Meritorious Journal of Social Sciences & Management
Vol. 02, No. 4 (2019)
Journal homepage:
http://journal.mgp.org.pk/index.php/MJSSM

Self-Compassion as a Mediator Between Hope and Psychological Distress among Cancer Patients

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ARTICLE DETAILS

History
Revised format:
Nov, 2019
Available Online:
Dec, 2019

Keywords
Self-Compassion, Hope, Psychological Distress, Cancer Patients

ABSTRACT

The present study was aimed to explain the mediating role of self-compassion in the hope and psychological distress among cancer patients in Multan. This research also explores the effects of demographic variables on the level of self-compassion, hope and psychological distress. The sample consisted on 100 cancer patients from which 64 were females and 36 were males. Purposive sampling technique was used to collect data. The results indicate that self-compassion affects the level of hope and psychological distress among cancer patients. Patients with low level of self-compassion showed low level of hope and high level of psychological distress whereas the patients with high level of self-compassion showed high level of hope and low level of psychological distress which means self-compassion is positively correlated with hope and negatively correlated with psychological distress, which supports our hypothesis.

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Introduction

Psychological and social stress can be the cause of a fatal event during the course of a disease (Watson, 2000). Time and psychosocial interventions provided in the right way can effectively reduce anxiety, anxiety and depression and prevent mental illness of the disease. Therefore, it is significant to find relevant distress early on in these critical steps. In particular, extensive management care and shorter hospitalization times are important. Cancer is a disease of despair, pain, fear, and death. Most cancer patients suffer from varying degrees of psychological problems (Al-Shakhli, 2006). Mental disorders could be part of the response to cancer diagnosis, but in many patients, it causes additional burdens during treatment and leads to more problems with general management and symptom control and increased length of stay and treatment Decrease in compliance with. Distress is also an important element of fatigue and quality of life (QOL) (Tian, 2009).

Definition of Cancer

Cancers are a substantial group of infections that include strange cell development with the possibility to attack or spread to different parts of the body. They shape a subset of neoplasms. A neoplasm or tumor is a gathering of cells that have experienced unregulated development and will frequently frame a mass or protuberance, however might be dispersed diffusely. All tumor cells demonstrate the six signs of cancer. These attributes are required to deliver a harmful tumor. They incorporate (Hanahan, 2000).

- Cell development and division missing the best possible signs
- Continuous development and division even given opposite signs
- Avoidance of modified cell passing
- Limitless number of cell divisions
- Promoting vein development
- Invasion of tissue and development of metastases

The movement from ordinary cells to cells that can frame a discernible mass to by and large cancer includes various advances known as harmful movement (Hanahan, 2011).

Causes of Cancer

The greater part from claiming cancers, exactly 90–95% from claiming cases, need aid because of hereditary mutations from Ecological variables. The remaining 5–10% is because of inherited heredity. Environmental, concerning illustration utilized by growth researchers, methods at whatever make that is not inherited genetically, for example, lifestyle, investment Also behavioral factors Furthermore not just contamination. As a relatable point Ecological variable that help malignancy passing incorporate tobacco (25–30%), diet and corpulence (30–35%), infections (15–20%), radiation (both ionizing and non-ionizing, dependent upon 10%), stress, absence of physical movement What's more contamination (Islami, 2018).

Self-Compassion

Self-compassion is "to open your heart to feel your emotions, to feel your caring and kindness to yourself, to take a critical attitude to your weaknesses and failures, and to realize that experience is part of a general human experience "(Neff 2003). It has been recognized as an emotional approach to regulation in key adaptive responses to disease (Terry & Leary, 2011). Previous research proved that depression, anxiety, and anxiety are important predictors of depression and anxiety, as measured by an anxiety-based study (Allen, Goldwasser, & Leary, 2011).

The concept of compassion is perceived as potentially important in the more generally cautious literature (Neff & Germer, 2013) in relation to the important characteristics of cancer therapy, but no studies have specifically investigated sympathetic attempts to cancer. Response to cancer in relation to cancer patients. Pinto et al. (2014) report a correlation analysis between self-identification and psychopathology measurements in heterogeneous sample cancer patients. The results showed that self-compassion was less depressive, less stressful, and improved psychological quality of life.

Compassion can be seen as the emergent attribute of acceptance and mind-based intervention (Tirch., 2010) and as a therapeutic goal of one's rights (Gilbert, 2010) as a behavioral mechanism of such treatment. Two of the above reviews (Hulbert-Williams et al, 2015) The need for a careful thought on the promising effects of this approach and a greater theoretical basis for the involvement of the acceptance base requires a better understanding

do. While controlled studies of intervention analysis are the gold standard method of testing the hypotheses for that mechanism, cross-sectional studies can provide useful first results before such complex studies begin.

Psychological Distress

Hardship is a word with many meanings. Here we use "distress" to describe the unpleasant emotions that can cause problems when dealing with cancer and its treatment. Distress is widespread among cancer patients, their family members and the loved ones. It can be harder to deal with the changes that come with cancer diagnosis. Distressed include Sadness, Hopelessness, Powerless, Afraid, Guilty, Anxious, Panic, Discouraged, Depressed, Uncertain.

The stress of cancer treatment can affect some aspects of your life other than your own emotions. It can affect how you think, what you do, and how you interact with others (NCCCN, 2014). The frequency of psychological distress for a variety of cancer sites varies widely (Zabora, 2001). Depression is associated with oral pharyngeal (22-57%), pancreatic cancer (33-50%), breast cancer (1.5-46%) and lung cancer (11-44%). The frequency of depression in other cancer patients such as colon cancer (13-25%), gynecology (12-23%) and lymphoma (8-19%) is low (Mashhadi, 2013).

The main factors influencing the level of psychological distress are the socio-demographic characteristics of the patient (Vukojević, 2012), social support and factors which are related to disease (Jehn, 2012). The relationship between psychological problems, such as stage of illness, pain, and factors related to disease has been reported by various studies (Vodermaier, 2011). However, the majority of studies used little or small samples and their conclusions were not consistent (Zabora, 2001).

Hope

Hope is defined as a personal motivation and a successful path that plays a vital role in developing positive outcome expectations compared to optimism focused on specific behaviors that can produce positive results (Rand, 2009). Especially with greater hope and optimism motivate positive attitudes to achieve desired outcomes.

Hope can be defined as a subjective probability of a good outcome that indicates a feeling for the optimistic future of a man, and he can establish plans and long-term goals (Chang, 2013). Depending on the situation, people want to put their hope into serious external problems such as family, friends, or supernatural. When people think about their lives and think about the possibilities of personal accomplishment, they include internal as well as internal ones when they build their own hopes (Du, & King, 2013).

Because of their importance in the coping process of sick patients, the level of hope is being explored for those who have experienced a chronic illness in order to determine the impact of this emotion during times of hardship and trials. The feelings of hope have been confirmed by the presence of Alzheimer's patients and hope levels of cancer patients in antitumor therapy and caregivers (Lohne, 2012).

Hypothesis

1. Self-compassion will mediate the relationship of hope and psychological distress among cancer patients.
2. Gender education and birth order will vary in term of self-compassion hope and psychological distress among cancer patients.
3. Cancer stages will vary in term of self-compassion hope and psychological distress among cancer patients.

Literature Review

A large proportion of cancer patients face psychological distress. 5 to 50% of patients have to face distress. Medical staff has an important role in identifying and referring to psychological treatment, in some studies it is found that Hospital Anxiety and Depression Scale (HADS) and "General Health Questionnaire" help medical staff to identify distress among patients with cancer. In many oncological studies HADS found to be 6% to 37% effective in detecting clinically significant anxiety and depression in patients with cancer. Fallowfield (2001) and Lampic, (2000) found General Health Questionnaire-12 effective 25% to 89% in identifying anxiety and distress administered by doctors and nurses.

Twenty eight percent patients were diagnosed to have adjustment disorder when administered diagnostic psychiatric interview (SCID-DSM-IV) by physicians and surgeons recognized 77% clinical significant distress and nurses found 75% significant distress among cancer patients, but a mark able proportion of cancer patients remain undiagnosed to have distress by the medical staff therefore there is need to systematic screening of patients so that they could be helped through psychological services (Kushi, et.al,2012).

Level of anxiety and depression is also varying with the type and site of cancer (Zabora, 2001). Patients with or pharyngeal, pancreatic, breast and lung cancer found to have high level of depression as compared to the other types of cancer such as colon, gynecological and lymphoma (Mashhadi, 2013).

Socio-demographic variables also significantly influence the level and intensity of distress among patients diagnosed with cancer such as patient's age, gender and education, social support and disease related factors (Fallowfield, 2002). Psychological troubles and factors related to disease such as stage of disease, severity of pain found to be linked in many research studies (Tennen, 2002). However, the main short coming of such studies was the small and limited sample size which made the conclusions insignificant or inconsistent (Duggleby, 2007).

Hope among cancer patients:

Psychological factors have been getting significant importance in the management of cancer such as well-being and quality of life, in last two decades hope and optimism also got importance in the field of oncology. Evidence reveals that hope, wellbeing, lower level of anxiety and depression is significantly associated in coping with cancer (Snyder, 2002), especially hope and optimism results into positive outcomes due to their entirely different mechanisms. Definition of hope is that it is a "positive motivational state that comprises two components which are the agency and pathways components" (Rand, 2009).

A cross sectional aimed to study the level of hope at the start and at the end to chemotherapy through the administration of Hearth Hope Index. Result indicated that the intensity of hope was increased at the end of chemotherapy but not significantly. Higher level of education, absence of metastases, and low level of pain were the factors which play role in increasing the hope among patients with cancer (Wu,et.al, 2016).

Social environment has a significant role from protecting harmful effects of discomfort among patients with cancer. Structure of social relations emotional support, social support, financial support is found to be linked with death and life ratio among patients with cancer (Chang, 2013). Role of social support is very significant in reducing pressure and improving health among cancer patients. Lack of social support is found to be linked with cynicism and desire for social support (Du, 2013).

A study about hope and social support in Egyptian women diagnosed with breast cancer found 34% low level of hope and 36 % moderate level of hope along with 39% low level of social support and 33 % moderate level of social support with related psychological factors among 300 subjects. Socio-demographic variables were non-significant with level of hope and social support (Adel Denewer, 2011).

A study conducted in China found 6.49 to 66.72% anxiety and depression among patients with cancer. The prevalence of anxiety and depression among cancer patients was 6.49 and 66.72 %, respectively. "The prevalence rates of depression were 60.62 % for head and neck cancer, 77.19 % for lung cancer, 57.9 % for breast cancer, 75.81 % for esophagus cancer, 63.40 % for stomach cancer, 68.42 % for liver cancer, 54.37 % for colorectal cancer, and 71.13 % for cervix cancer". Depression was more important and significant among Chinese cancer patients (Jin Sheng, 2013).

Methodology

Research design

Survey method was used in this research in which the questionnaire strategy was used to collect the data.

Sample

In current study, convenient sampling technique was used for the selection of sample due to the limitation of resources and time. All ethical considerations were met during current study. A sample, of 100 cancer patients was taken from Nishtar Hospital and Fatima Medical Centre, Multan.

Instruments

Self-Compassion Scale – Short Form (SCS-SF)

The Self-Compassion Scale developed by Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011) is used to examine the level of kindness towards oneself in instances of pain and failure. It is five-point Likert Scale consists of six subscales self-kindness, self-judgment, common humanity, isolation, mindfulness and over-identification.

The Adult Trait Hope Scale

This scale was developed by Snyder (1991). It is a 12-item measure of hope.

Kessler Psychological Distress Scale (K10)

The Kessler Psychological Distress Scale (K10) developed by Kessler, R.C., Andrews, G., Colpe, .et al (2002) is designed to measure anxiety and depression through a 10-item questionnaire.

Procedure

The aim of the study is to find out the mediating role of self-compassion between hope and psychological distress among cancer patients. Urdu translation of the above three scales researcher took from thesis of PU Lahore. Convenient sampling technique was used for selecting sample participation was voluntary. In-formed consent was obtained from each participant prior to their participation in the data collection processes. Participants filled the questionnaires after receiving proper instructions. All ethical considerations were followed properly.

Data Analysis

SPSS 21 and following statistical tests Regression analysis, ANOVA, t-test were used for analysis.

RESULTS

Table # 1

Correlation between self-compassion, psychological distress and hope.

Scale	Self-compassion	Psychological Distress	Hope
Self-compassion	1	.760**	-.598**
psychological distress		1	
Hope			1

Note "N100" P<0.05

Table indicates there is a high correlation between self-compassion and psychological distress and negative correlation between psychological distress and hope.

Table # 2

Correlation between self-compassion, psychological distress with self-kindness, common humanity, self-judgment, over identified, isolation & mind fullness.

Scales	Self-Kindness	Common humanity	Self-judgment	Over identified	Isolation	Mindfulness
Self-Compassion	.760**	.760**	.647**	.692**	.767**	.674**
Psychological Distress	-.276**	-.330**	-.253**	-.354**	-.498**	-.210*

Hope	.476**	.450**	.351**	.517**	.542**	.373**

Note "N100" P<0.05

Above table shows the correlation of the components of self-compassion with psychological distress and hope. The table shows that all the 6 components of self-compassion i.e., self-kindness, common humanity, self-judgment, isolation and mindfulness have negative correlation with psychological distress and have positive correlation with hope.

Table # 3

Correlation of Self Compassion, Psychological Distress and Hope

Scales	**Pathway Hope**	**Agency Hope**
Self-Compassion	.598**	.637*
Psychological Distress	-.549**	-.591**
Hope	.965**	.966**

Note "N100" P<0.05

Above table shows that psychological distress has negative correlation with components of hope, pathway hope and agency hope. Whereas these components of hope positive correlation with self-compassion.

Table # 4

Psychological distress, self-compassion and trait hope with gender.

Group Statistics

	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**	**T**	**Sig. 2 tailed**
Self-compassion	Female	64	43.19	11.097	1.387	.454	.651
	Male	36	42.17	10.211	1.702	.465	.643
Self-kindness	Female	64	7.92	2.140	.268	2.773	.007
	Male	36	6.67	2.230	.372	2.741	0.08
Common humanity	Female	64	7.09	2.605	.326	-1.047	.298
	Male	36	7.64	2.295	.382	-1.085	.281
Self-judgment	Female	64	7.95	2.271	.284	.544	.588
	Male	36	7.69	2.303	.384	.542	.590
Over identified	Female	64	6.27	2.626	.328	1.773	.079
	Male	36	5.31	2.550	.425	1.788	.078

Isolation	Female	64	6.81	2.725	.341	-.333	.739
	Male	36	7.00	2.651	.442	-.336	.738
Mindfulness	Female	64	7.20	2.773	.347	-.997	.321
	Male	36	7.75	2.359	.393	-1.043	.300
Psychological distress	Female	64	25.78	9.839	1.230	-.773	.441
	Male	36	27.31	8.747	1.458	-.799	.427
Trait hope	Female	64	51.61	15.701	1.963	.433	.666
	Male	36	50.19	15.624	2.604	.434	.666
Pathway hope	Female	64	26.31	7.287	.911	.799	.426
	Male	36	25.06	8.014	1.336	.777	.440
Agency hope	Female	64	25.48	8.621	1.078	.229	.819
	Male	36	25.08	7.980	1.330	.234	.815

Note = N "100" P < 0.05

Above table shows that males have more psychological distress as compared to females. Females have more hope as compared to males in cancer patients. And females have more self-compassion as compared to males.

Table # 5

Psychological distress, self-compassion & trait hope with group.

ANOVA

		Sum of squares	**df**	**Mean Square**	**F**	**Sig.**
Psychological distress	Between groups	787.384	2	393.692	4.776	.011
	Within groups	7913.060	96	82.428		
	Total	8700.444	98			
Self-compassion	Between groups	525.396	2	262.698	2.314	.104
	Within groups	10900.564	96	113.548		
	Total	11425.960	98			

Trait hope	Between groups	452.114	2	226.057	.923	.401
	Within groups	23500.795	96	244.800		
	Total	23952.909	98			

Note = N "100" P < 0.05

The above table shows that psychological distress, self-compassion and hope are significant between groups as compare to within groups, means self-compassion, psychological distress and hope have significance between opposite gender groups as compared to same gender groups.

Table # 6

Psychological distress, self-compassion and trait hope with birth order.

ANOVA

		Sum of squares	**df**	**Mean Square**	**F**	**Sig.**
Psychological distress	Between groups	614.206	3	204.735	2.392	.073
	Within groups	8215.904	96	85.582		
	Total	8830.110	99			
Self-compassion	Between groups	451.867	3	150.622	1.317	.273
	Within groups	10978.893	96	114.363		
	Total	11430.760	99			
Trait hope	Between groups	1568.596	3	522.865	2.226	.090
	Within groups	22552.404	96	234.921		
	Total	24121.000	99			

Note = N "100" P < 0.05

Above table shows that psychological distress self-compassion and trait hope is significant between groups rather that within group according to the birth order.

Table # 7

Psychological distress, self-compassion and trait hope with stages of cancer.

ANOVA

		Sum of squares	df	Mean Square	F	Sig.
Psychological distress	Between groups	614.206	3	204.735	2.392	.073
	Within groups	8215.904	96	85.582		
	Total	8830.110	99			
Self-compassion	Between groups	451.867	3	150.622	1.317	.273
	Within groups	10978.893	96	114.363		
	Total	11430.760	99			
Trait hope	Between groups	1568.596	3	522.865	2.226	.090
	Within groups	22552.404	96	234.921		
	Total	24121.000	99			

Note = N "100" P < 0.05

Above table shows that psychological distress, self-compassion and hope are significant between groups as compared to within groups.

Table # 8

Psychological distress, self-compassion and trait hope with socio-economic status.

ANOVA

		Sum of squares	df	Mean Square	F	Sig.
Psychological distress	Between groups	1192.591	2	596.295	7.573	**.001**
	Within groups	7637.519	97	78.737		
	Total	8830.110	99			
Self-compassion	Between groups	998.142	2	499.071	4.640	**.012**
	Within groups	10432.618	97	107.553		

	Total	11430.760	99			
Trait hope	Between groups	1957.448	2	978.724	4.283	**0.16**
	Within groups	22163.552	97	228.490		
	Total	**24121.000**	**99**			

Note = N "100" P < 0.05

Above table shows that psychological distress is non-significant with socio-economic status whereas self-compassion and hope is significant with socio-economic status between and within groups.

Table # 9

Regression analysis of self-compassion on psychological distress.

Predictor		**B**	**St. error**	**Beta**	**t**	**P**
Constant	psychological distress	41.252	3.656		11.284	.000
		-2.075	1.497	-2.361	-1.386	.169

Note "N100" R = .528[a] , adjusted R^2 = .224 F = 5.083 P

Above table of regression analysis shows that there is negative correlation between psychological distress and self-compassion.

Table # 10

Regression analysis of self-compassion on psychological distress.

Predictor		**B**	**St. error**	**Beta**	**t**	**P**
Constant	Hope	41.252	3.656		11.284	.000
		-2.075	1.497	-2.361	-1.386	.169

Note "N100" R = .528[a], adjusted R^2 = .224 F = 5.083 P

Above table of regression analysis shows that there is negative correlation between psychological distress and self-compassion.

Discussion

This research was aimed to stud the mediating role of self-compassion in hope and psychological distress among cancer patients. This research was conducted in Multan city. Our hypothesis that level of self-compassion effects the level of hope and psychological distress is supported by many studies such as McCulley (2007) found the similar results in his research. Patients with high level of self-compassion showed high level of hope and low level of psychological distress and patients with low level of self-compassion showed low level of hope and high

level of psychological distress. Similarly, the demographic variables also effect the level of self-compassion, hope and psychological distress such as found in this study socio economic status is not influence the level of psychological distress but it has influence on the level of hope and self-compassion. This indicates that the wealth and facilities effect the level of hope and self-compassion in the treatment of cancer.

Similarly, the middle child of the family felt more psychological distress as compared to the first- and last-born child of the family. This may cause due to the in most societies first and last-born child get much attachment and attention in the family therefore they get much social support and attention during the illness. Self-compassion, hope and psychological distress are also affected by the level of education, Patients with high level of education have high level of self-compassion and hope whereas psychological distress is not related to the level of education. This may due to that high level of education develop more coping skills and knowledge regarding the diseases which influence the self-compassion and hope. Psychological distress is also negatively correlated with all the elements of self-compassion such as self-kindness, common humanity, self-judgment, isolation and mindfulness and all these elements are positively correlated with the hope and its elements. This is also supported by the research of Julia Wakiuchi (2014).

The results of this research also indicated that females show more self-compassion and hope as compared to males and males show more psychological distress as compared to females. This may due to that the sample of this research was consisted on 64 females and only 36 males so that this difference may affect the results of psychological distress, hope and self-compassion in this research. The results also indicated that the psychological distress, hope and self-compassion are significant between groups as compared to the within groups. This indicated gender difference in self-compassion, hope and psychological distress which somewhat support our results mentioned above. Psychological distress is also affected by the stage of cancer. Psychological distress is significant during third and fourth stages of cancer it may due to that first and second stages of cancer are curable easily as compared to the third and fourth stage.

This research could help to study the significance of self-compassion in the treatment planning of cancer patients and also to deal with the distress felt by cancer patients and to develop hope among cancer patients. This research also helps to develop methods to enhance self-compassion and the utilization of elements of self-compassion to decrease the psychological distress and to increase the level of hope in cancer patients.

Conclusion:

The aim of this study is that self-compassion plays a significant role in the hope and psychological distress among cancer patients. Along with the self-compassion gender difference, socio economic status and stage of cancer also play an important role in the level of hope and psychological distress among cancer patients. Self-compassion could play an important role in the treatment of cancer as a psychological factor.

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