



Review

Study on The Influencing Factors of Post-Traumatic Growth in Spouses of Patients with Malignant Tumors

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Abstract

This article introduces the concept of post-traumatic growth, summarizes the existing literature, understands the relevant factors of post-traumatic growth of spouses of patients with malignant tumors, and recognizes the influencing factors of post-traumatic growth of spouses of patients with malignant tumors. The previous research has laid the foundation for further research in the future, but there are still limitations. Future research should study the controllable factors in combination with the culture and customs of different regions in China, and further explore the uncontrollable factors.

Keywords: Spouses of Patients with Malignant Tumors, Post-Traumatic Growth, Influencing Factors, Review.

Introduction

At present, with the improvement of medical technology, the average life expectancy of the population in various countries is higher than before, and the incidence and mortality of malignant tumors are also increasing. Malignant tumors have become one of the main factors affecting human life span and physical and mental health. The survey showed that among the caregivers of malignant tumors in China, spouses accounted for up to 52.88% of the main caregivers of patients with malignant tumors and were the main caregivers (1). The occurrence of malignant tumors in patients is not only a financial burden on

their spouses but also affects family planning and quality of life. Physical and psychological changes occur in the patient's spouse during their care of patients with malignant tumors. During this period, a series of upward, positive personality changes such as more caring for life, sympathy for others, willingness to confide in, and more closeness to others occur, which is post-traumatic growth (2,3). This study mainly reviews the concept of post-traumatic growth and the influencing factors of post-traumatic growth in spouses of patients with malignant tumors to promote the study of post-traumatic growth and its related factors in spouses of patients with malignant tumors.

1. Concept

Posttraumatic Growth (PTG) was proposed and studied in 1996 by Tedeschi et Al (4). It refers to the fact that individuals experience both pain and positive change and Growth during adversity and stress. PTG is not an individual's perceived reduction in trauma, but rather a traumatic event that leads to a change in the experienter's cognitive ability to better manage and use their resources, create new opportunities, and connect with others (5).

2. Influencing factors of posttraumatic growth in spouses of patients with malignant tumors

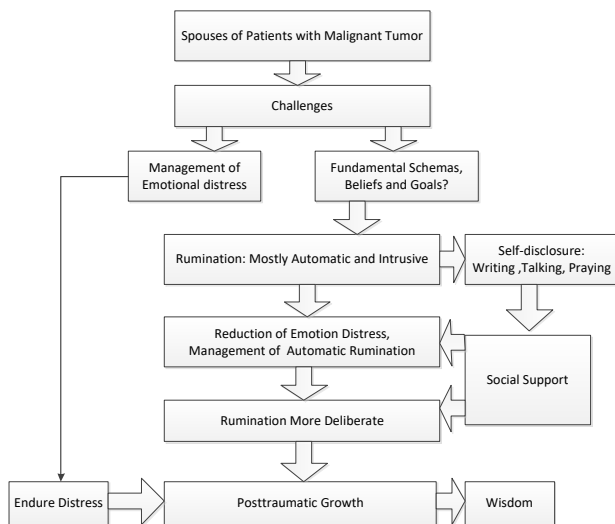


Figure 1. A model of post-traumatic growth of spouse of malignant tumor patients.

2.1 Demographic information

Li Yaxue (6) in the study of post-traumatic growth of family members of patients with digestive system malignant tumors, the higher the education level, the higher the post-traumatic growth level. But a study by Thornton et al (7) of men with prostate cancer and their spouses found a negative correlation between a spouse's post-traumatic growth and their level of education, possibly because lower levels of education affect income and hours worked, therefore,

the greater the impact of traumatic events on their psychological growth is more likely to occur. Chen ning (8) intervention study on the influencing factors of post-traumatic growth points out that compared with men, women's psychological sensitivity is more delicate and richer, and their post-traumatic growth level is higher. Research by Mnne *et al* (9) has shown that post-traumatic growth is lower in men than in women and that the age of the spouse is negatively correlated with post-traumatic growth by. Duan Huixia found that occupational status was also the influencing factor, and spouses in retired working status had a high level of post-traumatic growth because they had a long duration of accompanying patients; those without occupational working status had a heavy psychological burden due to medical costs and the lowest level of post-traumatic growth.

2.2 Time of disease diagnosis of patients

Most patients with malignant tumors require surgery and multiple radiotherapies and/or chemotherapy, and the interval between radiotherapy and chemotherapy can be recuperated at home, with a long course of the disease and unstable condition. Post-traumatic growth is a process in which individual cognitive function gradually changes, and with prolonged care, the chance of rumination at the cognitive level increases, followed by post-traumatic growth. Li Yaxue's study showed that post-traumatic growth takes a period from production to stability (6), the initial stage of disease diagnosis is the lowest level of post-traumatic growth of family members of patients with digestive system cancer, and its post-traumatic growth level peaks after 24 months of illness. However, the study of post-traumatic growth of caregivers of patients with malignant tumors by Cormio (10), the study of post-traumatic growth of spouses of patients after hysterectomy for cervical cancer of childbearing age by Zheng Xiaoling (11), the study of post-traumatic growth of spouses of young adults after penile cancer

resection by Lu Huiming (12), and the study results of post-traumatic growth of family caregivers of patients with colon cancer by Mosher were the same (13), showing that the level of post-traumatic growth was positively correlated with caregiver care time, time after disease diagnosis and postoperative time, and the complexity of patients' treatment methods. However, Wiess's study data on post-traumatic growth of breast cancer patients and their spouses showed that malignant tumor spouses learned that patients had a long course of the disease, and their psychological burden was aggravated due to poor prognosis (14), and their post-traumatic growth was significantly negatively correlated with the time of disease diagnosis of patients. Different types of diseases, different individuals facing stressors, and different mental capacity may cause different research results.

2.3 Coping Styles

Coping style is a stable behavioral and cognitive way for individuals to deal with or solve problems (15). It can be influenced by the individual's subjective thinking consciousness or driven by the subconscious, and active coping can reduce the individual's stress response to events (16). In the study of Tang et al. (17), individual coping style differences can have an impact on their level of posttraumatic growth. The study results of Tu Zongqian et al. showed that the caregivers of osteosarcoma patients facing traumatic events in an active coping style adopted active coping strategies, such as improving self-strength, facing adverse events calmly, and caring for patients more effectively, and their post-traumatic growth level was significantly increased after experiencing traumatic events (18). Lu Huiming showed that the post-traumatic growth level of spouses of patients with penile cancer was positively correlated with their positive coping but negatively correlated with their negative coping (12), and the results of this study were consistent with those of Zheng Xiaoling and other studies in terms of the relationship between post-traumatic growth and coping style (11).

2.4 Psychological Factors

2.4.1 Self-efficacy

Individuals identify themselves with self-confidence or belief in achieving a specific goal to achieve it (19). Self-efficacy, as a key link in social cognitive theory, largely reflects individuals' beliefs that they can succeed. Duan Huixia et al. showed that self-efficacy is one of the main influencing factors of post-traumatic growth level of spouses of patients with digestive tract cancer (2). Individuals with open and extraverted personality traits have high levels of self-efficacy. The positive psychological experience and caring confidence of patients' main caregivers can be significantly enhanced through self-efficacy training (20), which improves the level of post-traumatic growth, greatly reduces the caring burden of caregivers, and promotes the speed of patient recovery after trauma.

2.4.2 Ruminative contemplation

Ruminative contemplation is necessary for the generation of posttraumatic growth, which is manifested as a cognitive processing way for individuals to think about the future and seek the significance of traumatic events after experiencing traumatic events or negative events (21). He Lei and Zhang Jing showed that there was a positive correlation between post-traumatic growth and rumination in the main caregivers of patients with malignant tumors during chemotherapy (22). Zhang Jun reached a consistent conclusion on the study of the main caregivers of patients with liver cancer (23). In the future clinical nursing work and its research, the medical staff carries out the intervention to encourage the spouse of the patient to understand the significance of traumatic events, encourage the spouse to confide in and express the emotional state, cultivate the emotion they actively face, to reduce their degree of psychological pain, so that they can explore ways to solve the problem and actively think about traumatic events, to

explore more effective intervention measures to improve the post-traumatic growth of the spouse of the patient, improve their quality of care, and finally better help the patient through a difficult period.

2.4.3 Perceived social support

Perceived social support includes the help and support that individuals receive from family, friends, and other important others. Perceived social support refers to an individual's subjective belief in possible social support and the individual's own emotional experience of being supported and understood (24). Li Ying et al confirmed that PTG of spouses of patients was positively correlated with actual social support; when traumatic events affected individuals, people who received high social support, especially family exogenous support, had fewer negative physical and mental symptoms, which could greatly reduce the negative impact of events on individuals. Zheng Xiaoling and other studies also showed that social support was positively correlated with the post-traumatic growth of patients' spouses (11). The language and behavioral support and companionship of family members and their friends make patients with malignant tumors feel strong pillar strength. While giving support to patients with malignant tumors, their spouses are also under pressure from all aspects, have very complex psychological growth, and require different degrees of social support as a result. This suggests that medical staff, in the process of diagnosis, treatment, and nursing of patients with malignant tumors, communicate with their spouses about their patients' conditions and care matters and other health education, urge their spouses to care for patients to also confide and communicate with relatives and friends, enhance their social supportability, to promote their physical and mental health and face malignant tumors with patients.

3 Intervention measures to improve the posttraumatic growth level of spouses of cancer patients

3.1 To improve the self-efficacy of patients' spouses who are competent for the role of caregivers

Relevant research results (25,26) show that improving the self-efficacy of spouses can promote the spouses of patients to face the disease squarely, actively face the problems and solve the problems, which can help them better participate in the role of caregivers. Therefore, the clinical nursing staff should introduce relevant disease knowledge, treatment methods, cases with good prognosis, as well as the key points of accompanying to ease their anxiety, increase their self-confidence, and improve their self-efficacy, to improve their post-traumatic growth level.

3.2 Help the patient's spouse to seek social support

In the study of Zimmermann T, et al. (27) 44 couples had standardized seven-minute long interactions asking the male partner to describe his thoughts and feelings regarding their wives' breast cancer. The results show that higher levels of emotional arousal in social support interactions are associated with positive aspects of psychological functioning. Therefore, clinical medical staff should help them to seek effective social support sources. By conducting disease-related knowledge lectures and group activities, the spouses of patients who have achieved a high level of posttraumatic growth can be encouraged to describe their physical and mental course, to guide other cancer patients to face up to problems and think positively, to improve their posttraumatic growth level after their spouses' illness.

3.3 Promoting intimacy between patients and their spouses

Chen Minxia et al. (28) conducted a study on 136 spouses of patients with cervical cancer of childbearing age. The results showed that intimate

relationship was positively correlated with PTG level of their spouses, which is consistent with the studies of Lee M (29). Therefore, solidarity between cancer patient and their spouses was important and should be maintained to provide healthy relationship support and enhance posttraumatic growth. Further, health care providers should encourage patients and their spouses to strengthen communication, express their inner worries, and participate in the treatment and rehabilitation process together. They can also enhance the intimate relationship between the two sides by recalling, kissing and hugging, to improve their PTG level and quality of life.

4. Outlook

There have been many studies on post-traumatic growth in China, which establish the basis for future studies. However, the previous study population was more patients with various types of diseases, and there were few studies on the posttraumatic growth of spouses of patients with malignant tumors. Studying the level of post-traumatic growth and its influencing factors in spouses of patients with malignant tumors can not only enable nursing workers to pay better attention to and guide them and encourage them to express their traumatic experience but also provide more directional psychological intervention and support for them, change their cognitive processing process so that they can better help patients and ultimately improve their quality of life.

Declarations

1) *Consent to publication*

We declare that all authors agreed to publish the manuscript at this journal based on the signed Copyright Transfer Agreement and followed publication ethics.

2) *Ethical approval and consent to participants*

Not applicable.

3) *Disclosure of conflict of interests*

We declare that no conflict of interest exists.

4) *Funding*

None

5) *Authors' Contributions*

Authors contributed to this paper with the design (Gaijing Wang and Yanlin Heng), literature search (Gaijing Wang), revision (Gaijing Wang and Yanlin Heng), editing (Gaijing Wang), and final approval (Yanlin Heng).

6) *Acknowledgment*

None

7) *Authors' biography*

None

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