

## ***Spirituality Breeds Hope and Hope Heals Cancer: Effects of Spirituality on Hope in Cancer Patients***

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### ***Abstract***

*Medicalization is scientifically driven, however certain alternative and complementary therapeutic practices are still in vogue in many parts of the modern world. This study was planned to know the role of spirituality on hope for health recovery among cancer patients. For this purpose, a sample size of 45 Sunni Muslim cancer patients admitted in Institute of Nuclear Medicine Oncology and Radiotherapy (INOR) in district Abbottabad, Khyber Pakhtunkhwa of Pakistan was interviewed through structured questionnaire, using 4 points likert scale, ranging from 1 for strongly disagree to 4 for strongly agree. Spirituality (independent variable) was tested with hope (dependent variable) which is measured by using PP-RSS and Herth Hope Index. Demographic and basic information of the respondents were calculated in percentages and frequency distribution.*

*A univariate analysis including mean and standard deviation values were obtained to get some groundwork view of the preferred variables while a bivariate analysis i.e. Regression models were also used to understand the nature of influence of spirituality on hope in the patients. Statistical values suggest that the selected hope items have got higher score which depicts the potential effect of spirituality on hope among patients. Similarly, regression models have also obtained positive relationships among the selected variables.*

*It is concluded that spirituality and spiritually related beliefs essentially influence hope regarding health and wellbeing in cancer patients.*

***Key Words:*** *Medicalization, Information, Spirituality, Hope, Patients, Cancer*

### ***Introduction***

Cancer is considered as one of the serious and life taking diseases and its multiplicity is taking place even with a greater speed around the world (Baykal et al., 2009). Cancer disposition and its hype ratio has been envisaged through the reported annual cases, which were 10 million in 2000 and this figure will rise up to 15 million in 2020 (Kanavos, 2006). Pakistan is the

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seventh populous country in the world with higher poor health conditions including cancer which is proving a major cause of death. A sum of 51.8% and 48.1% cancer cases have been reported in female and male respectively, while neck cancer is prominent in male which is 32.6% and 38.2% female breast cancer cases were recorded in Sindh province only (Hanif et al., 2009; Akhtar, 2007).

Cancer is a worse life event in which patients confronted with many socio psychological problems such as: fear, uneasiness, devastation and changes in physical, mental and socio-economic conditions (Hann et al., 2002; Missel & Birkelund, 2011). Under these conditions, patients need various coping resources and alternative practices to deal with the situation effectively (Mousavi et al., 2009). Spirituality (Puchalski, 2001), hope (Mack et al., 2007), social support (Tavakol & Naseri, 2012), family support (Rafii et al., 2009) have been acknowledged as important coping resources for cancer patients. The aim of present study was to investigate the effects of spirituality on hope and belief regarding health recovery among Muslim cancer patient.

Many researchers have reported that spirituality and spiritual practices play an essential role in illness and have proven as effective coping source for patients (McClain, Rosenfeld & Breitbart, 2003). Several studies have reported that spirituality is decisive for cancer patients and may influence medical decision. Study found that 88% of cancer patients considered spirituality is imperative in their treatment process (Puchalski, Ferrell, O'Donnell, 2011). Patients who had high levels of spirituality reported higher levels of meaning, peace and coping more strategically from their illness (Brady, Peterman, Fitchett & Cella, 1999).

Spirituality in cancer patients may cause lower level of depression, anxiety, distress, uncertainty, panic, hopelessness and tendencies towards suicide and thereby play an important role in improving mental health of the cancer patients (Breitbart, 2002). Spirituality confer the way to help, hope and gratitude to the cancer patients (Greenstein & Breitbart, 2000) and strength their belief to cope and recover from their illness quickly (Ferrell et al., 1998). Similarly, patients with low level

of spirituality were more in the arena of hopelessness and have experienced comparatively higher fear of death (Chochinov & Breitbart, 2009).

Spirituality breeds hope and hope help to cope with cancer is a general notion. Hope is a necessary personality trait in cancer patients to cope more successfully with their diseases (McClement & Chochinov, 2008). A study conducted among Iranian cancer patients to find how their spirituality boosts up their hope during cancer. The finding revealed that spirituality and spiritual practices of cancer patients had moderated their hopelessness and have further maximized and increased their existing moderate level of hope regarding their future health and well being (Baljani et al., 2011).

Hope is an essential part in cancer coping throughout at the different stages of illness and manages the cancer experience in more efficient ways (Benzein, Norberg, & Saveman, 2001). Patient's hopefulness becomes increase in the later stage of their illness when their treatment become in decreased position (Sanatani et al., 2010). Because hope helps patients in giving meaning to them during their illness and maintain their satisfaction and provide them the reason for living (Saleh & Brockopp, 2001).

### ***Methodology***

#### ***Population and Determining Sample Size***

This study was conducted in INOR (Institute of Nuclear Medicine Oncology and Radiotherapy), Abbottabad in Khyber Pakhtunkhwa of Pakistan. The study population included all patients who fulfilled the following criteria as: (a) confirmed cancer diagnosed (b) at least 18 years of legal age (c) follow up visits were not included. The total admitted cancer patients were (N=51) in cancer unit during the reporting period. Out of the total 51 admitted cancer patients, 45 were selected by using Sekaran Table (2011) at 95% confidence level.

Structured questionnaire and interview schedule were used as tool for data collection. The first part based on personal information while second part included spirituality and hope assessment items to quantify the patient's perceived levels. Data was coded and analyzed by using SPSS version 20. Descriptive statistics such as frequency, percentage, mean and standard

deviation were obtained to describe the demographic data. Relationship between dependent and independent variables were assessed through simple liner regression model, including model summary, ANOVA and coefficients of regression.

**Measurement Scales**

Herth Hope Index developed by Herth in 1989 was used to measure hope for health recovery process in cancer patients. The scale is comprised of three factors such as central hope, life hope and hopeless items with total 10 items and denoted through 4 points Likert scale ranging from 1(Strongly Disagree) to 4 (Strongly Agree). Besides, spirituality of the patients was measured by asking them to rate their spiritual level on four points scale ranging from 1 for very low and 4 very high. A univariate analysis was undertaken to obtain mean and standard deviation values of the selected items. It was considered that higher mean score on the scale will show a higher level of hope in cancer patients. Moreover, a bivariate analysis such as Linear Regression was also carried out to determine the nature of relationships among variables. All items on the scale were translated into Urdu language in order to make the data collection process more accurate, appropriate and convenient.

**RESULTS**

**Table 01: Analysis by Frequency and Percentage of the Respondents Personal Information (N=45)**

<b>Gender</b>	<b>Male</b>		<b>Female</b>		
Frequency / %	30/ 66.7		15/ 33.3		
<b>Age</b>	<b>20-30</b>	<b>31-40</b>	<b>41-50</b>	<b>51-60</b>	<b>61-70</b>
Frequency / %	4/ 8.9	10/ 22.2	13/ 28.9	6/ 13.3	12/ 26.7
<b>Martial Status</b>	<b>Single</b>	<b>Married</b>	<b>Divorced</b>	<b>Separate</b>	<b>Widow</b>
Frequency / %	17/ 37.8	26/ 55.6	2/ 4.4	0/ 0	0/ 0
<b>Cancer Type</b>	<b>Lung</b>	<b>Breast</b>	<b>Prostate</b>	<b>Hematology</b>	<b>Others</b>
Frequency / %	25/ 55.6	12/ 26.7	1/ 2.2	3/ 6.7	4/ 8.9

Table 01 shows total numbers and demographic information of the respondents. Majority (N=30, 66.7%) of the

respondents were male. Out of the total, majority respondents (N= 13, 28.9%) were from the age group of 41-50 followed by (N=12, 26.7%) who were from the age group of 61-70. Furthermore, (N=26, 55.6%) respondents were married while (N=17, 37.8%) respondents have marked their marital status as single. Majority (N= 25, 55.6%) of the patients having lung cancer and (N= 12, 26.7%) were breast cancer patients.

**Table 02: Analysis of mean and standard deviation  
(Summary of descriptive statistics (N= 45))**

<b>Independent Variables</b>	<b>Factor</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Total score</b>
Optimistic about life	Central Hope	3.40	0.645	3.28
Faith comforts me		3.16	0.367	
Value of each day	Life Hope	3.33	1.009	3.00
Able to give and receive love		3.02	0.727	
Feel strong		3.00	0.815	
life is useful and worthy		2.89	0.933	
Remember happy times		2.72	0.974	
Having short and long-term plan	Hopeless Items	2.93	0.763	2.86
Possibilities in difficulties		2.87	0.783	
Feel very lonely		2.80	0.690	
<b>Dependent Variable</b>				
Spiritual beliefs	Spirituality	3.25	1.45	3.25

Table 02 illustrates mean and standard deviation values of the selected items. Average/Mean value of patient's spiritual level (3.25) shows that patients were having a higher spiritual belief. Furthermore, HHI consisted of 10 items with three sub aspects such as: central hope items, life items and hopeless items. In central hope items, patients reported their optimism about life (Mean= 3.40, S.D= 0.645) followed by faith gives me

comfort (Mean= 3.16, S.D=0 .367). The overall score of central hope is (Mean= 3.28) which point out that patients were agree or partly strongly agree with selected items. In life items, value of each day (Mean= 3.33, S.D= 1.009), feel strong (Mean= 3.00, S.D= 0.815), Give and receive affection (Mean= 3.02, S.D= 0.727), Life is useful (Mean= 2.89, S.D= 0.933) and remember happy time obtain scored as (Mean= 2.72, S.D= 0.974). The sum of life items (Mean= 3.00) which explain that respondents were completely agree with five life selected items. In hopeless items, short and long-term plans (Mean= 2.93, S.D= 0.763) possibilities in difficulties (Mean= 2.87, S.D= 0.783) and very lonely achieved scored (Mean= 2.80, S.D= 0.690). Hopeless aspects got average score (M= 2.87) which declare that participants were partially disagree with hopeless items. Among all three categories central hope items got higher score which shows that selected patients were hopeful. While dependent variable spiritual beliefs got score (M= 3.25, S.D= 1.45) which is partially strongly agree, and play important role for cancer patients and it proves that spirituality have effects on patients hope.

**Table 03: Regression Model Summary**

Mode	R	R Square	R Square	Std. Error of the Estimate	
1	.806 <sup>a</sup>	.650	.510	.889	
ANOVA table analysis between independent and dependent variables					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	37.284	11	3.388	2.890	0.005 <sup>b</sup>
1 Residual	37.526	33	1.137		
Total	74.600	44			

Table 03 reveals the summary of regression model and provides values of R, R<sup>2</sup> and adjusted R Square. R symbolizes value of multiple coefficients between outcome and predictor. R value is 0.806, which establishes simple correlation between the selected predictors (hope items) and the outcome (spirituality). R Square value in model is 0.650, or 65% which explains the selected variables and a good fitted model for selected variables. R Square also shows that the selected independent variables can account for 65% variation from dependent

variable. This elucidate that 35 % variation in dependent variable can't be explained by the selected independent variables.

The ANOVA explore regression model significance level and proportion of variance. A large value of F (Independent variables) indicates that most of the variation in Y (dependent variable) is explained by the regression equation and the model is valid. A small value of F point out that most of variation in Y is unexplained. The significance value is 0 .005, so regression model have significant relationship among variables.

**Table 04: Coefficients of the Regression Model**

Model	Un standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	8.155	1.792		4.55 2	0.00 0
Optimistic life	0.024	0.217	0.019	0.11 2	0.91 2
Having various plans	0.034	0.192	0.033	0.17 6	0.86 1
Possibilities in difficulties	0.237	0.188	0.260	1.25 9	0.21 7
Faith comfort me	0.050	0.178	0.049	0.28 2	0.78 0
Happy times	0.015	0.207	0.012	0.07 3	0.94 2
Feel strong	0.285	0.218	0.241	1.31 0	0.19 9
Able of affection	0.346	0.221	0.321	1.56 9	0.12 6
Value of each day	0.207	0.229	0.181	0.90 6	0.37 2
Life is useful	0.259	0.155	0.257	1.67 5	0.00 3
Feel very lonely	-0.191	0.162	0.212	- 1.17 9	0.24 7

The  $\beta$ - values or coefficients of regression in table represents relationship between dependent (spirituality) and

independent variables (hope items). Positive values show that there is positive and direct relationship between predictor and outcome variables, whereas negative coefficient represents negative and inverse relationship. Hope scales comprised of 10 items, in which nine items have positive and direct relation with outcome as; optimistic about life ( $\beta=0.024$ ,  $P=0.912$ ), various plans ( $\beta=0.034$ ,  $P=0.861$ ), possibilities in difficulties ( $\beta=0.237$ ,  $P=0.217$ ), faith comfort me ( $\beta=0.050$ ,  $P=0.780$ ), happy times ( $\beta=0.015$ ,  $P=0.942$ ), feel strong ( $\beta=0.285$ ,  $P=0.199$ ), able of affection ( $\beta=0.346$ ,  $P=0.126$ ), value of each day ( $\beta=0.207$ ,  $P=0.372$ ) and life is useful scored ( $\beta=0.259$ ,  $P=0.003$ ). While Feel very lonely ( $\beta=-0.191$ ,  $P=0.247$ ) have negative and inverse relationship with constant.

### ***Discussion***

This study examines patient's level of spirituality and its effects on hope in their health recovery process. It was calculated from the data that all cancer patients in the INOR district Abbottabad, Khyber Pakhtunkhwa of Pakistan were Sunni Muslims. Majority respondents were male while many of the respondents were fallen in the 41-50 age groups.

Cumulative value of spirituality ( $M=3.25$ ) shows that patients reported a higher spiritual level. Besides, factors of hope which included central hope and life hope got comparatively higher score while hopeless items got minimum values. It is deduced from the statistical values that higher spirituality level rears hope among patients. In a similar study conducted by Rahmani (2012), findings show that spiritual beliefs and practices are used by patients as shield in their illness. Cancer is generally believed to be a deadly disease in Pakistani culture and once a person is diagnosed with cancer is viewed to be very helpless. Patients also internalize very gloomy perceptions about her/his life and future, therefore they tend to start some alternative healing practices. Generally, it is viewed that most patients especially with chronic illness turn to become spiritual and religious.

The positive significance of spiritual beliefs is imperative for cancer patients in coping process from illness were also confirmed by prior studies of McClain, Rosenfeld & Breitbart, 2003. Spirituality is a source of hope about future and

patients rely on the shine of it and more hopeful about future and life as current study finding were also constant with the study of Breitbart, (2002).

For this rationale, cancer patients practicing various spiritual activities for improvement in their lives and they have positive view and hope that spirituality element can do more for them.

Spirituality is a fundamental constituent of human beings and has been renowned as a critical factor in the health and well-being of patients. The hope which tested against outcome, to find out the role of hope after a patient diagnosed, that in which sphere of hope they belong; central hope, life hope and hopeless. HHI, canteral hope got high scored overall and shows that when patient were diagnosed as a cancer patients they were hopeful rather than hopeless because of spirituality.

The two variables in the study are the cause and effect, manifest and latent core and produce from each others. Study population was more optimistic and subservient approach because of their religious beliefs, and considered that hope/optimism is virtue. The positive score of hope and optimism determined in the study in such factors as; cancer diagnosed patients were optimistic about life, structured and draw various plans, find possibilities in difficulties, faith is a source which comfort me and missing about previous happy time. Study of Vellone et al., (2006) also found that cancer patients were found positive and hopeful, whereas Felder (2004) were found highly positive in their studies. There are also some HHI variables which have negative relation and effect hope level when cancer diagnosed; they feel self lonely as the study of Baider et al., (1999) found also, and their life become worse.

### ***Conclusion***

Spirituality and hope is considered to have a positive influence upon health and wellbeing outcomes in patients. From the moment of cancer diagnosis, patients become panic and need some initial and first aid support. It is generally believed that patients quickly refer to take support from spirituality in order to optimize their hope for recovering quickly from their illness. It is established from this study that spirituality is positively influencing patient's hope regarding their health and

future. Spirituality sprouts hope in patients for health recovery, enhances their futuristic vision and increases their sociability and amplifies their perceptions in finding greater meaning in life. Spiritual beliefs and faith however surely leads towards submerging hopelessness when a patient diagnosed with cancer. Study concluded that cancer diagnosed patients were rely on spirituality and hope and both have close relationships and considered both equally significant for patients.

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