



## Role of religious coping in predicting post traumatic growth in patients with breast cancer

Zahra Nikmanesh<sup>1</sup>, Elham Khagebafgi<sup>1</sup>

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1. Department of Psychology, Faculty of Education and Psychology, University of Sistan and Baluchestan, Zahedan, Iran

**Correspondence to:** Zahra Nikmanesh, Department of Psychology, Faculty of Education and Psychology, University of Sistan and Baluchestan, Zahedan, Iran  
Email: nikmanesh@ped.usb.ac.ir

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### Abstract

Breast cancer is the most common type of cancer among women that creates stress in physical, mental, and spiritual aspects of patients' life. Adjustment consequences for these patients may lead to posttraumatic growth. Given the impacts of spirituality on posttraumatic growth, the present study aimed to examine the role of religious coping in predicting posttraumatic growth among patients with breast cancer. This was a descriptive-correlational study. The study population included all 121 participants with breast cancer who referred to treatment centers. The sample consisted of 121 patients whom were selected through convenience sampling method. Variables were evaluated using religious coping style and the posttraumatic growth inventory. Findings indicated that dimensions of active religious activities, benevolent evaluation, and religious activities (dimensions of positive religious coping) were positively correlated with posttraumatic growth and these relationships were significant at the 0.99 confidence level. The results of regression analysis, conducted to predict posttraumatic growth, demonstrated that in the first step, benevolent evaluation (0.39) predicted the posttraumatic growth. Thus according to the results, benevolent evaluation can predict posttraumatic growth (Beta=0.63). Based on the study findings, it is recommended to pay attention to positive religious coping as a strategy to achieve posttraumatic growth in patients with cancer.

**Keywords:** Breast Cancer, Post Traumatic, Religious

### Introduction

According to the World Health Organization (WHO), more than 1.1 million new cases of breast cancer are identified among women all around the world annually. This figure includes 10% of all new cancer cases and 23% of all cancers in women [1]. Breast cancer is one of the most important concerns threatening women's life, since it is the most common type of cancer in women and the second leading

cause of cancer mortality, after lung cancer, among women [2]. The age-standardized rate of breast cancer increased from 15.96 to 28.25 per 100,000 women and Crude Rate of breast cancer increased from 12.9 to 22.09 per 100,000 women, during the period of 2003 to 2009 [3]. Breasts play an important role in women's gender. Women's response to actual or suspected breast cancer may be manifested

by fear, anxiety, and depression [4]. Diagnosis of life-threatening diseases imposes extra stress on a person and leads him/her to experience severe negative responses, psychological distress, and fear [5].

Traumatic events can lead to negative reactions and stress or may lead to positive reactions and transcendence allegedly called Post Traumatic Growth (PTG) [6]. PTG is the experience of positive personal change due to confrontation with crisis or traumatic event [7]. PTG refers to a change in self-perception, interpersonal relationships, philosophy of life after experiencing severe traumatic events, a change in fundamental beliefs, and a change in identity and high self-perception in the form of self-assurance and self-efficacy [8]. Cordova et al [9], in their research on breast cancer survivors discovered a relationship between symptoms of Post traumatic stress disorder and reports of Post traumatic growth. Also, a research has shown that social constraints are related to perceived cancer as a harmful stress and Posttraumatic stress disorder symptoms, and also, PTG is related to being a younger patient and perceived cancer as a harmful stress. PTG is recognized as a known effect of trauma which refers to the improved relationships with others, increased personal power, identifying new opportunities, and increased positive spiritual changes and increased appreciation of life [10]. PTG has been occasionally observed in various populations at risk of trauma including survivors of serious medical illnesses such as aids, as acquired immunodeficiency syndrome, raped, and bereaved individuals [11].

Empirical studies have revealed a relationship between spirituality/religiosity and mental health in different groups and populations. Theoretically, religion can provide a framework that facilitates the interpretation of meaning of disease for patients [12]. Spirituality is associated with mental health and mental well-being through influencing coping strategies, attitudes, and perceived meaning [13]. Spirituality is a mechanism that causes PTG in breast cancer patients. It is often defined as a structure that encompasses meaning, and

existential coping based on faith. Interventions that enhance spiritual well-being cause PTG, and enable cancer patients to re-evaluate their life goals, priorities, and sources of meaning [14]. Schreiber and Edward [15], investigating breast cancer patients, reported the positive effect of religion and spirituality on quality of life and positive changes in goals, relationships, and behavior of patients [15].

According to the theory of stress and coping, individuals cope with difficulties with an overall orientation has been defined as strategies for coping with specific challenges of a situation [16]. Religion is considered as an important strategy in coping with chronic illnesses. Religiosity and religious coping strategies bring meaning to life and create a sense of being purposeful, and increase patients' mental comfort and hope [17]. Religious coping is the inner source of meaning-seeking when confronting with a traumatic event, which leads to intimacy with God, comprehending the meaning of life and acquiring serenity [18]. Koenig believes that Religion creates a positive attitude towards the world and helps an individual in unpleasant events, provides motivation and energy, and creates hope for having a better life. This, in turn, increases tolerance and acceptance of unalterable situations which is an important issue in refractory disease [19]. Religious coping is a strategy in which, religious sources such as prayer, veneration, trust in, and recourse to God are used to deal with stress. Recent findings have shown that since this type of coping is both a source of emotional support and a means to positively interpret life events, it can facilitate implementation of subsequent coping [20]. It was suggested that an important factor observed in breast cancer patients' religious prayers was their recourse to offering, pilgrimage, prayer, and trust in the Imams, which plays an important role in mental relaxation and reducing extra fear of disease [21]. In a research, it was concluded that positive religious coping was associated with more hope, psychological comfort, purpose in life, and reduction of psychotic symptoms [22].

Another study indicated that individuals who expressed their anger toward God or questioned God were more anxious and their quality of life was negatively affected by their negative coping [23]. Results of a two-year longitudinal study, conducted on 268 elderly patients admitted to a hospital, revealed that negative religious coping methods have risky effects on patients' physical and mental health. On the other hand, the use of positive religious coping was associated with the improved health status [24]. Also, greater use of positive religious coping was associated with more satisfaction, while greater use of negative religious coping was associated with lower levels of quality of life, satisfaction, and increased risk of major depression and anxiety disorders [25]. Moreover, it has been found that greater use of positive religious coping is associated with better quality of life in general and higher scores on the existential and support dimensions of quality of life, while greater use of negative religious coping is associated with lower quality of life in general and lower scores on the existential and mental dimensions of quality of life [26].

Although cancer is an important stressful factor that can be accompanied by psychosocial consequences affecting quality of life such as anxiety, depression, fear of relapse, concern about future, fatigue, physical constraints, and feelings of social isolation, it has adjustment consequences that are very different for involved individuals.

Therefore, efforts must be made to recognize reasons for effectiveness of psychological factors, so that, an effective step can be taken toward understanding and prevention of psychological harms. Considering the high prevalence of breast cancer in women and their sensitive role (at risk population) in the family and society and given the important role of religion and spirituality in PTG, the present study was conducted to examine the role of religious coping in predicting PTG in patients with breast cancer.

## **Method**

This was a descriptive-correlational study.

The population included all 121 women with breast cancer (receiving treatment) referred to the treatment centers in Kerman city, Iran, in 2014. The sample contained 121 participants who were selected through convenience sampling method. That is, all those women were selected as participants who were in at least 6 to 12 months after being diagnosed with breast cancer, receiving treatment, and had minimal literacy to complete the questionnaires. The participants' consent was also obtained. The religious coping questionnaire and the Post Traumatic Growth Inventory (PTGI) were completed under the researcher's supervision.

Iranian religious coping scale was developed in 2011 by Aflakseir and Coleman [27]. In 2011. This inventory measures aspects of religious activities (6 items), negative feelings toward God (4 items), benevolent appraisal (6 items), passive religious coping (3 items), and active religious coping (3 items). Items are scored on a five-point Likert-type scale from never (0) to very much (4). The obtained Cronbach's alpha for religious activities, benevolent appraisal, negative feelings toward God, passive strategies, and active religious coping was 13%, 73%, 73%, 72%, and 73%, respectively [27].

PTG inventory was developed in 1996 by Tedeschi and Calhoun to assess changes in self-perception associated with traumatic event experiences. The theoretical foundations of the scale are based on reported positive outcomes (such as self-perception and philosophy of life) of a traumatic experience such as cancer. The inventory is used to measure positive outcomes of experiencing a negative life event. It includes 21 items on a Likert-type scale ranging from zero (I do not consider this change as a result of a crisis) to five (I consider this change to a great extent as a result of a crisis). This inventory measures new practices (5 items), relation with others (7 items), personal power (4 items), value of life (3 items), and spiritual change (2 items). The score of each subscale is the sum of scores of belonged items. The final score of PTGI is also calculated. In initial evaluation of PTGI, the

internal consistency of the scale was reported as 0.90. Moreover, the internal consistency values of the subscales were separately reported from 0.67 to 0.85. Lelorain, Bonnaud-Antignac and Florin [28], calculated the Cronbach's alpha of the scale as 0.93 [28].

The statistical methods of correlation and regression analysis were used for data analysis by SPSS-19.

**Results**

According to the demographic results, single participants had the frequency of 8.3%, while married participants had the frequency of 91.7%. Regarding the participants' age, descriptive statistics indicated that the frequency of 24-39 age group was 24%, 40-55 age group 43.8%, 56-71 age group 28.9%, and 72-87 age group

3.3%. Hence, the 40-55 age group had the highest frequency (43.8%). Regarding their educational level, statistics revealed that the percentage of illiterate group was 11.6, primary and middle school education groups 19 and 14.9, respectively, and the percentage of people with diploma and associate diploma, bachelor's degree, and master's degree was 7.4%, 16.5%, and 0.8%, respectively. Therefore, the middle school level of education with 29.8% had the highest frequency.

Research question: which component of religious coping is a predictor of PTG in participants with breast cancer?

To analyze the obtained data related to the research question, the Pearson correlation analysis and stepwise regression method were used. The results are presented in Table 1.

**Table 1** Results of pearson correlation between PTG and components of religious coping

Variable	Questionnaire's middle	Mean	SD	PTG	
				r	p
PTG	52.5	92.38	15.51	1	0.001
Active religious activities	6	9.75	2.39	0.42	0.001
Passive religious activities	6	8.01	3.37	0.03	
Benevolent appraisal	12	18.82	4.24	0.63**	0.001
Negative feelings toward God	8	13.44	2.96	0.13	
Religious activities	12	19.95	4.27	0.43**	0.001
Religious Coping	44	69.99	11.72	0.51**	0.001

N=121, \*\* p<0.001  
PTG: Post traumatic Growth  
SD: Standard Division

Results in Table 1 indicate that both PTG (92.38) and Religious coping (69.99) mean values are very higher than the values of middle of questionnaires. The results also indicate that there was a positive significant correlation

between active religious activity (r=0.42), benevolent appraisal (r=0.63), and religious activities (r=0.43) (components of religious coping) with PTG at the 0.99 confidence level.

**Table 2** Results of stepwise regression on predicting PTG

PTG	R	R <sup>2</sup>	Adjusted R Square	B	T	F(df)	Durbin-Watson	p
Benevolent appraisal	0.63	0.40	0.39	0.63**	8.91**	79.50(119,1)**	1.80	0.001

Criterion Variable: PTG  
Predictor Variable: Components of Religious Coping  
\*\*(p< 0.001)

The durbin test results between 1.5 and 2.5 (equal to 1.8) shows the use of regression analysis test is suitable. Stepwise regression

analysis conducted to predict PTG reveals that in the first step, benevolent appraisal predicts 0.39 of variances in PTG. Therefore,

benevolent appraisal has a positive significant relationship with PTG ( $p < 0.001$ ,  $\text{Beta} = 0.63$ ) and hence, is a predictor of PTG. Standardized beta coefficients indicate that if the benevolent appraisal scores increases one unit, PTG increases 0.63 units.

### Discussion

The results of the present study supported the important role of positive religious coping (benevolent appraisal, active religious activities, and religious activities) in predicting PTG in participants with breast cancer. The obtained empirical evidence was in line with numerous studies that have endorsed the positive significant relationship between participants' spirituality and their mental health as well as recovery [29]. Diagnosis of cancer is one of the hardest diagnoses for each individual. Many of such individuals cope with their own illness through resorting to religion and give meaning to their own lives [30]. Danhauer *et al* [31], studying 653 women with breast cancer, reported that an increase in social support, spirituality, and use of active-adaptive coping strategies increased PTG in these participants [31].

Many studies have been conducted on positive effects of religion and spirituality on various aspects of health in participants with chronic diseases [17]. Ali *et al* [32], reported that the role of religious coping in the face of trauma, especially in developing countries where religion has a particular role in culture, is evident. Sadati *et al* [33], found out that religious concepts play a key role in the interpretation and understanding of the disease, coping strategies, and acquiring new concepts of life and death. Lelorain *et al* [28], studying a sample of 307 women with breast cancer whose disease had been diagnosed 5-15 years earlier, reported positive emotions, positive, adaptive, and active coping and religion had an important influence in PTG and ultimately PTG led to improved quality of life, joy, and hope among these participants [28].

Garlick *et al* [14], examining women with

breast cancer, concluded that integrative psychological-spiritual treatment was associated with improved PTG. Jin *et al* [11], investigating the relationship between posttraumatic stress and PTG among survivors of earthquakes after a year, concluded that there was a significant correlation between these two variables.

Zunkermant and Korn [34], studying 777 students, concluded that religious cognitive schemas directly influenced ideological presuppositions and prevented negative effects resulting from intense negative experiences [34]. Nikmanesh *et al* [35], concluded that spirituality could predict up to 67% of PTG. Seyed Mousavi and Vafayi [36], investigating the role of religious coping in predicting posttraumatic excellence, found out that positive religious coping strategies can significantly explain PTG after controlling cognitive-behavioral coping strategies [36]. Ghojari Bonab *et al* [6], revealed that secure attachment to God and social support facilitated PTG. Sharifi *et al* [37], exploring the relationship between religious and effects of mourning in bereaved students, recognized a positive significant relationship between post-mourning and positive religious coping strategies including religious practices, religious benevolent reappraisal, and active religious coping. Rosmarin *et al* [22], studied psychiatric patients and reported that positive religious coping can be an important source of coping for these individuals and its usage is associated with improved treatment. Sharifi and Fatehi Zadeh [16], reported a significant positive relationship between positive religious coping (religious practices, benevolent appraisal, and active religious coping) and self-efficacy [16].

Chan and Rhodes [38], examined the relationship between religious coping, posttraumatic stress, and PTG in female survivors of Hurricane Katrina after 4 years and reported that positive religious coping could predict PTG [38]. Pratia and Pietrantonio [39], in a meta-analytic

study, examined the role of optimism, social support, and coping strategies in helping PTG and mentioned that these three variables were predictors of PTG where religious coping and positive appraisal had the most predictive effects [39]. Shaw et al [40], stated that positive religious coping, religious openness, religious participation, and intrinsic religion are associated with PTG. Hence, one can conclude that the findings of the present study are in accordance with the previous findings.

### Conclusion

It can be concluded that religious coping strategies are predictors of PTG in participants with breast cancer. Additionally, religious coping, relying on religious beliefs and activities help individuals who believe in religion to have a positive appraisal of life events and suffer from fewer traumas when facing with stressful events. Thus, religious coping can be regarded as a strategy to create a positive reaction to traumatic events, develop PTG, reduce negative consequences of trauma, and improve quality of life.

Among the limitations were the small sample size, unwillingness of some participants due to their poor physical and mental conditions and low literacy or illiteracy of some of the participants (solved through reading questionnaires by the researcher). Therefore, it is suggested that future studies can be conducted on: 1) Larger samples, 2) Other variables influencing PTG, 3) Samples with different cultural backgrounds and religious beliefs and, 4) Both genders, in order to compare the effect of cultural, religious, and gender-related factors on PTG.

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### Contribution

Study design and analysis: NKH

Data collection and analysis: KH

Manuscript preparation: NKH

### Conflict of Interest

"The authors declare that they have no competing interests."

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