



The Efficacy of Positive Group Psychotherapy on Self-Differentiation of Patients with Prostate Cancer

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Quantitative Study

Abstract

Background: Prostate cancer is the most common cancer in men and the fourth most common cancer globally. The current study aimed to see how positive group psychotherapy affected self-differentiation in men with prostate cancer.

Methods: The current study was an experimental type and was done by conducting a pre- and post-test. The statistical population of this study was all men with prostate cancer of Baghdad Medical City, Baghdad, Iraq (197 men) in 2020. Using simple random sampling, 50 patients with prostate cancer were selected as sample members. The subjects were randomly assigned to the experimental and control groups. The Differentiation of Self Inventory-Revised (DSI-R) was used to collect data. Data were analyzed with multivariate analysis of covariance (MANCOVA) using SPSS software.

Results: Comparing pre-test and post-test scores revealed a significant difference in the variable of self-differentiation between the experimental and control groups, so that all of its components, including mixing with other people ($F = 38.117, P < 0.001$), emotional reactivity ($F = 56.483, P < 0.001$), personal position ($F = 39.540, P < 0.001$), and emotional detachment ($F = 43.329, P < 0.001$) exhibited a significant difference. In other words, positive group psychology increased self-differentiation of patients with prostate cancer.

Conclusion: Due to the high prevalence of prostate cancer in the world and Iraq, this treatment can be administered in the oncology and radiotherapy departments with a psychologist's assistance to expedite patients' recovery.

Keywords: Positive psychology; Group psychotherapy; Prostate cancer

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Introduction

Cancer is characterized by abnormal growth, continuous proliferation, and an imbalance in the rate of cell death. This disease is a genetic disorder caused by deoxyribonucleic acid (DNA) mutations that affect all cell types in the body (Azarnik, 2019). Cancer encompasses all forms of cellular tumors. The most prevalent form of cancer in men is prostate cancer. Additionally, it is the second leading cause of death following lung cancer. Epidemiological studies have demonstrated that the risk of developing prostate cancer increases with age and one in six men will develop the disease in their lifetime (Pernar, Ebot, Wilson, & Mucci, 2018). Typically, this disease is not diagnosed until 40 to 50. Treatments for prostate cancer include surgery, radiation therapy, cryotherapy, hormone therapy, chemotherapy, and immunotherapy (Gillesen et al., 2020). Chemotherapy is currently one of the most effective methods for treating cancer; however, its toxic effects cause side effects in patients (Faryabi, Rafieipour, Haji-Alizadeh, & Khodavardian, 2022).

Self-differentiation is the most significant concept in Bowen's theory (Kim, Edwards, Sweeney, & Wetchler, 2012). Self-differentiation is a person's ability to separate his intellectual and emotional processes and his intimacy and autonomy from others, and to maintain a healthy balance between them (Finzi-Dottan & Schiff, 2021). The intrapsychic dimension of distinction reports the ability to separate emotional processes from rational processes, while the interpersonal dimension of distinction reports the ability to experience intimacy with independence in interpersonal relationships and the appropriate balance between the two. Low differentiation causes anxiety and stress in individuals; therefore, self-differentiation can be effective as a means of reducing anxiety (Doba, Berna, Constant, & Nandrino, 2018). On the other hand, individuals with a high level of differentiation have more excellent management and resilience when confronting stressful problems. Diverse studies have demonstrated that the psychological variables of self-differentiation, shame, and guilt play a significant role in the life quality of men with prostate cancer (Scigala, Fabris, Badenes-Ribera, Zdankiewicz-Scigala, & Longobardi, 2021). Low self-differentiation is associated with emotional reactivity, physical and mental helplessness, and persistent anxiety (Yousefzadeh & Ebrahimi, 2020). There is a significant correlation between a person's level of self-differentiation and his ability to reduce anxiety (Simon, DiPlacido, & Conway, 2019; Buser, Pertuit, & Muller, 2019).

Constant tension, a wide range of physical and mental disorders, and changes in the psychological characteristics of patients with cancer are all a result of the disease itself. As a result, improving the mental health of patients with cancer is an essential part of their treatment (Hocaoğlu & Işık, 2022). Treatments for chronic physical diseases, such as cancer, have shifted from a physical perspective and drug treatments to a multidimensional physical-psychological perspective and treatment in the last few decades from an economic efficiency point of view (İnce & Işık, 2021). Recent advances in psychotherapy models and a greater focus on positive human psychology have been gaining much attention recently. In order to combat cancer, positive changes must be made in patients with cancer, and among various treatments, positive psychology interventions can be used to accomplish this (Chang & Bhat, 2022).

Positive psychology studies positive emotions, positive personality traits, and the structures responsible for their development. Seligman et al. (2005) proposed that positive psychology's primary emphasis was on individuals' capabilities. They believe that psychology has only paid attention to pathological aspects; that is,

psychologists have only paid attention to the negative aspects, and have ignored the positive aspects, inner virtues, and human abilities (Barkowski, Schwartze, Strauss, Burlingame, & Rosendahl, 2020). According to the positivist model, positive emotions protect against the harmful effects of stress by reducing autonomic arousal caused by negative emotions and increasing flexibility caused by thinking and problem-solving (Marmarosh, 2021). Multiple studies found that positive-oriented psychotherapy had a significant effect on reducing depression and increasing marital satisfaction and also confirmed the stability of this psychotherapy during the follow-up phase (Weinberg, 2020). Diverse studies have demonstrated that positive treatment is effective in reducing depression, enhancing skills and virtues, and improving the quality of life, enjoyment, and commitment of patients with cancer (Lee, 2019; Dobiala, 2020; Davies, Burlingame, & Layne, 2006).

This disease and its complications can impact the mental health of the patient and, as a result, the acceptance and continuation of treatment and various aspects of people's quality of life. Additionally, the number of patients receiving care at home has increased, making patient participation in self-care mandatory. Considering the high prevalence of prostate cancer in Iraq and the rest of the world, as well as the wide-ranging effects that this type of cancer has on all aspects of patients' lives, it is essential to use psychological interventions and psychotherapy to improve the mental health of men with prostate cancer. The current study aimed to see how positive group psychotherapy affected self-differentiation in men with prostate cancer.

Methods

This experimental study included a pre-test and post-test design with a control group. The statistical population of this study was all men with prostate cancer of Baghdad Medical City, Baghdad, Iraq (197 men) in 2020. Using simple random sampling, fifty men with prostate cancer were chosen as sample members. Following consultation with the Baghdad Medical City, a list of all men with prostate cancer whose names had been registered there until 2020 was compiled, then they were contacted to participate in the study. The inclusion criteria were a history of prostate cancer and a specialist's diagnosis, being literate and able to write, being married, and a general explanation of the research objectives and ethical standards (such as having the right to freedom and choice to participate in the research, ensuring the confidentiality of the results of treatment and analyzing the results in groups, as well as ensuring that this type of psychotherapy would not have side effects or harms). The exclusion criteria included failing to complete the questionnaire and missing more than two sessions.

The Differentiation of Self Inventory-Revised (DSI-R) (Skowron & Schmitt, 2003) includes 46 questions and four subscales of emotional reactivity (11 options, score range: 11-66), the personal positions (11 options, score range: 11-66), emotional separation (11 options, score range: 11-66), and intermingling with others (12 options, score range: 12-72). In this case, the responses spectrum on a 6-point Likert scale has a range of 6-options from absolutely not correct to absolutely correct.. The maximum possible score on this survey is 276. A low score on this questionnaire indicates a lack of self-difference. The result of Lyu and Lu (2021) study showed that Cronbach's alpha coefficients of the emotional reaction, emotional separation, mixing with others, and the personal position were 0.78, 0.68, 0.70, 0.56, and 0.66, respectively. Optimistic treatment protocol (Seligman et al., 2005) was used to conduct eight 2-hour group positive psychotherapy sessions. Table 1 is a brief description of the sessions.

Table 1. Description of sessions

Session	Description of session
1	The members were introduced to one another and the teamwork routine, and each person gave a positive introduction (to direct in the framework of positive psychotherapy).
2	Each member's abilities were identified, the mechanism of their effect was explained, and the members were then asked to use their abilities in a new way as a homework assignment.
3	Identifying positive emotions were considered, and some explanations for mentioning, blessings, or recalling three good things were given. Forgiveness was also regarded as a positive treatment.
4	The tasks of achieving positive emotions were taught in the fourth session, and writing three good things positively affected their positive memory over the previous week.
5	Worksheets about Thanksgiving were used, and the role of good and bad memories was investigated. Clients were also taught to seek commitment and meaning in their lives through relationships.
6	Positive communication techniques and how to speak and listen were taught receptively and accurately.
7	Focusing on issues of faith and hope, as well as the practice of closing one door and opening another, and assisting clients in resolving misunderstandings about optimism.
8	The participants completed the questionnaires and discussed the summation and training of response style.

Finally, 50 subjects were randomly assigned to the experimental and control groups after being selected as the sample size. According to the inclusion criteria, items such as age, marital status, education level, and the questionnaire data were analyzed using SPSS software (version 19, SPSS Inc., Chicago, IL, USA) at the descriptive level with mean and standard deviation (SD), and at the inferential level with multivariate analysis of covariance (MANCOVA).

Results

This study included 50 men with prostate cancer in Baghdad ranging in age from 50 to 80 years old, with a mean and SD of age of 66.80 ± 3.40 years. The sample group's educational level ranged from eighth grade to Master of Science (MSc) degree, with 15 (30%) having eighth grade education, 13 (26%) having a diploma, 12 (24%) having a post-graduate degree, 7 (14%) having a bachelor's degree, and 3 (6%) having a master's degree.

Table 2 shows the mean and SD of self-differentiation scores and their components (mixing with other people, emotional reactivity, personal position, and emotional detachment) in the pre-test and post-test for the control and experimental groups.

Table 3 shows results of MANCOVA to evaluate the effectiveness of self-differentiation.

Table 2. Mean and standard deviation (SD) of experimental and control groups in pre-test and post-test phases

Variable	Group	Pre-test (mean \pm SD)	Post-test (mean \pm SD)
Mixing with other people	Experimental	37.54 \pm 7.19	48.32 \pm 8.76
	Control	36.92 \pm 7.34	38.16 \pm 7.68
Emotional reactivity	Experimental	31.83 \pm 6.72	42.23 \pm 7.94
	Control	32.21 \pm 6.64	31.74 \pm 6.52
Personal position	Experimental	30.29 \pm 6.87	40.13 \pm 8.46
	Control	29.53 \pm 6.39	30.38 \pm 6.41
Emotional detachment	Experimental	28.45 \pm 6.15	37.73 \pm 7.38
	Control	28.84 \pm 6.37	28.77 \pm 6.59
Total	Experimental	128.11 \pm 31.76	168.41 \pm 24.30
	Control	127.50 \pm 24.25	129.05 \pm 19.65

SD: Standard deviation

Table 3. Results of multivariate analysis of covariance (MANCOVA) to evaluate the effectiveness of self-differentiation

Test	Value	F	P-value	Eta squared
Pillai's trace	0.765	18.914	< 0.001	0.765
Wilks' lambda	0.235	18.914	< 0.001	0.765
Hotelling's trace	4.672	18.914	< 0.001	0.765
Roy's largest root	4.672	18.914	< 0.001	0.765

Univariate analysis of covariance (ANCOVA) was performed to determine which variable differs between the two groups, the results of which are shown in table 4.

According to table 4, after adjusting for pre-test scores, a significant difference was observed between the experimental and control groups regarding all components of self-differentiation. In other words, positive group psychology increased the amount of self-differentiation in patients with prostate cancer.

Discussion

The current study aimed to see how positive group psychotherapy affected self-differentiation in men with prostate cancer. Positive group psychotherapy significantly has increased the amount of self-differentiation in patients with prostate cancer, according to the findings. Several researchers have conducted similar studies in this field; some results are consistent with this study (Zhang & Xu, 2021; Işık, Özbiler, Schweer-Collins, & Rodríguez-González, 2020; Moon & Kim, 2021), while others are not (Thomas, Shelley-Tremblay, & Joanning, 2021; Zhu, 2019).

The results revealed that the mean self-differentiation scores in the post-test phase were significantly higher than in the pre-test phase. In addition, four components of this scale (mixing with other people, emotional reactivity, personal position, and emotional detachment) demonstrated significant post-test versus pre-test differences. This result aligns with studies of Khazaei et al. (2017) and Casellas-Grau et al. (2016).

The nature of prostate cancer is such that it jeopardizes the mental health of sufferers; it exposes them to issues such as stress and anxiety, depression, hopelessness, a sense of social isolation, fear of their spouse's reaction in the event of a marriage, worry about marriage in the event of celibacy, fear of death and infertility, etc. As long as self-differentiation is low, self-mixing will likely occur, leading to a decline in individuality and the similarity of one's thoughts and emotions with those of others (Peng, Zhang, & Li, 2019). These individuals have the lowest function. They tend to be governed by automatic or involuntary emotional responses and are frequently dysfunctional in the face of low anxiety levels (Nalley, 2019).

Table 4. Results of univariate analysis of covariance (ANCOVA) for variable components of self-differentiation

Variable	Source of changes	SS	Df	MS	F-value	P-value	Effect size
Mixing with other people	Pre-test	9.148	1	9.148	29.408	0.483	0.72
	Group	21.608	1	21.608	38.117	< 0.001	
	Error	12.437	6	2.073			
Emotional reactivity	Pre-test	8.376	1	8.376	15.078	0.612	0.76
	Group	19.024	1	19.024	56.483	< 0.001	
	Error	13.817	6	2.303			
Personal position	Pre-test	8.941	1	8.941	16.143	0.873	0.84
	Group	13.403	1	13.403	39.540	< 0.001	
	Error	23.098	6	3.850			
Emotional detachment	Pre-test	7.512	1	7.512	21.497	0.249	0.68
	Group	18.049	1	18.049	43.329	< 0.001	
	Error	20.572	6	3.429			

SS: Sum of squares; Df: Degree of freedom; MS: Mean squares

Considering that the foundation of the process of self-differentiation is the conscious control of negative thoughts, positive psychotherapy, which is a means of expressing one's abilities in a new way, will be highly beneficial. In addition, the psychotherapy mentioned above teaches the individual how to communicate with patients with cancer to reduce their anxiety effectively (Umlauff et al., 2022). A person with prostate cancer who receives favorable treatment improves his self-differentiation; as a result, he is better able to deal with and manage the problems and stresses caused by cancer. Additionally, this individual attains the ability to manage anxiety in interpersonal relationships and behaves appropriately (Vartolomei, Shariat, & Vartolomei, 2018).

Cancer-related crises can lead to physical and mental imbalance and disharmony, leading to feelings of despair and extreme stress in patients with cancer. These patients under great stress are more likely to experience rapid cancer progression and severe physical and psychological side effects (Liu et al., 2018). Immediately after being diagnosed with cancer, men with prostate cancer felt intense psychological pressure, equated cancer to death, and feared an imminent and inevitable death (Fizazi et al., 2020). Rather than pessimism and isolation, positive psychotherapy encourages people to be active and states that what brings people down is not their pains and undesirable nature; rather, it is the meaninglessness of life that is disastrous. The person's actions create a sense of purpose and happiness in the afflicted individual. Negative thoughts and feelings can be replaced with positive ones by using meaning in positive psychotherapy (Crawford et al., 2019).

This study's limitations include its focus on a single treatment center, the absence of a follow-up phase, and the absence of a comparison with international standards. For future studies, it is recommended that the research be conducted on a larger population and multiple hospitals and medical centers be investigated. In addition, it is suggested that other treatment methods be implemented during the follow-up phase and compared to the findings of this study.

Conclusion

Positive group psychotherapy increases self-differentiation and four components of this variable, including mixing with other people, emotional reactivity, personal position, and emotional detachment in men with prostate cancer, according to the findings of this study. Due to the high prevalence of prostate cancer in the world and Iraq, this treatment can be administered in the oncology and radiotherapy departments with a psychologist's assistance to expedite patients' recovery.

Conflict of Interests

Authors have no conflict of interests.

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