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Research Paper

Coping Strategies Among the Malignant Brain Tumor Patients

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ABSTRACT

In the contemporary world, health and health related behaviors are studied through the Biopsychosocial model of Health Psychology. Health Psychology is a branch of Psychology which focuses on the mental and physical components of illness. With the changing patterns of illnesses from acute to chronic diseases, there is a need to understand the effects of chronic diseases on the overall well-being of the person. Brain tumor is a chronic illness which can be physically and mentally taxing. Tumor is an abnormal growth of the cells which can take place in any part of the body. This abnormal growth of cells in the brain is known as brain tumor. Coping with the treatment of tumor can take a toll on patient's physical and mental well-being. There are various coping strategies which a person uses to deal with the illness physically as well as psychologically. ***Purpose***: The focus of the study undertaken was to assess the coping strategies of male and female malignant brain tumor patients. ***Method***: A sample size of 60 participants comprising of 30 male and 30 female patients of malignant brain tumor were taken. Only pre surgery patients were considered for the study. Purposive sampling technique was used to collect the sample. Brief-COPE scale by Carver was used to measure the coping strategies of the participants. The scale comprises of 3 factors: Problem Focused, Emotion Focused and Avoidant Focused Coping. The analysis and interpretation of the data was done through calculations of Mean, Standard Deviation, SED and Student's t test. Scores on 3 different domains of the scale were compared to measure the gender differences in coping strategies. ***Results***: The results indicate that there exists a significant difference among males and females with regards to Problem Focused Coping and Avoidant Focused Coping. Whereas, there is no significant difference among males and females with respect to Emotion Focused Coping.

Keywords: *Coping Strategies, Problem-Focused, Emotion-Focused, Avoidant-Focused.*

Acute illnesses like common cold, flu, bronchitis, pneumonia etc., can be treated and cured over time. These diseases are of short-duration. Whereas, there are some conditions which are treatable but not curable over time. These conditions are referred to as chronic conditions. For example, diabetes, thyroid, blood pressure, cardiovascular conditions, etc., can only be managed by lifestyle changes but not cured over time. Conditions like cancer are also chronic in nature but they are called as terminal

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illnesses. Terminal illnesses are progressive in nature and likely to result in the eventual death of the person.

When a person is diagnosed with a terminal illness like brain tumor it's a devastating experience for the person as well as their family. Tumors are the abnormal growth of mass or cells in the brain. These can be either benign (non-cancerous) or malignant (cancerous). The treatment includes radiotherapy, chemotherapy, surgery etc. The initial responses to the diagnosis include denial, anger, sadness, social withdrawal, anxiety, etc. Thus, the interdisciplinary field of Health Psychology explores the biological, psychological, and social factors of health and illnesses which helps in formulating intervention plans for the patients and their caregivers.

Coping with the situation is physically and mentally exhausting. The fear of impending death, uncertainty about the future, financial expenses of treatment, lifestyle alterations, following the treatment regime, cognitive and physical impairments, treatment side effects, etc., are a few of the many conditions that the patient has to cope with. This might have an adverse effect on the patient's mental well-being and their quality of life. Not only the patient, but their caregivers also go through an emotional turmoil. Therefore, it's imperative to understand the coping mechanisms that are used by the patients to deal with their condition.

Coping strategies are the responses to a stressful situation. These are consciously adapted strategies to deal with a stressful situation. It can either be adaptive or maladaptive in nature, the present study focuses on 3 types of coping: Problem-focused, Emotion- focused and Avoidance approach. The problem focused approach is an adaptive form of coping wherein the individual tries to reduce the effect of the stressor by eliminating or changing it. Emotion-focused coping is also an adaptive form of coping mechanism where the person tries to reduce the negative emotions aroused due to the stressor. When the stressor cannot be changed or controlled, we engage more in emotion focused coping. Avoidant focused coping is a maladaptive form of coping where the person tries to avoid his/her reality.

Avoidant coping style is seen initially after the diagnosis of a terminal illness. Many studies have reported that cancer patients engage more in emotion-focused coping. Thus, the aim of present study is to investigate the different coping strategies used by brain tumor patients.

LITERATURE REVIEW

Rajat Garg, Vinay Chauhan & B Sabreen conducted a study titled "Coping styles and Life satisfaction in Palliative care". The goal of this study was to find effective coping mechanisms that contribute to life satisfaction in terminal cancer patients. The participants in this observational, cross-sectional study were terminally ill cancer patients receiving palliative treatment. The study included cancer patients getting palliative care who gave their consent and were 18 years or older. Those with cognitive impairments, delirium, or psychosis were not allowed to participate in the study. The COPE scale, Temporal Satisfaction with Life Scale, and sociodemographic Performa were used to collect data. The correlation and effect of coping methods on life satisfaction were assessed using Pearson's r correlation coefficient test and multiple linear regression analyses. Patients most common coping approach was religious coping, which was followed by acceptance. Problem-focused coping was higher in females, whereas emotion-focused and avoidant coping techniques were higher in males. Females showed higher religious coping than males. Males were more accepting of their sickness than females. Those who did not have a partner used much more

emotion-focused and religious coping techniques. Quality of life was positively associated to income, social support, and problem-oriented coping. Denial, substance abuse, and venting as coping mechanisms all revealed a substantial negative association with life satisfaction.

Simone Goebel, Dominik Mederer & Hubertus Maximilian Mehdorn conducted a study titled "Surgery related coping in patients with intracranial tumors". The removal of a neurosurgical brain tumor offers a distinct risk to patients while also reducing instrumental control. As a result, the psychological mechanisms that patients use to cope with surgery-related anxiety are critical. This is the first study to look at the nature and efficiency of post-surgery coping strategies in neurooncological patients. Prior to neurosurgical therapy, 70 inpatients with an intracranial tumor were included. The Coping with Surgical Stress Scale (COSS), which comprises five subscales: Rumination, Optimism and Trust, Turning to Social and Religious Resources, Threat Avoidance, and Information Seeking, was used to assess patients' coping efforts. The State-Trait-Operational-Anxiety Inventory was used to determine the level of operation-specific anxiety (STOA). The effectiveness of coping strategies was evaluated by looking at how they related to other aspects of psychological well-being (e.g., depression or health-related quality of life). All patients said they used a range of coping mechanisms, the most common of which came from the areas of optimism and trust.

W Derks et.al carried out a study on "differences in coping style and locus of control between older and young patients with head and neck cancer". The goal of this study is to see if older and younger patients with head and neck cancer use distinct coping techniques and locus of control mechanisms, and if so, how these mechanisms relate to quality of life (QOL) and depressive symptoms. Before therapy, 78 older (>or=70 years) and 105 younger (45-60 years) patients with oral cavity, pharynx (stage II-IV), or larynx (stage III-IV) cancer completed questionnaires on QOL (EORTC-QLQ-C30), depression (CES-D), coping (Utrecht Coping List), and locus of control (Utrecht Coping List) (Cancer Locus of Control Scale). At 6 and 12 months, 51 older and 70 younger patients completed follow-up surveys. Apart from physical functioning, the number of depressive symptoms and QOL scores did not differ between the two groups before and after treatment. Younger patients employed active coping techniques substantially more frequently before therapy and after 6 months, and they reported stronger internal control. Older adults used religious coping and religious control. In both the groups avoidance coping was associated with lower Quality of life and more depressive symptoms.

Statement of the Problem

The main aim of the present study is to compare the different coping strategies among the malignant brain tumor patients.

Objectives of the Study

1. To study and compare the Problem-focused coping strategies among male and female malignant brain tumor patients.
2. To study and compare the Emotion-focused coping strategies among male and female malignant brain tumor patients.
3. To study and compare the Avoidant-focused coping strategies among male and female malignant brain tumor patients.

Hypotheses

1. There is no significant difference in the mean scores of Problem-focused strategies between the male and female malignant brain tumor patients.
2. There is no significant difference in the mean scores of Emotion-focused strategies between the male and female malignant brain tumor patients.
3. There is no significant difference in the mean scores of Avoidant coping strategies between the male and female malignant brain tumor patients.

RESEARCH METHODOLOGY

Sample

The aim of the present research is to assess and compare the different coping strategies that are used by males and females who have malignant brain tumor. Keeping this purpose in mind, "purposive sampling technique" was employed for data collection. The researcher approached 30 males and 30 females who have been diagnosed with malignant brain tumor. Only pre-surgery patients were included in the sample.

Variables

The following variables were studied for the present research

Independent Variables

1. Malignant brain tumor patients
2. Gender

Dependent Variables

1. Scores on 3 factors of Brief-COPE scale, which are
Problem-focused coping approach. Emotion-focused coping approach, Avoidant-focused coping approach.

Inclusion Criteria

1. Equal number of males and females were selected.
2. Sample was collected from different cancer hospitals of Ahmedabad city only.
3. Only pre-surgery patients were included.
4. Patients with malignant brain tumor were included for the study.

Exclusion Criteria

1. Post operative patients were excluded.
2. Patients diagnosed with other types of cancer like lung, breast, colon etc. were excluded.

Research Tools

Brief-COPE scale by Carver (1997) was used in the present study to measure the coping strategies of malignant brain tumor patients. The Brief-Cope is a self-report measure which consists of 28 items. The scale is divided into 14 subscales, consisting of 2 items per subscale. These 14 subscales can be classified under 3 factors/domains, namely:

1. Problem-focused coping approach.
2. Emotion-focused coping approach.
3. Avoidant-focused coping approach.

Statistical Analysis: For the analysis and interpretation of data, the mean scores, Standard deviation, SED and t-ratio were computed.

RESULTS AND DISCUSSION

Table 1: Shows the mean, standard deviation, SED and t- ratio of males and females with regards to Problem-focused coping approach.

GENDER	N	MEAN	VARIANCE	SED	t VALUE	LEVEL OF SIGNIFICANCE
MALE	30	3.5708	0.0427	0.058	1.937	0.05
FEMALE	30	3.4583	0.0466			

Table 2: Shows the mean, standard deviation, SED and t-ratio of males and females with regards to Emotion-focused coping approach.

GENDER	N	MEAN	VARIANCE	SED	t VALUE	LEVEL OF SIGNIFICANCE
FEMALE	30	2.6527	0.012	0.0234	1.777	NOT SIGNIFICANT
MALE	30	2.6944	0.0044			

Table 3: Shows the mean, standard deviation, SED and t- ratio of males and females with regards to Avoidant-focused coping approach.

GENDER	N	MEAN	VARIANCE	SED	t VALUE	LEVEL OF SIGNIFICANCE
MALE	30	1.9208	0.0878	0.0638	3.3293	0.01
FEMALE	30	2.1333	0.0344			

Table 1 depicts that there exists a significant difference at 0.05 level of significance among males and females with regards to Problem-focused coping strategy. According to the analysis, males tend to have a higher Problem-focused approach compared to the female patient group. The sub-scales (2 items per sub-scale) included under problem-focused approach are: *active-coping, use of informational support, positive reframing items, planning items.* Problem-focused means that when a person encounters a stressor, he/she tries to adapt a practical approach towards the situation and find a constructive solution to it. To have a problem-focused approach after the diagnosis of a terminal illness like brain tumor, the patient is likely to accept the reality and seek more information about the tumor from their doctor, communicate with other people who have had similar experiences, follow the treatment regimen properly, make necessary lifestyle alterations etc.

In a study conducted by Shu-Yuan Liang & et.al. titled "The influence of Resilience on the Coping Strategies in Patients with primary Brain Tumors", it was revealed that females engaged more in problem-focused coping. But this is result is inconsistent with the present study. Here, males are more actively engaged in problem-focused coping compared to the females. Therefore, the null hypothesis 'there is no significant difference in the mean scores of Problem-focused strategies between the male and female malignant brain tumor patients' is not accepted.

Table 2 depicts that there is exists no significant difference between males and females in terms of Emotion-focused coping. The subscales (2 items per sub-scale) included under emotion focused coping are: *emotional support, venting, humor, acceptance, self-blame, religion.* Emotion focused coping approach to manage stressors includes cognitive restructuring and regulating negative emotions about the stressor. This can be achieved through meditation, journaling, taking therapy, relaxation techniques etc. When a stressor is beyond our control and we can't change it, we try to regulate the overwhelming reactions to that stressor. In case of brain tumor, the patient cannot change their reality. But they can regulate the overpowering negative emotions evoked by the diagnosis and treatment. Seeking professional help, pain management and relaxation techniques, increased tangible

support, love and care from kith and kin, better patient-provider communication etc. would help the patient cope better with their treatment.

Emotion focused coping is extensively used by chronically/terminally ill patients, especially cancer patients. Studies have shown that males engage more in emotion focused coping styles. The present is not consistent with the previous literature and it signifies that emotion-focused coping does not have an effect on gender. Therefore, the null hypothesis 'there is no significant difference in the mean scores of Emotion-focused strategies between the male and female malignant brain tumor patients' is accepted.

Table 3 shows that Avoidant-focused coping has a significant effect on gender, with females having a higher mean score. This implies that females engage more in avoidant-focused coping mechanisms. The sub-scales (2 item per sub-scale) included under avoidant focused coping are: *self-distraction, substance use, denial, behavioral disengagement.* It's a stress management strategy, wherein an individual tries to avoid and deny reality. Efforts to escape reality rather than acknowledging it are made by the person. This coping mechanism is not helpful in the long run. After the diagnosis of tumor, avoidance might help in reducing the anxiety associated with the illness, but this will not help the patient cope with his condition in a healthy manner. As mentioned earlier in literature review about the research conducted by W Derks & et. al., avoidance coping is associated with lower quality of life and more depressive symptoms among the patient group.

In a longitudinal study carried out by Karine Baumstarck & et.al. on coping strategies and quality of life among high-grade glioma patient-caregiver dyads, it was reported that avoidant coping strategies were the least used mechanisms by both the groups. But avoidant coping during baseline assessment was positively linked to positive 3 month follow up quality of life scores. In the present study, the hypothesis 'there is no significant difference in the mean scores of Avoidant coping strategies between the male and female malignant brain tumor patients' is rejected.

CONCLUSION

1. There is a significant difference in the mean scores of Problem-focused coping strategies between the male and female malignant brain tumor patients.
2. There is no significant difference in the mean scores of Emotion-focused coping strategies between the male and female malignant brain tumor patients.
3. There is a significant difference in the mean scores of Avoidant coping strategies between the male and female malignant brain tumor patients.

REFERENCES

American Psychological Association. (n.d). *Avoidance Coping.* Retrieved from https://dictionary.apa.org/avoidance-coping

American Psychological Association. (n.d.). *Coping Strategy.* Retrieved from https://dictionary.apa.org/coping-strategy.

American Psychological Association. (n.d.). *Emotion- Focused Coping.* Retrieved from https://dictionary.apa.org/emotion-focused-coping.

American Psychological Association. (n.d.). *Problem- Focused Coping.* Retrieved from https://dictionary.apa.org/problem-focused-coping

Baumstarck, K., Chinot, O., Tabouret, E., Farina, P., Barrié, M., Campello, C., Petrirena, G., Hamidou, Z., & Auquier, P. (2018). Coping strategies and quality of life: a longitudi

nal study of high-grade glioma patient-caregiver dyads. *Health and quality of life outcomes*, *16*(1), 157.

Carver C. S. (1997). You want to measure coping but your protocol's too long: consider the brief COPE. *International journal of behavioral medicine*, *4*(1), 92–100.

Derks, W., Leeuw, J.R., Hordijk, G.J., & Winnubst, J. A. (2005). Differences in coping style and locus of control between older and younger patients with head and neck cancer. *Clinical otolaryngology: official journal of ENT-UK; official journal of Netherlands Society for Oto-Rhino-Laryngology & Cervico-Facial Surgery 30*(2), 186-192.

Garg, R., Chauhan, V., & Sabreen, B. (2018). Coping Styles and Life Satisfaction in Palliative Care. *Indian journal of palliative care*, *24*(4), 491–495.

Goebel, S., Mederer, D., & Mehdorn, H. M. (2018). Surgery-Related Coping in Surgery Pa tients with Intracranial Tumors. *World neurosurgery*, *116*, e775–e782.

Liang, S. Y., Liu, H. C., Lu, Y. Y., Wu, S. F., Chien, C. H., & Tsay, S. L. (2020). The Influence of Resilience on the Coping Strategies in Patients with Primary Brain Tumors. *Asian nursing research*, *14*(1), 50–55.

Shakeri, J., Kamangar, M., Ebrahimi, E., Aznab, M., Shakeri, H., & Arman, F. (2015). Association of Coping Styles with Quality of Life in Cancer Patients. *Indian journal of palliative care*, *21*(3), 298–304.

Strang, S., & Strang, P. (2001). Spiritual thoughts, coping and 'sense of coherence' in brain tumour (Taylor, 2012) patients and their spouses. *Palliative medicine*, *15*(2), 127–134.

Taylor, S. E. (2012). *Health Psychology (7th Edition).* New Delhi: McGraw Hill education.

Tyldesley-Marshall, N., Greenfield, S., Neilson, S.J. *et al.* The role of Magnetic Resonance Images (MRIs) in coping for patients with brain tumours and their parents: a qualitative study. *BMC Cancer* 21, 1013 (2021).

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Conflict of Interest

The author(s) declared no conflict of interest.

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