

Psychological symptoms and quality of life in caregivers of patients with schizophrenia

Basanti Hansdak, Ph.D. Scholar, Department of Psychology, Ranchi University Ranchi. Jharkhand.

Address, Basanti Hansdak C/O - Kariya Hansdak Post – Mohulpahari PS- Shikaripara Dist – Dumka Jharkhand 816118

Abstract

Title: Psychological symptoms and quality of life in caregivers of patients with schizophrenia

Background: Due to focus on community based care, there is increased responsibility on caregivers. This shift from hospital to community care places increased demands on family caregivers.

Objective of the study: To assess the Psychological symptoms and examine its relationship with quality of life in caregivers of patients with schizophrenia.

Methodology: Thirty caregivers of patients with Schizophrenia were allotted and thirty non-caregivers OPD of RINPAS, during study period were purposively chosen for a sample of study. Both groups were compared on quality and life depression anxiety stress scale.

Results: The quality of life was poor in schizophrenia caregivers as compared to the non-caregivers as well as most of the caregivers were suffered from psychological symptoms and the severity varied across the participants, whereas the normal subject did not experience any significant level of psychological symptoms.

Introduction

The psychological severity of the patient has a negative impact on their caregivers' mental health, family routines and general quality of life. Studies have shown that 43% to 92% of caregivers of people with mental illness report feeling stigmatized and that perceived stigma is associated with report of depressive symptoms. Taj (2005) report that depression is high among caregivers of schizophrenic patient in their study conducted on 40 schizophrenic's caregivers. A study conducted by Han et al. (2008) on caregivers on schizophrenia patient in Taiwan to investigate the burden of primary family caregiver and the factors that affect caregivers' burden. They reported moderate level of burden among them, and caregivers anxiety was the highest followed by dependency of the patient feeling shame and guilt, and family interference.

Review of literature

In 1978, Hatfield, carried out one study aimed to know the psychological costs of schizophrenia in the family. The author found the caregivers often suffer from severe mental and emotional strain, feels utterly defeated and has feelings of anxiety, resentment, and anger, with stress being cumulative overtime. Author also suggested that the illness not only caused hardship for relatives and posed a

threat to patients marriage but it also disrupted the family's social life, inter-personal relationships, and leisure time. This study further revealed that the families of mentally ill were at risk to deteriorate their psychological efficiency in a considerable level which may threat the organization and stability of their life.

Fsdden et al. (1987) in a review of studies on the family burden and distress of psychiatric patient noted that the family of schizophrenia patient constituted the only group which have been consistently studied, although there was evidence that the families of other patient groups were also severely affected by burden and distress.

Lasebikan et al. (2013) conducted a study with the aim to determine the prevalence and socio-demographic correlates of caregiver's burden in schizophrenia. A dyad of 368 schizophrenia patients and their caregivers were interviewed. Caregiver's burden was assessed using the Yoruba-version of the FBIS and GHQ-12. Mean age of patients was 29.7 SD (8.6) years.

Aim

The aim of the study was to assess the psychological symptoms and QOL in caregivers of patient with Schizophrenia.

Objectives

OBJECTIVES

1. To assess the level of depression, anxiety, and stress of caregivers of patients with schizophrenia.
2. To assess the quality of life of the caregivers of patients with schizophrenia.

HYPOTHESES

The following null hypotheses were formulated.

1. There will be no significant difference in depression, anxiety, and level of stress between caregivers of schizophrenia patients and normal participants.
2. There will be no significant difference in quality of life between caregivers of schizophrenia patients and normal participants.
3. There will be no significant relationship between depression, anxiety and stress and quality of life of caregivers of schizophrenia patients.

PROCEDURE:

Caregivers of patients with Schizophrenia who attended out-patient department of RINPAS during study period who met the inclusion and exclusion criteria and expressed willingness for study were chosen as participants of experimental group. Non-caregivers who met inclusion and exclusion criteria and who matched with the experimental group in socio-demographic variables were selected as participants of control group. The caregivers of schizophrenia were studied upon when they came

with the patient in the OPD of RINPAS. Initially a screening interview was done to assess the suitability of the sample according to the inclusion and exclusion criteria. Those who met the criteria and provided informed consent were chosen purposefully as participants of experimental group. Thereafter all the tools of the study along with socio demographic sheet were administered in all the participants. A total of 30 such caregivers were selected as participants of experimental group. An equal number of non-caregivers who matched with the socio-demographic variables of participants of experimental group and who met inclusion and exclusion criteria were selected as participants of the control group from various localities of Ranchi district. All the tools of study was administered on participants of the control group. The questionnaires were then scored, the obtained data was tabulated, was subjected to relevant statistical analysis and inferences were drawn out.

Method: The samples were selected using purposive sampling method.

Participants: Caregivers of patients with Schizophrenia who attended out-patient department of RINPAS during study period who met the inclusion and exclusion criteria and expressed willingness for study were chosen as participants of experimental group. Non-caregivers who met inclusion and exclusion criteria and who matched with the experimental group in socio-demographic variables were selected as participants of control group.

Instruments

Socio-demographic and clinical data sheet

A data sheet was prepared by the researcher to collect the socio-demographic details of the participants and illness related details of patients whom which the participants are providing care. The sheet also included details of caregiving as well. Socio-demographic details included age, sex, marital status, occupation, religion etc. Illness related variables included duration of illness, number of hospitalization etc. Details of caregiving included duration of caregiving, total number of caregivers etc.

Depression Anxiety Stress Scale (DASS)

In this scale 21 item self-report inventory that yields 3 factors: Depression, Anxiety and Stress. It was developed by Lovibond and Lovibond (1995) which is increasingly used in diverse settings. This measure propose that physical anxiety (fear symptomatology) and mental stress (nervous tension and nervous energy) factor out as two distinct domains. In completing the DASS, the individual is required to indicate the presence of a symptom over the previous week. Each item is scored from (did not apply to me at all over the last week) to 3 (applied to me very much or most of the time over the past week). The essential function of the DASS is to assess the severity of the core symptoms of Depression, Anxiety and Stress. Accordingly, the DASS allows not only a way to measure the severity of a patient's symptoms but a means by which a patient's response to treatment

can also be measured. To assess the DASS's psychometric properties, It was found that reliability, assessed using Cronbach's alpha, was acceptable for the depression, anxiety and stress scales (.91, .84 and .90, respectively).

WHOQOL- BREF Scale (Hindi version)

Hindi version of world health organization quality of life. BREE (WOQOL-BREF) has derived from original world health organization quality of life 100 scales. This scale (WHOQOL-BREF) is developed by Saxena et al., (1999). WHOQOL-BREE is a short version of WHOQOL-100 Questionnaire-WHOQOL-BREF has been recently developed and field tested in 15 centers including New Delhi and Chennai from India. WHOQOL-BREE contains 26 question in 4 major domains i.e., physical health, psychological health, social relationship and environment of measure the quality of life. This scale emphasizes subjective experiences of the respondents rather than their objective life condition. Each items was reversed in the domain. Total scale score ranges between 5 and 25. Regarding internal consistency. Cronbach alpha value for each of the four domain scores ranged from .66(for domain 3) to .84 (for domain 1), demonstrating good internal consistency between four quality of life domains.

Procedure

A total of 30 such caregivers were selected as participants of experimental group. An equal number of non-caregivers who matched with the socio-demographic variables of participants of experimental group and who met inclusion and exclusion criteria were selected as participants of the control group from various localities of Ranchi district. socio-demographic details and clinical details was collected by using socio-demographic and clinical data sheet. After that all the questioner was give. The questionnaires were then scored, the obtained data was tabulated, was subjected to relevant statistical analysis and inferences were drawn out.

□ Statistical Analysis

- The data was entered into the profile scoring sheet initially and thereafter was entered into statistic software (SPSS version 21).

Descriptive, parametric and nonparametric tests were employed wherever appropriate. Scores obtained by participants of experimental and control groups on various scales used in the study viz. Quality of life scale (QOL) and Depression, Anxiety and stress were described using mean and standard deviation.

- The scores obtained by participants of experimental group and control group on various scales used in the study were then compared using student 't' tests to find out if there is any significant difference between the groups with regarding to the variables of the study.

Results

The aim of the current research was to assess the psychological symptoms and to examine its relationship with general mental health and quality of life in caregivers of patients with schizophrenia. The study involved a total of 60 participants, of which 30 were caregivers of patients with Schizophrenia (Experimental Group) and the remaining 30 were normal subjects (Control group) The initial assessment involved understanding the distribution of population characteristics across both groups. The frequencies were evaluated for dichotomous variables. Further chi square test were carried out to see whether the groups were similar in socio-demographic variables. The nature and distribution of variables for both groups are presented in Table 1.

Table-1: Socio-demographic characteristics study sample

Socio-demographic variables		Experimental group (N=30)		Control group (N = 30)		χ^2
		No.	%	No.	%	
Age	20 to 40 Years	14	47%	16	53%	.267
	41 to 60 years	16	53%	14	47%	
Sex	Male	21	70%	18	60%	.659
	Female	9	30%	12	40%	
Education	Upto Std. IX	16	53%	16	53%	.164
	Matriculation	10	33%	9	30%	
	Intermediate & above	4	13%	5	16%	
Residence	Rural	25	83%	24	80%	.354
	Semi-urban	1	3%	2	7%	
	Urban	4	13%	4	13%	
Occupation	Housewife	7	24%	6	20%	1.154
	Service	8	27%	8	27%	
	Business	7	23%	6	20%	
	Student	1	3%	3	10%	
	Farmer	7	24%	7	24%	

The table -1 shows the socio - demographic characteristics of study sample. The age range of subject was 20-60 years. In experimental group 47% participants were between 20 to 40 years but in control group 53% participants were between 20 to 40 years. 53% participants in experimental group were between 41 to 60 years and in control group caregivers were 47% were between 41 to 60 years. Majority of the participants of study were male, with 70% and 60% in experimental group and control group respectively. Majority of the participants in both groups (53% each) had education level below IXth standard. Majority of the participants hailed from rural area both from experimental group (83%)

and control group (80%). Participants in the experimental and control groups were employed in different areas. Equal number of participants (n=8, 27%) in both groups were employed in the service sector. 24% of the participants in the experimental group were housewives whereas 20% in the control group. An equal number of participants (n=7, 24%) of both groups were farmers. From Table 1 it is evident that both groups did not differ significantly with regard to any of the socio-demographic variables.

Participants of experimental group varied in accordance with duration of their patient's illness. A frequency analysis was carried out and the result is given in table 2

Table-2: Participants of experimental group according to duration of patient's illness

Duration of illness	No. of participants	Percentage
Less than 1 year	6	20%
1 to 5 years	20	67%
Above 5 years	4	13%

Table-2 classifies the caregivers according to duration of illness of their patients whom which they provide care. Majority of the participants (67%) had their wards suffering from the illness for a duration between 1 to 5 years. One fifth (20%) were caregivers of patients suffering from illness for less than one year. There were only four participants who had their patients suffering from illness for more than 5 years.

Student 't' tests were carried out to compare the scores obtained by participants of experimental group and control group on various scales used in the study. The results obtained from the analysis are given in the following tables.

The Mean and standard deviation (SD) of scores obtained by participants of experimental and control groups and the t value obtained through comparison of scores between the groups on various subscales of DASS is given in table 3

Table-3: Comparison of scores obtained by participants of experimental and control group on various subscales of DASS.

Variables	Experimental group (N=30)		Control group (N = 30)		t- value (df=58)
	Mean	SD	Mean	SD	
DASS Depression	15.26	3.03	1.90	1.643	21.178***
DASS Anxiety	13.00	4.23	1.17	.833	15.018***
DASS Stress	14.97	3.75	2.30	1.489	17.174***

*** p<0.001 highly significant

The table-3 shows comparison of mean scores obtained by participants of experimental and control group on various subscales of DASS. Participants of experimental group (Mean=15.26,

SD=3.03) scored higher on DASS Depression subscale than participants of control group (Mean=1.90, SD=1.643) ($t=21.19$, $p<0.01$). Participants of experimental group (Mean=13.00, SD=4.23) scored higher on DASS Anxiety subscale than participants of control group (Mean=1.17, SD=0.83) ($t=15.02$, $p<0.01$). Participants of experimental group (Mean=14.97, SD=3.75) scored higher on DASS Stress subscale than participants of control group (Mean=2.30, SD=1.489) ($t=17.17$, $p<0.01$). A significant difference in scores observed between the groups on all subscales of DASS, suggests that caregivers (experimental group) had higher level of depression, anxiety and stress comparing to that of normal subjects (control group).

The severity of anxiety, depression and stress varied across the participants. Frequency analysis was carried out based on severity level reported by participants in DASS and the results so obtained is given in table 4.

Table-4: Distribution of participants of both experimental and control groups based on the scores obtained by them on subscales of DASS.

		Experimental group (N- 30)		Control group (N-30)	
		Frequency	Percentage	Frequency	Percentage
DASS Depression	Normal	1	3.3%	30	100.0%
	Mild	6	20.0%	0	0.0%
	Moderate	21	70.0%	0	0.0%
	Severe	2	6.7%	0	0.0%
	Extremely	0	0.0%	0	0.0%
DASS Anxiety	Normal	3	10.0%	30	100.0%
	Mild	3	10.0%	0	0.0%
	Moderate	14	46.7%	0	0.0%
	Severe	8	26.7%	0	0.0%
	Extremely Severe	2	6.7%	0	0.0%
DASS Stress	Normal	17	56.7%	30	100.0%
	Mild	6	20.0%	0	0.0%
	Moderate	7	23.3%	0	0.0%
	Severe	0	0.0%	0	0.0%
	Extremely Severe	0	0.0%	0	0.0%

Table -4 was shows the distribution of participants of both experimental and control groups based on the scores obtained by them on subscales of DASS. In DASS Depression scale majority of the participants of experimental group (70%) was found to have moderate level of depression whereas all the participants of control had normal level of depression. In DASS Anxiety scale majority of the participants of experimental group (47 %) was found to have moderate level of Anxiety whereas all the participants of control had normal level of anxiety. In DASS Stress scale majority of the

participants of experimental group (23%) was found to have moderate level of stress whereas all the participant of control had normal level of stress. The results indicated that most of the caregivers (experimental group) suffered from anxiety, depression and stress and the severity varied across the participants, whereas the normal subjects did not experience any significant level of anxiety, depression and stress.

The Mean and standard deviation (SD) of scores obtained by participants of experimental and control groups and the t value obtained through comparison of scores between the groups on various subscales of QOL scale is given in table 5.

Table-5: Showing comparison between control and experimental group on QOL tests.

QOL Domains	Experimental group (N- 30)		Control group (N-30)		t- value (df-58)
	Mean	SD	Mean	SD	
QOL Physical	16.50	2.71	26.10	4.978	-9.274***
QOL Psychological	13.07	2.76	24.10	2.695	-15.647***
QOL Social	5.97	1.25	10.67	.844	-17.112***
QOL Environmental	15.80	2.75	27.97	6.62	-9.298***

*** p< 0.001 highly significant

The table-5 shows comparison of scores obtained by experimental and control group on various subscales of QOL. A significant difference in scores was observed between the groups in all subscales of QOL. Participants of experimental group (Mean=16.50, SD=2.713) scored lower on QOL Physical subscale than participants of control group (Mean=26.10, SD=4.978) ($t=-9.274$, $p<0.01$) which indicated that. Participants of experimental group (Mean=13.07, SD=2.76) scored lower on QOL Psychological. Sub-scale than participants of control group (Mean=24.10, SD=2.695) ($t=-15.647$, $p<0.01$). Participants of experimental group (Mean=5.97, SD=1.245) scored lower on QOL Social subscale than participants of control group (Mean=10.67, SD=.844) ($t=-17.112$, $p<0.01$). Participants of experimental group (Mean=15.80, SD=2.746) scored lower on QOL Environmental. Sub-scale than participants of control group (Mean=27.97, SD=6.62) ($t=-9.298$, $p<0.01$). The results suggest that the physical, psychological, social and environmental quality of life of caregivers of schizophrenia (experimental group) was poorer comparing to the normal subjects.

Table-6: Results of correlation analysis between various subscales of DASS and QOL Scale as obtained by the experimental group

DASS domains		QOL Physical	QOL Psychological	QOL Social	QOL Environment
DASS Depression	Pearson Correlation	-.498**	-.392*	-.107	-.543**
	Significance	.005	.032	.574	.002
DASS Anxiety	Pearson Correlation	-.309	-.112	-.144	-.436*
	Significance	.096	.556	.448	.016
DASS Stress	Pearson Correlation	-.276	.007	.015	-.365*
	Significance	.140	.971	.939	.047

* $p < 0.05$ significant, ** $p < 0.01$ highly significant

Table 6 shows the result of correlation analysis between various subscales of DASS and QOL scale as obtained by the experimental group. Significant negative correlation was found between QOL Physical and DASS Depression subscale ($r = -.498$, $P < 0.01$). Significant negative correlation found between QOL Psychological subscale and DASS Depression subscale ($r = -.392$, $P < 0.05$) indicated that depression is associated with poor psychological quality of life of caregivers. Significant negative correlation found Environmental subscale QOL scale and Depression subscale of DASS ($r = -.543$, $P < 0.01$). Anxiety domain of DASS negatively correlated and Environmental domain QOL scale ($r = -.436$, $P < 0.05$). Significant negative correlation was found DASS stress scale and QOL Environmental ($r = -.365$, $P < 0.01$). No other significant correlations were observed between any other domains of DASS and domains of QOL scale.

Conclusion: Caregivers of schizophrenia were suffered from quality of life of caregiving which impairs their life in depression anxiety stress. Hence, mental health services should aim to assist key caregivers of people with chronic schizophrenic disorder to manage their stress and related mental difficulties such that they are able to exercise their caregiving role better and thereby enjoy a better general mental wellbeing and quality of life.

References

- Fadden, G., Bebbington, P., & Kuipers, L. (1987). The burden of care: the impact of functional psychiatric illness on the patient's family. *The British Journal of Psychiatry*, 150 (3), 285-292.
- Hatfield, A. B. (1978). Psychological costs of schizophrenia to the family. *Social Work*, 23(5), 355-

359.

Han, K. H., Liaw, Y. F., Leung, N., Kao, J. H., Piratvisuth, T., Gane, E., & Chronic Hepatitis B Guideline Working Party of the Asian-Pacific Association for the Study of the Liver. (2008). *Asian-Pacific consensus statement on the management of chronic hepatitis B: a 2008 update. Hepatology International*, 2 (3), 263-283.

Kushwaha, V., Chadda, R. K., & Mehta, M. (2013). Psychotherapeutic intervention in somatisation disorder: *Results of a controlled study from India. Psychology, Health & Medicine*, 18 (4), 445-450.

Taj, S. (2005). Applying lean assessment tools in Chinese hi-tech industries. *Management Decision*, 43(4), 628-643.

