



# Do Religious Coping and Attachment to God Affect Perceived Pain? Study of the Elderly with Chronic Back Pain in Iran

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## Abstract

Religious Coping (RC) refers to the individual's ability to understand and cope with the stress in life. Attachment is a God relatively stable emotional bond that forms through continuous communication and requires interaction, pleasure and relaxation. Considering the increasing population of the elderly and the role of pain in their health status, the present study was conducted aimed to determine the relationship between RC and attachment to God with perceived pain in the elderly with chronic low back pain (CLBP) in Ilam in Iran. The present study is a descriptive cross-sectional one in the elderly group with chronic low back pain in 2018. A total of 300 elderly patients with chronic low back pain were enrolled using convenience sampling. The tools used included demographic characteristics form, religious coping questionnaire, attachment to God's questionnaire and perceived pain intensity questionnaire. The findings indicated that the mean (SD) of the total score of attachment to God variables was 65.71 (2.64), religious coping was 20.67 (2.59), chronic pain acceptance was 17.29 (6.66), and perceived pain was 5.81 (2.65). Also, there was a meaningful correlation between the intensity of the pain and the level of attachment to God and religious coping. Therefore, it is suggested that appropriate religious interventions for elderly patients with chronic pain should be undertaken to reduce their pain status in order to help improve their quality of life.

**Keywords** Religious coping · Attachment to God · Pain perception · Chronic back pain · Elderly

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## Introduction

The results of various studies have shown that the elderly population has grown and this has led to many diseases and problems for them (Karimi et al. 2016; Jafari et al. 2015; Hassanpour-Dehkordi and Jalali 2016; Salehi and Motaghi 2018; Nayeri et al. 2018). The problems of the elderly include low quality of life (QOL) (Ahmadi et al. 2017), mental health (Al-Butmeh and Al-Khataib 2018), as well as high level of disability (Sunitha 2018), stress, anxiety and depression (Xiao et al. 2018; Zaki et al. 2018; El-Gilany et al. 2018) (5–7). One of the problems of the elderly is the existence of chronic pain, which has an effect on their QOL and has led to a reduction in the QOL of the elderly (Murphy et al. 2018). Reducing the pain of the elderly is one of the most important and necessary measures (Hirase et al. 2018; Zhou et al. 2018). Due to the effect of religious interventions on pain relief in patients, it seems that one of the effective factors of reducing pain is to perform religious interventions (Eilami et al. 2018).

Religious coping (RC) refers to the individual's ability to understand and cope with the stress in life (Pargament et al. 2000). RC can be positive or negative. Positive RC is one of the positive predictors of health and negative coping is defined as a way to reduce mental health. In fact, positive RC methods are characterized by features such as secure relationship with a transcendental power, benevolent world view, spiritual bond with others, and negative RC is the experience of spiritual conflict with one self, others and God (Pargament et al. 1998; Weber and Pargament 2014). In fact, being religious is a functional indicator of belief and behavior in coping negative experiences of life, which has been mentioned in previous studies by the researchers on the role of prayer, Quran and praying as religious interventions (Eilami et al. 2018; Mahjoob et al. 2016; Saged et al. 2018; Johnson 2018; Rainville 2018).

Spirituality helps to make better Helath (Shahrbabaki et al. 2017, Ziapour et al. 2017). Attachment is a God relatively stable emotional bond that forms through continuous communication and requires interaction, pleasure and relaxation (Sharifi et al. 2018). Safe attachment styles lead to better health of the individual so that those with safe attachment styles have more merit, psychological health and self-efficacy (Sabzi et al. 2009; Crosby et al. 2003; Kasule 2003). Those whose attachment to God is safe and valued themselves had better mental health (Leman et al. 2018).

## Aim

The present study was aimed to determine the relationship between RC and attachment to God with perceived pain in the elderly with CLBP in Ilam in West Iran.

## Methods

### Design and Participants

The present study is a descriptive cross-sectional on the elderly group with CLBP. A total of 300 elderly patients with CLBP in Ilam were enrolled using objective-oriented sampling in 2018 year.

### Inclusion Criteria

The study inclusion criteria were informed consent to participate in the study, at least 65 years of age with the opinion of a specialist physician in neurosurgery in accordance with medical records and specialized examinations, at least 6 months from the onset of chronic back pain without radicular symptoms such as numbness, hyporeflexia, pain radiating to the knee and muscle dysfunction (sobre Lombalgias 2000, Adorno and Brasil-Neto 2013), not having psychological disorder according to the questionnaire Mini-Mental State Examination (MMSE) (Folstein et al. 1975).

### Data Collection

The patients who referred to hospitals, clinics and doctors' offices entered the study after explaining the research objectives and obtaining informed consent for participation in the study. First, it was explained that Cooperation or non-cooperation in this study would have no effect on the continuation of their treatment, and participation in this study is completely optional. If the patients had reading, writing and comprehension literacy, the questionnaire was completed as self-reporting and the questionnaire was completed by interview method if they cannot read, write and understand the content.

### Questionnaire

The tools used included demographic characteristics form, RC questionnaire, attachment to God's questionnaire, chronic pain acceptance and numerical scale form of pain.

### Religion Coping Questionnaire

This questionnaire contains 14 questions in 2 dimensions of RC strategies and negative RC strategies. Likert grading is an option from no to very large (score from zero to three) (Pargament et al. 2000; Taheri-Kharamah et al. 2013).

### Attachment to God

This questionnaire examines the attachment to God in 16 questions and 6 dimensions, and the Likert scale is totally opposite (score 1) to totally agree (score 5).

In some questions, this questionnaire is a reverse-grading method. The lowest and highest score in this questionnaire is 16 and 80 (Khodabakhshi et al. 2016; Leilan et al. 2015).

### Chronic Pain Acceptance

This questionnaire has seven questions in two dimensions and five options in the Likert scale, the first one with two questions to examine the knowledge of pain and the second one with 5 questions in the field of effort to reduce pain (Shirazi et al. 2015, 2017).

### Visual Analogue Scale for Pain

This tool has a scale of 1–10, and patients determine their pain levels from 1 to 10 (Boonstra et al. 2008; Rezvani Amin et al. 2012).

### Statistical Analyses

The study data were analyzed using software SPSS16, descriptive statistics, Pearson correlation coefficient, independent *t* test, one-way ANOVA and multivariate regression analysis at a significant level  $< 0.05$ .

## Result

In Table 1, comparison of mean (SD) of the variables examined is based on demographic characteristics. There was no significant relationship between any of the demographic characteristics with attachment to God and pain ( $p > 0.05$ ). On the other hand between RC and gender ( $p = 0.002$ ), living condition ( $p = 0.001$ ), social support ( $p = 0.001$ ) and marital status ( $p = 0.001$ ), there was a significant statistical relationship. Also mean (SD) age of patients is 75.14 (8.19).

According Table 2, there is a significant relationship between RC and pain severity ( $F = 5.452$ ,  $p = 0.02$ ) and between attachment to God and pain severity ( $F = 91.239$ ,  $p < 0.001$ ).

Table 3 shows the standardized beta coefficient for assessing the contribution of the RC variable in the linear correlation model between the RC and the severity of pain in terms of standard deviation, which is  $-0.134$ . The nonstandard beta coefficient  $-0.138$  predicts that for each increase unit in the religious coping variable, 0.138 pain intensity decreases ( $t = -2.335$ ,  $p = 0.02$ ). Also, the standardized beta coefficient for assessing the contribution of the variable of attachment to God in the linear correlation model between attachment to God and the severity of pain in terms of standard deviation is  $-0.484$ .

According to the findings of Table 4, there is a correlation between the religious coping and the acceptance of pain ( $F = 4.259$ ,  $p = 0.04$ ), and between attachment to God and the acceptance of pain ( $F = 16.215$ ,  $p = 0.000$ ).

**Table 1** Comparison of mean (SD) of the variables examined based on demographic characteristics in elderly with chronic back pain

Demographic variables	Sub-categories	N (%)	Attachment to God M±SD	Religious coping M±SD	Chronic pain acceptance M±SD	Intensity of pain M±SD
Gender	Man	193 (64.3)	65.77±2.63	20.33±2.78	17.54±6.55	5.74±2.67
	Female	107 (35.7)	65.60±2.66	21.28±2.06	16.84±6.86	5.95±2.63
<i>p</i> value		–	0.60	0.002	0.38	0.50
Education	Illiterate	84 (28)	65.92±2.42	20.60±2.71	17.55±6.54	5.63±2.51
	Reading and writing	132(44)	65.57±2.76	20.90±2.76	16.95±6.52	5.98±2.68
	Diploma and diploma	63 (21)	65.65±2.52	20.71±2.09	17.26±7.01	5.65±2.73
	Academic	21 (7)	65.90±3.12	19.38±1.96	18.42±7.25	6.00±2.93
<i>p</i> value		–	0.78	0.09	0.78	0.73
Living condition	With wife	207 (69)	65.69±2.48	21.13±2.60	17.45±6.72	5.77±2.60
	With his wife and children	17 (5.7)	65.72±2.64	19.20±2.35	16.37±6.47	6.12±2.81
	With children	54 (18)	66.18±3.24	20.63±1.94	18.36±6.39	5.50±2.85
	Single	22 (7.3)	66.29±3.68	19.76±1.88	16.88±7.12	5.70±2.64
<i>p</i> value		–	0.77	0.001	0.62	0.77
Social support	Low	137 (45.7)	65.43±2.72	20.45±2.1	17.35±6.64	5.91±2.64
	Medium	129 (43)	65.78±2.54	20.44±2.71	17.03±6.56	5.90±2.65
	Much	34 (11.3)	66.55±2.53	22.38±2.99	18.02±7.26	5.05±2.69
<i>p</i> value		–	0.07	0.001	0.73	0.21
Income	Weak	243 (81)	65.69±2.65	20.81±2.48	17.51±6.86	5.77±2.63
	Medium	51 (17)	65.64±2.59	20.17±2.85	16.78±5.68	5.86±2.77
	Excellent	6 (2)	67.00±2.36	19.33±3.82	12.50±4.37	7.00±2.82
<i>p</i> value		–	0.48	0.12	0.15	0.53
Marital status	Has spouse	224 (74.7)	65.66±2.58	21.03±2.58	17.41±6.73	5.77±2.60
	Single	76 (25.3)	65.85±2.81	19.61±2.32	16.94±6.47	5.94±2.82
<i>p</i> value		–	0.58	0.001	0.60	0.62

**Table 1** (continued)

Demographic variables	Sub-categories	N (%)	Attachment to God <i>M</i> ± <i>SD</i>	Religious coping <i>M</i> ± <i>SD</i>	Chronic pain acceptance <i>M</i> ± <i>SD</i>	Intensity of pain <i>M</i> ± <i>SD</i>
Location	City	262 (87.3)	65.66±2.59	20.71 ±2.59	17.43 ±6.62	5.86±2.68
	Village	38 (12.7)	66.05±2.94	20.39 ±2.60	16.31 ±6.93	5.47±2.35
<i>p</i> value		–	0.39	0.47	0.33	0.39

The findings indicated that the mean (SD) of the total score of attachment to God variables was 65.71 (2.64), religious coping was 20.67 (2.59), chronic pain acceptance was 17.29 (6.66), and perceived pain was 5.81 (2.65)

**Table 2** Relationship between religious coping and pain severity and between attachment to God and pain severity

Model	Sum of squares	<i>Df</i>	Mean square	<i>F</i>	Sig.
Religious coping					
Regression	37.965	1	37.965	5.452	.020
Residual	2074.952	298	6.963		
Total	2112.917	299			
Attachment to God					
Regression	495.277	1	495.277	91.239	.000
Residual	1617.640	298	5.428		
Total	2112.917	299			

**Table 3** The standardized beta coefficient for assessing the contribution of the religious coping variable in the linear correlation model between the religious coping and the severity of pain

Model	Unstandardized coefficients		Standardized coefficients Beta	<i>T</i>	Sig.
	<i>B</i>	SE			
Religious coping					
(Constant)	8.661	1.227		7.056	.000
	-.138	.059	-.134	-2.335	.020
Attachment to God					
(Constant)	37.826	3.354		11.279	.000
	-.487	.051	-.484	-9.552	.000

**Table 4** Relationship between religious coping and pain severity and between attachment to God and acceptance of pain

Model	Sum of squares	<i>Df</i>	Mean Square	<i>F</i>	Sig.
Religious coping					
Regression	187.169	1	187.169	4.259	.040
Residual	13,097.018	298	43.950		
Total	13,284.187	299			
Attachment to God					
Regression	685.539	1	685.539	16.215	.000
Residual	12,598.647	298	42.277		
Total	13,284.187	299			

The findings of Table 5 indicate that the standardized beta coefficient for assessing the contribution of the religious coping variable in the linear correlation model between religious coping and the acceptance of pain in terms of standard deviation is 0.119. The nonstandard beta coefficient of 0.148 predicts that for each increase unit in the religious coping variable, 0.148 admissions of pain will increase ( $t = 2.064$ ,  $p = 0.04$ ). Also, the standardized beta coefficient for assessing the variable contribution of attachment to God is shown in the linear correlation

**Table 5** The standardized beta coefficient for assessing the contribution of the religious coping variable in the linear correlation model between the religious coping and the acceptance of pain

Model	Unstandardized coefficients		Standardized coefficients	<i>T</i>	Sig.
	<i>B</i>	SE			
Religious coping					
(Constant)	10.978	3.084		3.560	.000
	.305	.148	.119	2.064	.040
Attachment to God					
(Constant)	−20.366	9.360		−2.176	.030
	.573	.142	.227	4.027	.000

model between attachment to God and the acceptance of pain in terms of standard deviation, which is 0.227.

## Discussion

The study results showed that the higher the level of RC, the more likely it is to reduce pain and increase the acceptability of chronic pain. In the study by Nesami et al. in students' group, the results showed that a significant relationship was found between emotional intelligence and RC, and it was also shown that the existence of positive RC can affect the health of patients (Nesami et al. 2015), which is consistent with the present study results on the effect of positive RC on improving the patient's status. Also, in the study by Goodarzian et al. aimed to determine the relationship between RC and pain perception in cancer patients, the results showed that a significant relationship was found between RC and pain control (Goudarzian et al. 2017), which is consistent with the present study results.

Finding showed, the greater the degree of attachment to God, it can lead to pain relief and increase the acceptability of chronic pain. In the study by Bitarafan et al. conducted aimed to study the relationship between attaching to God and resilience to the death anxiety in the elderly group, the results showed that the more resilience and attachment to God, the more the reduction in death anxiety of the elderly (Bitarafan et al. 2018). Also, in the study by Sharifi Saki et al. aimed to examine the relationship between attachment to God and depression in cancer patients, the results showed that attachment to God reduced depression in these patients (Sharifi et al. 2018). In the study by GholamiBonab et al., it was shown that in parents of exceptional children who had a positive image of God and attachment styles were more secure, their mental health was higher (Ghobary Bonab et al. 2012), which indicates a positive role of attachment style to God.

Religious coping and attachment styles are effective on the perceived pain of the elderly with chronic pain. The elderly people who had a positive RC or more secure attachment style to God had less pain. Therefore, it is suggested that appropriate religious interventions for elderly patients with chronic pain should be undertaken to reduce their pain status in order to help improve their QOL.



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## Compliance with Ethical Standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Informed Consent** It was explained to patients that the questionnaires would be unnamed, and their information would be analyzed in its entirety.

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