

Illness Beliefs and Coping Strategies of Women Cancer Patients

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Abstract

This study relates to examining the illness beliefs of women cancer patients and the strategies they apply in coping with the illness. The sample consisted of 100 women cancer patients diagnosed with cervix cancer. They were administered the tools measuring illness beliefs and coping strategies. The results drawn suggest that patients adopting “avoidance coping” strategies had their causal beliefs that illnesses source from individual, psychological, social, environmental and supernatural aspects. This was comparable to those who adopted “approach coping” strategies. However, the groups differed significantly only for supernatural causes of illness. Patients adopting avoidance strategies were found to believe in supernatural causes compared to those who showed approach coping. The strategies of approach coping were found to be associated with less severe consequences in psychological, interpersonal and physiological domains apart from the pain experienced due to the illness along with hope for positive outcomes of illness management.

Keywords: cervix cancer, coping strategies, illness control beliefs, internal and external causal attributions

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Cancer in the cervix is among the top four prevalent kind of cancer found in women across the world and has 85% of global burden in countries with lower and middle income (Ferlay et al., 2015). According to Institute for Health Metrics and Evaluation (2016) cervix cancer is the second most common reason of death among young women between 15 to 45 years in India, the country that accounts for one fourth of global disease burden. Further it is found to account for 17% of deaths due to cancer among the women between 30 and 69 years. Studies reveal that nearly 70 percent of cervix cancer patients in India visit the hospital when the cancer has grown to stage III or stage IV. About 20% women with cervix cancer are found to die within a year of diagnosis while 50% survive for five years (Mittra et al., 2010; Srinivasan, Johari & Jesani, 2018). Women from rural areas and from lower socio-economic group are found to be affected the most by cervix cancer. Poor screening and treatment facilities are the main causes of women's death (Krishnan, Madson, Porterfield, & Varghese, 2013). The Institute for Health Metrics and Evaluation (2016) estimated that the occurrence of cervix cancer among Indian women is higher at one in 53 compared to one in hundred among the women from developed countries.

Coping Strategies, Illness Beliefs, and Health Outcomes

The stressful experiences during the critical phase of illness, adversely impacting the patients can be protected by the crucial factor called coping and maintains wellbeing amidst stress (Folkman, 1997; Lazarus & Folkman, 1984). As per the theory of Folkman and Lazarus, the process of coping begins with individual's appraisal of the situation against the resource availability. Perception of threat or harm triggers coping mechanism. In such situations, an individual may apply approach coping by managing the problem that is the very cause of stress or take resort to avoidance coping by using thoughts and behaviour in regulating the distress (Aspinwall & Taylor, 1997).

Based on the theoretical principles of stress and coping that advocates that the assessment of coping is to be done only in the specific context of stress, the appropriate question to the

people is how they respond to a specific stressful situation than pose a generic question as to how they cope in general.

Current studies reveal illness belief structure to be a supportive tool for understanding the psychosocial aspects of medical conditions including cancer (Hagger & Orbell, 2003). The sociocultural context of the society that surrounds people initiates a belief system about the disease in terms of its causality, outcome, regulation, and controllability. As an integral part of the cognitive system (Gilbert, 1991), and of the neural system possibly (Tandon, 2011), people's health cognition, treatment strategies, treatment compliance, perceived treatment outcomes, social support seeking, self-care, personal growth, and coping with illness (Kiecolt-Glaser, et al., 1985; Peterson, Seligman, & Vaillant, 1988) is determined by their belief systems.

Mishra (1997; 2009) identified attributions of internal causes (Ex; Careless attitudes, bad habits) and external causes (Ex; Environmental hazards, God's wish) to cancer among the rural sample. Co-existence of both were also found in other studies (Mishra, 2015). Indian culture that promotes the concept of *karma* or fate is likely to instill such beliefs in child rearing process which reflects in their attributions to illness.

Several studies have examined a connection between illness related beliefs and health behavior among women suffering from the cervical cancer and/or diabetes (Awasthi & Mishra, 2011, 2013; Awasthi, Mishra, & Shahi, 2006; Awasthi, Mishra, & Singh, 2018; Mishra, Awasthi, & Singh, 2004). In cancer patients, "doctor control" was found to reduce psychological and interpersonal consequences as well as the pain caused by the illness, and also enhanced their optimistic view of illness recovery. Beliefs that centred around the individual as an origin of the illness enhanced physiological consequences, and belief in supernatural causation enhanced psychological consequences and pain among patients.

Awasthi, Mishra, and Shahi (2017) examined the link between optimism and illness beliefs with subjective well-being and post traumatic growth of untaught women patients

suffering with cervical cancer. Findings revealed that these patients had a stronger causal attribution towards external rather than internal source of illness, and they also greatly believed in the doctor and supernatural elements rather than self control of illness management.

Approach coping strategies and disease acceptance as a way of coping by the patient were found to be associated with better functioning and therefore enhance wellbeing among patients with chronic illness. On the other hand, avoidance coping or psychological disintegration from the disease were found to be associated with worse functioning reflected in poor physical health, psychological distress and adjustment problems (Awasthi & Mishra, 2011; Heijmans, 1999; Kershaw, Northouse, Kritpracha, Schafenacker, & Mood, 2004; Murphy, Dickens, Creed, & Bernstein, 1999; Rutter & Rutter, 2002).

The present study focuses on cervix cancer because of its most common occurrence and high incidence among Indian women.

Method

Sample

The sample constituted 100 women diagnosed with cancer in cervix. The sample was drawn from among those who came for consultation to the outpatient departments of hospitals and medical centres in Varanasi city. Following were the inclusion criteria-

- The age range between 30 and 65 years,
- The cancer was in second or third stage
- The patient was not hospitalized
- From the middle socioeconomic class
- Patients should live in joint families

Patients having psychiatric symptoms were not included in the sample.

To verify the hypotheses of the present study, mean, SD and t values of approach coping and avoidance coping strategies for illness on causation, consequences, controllability, and

outcomes scores were worked out.

Measures

Five measures were used in the study.

Illness Causation Belief Measure: This is a five-point Likert scale (5 = very much; 1 = very little) consisting of 20 items distributed into four factors, viz- supernatural, psychosocial, environmental and individual causes (Awasthi et al., 2006). Cronbach's alpha values were .93 and above. Two factors – individual and psychosocial causes represent internal causes while supernatural and environmental factors represent the external causes. The scores varied between 5 and 25. The reliability ranged between .73 to .93.

Illness Consequences Belief Measure: This five- point scale constructed by Awasthi et al (2006) has a total of 15 items distributed into three factors, viz – psychological, interpersonal and physiological consequences of disease. Cronbach's alpha values of the factors stood .91 and above. The scores on each dimension ranged between 5 and 25.

Illness Controllability Belief Measure: This five-point scale had only three items that measured the patient's belief about whether the disease was controlled by the 'doctor', 'external agents' or the 'self'. The five-point scale was scored as 'Not at all'=1 and 'very much'=5 (Awasthi et al., 2006).

Illness Outcome Belief Measure: This three-item five-point scale (Awasthi et al., 2006) assessed the subject's beliefs about illness outcome. It is measured in terms of beliefs about pain, hope for cure, and severity of illness.

Coping Strategy Measure: This includes one open-ended question adapted from Awasthi & Mishra (2007). The question was, 'What should one do in order to manage cancer?' The participants were requested to mention at least five things they which, according to them are important to be practiced in their own disease management. The responses were classified into avoidant coping and approach coping categories. A score of 1 was given to every response. A

score of 0 was given when the participant did not respond.

Results

Illness Beliefs and Coping Strategies

As per the preliminary findings, the participants mentioned a total of 11 different ways related to management of illness. Responses such as adherence to medical advice, complying with the needs of nutrition and hygiene, engaging in physical workout, work and mental occupation were classified into the category of approach coping. Responses indicative of passive disease management included resting, leaving everything to God, approaching other people for support or criticizing oneself for the condition. They were classified into the category of avoidance coping. The median scores were taken to decide the cut-off point. Participants that scored above the median score on approach scores were grouped into the ‘approach coping’ category; whereas, participants scoring above the median for avoidance scores were grouped into the ‘avoidance coping’ category. The two groups were assessed on the measurements explained earlier.

Table 1 presents the means and the standard deviations of the two groups utilizing the two different coping strategies on illness causation, controllability, consequences, and outcome belief measures. The only dimension where the two groups significantly differed was on the dimension of natural causes of illness ($t = 5.08$, $df = 98$, $p < .01$). In comparison with the “avoidance coping group”, the “approach coping group” held a stronger belief in disease control by self ($t = 2.29$, $df = 98$, $p < .05$) and supernatural agents ($t = 2.89$, $df = 98$, $p < .01$). Although the “approach coping” group held a stronger belief in doctor’s control of illness than the “avoidance coping group”, the difference was not significant ($t = 1.73$, $df = 98$, $p > .05$).

Table 1*Mean scores of women patients on measures of illness belief and coping strategies*

Illness Beliefs	Approach Coping (N=32)		Avoidance Coping (N=68)		t-value
	Mean	SD	Mean	SD	
Causations					
Individual	15.37	5.10	16.13	4.49	0.75
Psychosocial	13.50	4.18	12.87	4.22	0.69
Supernatural	9.17	4.02	14.17	5.50	5.08**
Environmental	12.53	3.94	12.04	4.26	0.56
Controllability					
Self	1.63	0.93	1.24	0.71	2.29*
Doctor	4.03	0.85	3.67	1.18	1.73
Supernatural	1.17	0.65	1.71	1.24	2.89**
Consequences					
Interpersonal	14.14	4.72	18.89	4.36	4.60**
Physiological	14.33	3.46	16.14	4.19	2.25*
Psychological	14.50	4.90	18.96	4.89	4.17**
Outcome					
Pain	3.57	0.90	4.14	1.02	2.82**
Hope	3.47	1.22	2.53	1.36	3.40**
Severity	4.47	0.73	4.61	0.71	0.56

* $p < 0.05$, ** $p < 0.01$

The results revealed that with reference to illness consequences, the “approach coping” group scored significantly lower than the “avoidance coping” group on interpersonal ($t = 4.60$, $df = 98$, $p < .01$) physiological ($t = 2.25$, $df = 98$, $p < .01$) and psychological ($t = 4.17$, $df = 98$, $p < .01$) consequences of

illness.

The results indicated that the “approach coping” group had a significantly lower score on pain measures ($t = 2.82, df = 98, p < .01$) and significantly higher on hope measures ($t = 3.40, df = 98, p < .01$) in comparison with the “avoidance coping” group but no significant differences were found on severity of illness.

Discussion

The results of the study highlight the following points—patients with cancer in cervix strongly believed in individual and psychosocial causes than in environmental and supernatural causes. Patients in “avoidance coping” group had strong belief in “supernatural causes as well as control” of illness than those in “approach coping” group. “Approach coping” group held a stronger belief in disease control by “self” than the “avoidance coping” group. Approach coping was found to be associated with less of negative consequences, and pain, and more of hope for positive outcomes.

The findings were not in consonance with earlier findings (Affleck, McGrade, Allen, & McQueeney, 1985; Axelrad, 1982; Taylor, Lichtman, & Wood, 1984; Tennen, Affleck, Allen, McGrade, & Ratzan, 1984; Tennen, Affleck, & Greshman, 1986; Timko & Janoff-Bulman, 1985; Witenburg et al., 1983) which suggested a positive association between approach coping strategies and belief in internal causation of illness and association between avoidance coping and external causation of illness. This may be because of the sample characteristics. There are findings on women with cystic fibrosis which showed that though women had positive attitudes towards their illness, they were found to be more passive about their illness (Miller, Wills, & Win, 1993) and more accepting of their illness (Fife, Kennedy, & Robinson, 1994) compared to men.

Results revealed that women patients who employed “avoidance coping” strategy reported a significantly higher score on supernatural causes than those who employed “approach

“coping” strategy. These results are consonant with other Indian studies carried out with orthopedic (Dalal & Pande, 1988), tubercular (Dalal & Singh, 1992) and heart (Agarwal & Dalal, 1993) patients, which report attributions of illness to “God’s will” and “Karma” as major influences on patients’ health behavior. These processes help patients in dealing with their health problems and making peaceful adjustment with life threatening conditions. Western investigators’ (e.g., Affleck et al., 1985; Axelrad, 1982; Taylor et al., 1984; Timko & Janoff-Bulman, 1985; Witenburg et al., 1983) have reported external attributions to be related to maladaptation, and internal attribution to positive adaptation. This proposition certainly goes against our results.

There are research evidence suggesting a positive connection between internal attribution and positive disease outcomes (e.g., Irvine et al., 1992) and that external attributions have an association with lower psychological distress (Sinzato, et al., 1985). Ascribing the cause to external factors may be of use patients assess their disease experience as one where nothing can be done to modify the event. Sometimes external attributions may come as an aid to cope with emotional distress (Asmundson et al., 1998; Brooks, Daghish, & Wearden, 2013) and contribute to patients’ adjustment to multiple dimensions of life.

The results revealed patients’ belief in supernatural causes. There are research evidence to the effect that this is common in developing countries (Furnham, Akande, and Baguma, 1999) and it helps as a defense against stress reactions. It appears that people’s belief in God increases the degree of personal energy to endure with a chronic health condition and cope with it effectively.

The findings indicated that those in approach coping group believed in one’s own control over the disease while those with avoidance coping group believed in supernatural control. There are research evidence that support the fact that the self-control beliefs are related to constructive reactions to illness (Dempster et al., 2011; Hagger & Orbell, 2003) and health promoting

activities (Rochelle & Fidler, 2013) and have control over their illness (Lazarus, 1983; Taylor et al., 1984). According to Taylor (2005) beliefs on self-control facilitate psychological adaptation. Hence they may be termed as ‘healthy illusions’ than being discarded as ‘illusions of control’.

The results found the relationship between beliefs on supernatural control with avoidance coping. This needs to be interpreted with the Hindu perspective and religious doctrine at the backdrop. Theoretical writings (e.g., Radhakrishnan, 1926) and empirical research (Agarwal & Dalal, 1993; Dalal, 2000; Dalal & Pande, 1988; Dalal & Singh, 1992; Gokhale, 1961; Shweder, 2008) mention the role of *karma* as dominant religious philosophy. The theory of *karma* argues that all our sufferings in this life are the outcomes of our accumulated bad deeds in the previous births apart from the consequences of deeds in the present life. This quest for explanation of one’s sufferings is the crux of Indian philosophical tradition (Paranjpe, 1987). By attributing the cause of the illness to supernatural elements patients get relief from blaming themselves for the condition while continuing the treatment as part of *karma* (duty).

The findings indicated that approach coping strategies are associated with lower severity in consequences compared to avoidance coping strategies. These results corroborate with those previous findings (e.g., Felton & Revenson, 1984; Lazarus & Folkman, 1984; Mitchell & Hudson, 1983). Approach coping is related to decreased emotional distress while avoidance coping is related to an increased emotional distress, poor physical health outcomes and psychological adjustments (Culver et al., 2004; Ebrahim et al., 2010; Fahim et al., 2014; Kershaw et al., 2004).

The findings suggested that approach coping group reported less pain compared to avoidance coping group though there was no significant difference in perceiving the illness severity. Further, perception of higher hope among the approach coping group reflects their optimistic mind set. Studies indicate that optimistic people engage in problem-focused coping. (Bozo, Gündoğdu, & Büyükaşık-Çolak, 2009; Carver & Scheier, 2005; Deimling, Bowman,

Sterns, Wagner, & Kahana, 2006; Scheier & Carver, 1993; Schou, Ekeberg, Sandvik, Hjermsstad, & Ruland, 2005).

Implications

The results indicate the contribution of coping strategies in illness management of cancer and its impact on physical and psychological outcomes. This provides the path ahead to include comprehensive psychological interventions that start with the assessment of illness beliefs, coping strategies as part of screening and diagnosis.

The fact that self-control of disease is found to enhance the self-efficacy in participants suggests training in self-regulation techniques for enhancing adherence to medication, diet, exercise, meditation, work and positive engagement.

Limitations

Despite the fact that the study has explored some important psychological dimensions of women cancer patients, there are also some drawbacks to the study. The age range of patients was fairly wide (i.e., 30 to 65 years), yet age was not used as a factor in the current analyses. Future studies may develop and compare age-specific psychological profiles of such patients. The impact of rural-urban residence and educated and uneducated background (socio-cultural factors) on illness causation, controllability, and consequences beliefs of women patients adopting approach and avoidance coping strategies also needs to be examined seriously.

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