Family Nursing Intervention on Perceived Stress, Wellness and Program Satisfaction among Family Members of Schizophrenia

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Abstract

Schizophrenia is a highly prevalent, chronic disease which account for devastating disability. Loved one's mental illness may lead to loss of productivity for the family unit; induces personal, emotional and physical strain on their lives and the loss of their personal freedom. These findings necessitate some evidence based cost effective and quality assured comprehensive nursing practice to promote the health of the exhausted family. Family Interventional Package consisting of psycho-education, self affirmation and breathing exercise was administered among the care givers. Repeated measure using F test revealed a significant improvement in wellness score from pre to post 1 and post 2 as F calculated was 103.3 which is significant at $p<0.001$. Similarly Post hoc test of stress scores indicated significant reduction of stress scores (90.4 $p < 0.001$). Participants shared satisfaction in terms of informational need, emotional and self help need and supportive need.

Keywords: Psycho-education, Schizophrenia, perceived stress, wellness, Family Nursing Intervention Package (FNIP)

Background

In a landmark study conducted by WHO in 2006 among 27 developing and developed countries, no population has been found to be free of Schizophrenia. It is a severe form of mental illness affecting about 7 per thousand of the adult population mostly in the age of 15- 35 years and a total of 24 million are affected by it. (**Knapp M, Simon J., 2002**)[1] The National All India Prevalence Ratio in 2000 showed that national prevalence for all mental disorders were 70.5 (rural), 73 (urban) and 73 (urban + rural) per 1000 with prevalence for Schizophrenia as 2.5/1000. (**Solanki RK, Singh P, Midha A, Chugh K, Swami. 2010**)[2]

Need of the study and Review Literature:

Serious problems were encountered by caregivers as psychiatric patients moved from institutional surrounding to community or familial settings as this responsibility of care reverted to families. Providing care for a member of the family with mental illness is an exhaustive task and challenge severely to their care taking abilities. Relatives who live with the patient frequently had psychological problems due to stress and necessity to deal with the traumatic role change, especially when these changes were precipitously forced upon them. (**Venkataswamy RM, Chandrashekar CR. 1998**)[3] As a part of mental health promotion services, these risky groups should be frequently assessed and mental health promotion strategies to be rendered. For effective coping, they need to be given scientific information; as accurate information may help to remove misconceptions and thereby reduce fear, shame and hopelessness associated with the disorder. Therefore, the researcher aims to develop an evidence based Family Interventional Package which is scientifically proved to improve the wellness of a vast group of family members who are distressed with the long lasting burden of caring mentally ill relative.

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Objectives

To assess the socio-demographic details of family members of patients with Schizophrenia.

To find out personal and clinical profile of patients with Schizophrenia.

To evaluate the effectiveness of Family Nursing Interventional Package on perceived stress and wellness level of family members of patients with Schizophrenia.

To find out relationship between pre interventional perceived stress and wellness level of family members of patients with Schizophrenia.

To find out the association between the pre interventional perceived stress and wellness level with selected sociodemographic variables of family members and clinical profile of patients with Schizophrenia.

To assess the extent of satisfaction of family members of Schizophrenic patients with the family Interventional Package

Hypotheses

H$_1$: There is significant difference on level of perceived stress and wellness of family members of Schizophrenic patients before and after the administration of Family Interventional Package at 0.05 level of significance.

H$_2$: There is significant correlation between pre interventional perceived stress and wellness level of family members of patients with Schizophrenia at 0.05 level of significance.

H$_3$: There is significant association between pre interventional perceived stress and wellness level of family members of patients with Schizophrenia with their socio demographic variables at 0.05 level of significance.

Research Methodology

Research Approach and Research Design: A mixed method (Quantitative & qualitative) research approach with Pre experimental one group pretest post test method was used in the present study.
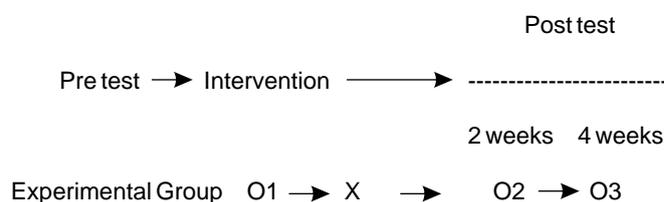
It is diagrammatically represented as

Post test

Pre test → Intervention ——————→ ------------------------

2 weeks   4 weeks

Experimental Group   O1 → X → O2 → O3

Fig 1: Research Design

Focus group discussion is conducted for obtaining wider information on satisfaction towards the intervention. Although the emphasis in the present study was typically on quantification, to provide an in-depth observation of the experience and understanding of satisfaction, a qualitative assessment have advocated that precede a quantitative measurement.
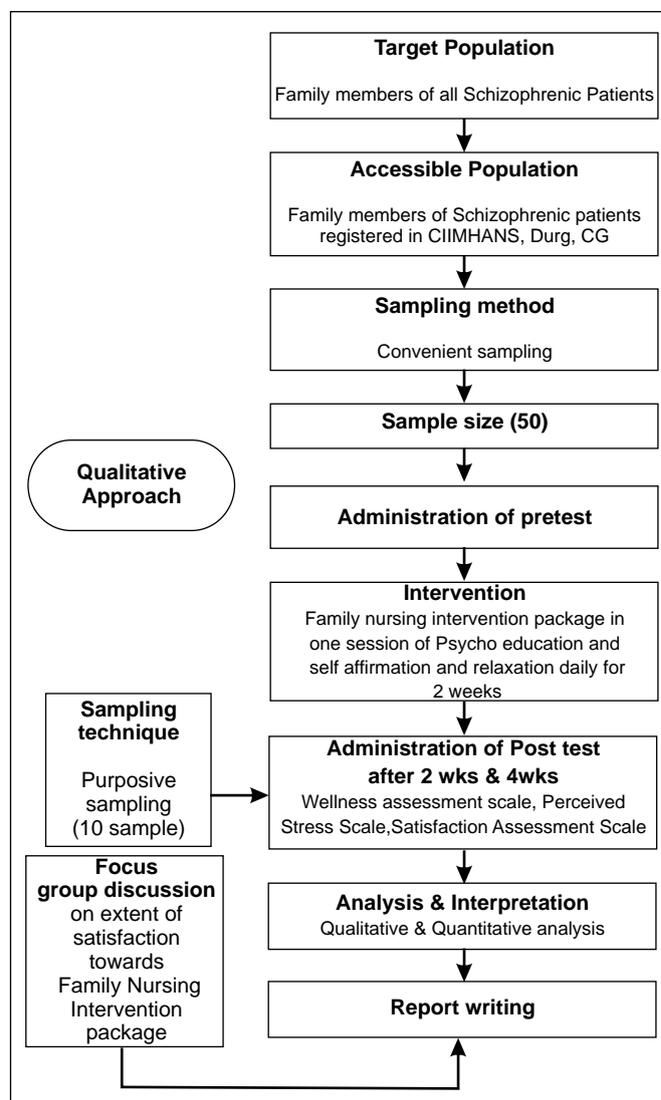

Fig 2: Schematic Representation of Research Design

Population and Sample

Target Population: The population for the present study is family members of all patients with Schizophrenia.

Accessible Population: Family members of patients with Schizophrenia registered and admitted in Psychiatric ward, JLNH&RC, Bhilai and who met the sampling criteria.

Inclusion Criteria of sample: Inclusion criteria helps to control the extraneous variables and maintain homogeneity of subjects. For the present study inclusion criteria was: One who aged 15 years or more, He / she should be of first degree relationship to the index patient, He/ She can be spouse, parents or siblings or children or grand parent of the patient, Should be residing with the patient continuously for a minimum of at least last 3 months prior to the assessment and involved in the care of the patient, willing to co-operate and provide consent for the study, those who are a available during the course of study and care givers of patients diagnosed with paranoid/ catatonic Schizophrenia and admitted within 48hrs.

Exclusion Criteria: Care givers with clinically diagnosed psychiatric or physical disorder which might interfere with his/her wellbeing and the care of patients and his / her co-operation during interviews, care givers of patients who had other major Axis I Psychiatric Disorders in addition to Schizophrenia and care givers having other direct dependents at home like fully dependent adults or infants.

Sample, Sampling Technique & Sample Size: Convenient sampling was used to select 20 samples (family members) for the quantitative research design and 5 samples tentatively (size depends on saturation of information) for qualitative study.

Setting: Psychiatric ward, JLNH&RC, Bhilai

Tools

Tool to assess Personal and Sociodemographic factors of Family caregiver of patients with Schizophrenia

Tool to assess Personal and Clinical Profile of Care Receivers

Wellness Assessment Tool for Family caregiver of patients with Schizophrenia

Perceived Stress Scale (PSS)

Alternative Questionnaire to assess Satisfaction of Family Members (S-FM) & Focus Group on Satisfaction of Family Members

Data Collection Procedure: The present study was conducted among 20 family members of patients with Schizophrenia in Psychiatric wards, Jawaharlal Nehru and Research Centre, Bhilai who met the inclusion criteria. Written consent was obtained from the participants after proper explanation of the purpose and methods used from the respondents selected conveniently. Face to face interview was done with the subjects. Following data collection, Family Intervention Package was administered in a group of 4-5 which extended for approximately 1hr. Post test I (after 2 weeks) and follow up test (2 weeks after Post test 1) was administered. On the last day, 5 subjects were purposively selected and focus group discussion was conducted on their views on the intervention and how it benefited them. The verbatim was noted in key notes.

Official Permission was obtained from Director In charge, JLNH&RC and Head of the psychiatric department after ethical clearance. Written consent was obtained from the participants after proper explanation of the purpose and methods used from the respondents selected conveniently.

Findings

Section I: Socio-demographic details of family members of patients with Schizophrenia.

Mean age of the family care givers under study was 42.05±10.11; range=25-68 years with 70% females. 80% (n=16) of the respondents were married and were staying with partner. 15% (n=3) were not married and the remaining 5% (n=1) were married but divorced or widowed. Among the study samples, 60% (n=12)

belonged to nuclear family and remaining 40% (n=8) belonged to joint family. Correlating mental illness with the structure of the family, it was noted that mentally ill are much greater in nuclear families than joint families.

Section II: Personal and clinical profile of patients with Schizophrenia

Care receivers (Schizophrenic patients) varied from the age group of 20 to 65 years with mean age 43.65 ± 15.70. Females patients constituted 55% (n=11).

Section III: Effectiveness of Family nursing interventional Package on perceived stress and Wellness level of family members of patients with Schizophrenia.

Table 1: Mean, mean percentage and F Value of perceived stress and Wellness level of family members of patients with Schizophrenia.

N=20

Study Variables	Pre test		Post test I		Post test II		F value
	Mean Score (SD)	Mean Score (%)	Mean Score (SD)	Mean Score (%)	Mean Score (SD)	Mean Score (%)	
Wellness Score	64.32 18.6	54.2	67.36 ±15.2	58.59	76.82 ±11.22	68.64	103.3 (<0.001)
Perceived stress score	36.2 8.83	55.9 55.9	29.18 ±11.3	42.7	24.6	35.78 ±7.43	90.4 (<0.001)

Table 1 shows that repeated measure using F test revealed a significant improvement in wellness score from pre to post 1 and post 2 as F calculated was 103.3 which is significant at p<0.001. Similarly Post hoc test of stress scores indicated significant reduction of stress scores from pre to post1, pre to post2 as well as from post1 to post2 (90.4 p < 0.001). Hence, H_1 was accepted.

Section IV: Relationship between Pre Interventional Perceived Stress and Wellness Level Of Family Members Of Patients With Schizophrenia

Table 2: Correlation matrix in between each dimensions of wellness and perceived stress

N=20

Variables	Emotional	Physical	Intellectual	Social	Spiritual	Perceived
Emotiona	1	0.68**	0.587**	0.345*	0.544**	-0.699**
Physical		1	0.73**	0.499**	0.68**	-0.626**
Intellectual			1	0.36*	0.601**	-0.549
Social				1	0.524**	-0.378**
Spiritual					1	-0.409**
Perceived						-0.679**

**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Correlation matrix proves that each dimensions of wellness are positively inter related whereas negatively related with perceived stress r= -0.66 (n=20; p< 0.01). Hence, H_2 was accepted.

Section V: Association between the Pre interventional perceived stress and wellness level with selected sociodemographic variables among family members

The significance in association between the score and sociodemographic variables was analysed by t test. Wellness score of male care givers (Mean±sd 71±13.45) was found to be better compared to their counterparts (Mean±sd 62.24±11.30). Difference in wellness score between the gender was found to be statistically significant (t_{18}= 2.2407, p<0.05). H_3 was accepted for the association between gender and wellness score. Differences obtained in other sociodemographic variables were not found significant.

Section VI: Extent of satisfaction with Family Interventional Package for family members

Mean and percentage analysis assured that the Family Interventional Package satisfied the felt needs of the care givers in terms of informational need, emotional and self help need and supportive need with mean percentage score of 70.83, 71.90 and 66.33 respectively. In focus group discussion, a major concern identified by them

were economical problem. During focus group discussion, 92% of FNIP participants expressed it as beneficial, and suggested for arranging similar programme for their other relatives, patient and repeated programmes for themselves. Supportive environment rendered during FNIP and felt opportunity for discussion among relatives of patients met self help need and emotional wellness to some extent.

Discussion

Socio-demographic variables of family members of patients with Schizophrenia

Mean age of the family care givers under study was 42.05±10.11; range=25-68 years with 70% females. 80% (n=16) of the respondents were married and were staying with partner. 15% (n=3) were not married and the remaining 5% (n=1) were married but divorced or widowed.

Golam (2005)[4] found that mental illness in a family member can lead to difficulties in marital life (10%). Among the study samples, 60% (n=12) belonged to nuclear family and remaining 40% (n=8) belonged to joint family. Correlating mental illness with the structure of the family, it was noted that mentally ill are much greater in nuclear families than joint families.

Personal and clinical profile of patients with Schizophrenia

Care receivers varied from the age group of 20 to 65 years with mean age 43.65 ± 15.70. Female patients constitute 55% (n=11). The findings were supported by 13 psychiatric epidemiological studies (1998) carried out in different part of the country which also reported an overall prevalence rate of mental health problem as 51.9 per 1000 population in men and 64.8 per 1000 population in women. The difference was statistically significant (p=0.001) (**Larsen TK etal, 1998)[5]**

Effectiveness of Family Nursing Interventional Package on perceived stress and Wellness level of family members of patients with Schizophrenia.

In posttest and follow up tests the wellness improved from the pretest value of 64.32±18.6 to 67.36±15.2 and 76.82±11.22 respectively (F= 103.3, at p<0.001).

Wellness scores of all domains had significantly improved; physical (F=36.07 p<0.001), emotional (F=62.8 p<0.001), intellectual (F=75.38 p<0.001), spiritual (F=34.263 p<0.001), as well as social wellness (F=37.24 p<0.001). Hence, H_1 with regard to wellness was accepted in all the domains, i.e. there was statistically significant difference on wellness of family members of patients with Schizophrenia after exposure to Family Interventional Package at 0.05 level of significance.

Percentile distribution showed that percentage of people with better wellness level increases with the intervention with time. **Grace V, 2016[6]** proved that group psycho education improves wellness scores significantly at p=.05 in each of the wellness domains in subjects with trauma-related disorders with 0.524 in the health scores to 0.830 in spirituality. Self affirmation was proved to improve wellness among college students (**Trope Y, Liberman N. 2010)[7]**; and health problems among breast cancer patients.

Repeated measures revealed a significant reduction in Perceived stress from pre to post 1 and post 2 (F= 90.4 p<0.001); hence H_1 was accepted with regard to level of perceived stress, i.e. there was statistically significant difference on level of perceived stress of family members of patients with Schizophrenia after exposure to Family Interventional Package at 0.05 level of significance.

The percentile analysis proved that the intervention was effective in bringing more and more percentile of patients to the better level of perceived stress with intervention. **Creswell DJ, 2010[8]**

Relationship between Pre Interventional Perceived Stress and Wellness Level of Family Members of Patients with Schizophrenia

A negative correlation was identified between total wellness score and perceived stress at r =-0.679 p>0.01 therefore H_2 was accepted, i.e. there was significant correlation between pre interventional perceived stress and wellness level of family members of patients with Schizophrenia at 0.05 level of significance.

A study by Anupama et al, identified moderate level of burden and high levels of wellbeing primary care givers.

Burden and Psychological wellbeing were proved inversely correlated. **(Anupama R, Rao K, Subbakrishna DK., 2002)**[9]

Association between the Pre interventional perceived stress and wellness level with selected sociodemographic variables among family members

The difference obtained in wellness score between the gender was found to be statistically significant (t_{18}= 2.2407, p = 0.01) and therefore H_3 with regard to gender was accepted. **Gonzalez MJ, et al**[10] stated that female caregivers may perceive greater stigma, perhaps resulting from increased attunement to the nuances of interpersonal interactions, such as devaluation.

Conclusion

The findings of the study facilitate in-service education for the staff nurses who in turn will coordinate awareness programme for the public. Mental health nurses have a vital role in the promotion and prevention of mental health among risky population through in depth knowledge on mental illness, importance of mental hygiene measures and practice the same in the life.

As per WHO report 2001, more than 25% of all people can have the illness at any time during their lives. With every psychiatric client minimum 4 people suffer. Family involvement is accepted as critical to the patient's recovery process, **(Laeighton Y etal,.2007)**[11] steps taken for supporting their health and wellness are meager. Under mental health promotion services, these risky groups should be frequently assessed and mental health promotion strategies to be rendered.

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