

Relation between Posttraumatic Growth and Hardiness among Breast Cancer Patients



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Abstract

A diagnosis of breast cancer is one of the most devastating news a woman can hear. Over the past decade, research has shifted its focus from the negative aftermath of cancer diagnosis to the identification of the positive ways in which women's lives have changed as a result of a struggle with adversity. Posttraumatic growth is a value-added construct. Hardiness is often referred to as a personality type include the 3Cs i.e commitment, control and challenge (Maddi, 2002). The present study aims to answer the question that how the posttraumatic growth have been related with hardiness? The study was conducted on 100 breast cancer patients of post-surgery having the age range of 40-70 years. The Indian adaptation of Posttraumatic Growth Inventory (Tedeschi and Calhoun, 1996), and Hardiness Scale (Bartone, et al., 1989) was used. Descriptive statistics showed that the means of hardiness subscales ranged from 13.38 ($SD = 6.41$) on the Commitment subscale to 13.82 ($SD = 6.89$) on the Challenge and 13.64 ($SD = 6.81$) on the Control subscales. The mean of posttraumatic Growth Inventory was found to be 53.32 ($SD = 27.48$). Results also showed that the correlation between relating to others, new possibilities, appreciation of life and overall posttraumatic growth and Challenge was found to be statistically significant indicating that the concepts are related. Moreover, personal strength, appreciation of life overall PTG was found to be significantly correlated to Commitment. The correlation between new possibilities, spiritual challenge and overall PTG and Control was found to be statistically significant. In addition, new possibilities and Posttraumatic growth (total) are found to be the significant predictors of Hardiness. The findings of present study suggest the need to design intervention program to enhance posttraumatic growth in breast cancer patients.

Keywords: Posttraumatic Growth, Hardiness, Breast Cancer.

Introduction

Worldwide, breast cancer in women is the most commonly diagnosed cancer (Jemal et al, 2011). Most of the cancer survivors report many negative outcomes due to their illness (Deimling, et al, 2006), yet profound positive changes can also be seen among the cancer survivors (Helgeson et al, 2006) these negative and positive changes following during the diagnosis of cancer is best captured by the concepts like benefit finding, posttraumatic growth.

Review of Literature

In the worldwide representation, Cancer of Breast has been found nearly a quarter i.e. 25% of all the cancers with an estimated 1.67million new cancer cases diagnosed in 2012. It was found that in the less developed regions (883, 000 cases), the cancer cases have slightly more number as compared to more developed regions (794, 000 cases) (Malvia et al, 2017).

Although earlier the cancer of Cervical was the most common cancer in Indian women. But, now a day, the incidence of breast cancer has surpassed cervical cancer and is become a leading cause of death due to cancer (Kaarthigeyan, 2012).

Cancer of breast has ranked as number one among the Indian females with the incidence rate 25.8 per 100,000 women and 12.7 per 100,000 women in mortality rate. In various cities, the age adjusted incidence rate of Breast Cancer was found high. For Delhi, it was found 41 per 100,000 women which were followed by Chennai i.e. 37.9, Bangalore (34.4) and for Thiruvananthapuram District, it was found 33.7. Similarly, the

mortality-to-incidence ratio was found high in rural registries (i.e. 66) in comparison to urban registries (i.e. 8) (Malvia et al, 2017).

Along with this fact, it has been found that young age is the major risk factor for breast cancer in women of India. But there may be a large number of factors that are found to be associated with the risk of Breast cancer like age, family history, age at first birth, early menarche and late menopause, which are not modifiable. Other factors like alcohol consumption, marital age, breast feeding and obesity after menopause are modifiable.

Posttraumatic Growth

According to Calhoun and Tedeschi (2006c) Posttraumatic Growth involves positive physical and psychological consequences of trauma. Tedeschi and Calhoun (2004) define Posttraumatic Growth as 'the experience of positive change that occurs as a result of the struggle with highly challenging life crises'. It is conceptualized as a multidimensional construct which includes the domains of interpersonal relationships, self-perception and philosophy of life (Taku, Cann, Calhoun and Tedeschi, 2008). Tedeschi and Calhoun (1996) described the five components of growth in the PTG inventory: *relating to others; new possibilities; personal strength; spiritual change; and appreciation of life*. Posttraumatic growth is reflected both as a process and an outcome in a life narrative.

The survival of breast cancer affects the person's physical, psychological and social dimensions both in positive and negative way. Inan and Üstün (2014) reported that the negative effects of breast cancer survivors were more focused in previous researches rather than the positive effects. In supporting and strengthening the posttraumatic growth in breast cancer survivors, identification of positive changes and defining its determinants plays an important part.

Collins, et al, (1990) reported that the most common changes have been seen in the research of cancer patients were the feeling of becoming stronger and more self-assured. According to Anna Schmidt-Ehmcke (2008), the concept of posttraumatic growth exhibits the relationship between traumatic disruptions of people's worlds of meaning and their frequent reports of positive personal transformations. Many people reflect on life's meaning, their purpose in the world, their belief in God and spirituality (Tedeschi and Calhoun, 1995). According to Sears, Stanton and Danoff-Burg, (2003) the majority of cancer patients identify positive life changes due to their cancer experience.

Hardiness

Hardiness is a psychological construct introduced by Kobasa (1979) and is comprised of three components: (a) a commitment to oneself and work, (b) a sense of personal control over one's experiences and outcomes, and (c) the perception that change represents challenge, and thus should be treated as an opportunity for growth rather than as a threat (Aflakseir, et al, 2016). Maddi (2004) reported that hardiness was considered the specifics of what existentialists call existential courage. The concept of

Hardiness comprised of three Cs. The first 'C' is *Challenge*, the second 'C' is *Commitment* and the third 'C' is *Control*. *Challenge* focuses on the fact that life is stressful by its nature. If the person sees those stressful changes as an opportunity, he/she can learn from failures as well as successes. The person feels that the fulfillment can only be gained by turning the stressors into growth opportunities. Another C of hardy personality is *Commitment*. It involves the fact that it does not matter how bad the things get happen while being involved in whatever is happening is more important rather than to sink into detachment. The third C is *Control*, it leads to believe that no matter how the bad things happen, and the person needs to keep trying to turn stressors into growth opportunities (Maddi, S.R, 2013).

Method

Research Questions

The research towards positive responses to trauma is relatively new. Calhoun & Tedeschi, (2008) refers posttraumatic growth as a relatively new area of research and has the potential to dramatically alter the conceptualization and treatment of trauma in a clinical setting. The present study addresses the following questions:

1. What is the relationship of posttraumatic growth with hardiness?
2. Whether the posttraumatic growth would predict hardiness?

Objectives

1. To see the level of Posttraumatic growth and Hardiness among breast cancer patients.
2. To find out the relationship between Posttraumatic growth and Hardiness.
3. To explore the predictors of Hardiness.

Hypothesis

1. There will be positive relationship between posttraumatic growth and hardiness.
2. Different dimensions of posttraumatic growth will predict hardiness with different weightage.

Variables

Predictor Variable

Posttraumatic Growth has been operationally defined in terms of five factors namely;

1. *New Possibilities*: incentives to make a career change, overcome a fear, or accomplish a life goal.
2. *Relating to others*: feelings of closeness or intimacy with family or friends and make it easier to connect with others.
3. *Personal strength*: increased mental strength and a sense of empowerment.
4. *Spiritual change*: increased interest in practicing religion or integrating spirituality into daily lives.
5. *Appreciation of life*: having an increased awareness of life's value or a new sense of vulnerability.

Criterion Variable

Hardiness has been operationally defined in terms of three different dimensions namely :

1. *Commitment*: refers to the involvement of oneself in all the activities of life related to family, self, work. The committed person has meaningful purpose in life and they do not easily give up.

2. *Control*: as a tendency to feel and act as if one is influential (rather than helpless) in the face of the varied contingencies of life
3. *Challenge*: defines events as stimulating rather than threatening. It is expressed as a belief that change is normal in life rather than stability and the anticipation of change is an incentive for growth rather than a threat to security.

Nature of Study

Co-relational

Sample

The sample taken for the present study were 100 Breast Cancer patients of post-surgery and post-chemotherapy having age range of 40-70 years.

Tools

1. *Posttraumatic Growth Inventory (PTGI)* - The inventory has been developed by **Tedeschi and Calhoun (1996)** includes five factors namely new possibilities (5 items), relating to others (7 items), personal strength (4 items), spiritual change (2 items) and appreciation of life (3 items). It is 21-item self report measure having 6-point Likert-scale from 0 to 5 (no change to change to very great degree). High Cronbach's alpha coefficient revealed strong internal reliability i.e, .90.

2. *Hardiness Scale (HS)* - The hardiness scale was developed **Bartone et al. (1989)** is a 30- item instrument based on four point Likert scale. The scale composed of three sub scales namely commitment (10 items), control (10 items), and challenge (10 items). The responses range from 0 to 3 with zero = not at all true, 1= a little true, 2 = quite true, and 3 = completely true. Internal consistency of the scale was .83.

Hindi translation of both the scales was done with the help of Back Translation Method. The reliability and item test correlation was ascertained for both the scales. The ascertained reliability was 0.82 for Posttraumatic Growth Inventory and 0.76 for Hardiness Scale.

Results

Table 1 shows the descriptive statistics of the variables and their dimensions. As shown in table 1 the dimensions of PTG i.e new possibilities (NP) having 5 items, the scale range is 5-30 and the scale mean 17.35. The obtained range for the new possibilities scale has been found to be 5-28 and the obtained mean was found to be 12.84 which are below the average mean. This means that the respondents of the present study have fewer possibilities in life.

Table 1: Showing Descriptive Statistics of Different Variables

	No. of items	Scale Range	Scale Mean	Obtained Range	Obtained Mean	SD
NP	5	5-30	17.355	5-28	12.84	7.09
RTO	7	7-42	24.5	7-35	18.28	9.04
PS	4	4-24	14	4-23	10.49	5.19
SC	2	2-12	7	2-11	5.08	2.97
AOL	3	3-18	10.5	3-15	7.87	3.37
PTG (T)	21	21-126	73.5	21-102	53.32	27.48
COMM	10	0-30	15	6-28	13.82	6.89
CON	10	0-30	15	5-27	13.64	6.81
CHA	10	0-30	15	5-26	13.38	6.41

Moreover, the second dimension of PTG i.e relating to others (RTO) having 7 items, the scale range is 7-42 and the scale mean was 24.5. The obtained range and obtained mean has been found to 7-35 and 18.28 respectively which was below the average level. The value of S.D was found to be 9.04. This reveals that the respondents were found to be less able to relate to others or their significant others.

Similarly, the third dimension of PTG i.e personal strength (PS) having 4 items, the scale range and scale mean was 4-24 and 14 respectively. The obtained range and obtained mean for the present study was found to be 4-23 and 10.49 respectively. The value of S.D was found to be 5.19.

Likewise, the fourth dimension of PTG i.e spiritual change (SC) having 2 items, the scale range and scale mean was 2-12 and 7 respectively. The obtained range and obtained mean for the present study was found to be 2-11 and 5.08 respectively. The value of S.D has been found to be 2.97.

Moreover, the fifth dimension of PTG i.e appreciation of life (AOL) having 3 items, the scale range and scale mean was 3-18 and 10.5 respectively. The obtained range and obtained mean for the present study was found to be 3-15 and 7.87 respectively. The value of S.D has been found to be 3.37. When we talk about the overall PTG, the total number of items for the scale was 21 with a scale range 21-126 and scale mean 73.5. The obtained range and obtained mean for the scale has been found to be 21-102 and 53.32 respectively. The value of SD was found to be 27.48.

It was found that the level of posttraumatic growth was found below the average level. It might be because when the person is diagnosed with such a dreaded or fatal disease such as breast cancer, it can be more scary and shocking than anything else. At that time, she might feels like nothing is left in her life and her life is useless. It might be possible to have such negative thoughts at that time. So this might be

the reason that the level of post traumatic growth has been found low.

Moreover, the three dimensions of Hardiness are Commitment, Control and Challenge having 10 items in each dimension. The scale range and scale mean for each dimension was 0-30 and 15 respectively. The obtained ranges for Commitment, Control and Challenge have found to be 6-28, 5-27, and 5-26 respectively and the obtained means for Commitment, Control and Challenge are found to be 13.82, 13.64, and 13.38 respectively. For the dimensions of hardiness (i.e commitment, control and challenge) the SD has been found to be 6.89, 6.81, and 6.41 respectively.

Table 2: Showing the correlation between different dimensions of Posttraumatic Growth and Hardiness

	Commitment	Control	Challenge
Relating to Others	.021	.161	.640**
New Possibilities	.147	.461**	.474**
Personal Strength	.505**	.319*	.199
Spiritual Challenge	.265*	.513**	.065
Appreciation of Life	.534**	.095	.561**
Posttraumatic Growth (T)	.716**	.607**	.665**

Significance level: 0.01**, 0.05 *

Table 3: Showing the Stepwise Multiple Regressions: Predictors of Hardiness

Predictors	R	R ²	F	P	Beta Coefficient
New Possibilities	.680	.463	170.42	.000	-.680
Posttraumatic growth (total)	.690	.476	89.503	.025	.289

The above table 3 indicates new possibilities with 46% of the variance emerged out as the positively related significant predictor of hardiness. This indicates that new possibilities gives meaning or some purpose in life and the patients saw their life meaningful or worthy. When the PTG (total) is entered in the regression equation, it came out as 47% of variance. This indicates that the breast cancer patients who have high posttraumatic growth show higher hardiness in life. They are more committed to their life, have control on their life and take life as a challenge and not as a burden. The remaining 52% variance in the criterion remained unexplained by the predictors not used in this study, which implies that some other variables may have some contribution in the prediction of hardiness among breast cancer patients. It changes the person's belief of powerlessness to that she can influence the course of events. It results in growth and wisdom that is gained from adverse or difficult situations. It therefore helps in the development of growth instead of taking it as a threat (*Kobasa and Puccetti, 1983*). In another study it was found that the women dealing with cancer found the positive changes in prime concern that is they were taking their life more easily and

Table 2 shows that the correlation coefficients of different dimensions of PTG with Hardiness. The different dimensions of PTG (RTO, NP, PS, SC, AOL, and overall PTG) and Hardiness have been found to be positively correlated. Relating to Others, New Possibilities, Appreciation of Life and PTG (T) has been found to be significantly related with Challenge (.640, .474, .561, and .665 respectively). Similarly, New Possibilities, Spiritual Challenge and PTG (T) has been found to be significantly related with Control (.461, .513, .607 respectively). Likewise, Personal Strength, Appreciation of Life and PTG (T) are found to be significantly related with Commitment (.505, .534, and .716 respectively). The results show that posttraumatic growth is significantly related with hardiness. Studies also support the results that there is the relationship between these two variables. In a study, *Waysman et al (2001)* said that hardiness is related with higher level of positive change as it promotes the development of psychological growth after traumatic event. When a person goes through an adverse or traumatic event, hardiness might be some kind of medium that helps the person to return or bounce back from negativity to positivity or to their regular routine of life. Hardiness is the construct that helps the person to turn the traumatic events into something as well as important (*Kobasa, 1979*). Hence hypothesis no. 1 stating that "There will be positive relationship between posttraumatic growth and hardiness" is accepted.

enjoying the life more. Their outlook towards their life was changed.

Conclusion

On the basis of above results following conclusions can be drawn:

1. There was positive correlation between posttraumatic growth and hardiness among breast cancer patients.
2. Posttraumatic growth and New possibilities (a dimension of PTG) and have been found to be a significant predictor of hardiness among breast cancer patients.

Summarizing the findings of multiple regressions, we can say that new possibilities and PTG (total) are found to be the significant predictors of hardiness. On the basis of the result obtained we can say that the hypothesis no. 2 stating that "Different dimensions of posttraumatic growth will predict hardiness with different weightage" is accepted. The results reveals that when the person have new life goals or found some meaning or purpose in life.

Limitations and Suggestions

1. The study focused primarily only one type of cancer in women i.e. breast cancer and could not include the patients of cervical cancer which is

also a very prominent type of cancer among women.

2. The study only includes the quantitative analysis. Future researches may also include some qualitative analysis of posttraumatic growth.
3. There is a need to develop an intervention program to enhance Posttraumatic Growth in breast cancer patients.

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