

Effect of Family Psycho education on Burden of Disease & Coping Strategies among Caregivers of Patients with Schizophrenia

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Abstract:

Aim: The aim of this study was to assess the effectiveness of family psycho education on burden of disease and coping strategies among caregivers of patients with schizophrenia.

Background: Caregiver burden refers to the negative feelings and subsequent strain experienced as a result of caring for a chronically sick person. The subject of burden has become significant with the emergence of deinstitutionalization and the practice of community psychiatry. Severe mental illness like schizophrenia has devastating impact on patients as well as their family members. The illness is of chronic nature and patients experience profound disruption to their thoughts and lives. Families of patients face grief, emotional hardship and are frequently forced to assume lifelong care-taking roles. Psycho educational interventions offered to the family members of patients with schizophrenia significantly reduce the burden of disease among caregivers.

Method: A quasi experimental study was conducted in the psychiatric ward of the specific tertiary care hospital of Nagpur with a sample of one hundred twenty caregivers of patients with schizophrenia divided into the control and the study group of sixty each. The tools used were Socio Demographic data sheet, Burden Assessment Schedule (BAS), Family Crisis Oriented Personal Evaluation Scale (FCOPES) at base line, at one and at three months after the intervention. The study group received family psycho education for five sessions, two to three days apart and the data collected was compared with the control group.

Results: The Burden assessment score was significantly reduced in the study group. 'Seeking spiritual support' and 'mobilizing family to accept help' has emerged as the strongest coping strategy while 'reframing' as the weakest coping strategy in the study group. There was significant association found between post tests FCOPES score with occupation. Significant association was also found between post test BAS score with occupation and socio economic status of the study group.

Conclusion: Family psycho education is helpful and should be routinely provided to the caregivers of patients with schizophrenia following contact with the health services. There is need for culturally sensitive family intervention offered by the nurses.

Keywords: Caregivers of patients with schizophrenia, Burden of disease, Coping strategies and Family psycho education.

I. Introduction

Background

The family is a major source of support for the mentally ill in India. Although Indian families show tremendous resilience in caring for their ill relatives, they experience a lot of physical and emotional distress. Caregiver burden refers to the negative feelings and subsequent strain experienced as a result of caring for a chronically sick person.¹ The subject of burden has become significant with the emergence of deinstitutionalization and the practice of community psychiatry.² Objective burden is used in reference to the physical burden of care, consequent to behavioral changes of the mentally ill individual and the social effect on the caregivers' daily life such as changes in family relations, employment and health. Subjective burden refers to the emotional reaction of the caregivers, including perception of the strain, reduced morale, anxiety and depression.^{1,2}

Little is known about the ways in which families cope while caring for a relative with schizophrenia in developing countries. Studying the coping strategies could be a useful way of generating information that can guide management strategies. Caregivers' burden increases due to the negative coping skills and lack of resources.^{3,4} The burden on families of people with mental illness is emotional, physical, financial and medical. In the past 10 years India has witnessed a greater degree of growth in the consumer and family movements,

resulting in the formation of support groups in major cities. A National Federation of Caregivers has also been formed and it is expected that families will begin openly to articulate their needs and viewpoints.⁵

Effective family psycho education includes empathic engagement, problem-solving, communication skills, social networking, education on clinical resources and ongoing support. Study results from more than 30 randomized clinical trials have shown reduced relapse rates, enhanced recovery, and improved family well being.⁶ Also, it aims to reduce the distress faced by family caregivers, improve patient-family relations and communication patterns. This study aims to look at burden of disease and different coping strategies among the caregivers of patients with schizophrenia and determine the effect of family psycho education.

1.2 Need for the study:

There is high prevalence of psychiatric morbidity (18-20/1000) among general population. National Mental Health policy is emphasizing de-institutionalization of patients. There is lot of ignorance and misconceptions among the caregivers of patients with schizophrenia resulting in relapse, readmission and revolving door phenomena.⁷ At the heart of the family psycho educational approach is the need expressed by families for more information and concrete advice about their relatives' illness and treatment. They lack confidence and feel unprepared. Mental health services and the scientific information about the nature and causes of mental illness are not readily available in India.⁸

This research study is significant in the context of current status of mental health services in India especially in a government hospital setup of Maharashtra. Present study includes psychiatric wards of specific government hospitals where the facility for psycho education is not available.

II. Method

In view of the nature of the problem and to accomplish the objectives of the study, investigator selected quasi experimental study with pretest post test control group research design to evaluate the effectiveness of family psycho education intervention based on the psycho education module by WHO/NIMHANS⁹ on burden of disease and coping strategies among caregivers of patients with schizophrenia.

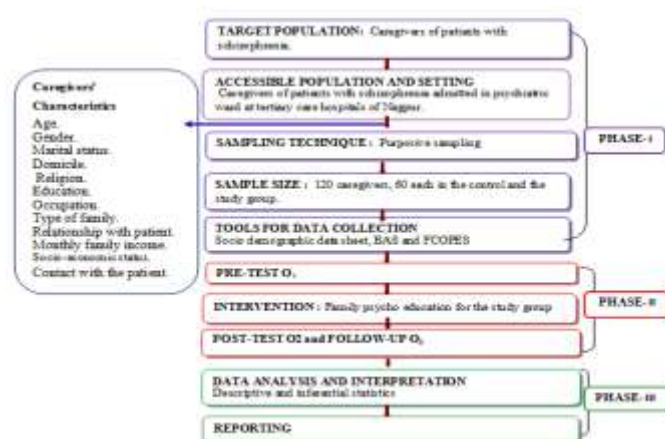


Figure: 1. Flow Chart of Research Methodology

2.1 Research Approach: Quantitative and quasi experimental.

2.2 Research Design: Pretest- post test control group research design.

Table 1: Research design: Pretest- post test control group research design

Group	Caregivers of patients with schizophrenia admitted in psychiatric ward of selected tertiary care hospitals of Nagpur city.
Pre-Test Control & Study group	BAS, FCOPEs
Intervention Only study group	Family Psycho education on schizophrenia Approach: Single family. Primary caregiver having maximum hours of contact with patient. Visual Aid: Flash cards Distribution of booklet in local language: Hindi and Marathi
Post test after one month Control & Study group	BAS & FCOPEs
Follow up after 3 months Control & Study group	BAS & FCOPEs

2.3 Variables of the study:

2.3.1 Dependent Variables: Burden of disease and Coping strategies.

2.3.2 Independent Variable: Family Psycho education regarding schizophrenia

2.4 Setting:

This study was conducted in the psychiatric ward of selected tertiary care hospital of Nagpur which is a multi-specialty hospital with bed occupancy of about 1700.

2.5 Participant:

Caregivers of patients with schizophrenia were selected as population group who met with the inclusion criteria of the study. Those between the age of 18 to 65 years. Those having maximum hours of contact with the patients at home. Those able to comprehend intervention program and tools. Those not included in any other study. Caregivers having other family member with psychiatric illness and staying with caregivers and those caregivers with chronic medical or psychiatric illness and having language incompatibility were excluded from the study.

2.6 Data Collection Instruments:

1. Socio-demographic data sheet of the caregivers for inclusion in the study and identification data.
2. Burden Assessment Schedule to assess the Burden of disease on the caregivers.
6. Family Crisis Oriented Personal Evaluation Scales to assess the Coping Strategies of the caregivers.

2.6.1: Socio-demographic data sheet of caregivers

This was a modified Kuppuswamy socio economic status scale developed to record information details about caregivers for inclusion in the study and identification data. Name, address, phone number, age, gender, marital status, domicile, religion, education, occupation, relation with patient, type of family, income of the family, socio economic status and frequency of contact with the patient were noted.

2.6.2: Burden Assessment schedule¹⁰

To assess the burden of the disease on caregivers the Burden Assessment Schedule was developed at the Schizophrenia Research foundation, Chennai, India. It consists of 40 items that are rated on a 3 point scale marked 1 to 3. The responses are 'not at all', 'to some extent' and 'very much'. Some of the items are reverse coded. The scores range from 40 to 120, with higher scores indicating higher burden. The scale assesses burden in seven areas namely financial burden, patient behavior, social relations, caregiver's health, caregiver's occupation, leisure and emotional burden. The BAS was used in this study as it is developed in the Indian settings and thus helps to understand and interpret burden in the cultural context.

2.6.3: Family Crisis Oriented Personal Evaluation Scales¹¹

It is used to assess the coping behavior of the caregiver in difficult or problematic situations. The instrument consists of 30 coping behavior items which focus on the two levels of interaction outlined in the Double ABCX Model. The 30 item scale, rated on a five point (1 to 5) Likert type scale indicating the extent to which they agreed or disagreed with the statement given. The responses are 'strongly disagree', 'moderately disagree', 'neither agree nor disagree, moderately agree' and 'strongly agree'. FCOPES consists of five subscales, namely acquiring social support, reframing, seeking spiritual support, mobilizing family to acquire and accept help and passive appraisal. Reliability by computed using Chronbach's Alpha was 0.87 for the total scale.

Language validity of tools and Psycho education session contents

BAS, FCOPES were standardized tools; they were translated and retranslated in Hindi and Marathi, local and regional language, by the language and subject experts. The translated version was re-translated for language validity to English language. The items and instructions were unequivocal.

2.7 Data Collection Technique:

The sample comprised of one hundred twenty consenting caregivers of patients with schizophrenia from the psychiatric ward of selected tertiary care hospital of Nagpur during October 2014-June 2015 fulfilling the inclusion criteria. Purposive sampling method was used to assort sixty caregivers each to either the control or the study group by odd and even numbers respectively. The control group continued with routine care on inpatient basis.

The intake assessment scales were administered to obtain baseline evaluation of the patient and the caregivers in a single session. The study group was asked to attend five psycho education sessions two to three

days apart within a period of two weeks .The control and the study group participants were called for post test after one month and for follow up at three months in two sessions.

2.8 Intervention Protocol

Family psycho education intervention was administered to the study group caregivers after the intake assessment in 5 sessions, 2-3 days apart. The caregiver was seen on the next day if a session was missed due to unavoidable reasons. However all the five sessions were completed within two weeks during the hospital stay of the patient and caregivers. Each of these five sessions lasted for about 45 minutes and was followed by 15 minutes of handling queries and discussion. The sessions had a lecture cum discussion format by using flash cards. Single family sessions were conducted.

The psycho education module used in this study was taken from a manualised intervention program developed by the Family psychiatry centre, NIMHANS/ WHO, Varghese, et al. These sessions cover the following areas.

- Session – I :** Assessment of the patient and family
- Session – II:** Education about schizophrenia (Psycho education)
- Session – III:** Assessing and managing difficult problems
- Session – IV:** Handling communication and emotions
- Session – V:** Termination and follow up

2.9 Outcome measures: Burden Assessment by BAS. Coping strategies by FCOPEs.

2.10 Ethical considerations:

- Approval from institutional ethics committee and the University was taken before conducting the research study. Permission from the administrative authority of the hospital was taken. Informed consent of the caregivers of patients with schizophrenia was duly taken.
- Assurance of confidentiality of subject and data was given. Freedom to dropout from the study as and when they wish to do so, was communicated to them.

III. Data Analysis

The present study analyzed the data based on the objectives. The data obtained from one hundred twenty completed forms, sixty from each group was analyzed using STATA 13.0 version statistical software. All study parameter scores were presented as Mean ± SD. Categorical data were expressed in actual numbers and percentages. For non-normalized data, median and range were calculated. The study parameters score were evaluated at pre test, post test and after follow up period by performing repeated measure ANOVA. Post Hoc comparison was carried out by performing Tukey’s multiple comparison tests. Changes in the study parameters after post test and after follow up between the control group and the study group were evaluated by Mann-Whitney Test. Categorical variables were compared by performing Pearsons Chi² Test. p<0.05 was considered as statistical significance. One hundred twenty caregivers in both the groups were matched on age, gender, marital status, education, occupation and socio economic status. Association of caregivers’ post test scores of BAS and FCOPEs was seen with selected demographic variables.

IV. Observations and results

The data of 120 caregivers of patients with schizophrenia is presented in the form of tables and figures.

Section I: Description of Socio demographic characteristics of the caregivers in frequency and percentage.

Table 2 Caregivers’ Socio Demographic Data			N=120		
	Control Group N=60	%	Study Group N=60	%	
Age (Mean Years ±Sd)	38.62+(10.25)		43.88 (±13.12)		
Gender					
Male	16	27%	24	40%	
Female	44	73%	36	60%	
Marital Status					
Single	8	13%	8	13%	
Married	44	73%	48	80%	
Separated	1	2%	0	0%	
Widowed	7	12%	4	7%	
Domicile					
Urban	27	45%	31	52%	
Rural	30	50%	23	38%	
Semi Urban	3	5%	6	10%	
Religion					

Hindu	51	85%	50	83%
Muslim	6	10%	10	17%
Christian	1	2%	0	0%
Others	2	3%	0	0%
Education Mean Years(+Sd)	10.25 (+4.35)		8.34 (+5.68)	
Occupation				
Hm/Un/Retired	39	65	30	50%
Farmer/Shop Owner	11	18.33	13	21.67
Profession	4	7	2	3.33
Semi Skilled Worker	2	2	5	8.33
Skilled Worker	2	3	3	5
Unskilled Worker	2	2.33	7	11.67
Type Of Family				
Nuclear	43	72%	27	45%
Joint	17	28%	33	55%
Extended	0	0%	0	0%

Relations With Patient				
Mother	22	37%	17	28%
Father	3	5%	6	10%
Husband	9	15%	4	7%
Wife	6	10%	10	17%
Siblings	1	2%	9	15%
Others	19	32%	14	23%
Monthly Family Income	15333.33 Inr		15866.67 Inr	
Socio Economic Status				
Upper	3	5%	2	3%
Upper Middle	11	18%	6	10%
Middle	2	3%	0	0%
Lower Middle	23	38%	24	40%
Upper Lower	20	33%	26	43%
Lower	1	2%	2	3%
Contact With The Patient				
Daily	60	11%	60	100%
3-5times A Week	0	0%	0	0%
1-2 Times A Week,	0	0%	0	0%
3 Times A Month,	0	0%	0	0%
2 Times A Month	0	0%	0	0%
Less Than Once A Month.	0	0%	0	0%

4.1: Major Findings of Table -2:

Majority of the caregivers 19 (31.66 %) in the control group were from age group 18-30 years. In the study group majority of the care givers 16 (26.67%) were from age group 18-30 and 41-50 years each. Majority of caregivers 44 (73%) in the control as well as in the study group 36(60%) were female Majority of the caregivers 44 (73%) in the control group as well as in study group 48 (80 %) were married. Majority of the caregivers 51(85%) in the control group as well as in the study group 50 (83%) were Hindus. Most of the caregivers 39(65%) in the control group as well as in the study group 30 (50%) were home makers / unemployed or retired.

Majority of the caregivers 26 (43.34%) in the control group as well as in the study group 17 (28.34%) had middle school certificate education. Majority of the caregivers 22 (37%) in the control group as well as in the study group 17(28%) were mothers. Average monthly family income of the caregivers in the control group was INR 15333.33 whereas in the study group it was INR 15866.67. All of the caregivers 60 (100%) in the control as well as the study group had daily contact with patients.

Section II: Effect of family psycho education on caregivers perceived Burden of disease

Table 3: BAS total mean score at pre test, post test and follow up among the control and the study group

BAS	Control Group n=60						Study Group n=60					
	Pre test Mean	SD	Post test Mean	SD	Follo w up Mean	SD	Pre test Mean	SD	Post test Mean	SD	Follow Up Mean	SD
Total Score	90.25	9.50	89.45	9.28	89.0	9.13	90.25	9.50	68.55	12.57	68.1	12.53

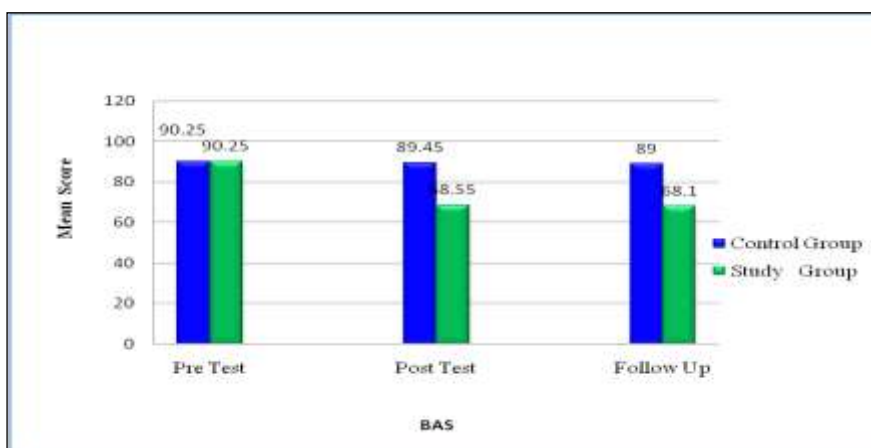


Figure 2: BAS total mean score at pre test, post test and follow up among the control and the study group.

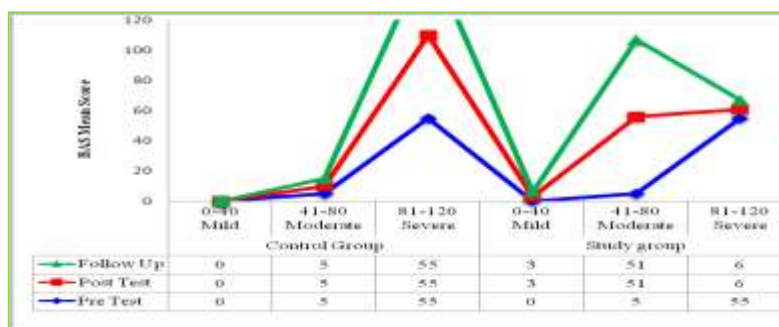
4.2:Major findings of Table-3 and Figure 2

Tables 3 and Figure 2 depict the BAS total mean score of the control group at pre test was 90.25, at post test after one month 89.45 and at follow up after 3 months it was 89. There was no significant difference between the pre and post test BAS score in the control group. In the study group at pre test the score was 90.25, at post test after one month 68.55 and at follow up after 3 months it was 68.1. There was significant difference between the pre test, post test and follow up BAS mean total score of the study group caregivers. Significant difference in Burden Assessment Schedule score after post test and follow up between control and study group was assessed by Mann Whitney test .The change in perceived burden of disease is significant in study group with p value < 0.0001at post test and follow up.

Table 4.: Distribution of the caregivers based on pre test, post test and follow up BAS total mean score as per severity in the control and the study group. N=120

	BAS score	Pre Test Frequency	Post Test Frequency	Follow Up Frequency
Control Group	0-40 Mild	0	0	0
	41-80 Moderate	5	5	5
	81-120 Severe	55	55	55
Total		60	60	60
Study group	0-40 Mild	0	3	3
	41-80 Moderate	5	51	51
	81-120 Severe	55	6	6
Total		60	60	60

Figure 3: BAS mean total score as per severity among the control and the study group



4.3: Major findings of Table 4 and Figure 3:

Table 4 and Figure 3 depict among the control group, at pre test fifty five caregivers had severe perceived burden score and five caregivers had moderate perceived burden score. There was no change at post test and follow up. Among the study group, at pre test fifty five caregivers had severe perceived burden score and five caregivers had moderate level of perceived burden score. At post test and follow up six caregivers had severe perceived burden score, fifty one caregivers had moderate level of perceived burden score and three caregivers had mild level of perceived burden score .This shows the effect of family psycho education on reducing caregivers’ perceived burden of disease.

Section III: Effect of family psycho education on caregivers’ coping Strategies.

Table 5: Sub scale wise pre test, post test and follow up FCOPES mean score among the control and the study group n=120

Subscale	Control group n=60						Study group n=60					
	Pre test Mean	SD	Post test Mean	SD	Follo w up Mean	SD	Pre test Mean	SD	Post test Mean	SD	Follow up Mean	SD
ASS	15.68	4.51	15.58	4.46	15.98	4.57	15.68	4.51	27.81	3.95	27.8	3.82
RF	22.43	3.72	22.4	3.82	22.56	3.77	22.35	3.54	23.46	4.43	23.46	4.25
MFAH	12.08	3.24	12.6	3.32	12.71	3.31	12.08	3.24	17.96	2.12	17.5	2.28
SSS	16.8	3.46	17.23	2.86	17.55	2.58	16.8	3.46	18.85	2.61	19.18	1.95
PA	12.26	2.67	12.73	2.74	13.13	2.66	12.26	2.67	13.35	2.52	13.58	2.47
Total score	79.25	8.77	80.54	8.73	81.93	8.93	79.17	8.77	101.43	8.77	101.52	8.50

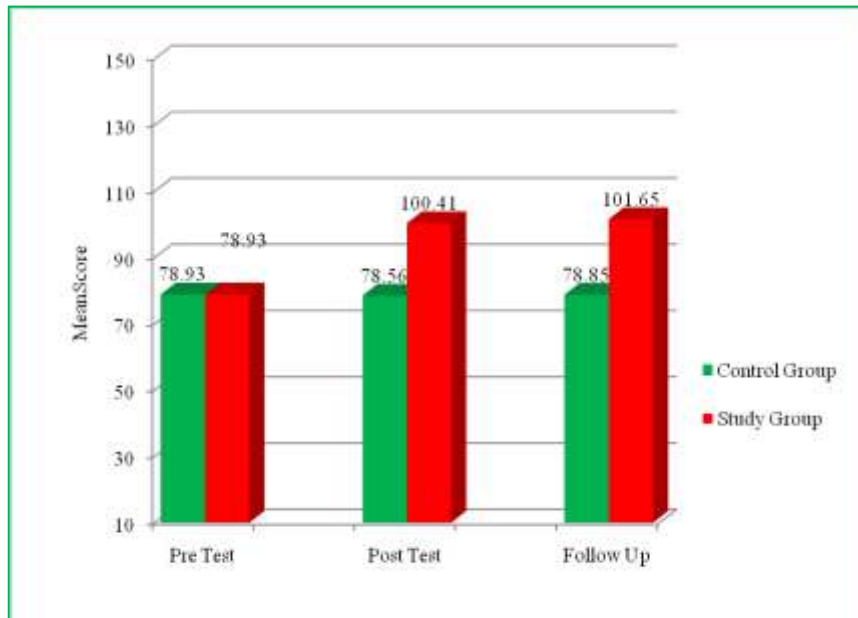


Figure 4: Mean Score At Pre, Post Test And Follow Up Among The Control And The Study Group. Fcopes Total

4.4: Major findings of Table 5, Figure 4:

Table 5, Figure 4 depicts the FCOPES total score in the control group at pre test was 79.25, at post test after one month 80.54 and at follow up after 3 months it was 81.93. FCOPES total score in the study group at pretest was 79.17, at post test after one month 101.43 and at follow up after 3 months it was 101.52. There was significant increase in the post and follow up FCOPES total score in the study group. This shows effectiveness of family psycho education among the caregivers in relation to coping strategies.

Table: 6 Distribution of the caregivers based on pre test, post test and follow up FCOPES Subscale score in percentage among the control and the study group. N=120

Control Group	Pre test %	Post test %	Follow up %
ASS 45	37.34	38.29	39
RF 40	56.07	56	56.4
MFAH 25	48.32	50.4	50.84
SSS 20	84	86.15	87.75
PA 20	61.3	63.65	65.65
Study Group			
ASS 45	37.4	41.89	42.63
RF 40	55.88	58.65	58.65
MFAH 25	48.32	71.84	70
SSS 20	84	94.25	95.9
PA 20	61.3	66.75	67.9

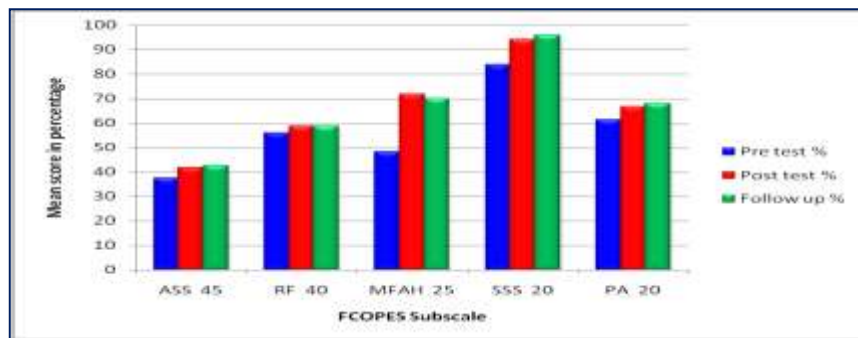


Figure 6: FCOPES sub scale wise score in percentage at pre test, post test and follow up among the study group.

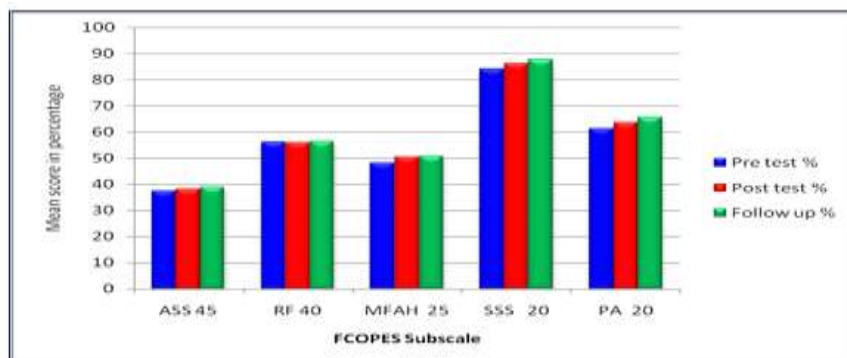


Figure 5: Fcopes Sub Scale Wise Score In Percentage At Pre Test, Post Test And Follow Up Among The Control Group.

4.5: Major findings of Table 6, Figure 5 & 6:

Table 6 , and Figure 5 depicts distribution of care givers based on pre test, post test and follow up FCOPES subscale score in percentage. Among the control group ‘Seeking Spiritual Support’ was the strongest coping strategy with pre test score of 84%, post test score of 86.15% and follow up score of 87.74% ,whereas ‘Acquiring Social Support’ was the weakest coping strategy with pre test score 37.34%,post test score of 38.29 and follow up score of 39 %.

Table 6 , and Figure 6 depicts among the study group at pre test ‘Seeking Spiritual Support’ was the strongest coping strategy with score of 84% and ‘Acquiring Social Support’ was the weakest coping strategy with pre test score of 37.4% . At post test , ‘Mobilizing Family to accept help’ has come up as the strongest coping strategy with score of 71.84% whereas ‘Reframing’ has come up as the weakest coping strategy with post test and follow up scores of 58.65%.Thus it indicates family psycho education enhances positive coping strategies among the study group caregivers.

There was significant increase in the post and follow up score on FCOPES sub scale in the study group. “Mobilizing family to accept help” and “Seeking spiritual support” was seen as the strongest coping strategy among the study group while “reframing” as the weakest coping strategy. There was significant difference between the two groups on their FCOPES pre test and post test scores.

Section IV: Association between caregivers' pre test, post test BAS and FCOPES scores with selected demographic variable.

Figure 7 Association between BAS post test score and occupation of the study group.

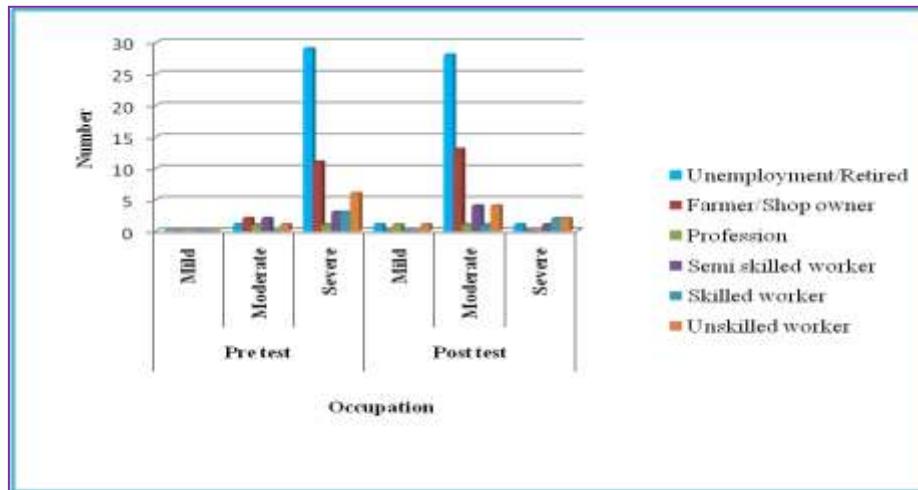


Figure 8: Association between post test BAS score and socio economic status of the study group.

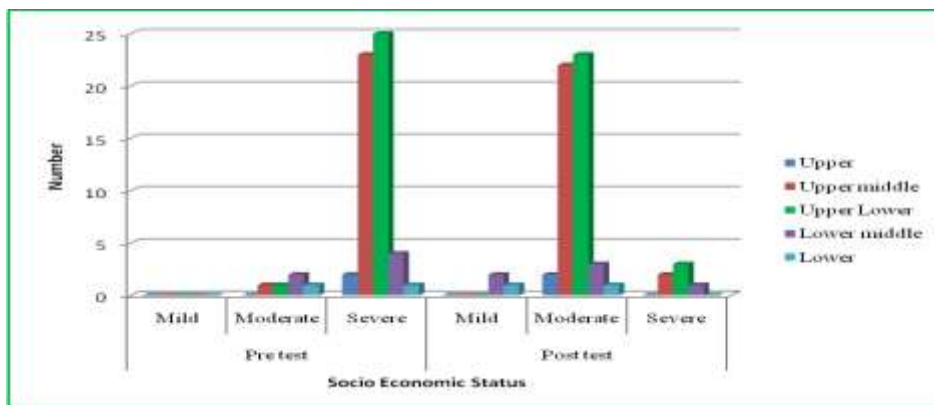
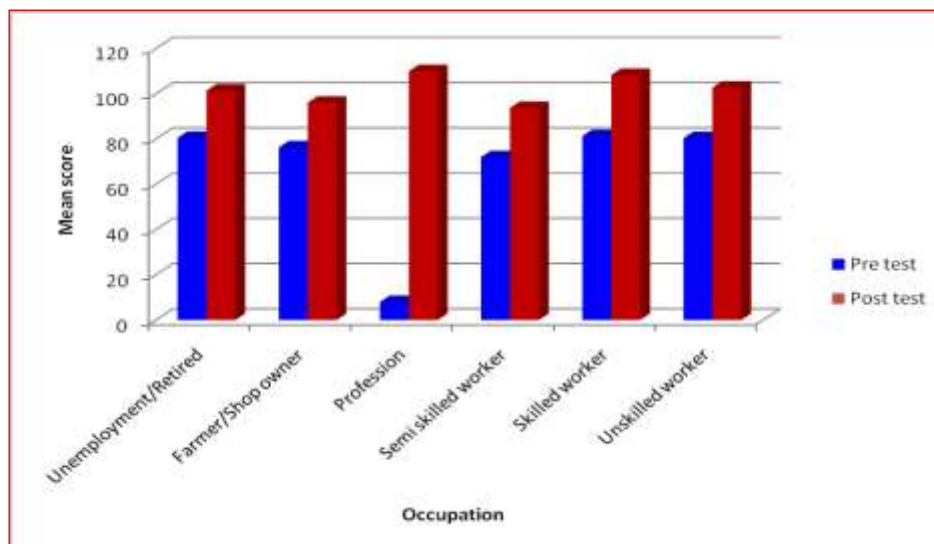


Figure 9 Association between FCOPES post test score with occupation of the study group.



4.6: Major Findings of Figure 7, 8 and 9:

There was statistically significant association found between the BAS post test score with occupation and socio economic status of the study group caregivers. Home makers, unemployed or retired and caregivers from upper lower socio economic status had highest perceived burden of disease with p- value < 0.05.

Statistically significant association was found between FCOPES post test score with occupation of the caregivers with p-value 0.0310 .The caregivers in profession had better coping strategies.

V. Discussion

Care giving affects everyone associated with the patients. Regardless of language, culture or country, care giving has become an everyday part of life for millions of people around the globe. The care they provide is unpaid; often unrecognized and under supported. In most countries family care is the primary means of care giving with immediate or extended family rather than institutions. The Personal and global impact of care giving: is invisible yet valuable.

Majority of studies on burden of caregivers conducted so far report significant burden of caregivers with over 90% of families experiencing moderate to severe burden.^{13, 14}

This study reports reduction in burden of disease among the caregivers after family psycho education. Similar findings were reported by Jose Gutierrez-Maldonado, Alejandra, and Caqueourizar¹² in developing Latin American country on 45 caregivers of patients with schizophrenia with weekly psycho education for 5 months and found significant reduction on burden of disease.

A study on effect of psycho educational intervention for family members on caregivers' burden in Iran reported that even need based short term psycho education interventions for family members may improve outcome of patients and families¹⁵

The effectiveness of intervention has been demonstrated in a study by Magliano et al.¹³ who found that the provision of psycho educational intervention was associated with a statistically significant improvement in family burden and coping strategies.

Many studies including by Creado et al¹⁶ also found that better coping mechanisms such as problem solving can decrease the burden of illness on caregivers and may even improve the level of functioning of patients.

More emphasis and time spent on individual family coping with stresses relating to patient management should be incorporated in a family psycho education program.¹⁷

There was statistically significant association found between the BAS post test score with occupation and socio economic status of the study group. Caregivers those were home makers, unemployed or retired and caregivers from upper lower socio economic status had highest perceived burden of disease with p- value < 0.05.

Statistically significant association found between FCOPES post test score with occupation of the caregivers with p-value 0.0310 .The caregivers in profession had better coping strategies.

5.1 Strength of the study:

- It was a quasi experimental study and most of the caregivers in this study were those who were staying with their patients in psychiatric wards of selected tertiary care hospital of Nagpur, motivated to participate in the intervention as there was very low drop out.
- It was single family intervention with individualized psychological support for family members.
- All the subjects were chosen from psychiatric wards and they were in their early years of illness.
- The content and duration of the program was standardized and no booster sessions were offered over the follow up period.
- This study used a standardized treatment protocol and guideline for the study group and a consistent monitoring system of the family psycho education intervention approved by WHO and NIMHANS with examination of multiple family related outcomes.
- In addition, this study also carefully evaluated the family psycho education program and used a systematic approach of longitudinal data collection at one month after discharge and at three months follows up. Duration of the psycho education program was brief which made it more feasible for the families.
- The findings of this study provided support for the hypotheses that there would be significant statistical differences between the control and the study group in terms of caregivers' burden of disease and coping strategies over a period of 3 months follow up.

5.2 Limitations of the Study:

- Self reporting has its own limitations due to element of subjectivity. The personal nature of the questions may make the caregivers reluctant to answer fully.

- It was limited to the the caregivers who were attending the psychiatric wards of selected tertiary care hospital of Nagpur, which may not be the true representative of the entire population of the caregivers. Confirmation is therefore needed for more diverse and large group of caregivers with further longitudinal follow up.

5.3 Implications of the study:

- This study has implications in enhancing the coping abilities of the caregivers and reducing their stresses by various ways like offering care giving classes and forming caregivers' support group.
- Seeking spiritual support and mobilizing families to accept help appears holistic approach among the caregivers.
- The brief and inexpensive psycho education sessions are feasible for health care provider and it reduces revolving door phenomena among the patients

5.4 Recommendations:

- A comparative study of several types of brief interventions or alternatively a qualitative investigation of what aspects of the intervention the caregivers find most beneficial is needed.
- Long term effects of the psycho education program on improving the health conditions of the families and their relatives with schizophrenia should be examined to further confirm the evidence regarding the effectiveness, importance and usefulness of hospital based family intervention in the mental health services.
- This can be utilized by the Nursing personnel in administration, education, research and in the community in day today practice.

VI. Conclusion

This study was conducted with the aim of examining the effects of family psycho education among caregivers of patients with schizophrenia, with regards to burden of disease and coping with further exploring the association with caregivers' socio demographic variables.

The current study highlights the effectiveness of a manualised family psycho education program. This program assessed the effectiveness of family psycho education on knowledge about schizophrenia, handling of difficult problems, communications and follow up. It also helped the caregivers in lowering their perceived burden of disease and enhancement in their coping strategy.

There was decrease in the overall burden score and severity of burden among the study group. The family psycho education program enhanced coping strategies among the study group. 'Seeking spiritual support' and 'Mobilizing family to accept help' was the strongest coping strategy while 'Reframing' was the weakest coping strategy.

Significant association was found between BAS post test score and demographic variables such as occupation and socio economic status among the study group. Home makers, unemployed, retired and those from upper lower socio economic status had highest perceived burden of the disease. Significant association was also found between FCOPEs post test score and occupation among the study group. Caregivers in the profession had better coping strategies.

This study advocates that psycho education should be routinely provided to the caregivers of patients with schizophrenia as early as possible following contact with health services. Suggestions are made for optimal psycho educational intervention design and its successful implementation in the clinical area.

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