

INFLUENCE OF SOCIAL SUPPORT AND COPING STRATEGIES ON POST-TRAUMATIC GROWTH IN CANCER PATIENTS

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Abstract

Negative and stressful psychological effects in the aftermath of any trauma are a common notion but despite those negative effects individual may also develop positive psychological changes and growth (Tedeschi & Calhoun, 1996, 2004). The purpose of study was to investigate the relationship between social support, coping strategies and post traumatic growth in a sample group of cancer patients. The sample of 286 cancer patients was selected purposively from Department of Radiation Oncology, Government Medical College and Associated Hospitals, Karan Nagar, Srinagar, Florence Hospital, Chanapora Srinagar, Noora Hospital, Zainakote, Srinagar. The participants completed the sample survey packets comprised of 'Multi-Dimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet, & Farley, 1988), Brief Cope, (Carver, 1997), and 'Post Traumatic Growth Inventory-Short-Form, Cann et. Al. 2010). The results revealed that Social Support and Adaptive Coping Strategies are significantly correlated with Post-Traumatic Growth ($r = .32, p < .001$ & $r = .35, p < .001$ respectively). However, the correlation between Passive Coping Strategies and Post-Traumatic Growth was found insignificant ($r = .05, p = .40$). The results also revealed that Social Support and Adaptive

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Coping Strategies are significantly and positively correlated ($r = .42, p < .001$) and Social Support and Passive Coping Strategies are significantly and negatively correlated ($r = -.13, p < .05$). Multiple Regression Analysis was applied to investigate the degree to which PTG could be explained by the Social Support and Adaptive Coping Strategies. The results revealed that Social Support ($\beta = .22, p < .001$) and Adaptive Coping Strategies ($\beta = .26, p < .001$) could predict 16% of the variance ($R^2 = .16; F(2, 283) = 18.03, p < .001$) in the Model of Post-Traumatic Growth in Cancer Patients.

Keywords: Cancer, Post-Traumatic Growth, Social Support, Coping strategies

INTRODUCTION

Cancer can cause negative psychological and physical sequelae that can severely impact individuals' everyday lives (Gurevich, Devins, & Rodin, 2002). Specifically, cancer has the ability to negatively impact numerous aspects of the individual including physical, emotional, social, and occupational functioning (Kornblith, 1998). While the negative consequences of trauma are very well documented in literature, a recent emerging literature points to the potential for trauma to be an experience, which is for individuals, deeply transformative in ways that are reported to be positive and valued. Research evidence suggests that cancer patients have found growth or benefits from their experience. Posttraumatic Growth (PTG) is defined as a positive psychological change experienced as a result of struggle with highly challenging life circumstances (Tedeschi & Calhoun, 1995, 1996, 2004). A variety of cancer patients have reported PTG from their cancer experience including breast cancer (Antoni et al., 2001), prostate cancer (Thornton & Perez, 2006), colorectal cancer (Salsman, Segerstrom, Brechting, Carlson, & Andrykowski, 2008), testicular cancer (Rieker, Edbril, & Garnick, 1985), leukemia and

lymphoma (Daiter, Larson, Weddington, &Ultmann, 1988), cancers requiring a bone marrow transplant (Tallman, Altmaier, & Garcia, 2007) and mixed cancers (Schulz & Mohamed, 2004). Social support is a very important factor influencing post-traumatic growth (Park & Folkman, 1997). Higher levels of benefit and gains are associated with both social support received and support satisfaction (Park et al., 1996). Appropriate social support may promote growth related to interpersonal relationships, such as sense of closeness to others (Tedeschi & Calhoun, 1996). Social support may have a direct affect on benefit finding (Cadell, Regher, &Hemsworth, 2003). It can also facilitate coping and thus change the threat nature of stress (Bandura, 1997). There has been an investigation into the psychological mechanisms or pathways that may contribute to posttraumatic growth (McMillen, 1997) and it has been suggested that coping strategies may influence the extent to which a person experiences this type of growth when facing the challenge of cancer (Tallman, 2013). Research has identified approach-oriented, active, and social support coping strategies as antecedents to posttraumatic growth (PTG) in cancer survivors (Bellizzi& Blank, 2006; Sears, Stanton, &Danoff-Burg, 2003; Widows, Jacobsen, Booth-Jones, & Fields, 2005). Conversely, availability of support from spouses, family members, and friends has also been found to be related to higher scores of PTG in survivors of cancer (Cordova, Cunningham, Carlson, &Andrykowski, 2001; Thornton & Perez, 2006; Weiss, 2004). This study was conducted with the purpose to investigate the relationship of social support and coping strategies with post-traumatic growth and the degree to which social support and coping strategies can predict post-traumatic growth.

METHOD:

Participants:

This study utilized a sample of 286 cancer patients selected purposively from Department of Radiation Oncology, Government Medical College and Associated Hospitals, Karan Nagar, Srinagar, two private hospitals (Noora Hospital and Florence Hospital, Srinagar) and one NGO Cancer society of Kashmir working for cancer patients of Kashmir valley. Inclusion and Exclusion criteria was set by the researcher as 1) At least 18 years of age, 2) At least 6 months since the diagnosis, 3) Having definite diagnosis of cancer 4) Providing informed consents. Patients with other physical or psychological problems were excluded from the study. Lack of patient's consent to participate in the study was another exclusion criterion. Patients with history of metastases and critically ill patients were excluded from this study. Patients with no knowledge of their diagnosis were also excluded from this study.

Procedure:

Initially, the aims and the procedure of the study were explained to the heads of the hospitals and their consent for conducting the study was obtained. Subsequently, patients who met the criteria were chosen by the researcher. Some patients were under treatment whereas others attended a follow-up appointment at the hospital. The researcher introduced herself to the patients and informed the patients about the aim and the procedure of the study. They were told that they could stop and discontinue anytime they wanted. Participation was on a voluntary basis. Informed Consent was obtained from the patients and after getting their consent, the scales were applied to the patients by the researcher. Clinical and medical details of patients were taken from the hospital records.

Measures:

All participants completed the sample survey packets comprising of following measures:

Post-Traumatic Growth Inventory-SF (Cann, A., R. G. Tedeschi & L.G. Calhoun, 2010) It consists of 10 items which are rated on a 6-point scale (from 0 to 5). Total score ranges from 0-50. Internal consistency has been reported 0.90 and test-retest reliability 0.71. For present study the cronbach alpha was 0.71.

Multi-Dimensional Scale of Perceived Social Support Assessment (Zimet, G. D., Dahlem, N. W., Zimet, S. G. & Farley, G. K., 1988). It consists of 12 items which are rated on a 7-point scale. Possible range of scores is 7-84. These 12 items assess social support from three sources, family, friends and significant other. Coefficient alpha for the sub-scales and the scale as a whole ranged from 0.85 to 0.95. Test-retest values ranged from 0.72 to 0.85. For the present study cronbach alpha for the whole scale was 0.80 and for the sub-scales cronbach alpha was, Support from Family 0.72, Support from friends 0.89 and Support from significant other 0.91.

Brief COPE Inventory (Carver, C. S., & Scheier, M. F. 1989). The 28 items of COPE inventory are rated on a 4-point Likert scale. The items are divided into fourteen sub-scales. For COPE the authors report internal consistency reliability of 0.92 and test-retest reliability of 0.89. To have a more practical measure one original sub-scale of substance abuse was discarded due to cultural issues and due to the absence of variance in current study. A score of adaptive coping was computed by adding 11 original sub-scales of Active coping, planning, positive reinterpretation, humour, religion, seeking emotional support, seeking instrumental support, self-distraction, venting, positive reframing, and score of passive coping was computed by adding the sub-scales of self-blame, denial, behavioural disengagement (Danhauer, et. al.2013). Cronbach

alpha forscale as a whole was 0.62, and for active-adaptive coping it was 0.74, while for passive coping it was 0.69, for this sample.

A demographic questionnaire was also included requesting information regarding patient's age, gender, monthly income, residential status, family status, employment status, time since diagnosis, and stage of the disease.

RESULTS:

Analysis was performed using the Statistical Package for Social Sciences (SPSS, 20.0). Bivariate correlation was used to assess relationship between study variables and multiple regression analysis was used to determine the degree to which PTG can be explained by social support and coping strategies.

Table 1: Correlations between Social Support, Coping Strategies and PTG

	PTG
Social Support	0.32**
Active-adaptive Coping	0.35**
Passive Coping	-0.05 ^{NS}

**p<0.01, ^{NS} Insignificant

Table 2: Correlations between Social Support and Coping Strategies

	Social Support
Active-adaptive Coping	0.42**
Passive Coping	-0.12*

**p<0.01, *p<0.05

Pearson's Correlational coefficients were calculated to examine the relationship between the variables of the study. The correlational analysis showed that PTG is significantly and positively associated with social support ($r=0.32$, $p<0.01$) and Active-adaptive coping strategies ($r=0.35$, $p<0.01$) in cancer patients. The analysis further showed that there is negative but insignificant correlation between PTG and Passive coping strategies (See table 1).

As it can be seen in table 2 there is a significant and positive correlation between social support and active-adaptive coping strategies ($r=0.42$, $p<0.01$) and significant and negative correlation between social support and passive coping strategies ($r= -0.12$, $p<0.05$).

Table 3: Summary of the final model of regression analysis of the Social Support and Coping Strategies on PTG

Outcome	Predictors	B	SE B	B	T	pr
Post-traumatic Growth	Constant	10.52	3.84	-	2.73**	-
	Social Support	0.155	0.043	.22	3.59**	0.19
	Active-adaptive Coping	0.241	0.056	.26	4.34**	0.24

Note: $R^2=0.16$, $**P<0.001$

Multiple regression analysis was done to investigate the degree to which PTG could be explained by social support and coping strategies in the model of post-traumatic growth. The results revealed that Social Support ($\beta = .22$, $p < .001$) and Adaptive Coping Strategies ($\beta = .26$, $p < .001$) could predict 16% of the variance ($R^2 = .16$; $F(2, 283) = 18.03$, $p < .001$) in the Model of Post-Traumatic Growth in Cancer Patients (See table 3).

DISCUSSION:

The purpose of this study was to investigate the relationship between social support, coping strategies and social support in cancer patients. In line with the results of other studies it was found that there is a positive relationship between social support and PTG, that is, higher the levels of perceived social support, higher the levels of PTG. This finding is parallel with previous research findings (Tanriverd et. al. 2012). People may focus on positive side of their illness because the close and safe relationships may generate positive emotions.

Active-adaptive coping strategies were found to be positively associated with PTG. This finding is in line with the previous research where the similar findings were reported (Sheikh, 2004, Lelorain et. al. 2010). Positive reinterpretation of stressful events have adaptive role for experiencing post-traumatic growth according to Taylor's cognitive adaptation theory. These findings are also consistent with Tedeschi and Calhoun's (1995, 2004a) theory that postulated that positive coping is necessary for PTG to arise. Thus if people actively engage in stressful situations instead of taking passive attitude, their probability of experiencing post-traumatic growth increases.

The findings of this study also show that social support is positively associated with active-adaptive coping strategies and negatively associated with passive coping strategies.

The results further indicated that social support and active-adaptive coping strategies emerged as significant predictors of post-traumatic growth explaining 16% of variance in the model of post-traumatic growth in cancer patients. As far as coping and social support is concerned, this finding confirmed the result of previous findings (Danhauer, et. al. 2013).

IMPLICATION FOR CLINICAL PRACTICE:

This research adds to the existing body of knowledge on PTG in cancer patients by investigating the relationship between social support, coping strategies and post-traumatic growth. The finding that active-adaptive coping strategies and social support may be the strongest determinant of post-traumatic growth provides further support for cognition, coping and social support as excellent targets of intervention. The findings of this study will help the helping professionals to better understand the nature of post-traumatic growth and its determinants so that the long term negative impact of cancer can be minimized while simultaneously enhancing the long term positive impact.

LIMITATIONS:

It needs to be recognized that sample used in this study is not a probability sampling, so care should be taken in generalizing the results because of representativeness issues. Because of the cross-sectional design actual causal relationship between variables cannot be established. Longitudinal research needs to be carried out so that this limitation can be overcome. More research is needed so that the function and correlates of PTG in the experience of cancer patients can be clarified. Given these limitations, the findings of this study support previous findings on post-traumatic growth and Tedeschi's and Calhoun's model and, show the importance of social support and active-adaptive coping strategies in facilitating post-traumatic growth. Psychological support and family psycho-education programs to increase support and to empower patients in adaptive type of coping strategies may prove to be vital for offering psychological support to cancer patients.

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