduction

Pregnancy and mothering, which are one of the most pleasurable moments in women's lives, are concomitants of numerous inevitable physiological changes and psychological adaptations. Being concerned about fetus' health and status, physical changes, fear of childbirth, extreme health cares, and reduction of energy for daily activities bring about exposure and exacerbation of depression, anxiety, and stress in pregnant women during their pregnancy term (1). Depression appears by such symptoms as impaired memory and concentration, weight loss, loss of appetite, bad feelings about oneself, feelings of guilt and hopelessness (self-harming, in extreme cases),

feelings of discomfort, low levels of self-esteem, depressed moods, feelings of sadness or emptiness, lack of interest and pleasure, suicide, psychomotor retardations, reduced energy, and sleep disorders (2).

Anxiety is an unknown, distasteful feeling which provokes symptoms like fatigue, restlessness, and heart palpitations in individuals (3). Stress is defined as imbalance between physical needs and body's ability to address them (4). Pazandeh et al. estimated the prevalence of depression in pregnant women in Iranian articles to be 27.62% (5). According to Sadeghi et al., 42.6% of mothers had expressed explicit anxiety and 45.3% of them average-to-high implicit anxiety (6).

Women who have been subject to depression, anxiety, and stress in their pregnancy period are more likely to experience preterm delivery and child's low weight at its birth (7); pregnancy poisoning (8); impaired mother-child relationship and reduction of mother's ability to care for her child (9); increased risk of having a schizophrenic child (10); future emotional disorders (10); disorders in growth and cognitive development of the child together with its hyperactivity (11); sleepless child (12); and early childhood behavioral problems (13). Studies have shown that spirituality produces an improvement in physical and emotional health of individuals (14). In recent years, attention to the spiritual dimension as one of the fourfold existential aspects of human beings has gained a renewed importance, and WHO has spotted attention to spiritual dimension in presenting health services to be as significant for health seekers as other physical, mental, and social facets (15).

Spirituality results in increased life satisfaction and improvement of compatibility degrees in individuals' lives (16). Khodabakhshi et al. demonstrated that there is a positive, significant relationship among spirituality, spiritual intelligence, and pregnant mothers' positive psychological capacity in order to get compatible with stress (17). Spiritual intelligence implies application of spiritual abilities, capacities, and resources aimed at boosting compatibility levels and mental health in people (18).

Some studies have reported a positive and significant relationship between spiritual intelligence and some psychological features like extraversion, conscientiousness (17), and mental health (19). Based on the viewpoints on spiritual intelligence and mental health, this question is posed: "Is there any relationship among components of spiritual intelligence, on the one hand, and depression, anxiety, and stress, on the other?" Therefore, the present study was conducted to investigate the prognostic role of spiritual intelligence components and some demographic features in occurrence of depression, anxiety, and stress in pregnant women.

Methods

A descriptive-analytic study, this research was carried out in 2015 after required permits were taken from Hamedan University of Medical Sciences, Committee of Ethics, and needed collaborations were made with Hamedan Fatemiyeh Hospital. This hospital was selected as for high number of references made there to Statistical population encompassed the pregnant women who registered for physiologic childbirth preparation courses in Mar. and Apr. 2015. The thesis has been registered in Committee of Ethics in Research dated 2 Mar. 2015 under no. P/6384/9/35/16 in the Hamedan University of Medical Sciences Research Council. Based on Khodabakhshi et al. (17), who appraised the correlation between spiritual intelligence and tolerance against stress to be 0.659, and given the hypothesis that the correlation in this study was estimated to be 0.5 in confidence level of 95% and statistical power of 90%, sample size was calculated to be 182.

Stratified Random Sampling method was adopted for sampling purposes. In doing so, pregnant women who registered in these courses were divided into four groups of people living in northern, southern, eastern, and western part of the city. Samples were, then, selected in a draw in almost equal numbers from each area. Mothers, having accepted all regulations in written form, were given complete explanations about the research in order to fully observe the ethical rules.

Inclusion criteria were being an Iranian national, being in age range of 15 to 49 years, being within the pregnancy interval of 20 to 30 weeks, having no records of depression and known anxiety disorders, taking no anti-depression and anti-anxiety pills during pregnancy or before that, and having no physical disease. Moreover, subjects should have been volunteers of physiological childbirth.

The criterion employed to evaluate depression and anxiety disorders was grounded upon summary of pregnancy cases and medical histories based on criteria for diagnosis of depression and anxiety disorders cited in DSM-

IV, Diagnostic and Statistical Guide of Mental Disorders, version 4 (20).

In order to garner research data, a checklist of demographic information, DASS-21 Questionnaire, and King Spiritual Intelligence Self-Report Inventory (SISRI) were adopted.

DASS-21 Questionnaire was designated by Lovibond in 1995 (21). This questionnaire had been applied in several studies aimed at evaluation of depression, anxiety, and stress degrees experienced by pregnant mothers in their pregnancy term (22-24). DASS-21 includes depression (7 items), anxiety (7 items), and stress (7 items) subscales. The final score is obtained through aggregation of the scores given by subjects to each item, which is scored from zero (absolutely not applicable for me) to three (absolutely applicable for me). Score of each subscale is thus different from zero to twenty-one. Since DASS-21 is an abridged form of the main 42-item questionnaire, final score of all subscales should be doubled. It means that the scores obtained by subjects at all depress, anxiety, and stress subscales are multiplied by two, and achieved scores are applied in final analyses.

In Iran, reliability of DASS-21 is affirmed by Samani and Jokar, who reported test-retest reliability of depression, anxiety, and stress scales to be 0.80, 0.76, and 0.77. Moreover, Cronbach's alpha for them was achieved to be 0.81, 0.74, and 0.78, respectively. Factor analysis was used to examine scale content in two Principal Component Analysis (PCA) and Prior Probability (ML). Result of this analyses was extraction of three mental pressure, depression, and anxiety factors.

For examination of convergent and divergent validity of the intended scale, General Health Questionnaire (GHQ) and Multidimensional Mental Health Questionnaire (MHQ) were employed. The Depression, Anxiety, and Mental Pressure Inventory was proved to be reliable using test-retest method (25). Cronbach's alpha of this scale and the three subscales of depression, anxiety, and stress was reported by Henry and Crawford to be 0.93, 0.88, and 0.90, respectively (26). In this study, Cronbach's alpha for the whole questionnaire and the three subscales of depression, anxiety, and stress was reported to be 0.9, 0.857, 0.725, and 0.778, respectively.

In order to collect data, King's 24-item scale was utilized, which evaluates spiritual intelligence based on Likert five-point scale (0-4) and its scores are variable between 0 to 96. This scale has four subscales: Critical Existential Thinking (CET), Personal Meaning Production (PMP), Transcendental Awareness (TA), and Conscious State Expansion (CSE). The higher the scores achieved by subjects, the higher their spiritual intelligence scores would be. Cronbach's alpha was achieved by Khodabakhshi et al. for the whole questionnaire to be 0.91, for CET to be 0.75, for PMP to be 0.79, for TA to be 0.66, and for CSE to be 0.80 (17). Cronbach's alpha of this questionnaire was achieved by Raghibi et al. to be 0.83. By means of test-retest method, they calculated the scale's reliability coefficient to be 0.67 for a 70-person population with a two-week interval (27). In this research, Cronbach's alpha values for the whole questionnaire were calculated to be 0.92, for CET to be 0.81, for PMP to be 0.78, for TA to be 0.72, and for CSE to be 0.78.

The questionnaire was filled in by subjects who were assisted by the co-researcher in an interview. Nature of questions, in fact, necessitated assistance and explanation of the co-researcher in completion of questionnaires. An experienced outsider valuator was, firstly, informed about the manner items were scored and, then, asked to control personal bias. Stability between researcher and co-researcher was examined using inter-rater reliability, which was in excellent level, i.e., Kappa coefficient=0.8. Interview duration for each subject was 20 to 30 minutes. SPSS, version 16, was run after interviews were conducted and required data was collected. Then, data was analyzed using descriptive statistics, Pearson's correlation coefficient, and multiple regression analysis.

Result

Descriptive indices of pregnant women in terms of demographic, social, and economic information are cited in Table 1.

Table 1: absolute and relative frequency distribution of pregnant women based on their demographic, social, and economic information

Features	Variable	No.	Percentage
Mother's academic degree	High school degree and lower	24	13.2
	Diploma	57	31.3
	Associate's degree	19	10.4
	BA and higher	82	45.1
Mother's occupation	Employed	34	18.7
	Housewife	148	81.3
Father's occupation	Clerk	52	28.6
	Self-employed	114	62.8
	Unemployed	16	8.8
Family's income	Less than 5 million Iranian Rials	42	23.1
	Between 5-10 million Iranian Rials	90	49.5
	Higher than10 million Iranian Rials	50	27.5
Any supporter during pregnancy term?	Yes	160	87.9
	No	22	23
Satisfaction from marital life	Unsatisfied	17	9.3
	Relatively unsatisfied	20	11
	Relatively satisfied	24	18.7
	Satisfied	111	61
Age of pregnancy	20 to 24 weeks	63	34.6
	25 to 30 weeks	119	65.4
Number of pregnancies	First pregnancy	136	74.7
	Second pregnancy	39	21.4
	Third and beyond pregnancies	7	3.8
Record of abortion and stillbirth	No	144	79.1
	Yes	38	20.9
Unplanned pregnancy	No	154	84.6
	Yes	28	15.4
Satisfaction from infant's gender	Satisfied	150	82.4
	Unsatisfied	28	15.4
	Unknown gender	4	2.1
Age (mean± SD)	27.46±3.83		

Findings of the Table 2 indicate that mean of mothers' scores in anxiety and stress variables is higher than their mean in depression category. Mothers obtained their highest and lowest scores in Critical Existential Thinking (23.9±4.7) and Conscious State Expansion (14.6±3.5), respectively. In addition, mothers' spiritual intelligence scores were at least 70 out of 100.

Table 2: mean and SD of spiritual intelligence variables and its components

Variable	Mean±SD
Spiritual Intelligence	77.79±1.39
Critical Thinking	23.92±4.74
Personal Meaning Production	17.48±3.51
Conscious State Expansion	14.62±3.51
Transcendental Awareness	4.15±22.17
Depression	11.20±4.2
Anxiety	12.21±3.68
Stress	15.7±5.41

In confidence level of 95%, there is a significant correlation among some spiritual intelligence constructs, on the one hand, and depression, anxiety, and stress subscales, on the other (Table 3). Pearson's correlation coefficient (Table 3) showed that there was a significant and inverse relationship among mean of spiritual intelligence scores and their constructs, on the one hand, and depression, anxiety, and stress scores, on the other (P<0.05). There was, moreover, a significant and negative relationship among mean of spiritual intelligence scores, Critical Existential Thinking, and Personal Meaning Production, on the one hand, and mean of anxiety scores, on the other (P<0.05). There was not, however, a significant relationship among scores of Conscious State Expansion and Transcendental Awareness, on the one hand, and anxiety variable, on the other (P>0.05).

Table 3: correlation coefficient among spiritual intelligence components and depression, anxiety, and stress

Variables		Depression		Anxiety		Stress	
		r	P	r	P	r	p
Spiritual Intelligence		-0.410	0.04	-0.411	0.04	-0.41	0.01
Spiritual Intelligence Components	Critical Existential Thinking	-0.007	0.005	-0.02	0.007	-0.01	0.008
	Personal Meaning Production	-0.2	<0.001	-0.17	0.003	-0.21	<0.001
	Conscious State Expansion	-0.01	0.003	-0.01	0.8	-0.09	0.01
	Transcendental Awareness	-0.15	0.01	-0.12	0.3	-0.2	<0.001

Noteworthy is the point that, despite significance of correlation coefficients, calculated correlation coefficient was at all cases less than 0.5, and this is thus inconsiderable. Multiple regression analysis was employed to predict incident of depression, anxiety, and stress through spiritual intelligence components (Table 4). In depression model, Personal Meaning Production, Conscious State Expansion, and Critical Existential Thinking are able to predict depression-related changes. Having beta of -1.33, these three variables are capable of describing 67% of depression of pregnant women. It means that the higher the mean of these three variables, the more reduced the mean of depression scores would be. Since Transcendental Awareness had no significant share in prediction of depression (P>0.05), it was removed out of depression model. Critical Existential Thinking and Personal Meaning Production were added to anxiety model as predictors. As P<0.001, the two variables are able to predict anxiety-related changes. This means that the two variables, having beta of -0.17, are capable of describing 23% of pregnant women's anxiety. It means that the higher the mean of these variables, the more

reduced the mean of anxiety scores would be. Since Conscious State Expansion and Transcendental Awareness had no significant share in prediction of anxiety (P>0.05), they were removed out of anxiety model.

Conscious State Expansion, Personal Meaning Production, Transcendental Awareness, and Critical Existential Thinking were added to stress's regression model as predictors. As P<0.001, the four variables are able to predict stress-related changes. This means that the four variables, having beta of -1.33, are capable of describing 67% of pregnant women's stress. It means that the higher the mean of these variables, the more reduced the mean of stress score would be.

Discussion

Spiritual intelligence is composed of a body of capabilities and capacities which are essential in increased psychological adaptation levels and, thus, improvement of individuals' health (27). In describing correlation of spiritual intelligence and depression, anxiety, and stress, this is important to note that hopefulness and optimism about the future, injection of meaning to life, and belief in the afterlife are effective in reducing depression

Table 4: regression results of spiritual intelligence components and depression, anxiety, and stress

Model		Non-standard coefficient		Standaridized coefficient	R	t	p
		B	Std error	Beta			
Depression	Fixed value	35.45	0.667			53.13	<0.001
	Critical Thinking	-1.51	0.03	-1.33	1.33	-50.90	<0.001
	Personal Meaning Production	-1.08	0.05	-0.60	0.60	-19.21	<0.001
	Conscious State Expansion	-0.29	0.031	-0.16	0.16	-9.58	<0.001
Anxiety	Fixed value	6.34	2.80			2.25	0.03
	Critical Thinking	-0.75	0.09	-0.70	0.70	-7.81	<0.001
	Personal Meaning Production	-0.29	0.16	-0.17	0.17	-1.74	<0.001
Stress	Fixed value	35.45	0.66			53.13	<0.001
	Critical Thinking	-1.51	0.03	-1.33	1.33	-50.90	<0.001
	Personal Meaning Production	-1.08	0.05	-0.60	0.60	-19.21	<0.001
	Conscious State Expansion	-0.29	0.03	-0.16	0.16	-9.58	<0.001
	Transcendental Awareness	-0.39	0.04	-0.19	-0.19	-9.96	<0.001

caused by mental pressures (28). Spiritual intelligence is able to moderate anxieties and concerns through establishing a new worldview about oneself, improving self-reliance, and boosting quality of interrelationships with others (27).

In this study, mothers' spiritual intelligence was found to have significant and negative correlation with depression, anxiety, and stress; while, this correlation was not considerable. Results are aligned with the study conducted by Khavari et al., who found a significant and negative relationship between spiritual intelligence and three components of emotional reaction, namely, depression, anxiety, and stress (29). Balghan Abadi et al. showed that high levels of spiritual intelligence are effective instruments against anxiety (30). Studies performed by Beirami et al., Beck, and Laurin et al. are demonstrative of effective role of spiritual intelligence in prediction of depression, anxiety, and stress in college students. This compatibility might be rooted in the fact that individuals with higher degrees of spiritual intelligence possess higher levels of self-reliance, power of internal control, and cognitive abilities as compared to others.

In this study, pregnant women who had obtained higher scores in spiritual intelligence components were found to be inflicted by lower degrees of depression and stress. Khodabakhshi et al. found a significant correlation among all spiritual intelligence components and tolerance against stress during pregnancy term and dominance on delivery fears (17).

In this research, Critical Existential Thinking was a significant predictor of depression, anxiety, and stress subscales in pregnant women. This component, by establishing a new worldview toward oneself and the world around, brings about an increase in self-reliance, an improvement of social life's quality, and a reduction of psychological problems such as depression, anxiety, and stress (33). Therefore, the pregnant women who make critical contemplations about supernatural issues like creation, meaning of life, purpose of life, death, existence, etc., tend

to have higher mental power to cope with pregnancy crises and emotional challenges.

Results indicated that Personal Meaning Production could significantly predict depression, anxiety, and stress. Josephso and Mabe found that Personal Meaning Production was effective in discovery of meaning-based solutions, and it was held as a defensive problem-oriented mechanism in resolving life crises (33). King et al., also, discovered that those who possess the ability to deduct personal meaning from all physical and mental experiences, including ability to generate meaning of life, are less exposed to psychological problems (34). Glover-Graf et al. found that religious beliefs through seeking meaning and having proclivity to higher orders of life provoke an improvement of one's capability to endure life stresses and crises (35). Such pertinent findings reveal that ability to discover meaning of life and make conformist adaptations with life issues is interconnected with improvement of mental health.

In this research, Conscious State Expansion was found to be a significant predictor of depression and stress during pregnancy period. King et al. discovered that spirituality, by means of promoting the obsession for fairness, allows for collaboration and association of one with the universe. Through establishing a holistic view toward the universe, spirituality puts a stop to emotions like nihilism and disappointment, which are origins of such disorders as depression (34). Abdollah Zadeh et al. found that high degree of spiritual intelligence is a concomitant of lower depression levels (36).

Results showed that Transcendental Awareness could significantly predict stress during the pregnancy term. According to Khodabakhshi et al., higher degrees of Transcendental Awareness are effective in dominance on stress during the pregnancy period (17). Also, Khavari et al. reported a significant relationship among all spiritual intelligence components and emotional reaction subscales in nurses (29). Relevance of these outcomes might be explained by the fact that pregnant women who get able to pass over

surface matters and identify their non-physical dimensions would be best capable of unearthing their recondite values and diminishing their psychological problems by adding to their adaptation levels.

In future, an interventional investigation could be designed to evaluate impacts of elevation of spiritual intelligence on different aspects of physical and mental health in pregnant women in order to cull more comprehensive results in this respect. Due to novelty of the issue spiritual intelligence in pregnant women, it could be utilized for improvement of mental health in this group of individuals.

This research came with some limitations, including mental condition of the units under investigation upon responding to the instrument as well as the possibility that outcomes might be confined only to a governmental hospital located in Hamedan City.

Conclusion

Results of this study showed that the pregnant women who have higher degrees of spiritual intelligence are better equipped to cope with their psychological transformations and less likely to experience twinges of depression, anxiety, and stress in their pregnancy period. This is, consequently, a must for health service providers to take notice of mothers' mental and spiritual dimensions upon presenting their consultations. Not only are outcomes of this study practical for depressed, anxious, and stressful pregnant mothers, but also they are useful for midwifery counselors and therapists who provide counseling services to their applicants.

Conflict of interest

The authors declare no conflict of interest.

Acknowledgements

References

1. Mohammadi ZD, Bosaknejad S, Sarvghad S. A survey on the effectiveness of stress management training with cognitive-behavioral group therapy approach on state/trait anxiety,pregnancy anxiety and mental health of primiparous women. Jentashapir. 2013;3(4):495-504.
2. Leigh B, Milgrom J. Risk factors for antenatal depression, postnatal depression and parenting stress. BMC Psychiatry. 2008 Apr 16;8:24.
3. Azizi M, Lamyian M, Faghihzade S, Nematollahzade M. The effect of counseling on anxiety after traumatic childbirth in nulliparous women; a single blind randomized clinical trial. J Kermanshah Univ Med Sci. 2010;14(3):215-32.
4. karimi M, Mojibian M, Hadi Nodoshan H, Bidaki R, Kholacezadeh G, Rafiee P, et al. Relationship between Stress During Pregnancy and Cord Blood Ige Level. J Shahid Sadoughi Univ Med Sci. 2012;20(2):142-51.
5. Pazande F, Toomians J, Afshar F, Valaei N. Prevalence of depression in parturients referring university hospitals in Tehran in 1999. Feyz. 2002;6(1):66-70.
6. Sadeghi N, Azizi S, Molayynezhad M. Anxiety status in pregnant mothers at third trimester of pregnancy and its related factors in referrals to Bandar Abbas Hospitals in 2012. J Obstet Gynecol Infertil. 2014;17(122):8-15.
7. Ding X-X, Wu Y-L, Xu S-J, Zhu R-P, Jia X-M, Zhang S-F, et al. Maternal anxiety during pregnancy and adverse birth outcomes: A systematic review and meta-analysis of prospective cohort studies. J Affect Disord. 2014;159:103-10.
8. Paarlberg KM, Vingerhoets A, Passchier J, Dekker GA, Van Geijn HP. Psychosocial factors and pregnancy outcome: a review with emphasis on methodological issues. J Psychosom Res. 1995;39(5):563-95.
9. Andersson L, Sundström-Poromaa I, Wulff M, Åström M, Bixo M. Depression and anxiety during pregnancy and six months postpartum: A follow-up study. Acta Obstet Gynecol Scand. 2006;85(8):937-44.
10. O'KEANE V. Evolving model of depression as an expression of multiple interacting risk factors. Br J Psychiatry. 2000;177(6):482-3.
11. Graignic-Philippe R, Dayan J, Chokron S, Jacquet A, Tordjman S. Effects of prenatal stress on fetal and

child development: A critical literature review. Neurosci Biobehav Rev. 2014;43:137-62.

12. O'Connor TG, Caprariello P, Blackmore ER, Gregory AM, Glover V, Fleming P. Prenatal mood disturbance predicts sleep problems in infancy and toddlerhood. Early Hum Dev. 2007;83(7):451-8.

13. O'Connor TG, Ben-Shlomo Y, Heron J, Golding J, Adams D, Glover V. Prenatal anxiety predicts individual differences in cortisol in pre-adolescent children. Biol Psychiatry. 2005;58(3):211-7.

14. Richards P. Spiritual influences in healing and psychotherapy. Psychol Relig. 1999;25(1):1-6.

15. Shahidi S, Shirafkan S. Psychotherapy and Spirituality. Tehran: Roshad Publication; 2003.

16. KhodabakhshiKoolaee A, Nasiri Z, Mostafaee F. The relationship between resiliency and meaning of life in students 5th Proceedings Seminar of mental health of students; 15-16 April, 2010; University of Shahed Medical science, Tehran, Iran.

17. KhodabakhshiKoolaee A, Heydari S, Khoshkonesh A, Heydari M. Relationship between Spiritual Intelligence and Resilience to Stress in Preference of Delivery Method in Pregnant Women. Iran J Obstet Gynecol Infertil. 2012;16(58):8-15.

18. Cheraghi M, Molavi H. The Relationship between different dimensions of religiosity and general health in student of Isfahan University. J Educ Psychol Res. 2007;2(2):1-22.

19. Moallemi S, Bakhshani NM, Raghibi M. On the relationship between mental health, spiritual intelligence and dysfunctional attitudes in students of Systan and Baluchestan University, Southeast of Iran. Quart J Fundamental Mental Health. 2011;3(48):702-9.

20. Flaherty A. Kaplan and Sadock's synopsis of psychiatry: Behavioral sciences/clinical psychiatry. Philadelphia: PA: Lippincott Williams & Wilkins; 2011. p. 89-101.

21. Lovibond, Lovibond. Manual for the depression anxiety stress scale. Sydney: Psychology Foundation; 1995.

22. de Paz NC, Sanchez SE, Huaman LE, Chang GD, Pacora PN, Garcia PJ, et al. Risk of placental abruption in relation to maternal depressive, anxiety and stress symptoms. J Affect Disord. 2011;130(1):280-4.

23. Reid H, Power M, Cheshire K. Factors influencing antenatal depression, anxiety and stress. Br J Midwifery. 2009;17(8):501-8.

24. Meades R, Ayers S. Anxiety measures validated in perinatal populations: a systematic review. J Affect Disord. 2011;133(1):1-15.

25. Samani S, jokar B. Evaluate the reliability and validity of the short form of depression, anxiety and stress. Social Sci Humanities Shiraz Univ. 2007;26(3):65-76.

26. Henry JD, Crawford JR. The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. Br J Clin Psychol. 2005;44(2):227-39.

27. Sadatraghib M, hakiminia B, Siyadat A, Ahmadi J. The King's Spiritual intelligence validation (SISRI-24) in the students of Isfahan university. J Psychol Educ Sci. 2010;4(1):141-64.

28. Bayrami M, Movahedi Y, Movahedi M. The Role of Spiritual Intelligence in Perceived Stress, Anxiety and Depression of Lorestan Medical University Students (Iran). J Babol Univ Med Sci. 2014;16(1):56-62.

29. khavari k, Abbasi r, Afshar A, Talebi M. relationship between spiritual intelligence with anxiety, depression and stress in nurses. Soc Welf. 2014;14(53):165-77.

30. Bolghan-Abadi M, Ghofrani F, Abde-Khodaei MS. Study of the Spiritual Intelligence Role in Predicting University Students' Quality of Life. J Relig Health. 2014;53(1):79-85.

31. Beck R. Communion and complaint: Attachment, object-relations, and triangular love perspectives on relationship with God. J Psychol Theol. 2006;34(1):43.

32. Laurin K, Kay AC, Moscovitch DA. On the belief in God: Towards an understanding of the emotional substrates of compensatory control. J Exp Soc Psychol. 2008;44(6):1559-62.

33. Mabe PA, Josephson AM. Child and adolescent psychopathology: spiritual and religious perspectives. Child Adolesc Psychiatr Clin N Am. 2004;13(1):111-25.

34. King DB. Rethinking claims of spiritual intelligence: A definition, model, and measure. Canada: Trent University; 2008.

35. Glover-Graf NM, Marini I, Baker J, Buck T. Religious and spiritual beliefs and practices of persons with chronic pain. Rehabil Couns Bull. 2007;51(1):21-33.

36. Abdollahzade H, Bagherpour M, BoujMehrani S, Lotfi M. Spiritual intelligence (concepts, assessment and applications. Tehran: Psychometric Publications; 2009.