

Functional level of Schizophrenic patients and perception of burden of caregiving to schizophrenic patients attending the University of Port Harcourt Teaching Hospital

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Abstract

Background Patients with schizophrenia require long-term support and care which may become burdensome to their caregivers, Aim: the study aims at investigating the functional level of Schizophrenic patients and perception of burden of caregivers attending the University of Port Harcourt Teaching Hospital. Method: The study adopted a cross-sectional descriptive design. A total of 160 caregivers. The instrument of data collection was a validated and standardized developed questionnaire, adapted and modified from three instruments. Data collected were analyzed using the statistical package for social sciences software (SPSS) version 21.0. data presented in frequency tables, percentages, bar charts, mean and standard deviation. Results: Findings revealed that the functional level (FL) of schizophrenic patients under study was low. The level of caregivers' perceived burden of care giving to schizophrenic patients was severe (64.30%). Highest form of perceived burden was the social burden with mean score of 2.1 (SD = 0.91). There is positive inverse relationship between caregivers' perceived burden and the desire to continue care giving (Beta - 0.312). The R-square (r²) of 0.097 showed roughly a contribution of 9.7%. Conclusion: Caregivers of schizophrenic patients perform a health care role which makes most of them to experience severe social, psychological, financial and physical burden.

Keywords: functional level, burden of caregiving, schizophrenic patients.

1. INTRODUCTION

Schizophrenia is a psychiatric syndrome characterized by a split in personality, impaired perception, and disorganized speech and thinking that causes significant social and occupational dysfunctional (American psychiatric association 2010) however, the condition is one of the most devastating chronic

psychiatric disorders that pose numerous challenges in its management and consequences which is impose in terms of personal tolls and cost to the society, this implies that the victims suffer from haphazard. An estimated one-half to one percent of the population suffer from schizophrenia. It strikes at a young age, so that unlike patients with cancer and heart disease, patients with

schizophrenia usually live many years after its onset and continue to suffer from it, as it saps their emotional and cognitive faculties. Apart from its devastating impact on individuals, caring for patients with schizophrenia also creates an enormous economic burden on family caregivers. The direct and indirect cost of schizophrenia to society was estimated to be two percent (2%) of the nation's gross national product Awad, & Voruganti, (2009). They further stated that two-thirds of the cost is attributed to loss of productive employment, drain on families' resources or the social and psychological anguish it causes, while the remainder goes for treatment (Awad, & Voruganti, (2009).

The impairment caused by schizophrenia limits the ability of the sufferers to remain independent in various domains of psychological functioning. Patients with schizophrenia, therefore, require long-term support and care which may become burdensome to their caregivers. In many resource-poor countries such as Nigeria, community-based mental health services and effective formal support system are limited to cater for the needs of patients with schizophrenia. Therefore, the trend towards shorter hospital stay and reduction of in-patients beds have shifted the responsibility of the day to-day care of patients with schizophrenia from formal caregivers in mental health institutions to informal caregivers within the family setting. The tasks involved in rendering care to a family member with schizophrenia are enormous, and caregivers may become overwhelmed by the demands associated with these roles Awad, & Voruganti, (2009).

The burden of care giving is a complex multifaceted construct which is related to many family caregivers globally (Zarit, 2009). It refers to a psychological state that results from the combination of physical work, emotional, and social pressure involved in caring (Magliano, Fadden, Madianos, Fiorillo, Marasco and Guarneril (2011). It has also been described as the emotional, social, financial, or physical investment and psychological experiences in reaction to the changes and

demands that result from rendering help and support to another person who is not capable of caring for himself or herself by reason of infirmity or disability (Hamilton & Hoenig, 2012). Caregivers' perception of burden in this context is the feelings, needs, difficulties or distress experienced by family members caring for a schizophrenic family member at home/hospital. The challenges and pressures of family care giving are a reality of daily life, often the unprepared caregivers and schizophrenic survivors experience fear, shame, sadness, guilt, stigma, loss of productive life and rejection (Ohaeri, 2011).

Besides the limitation of schizophrenia caregiving, some benefits of caring for the schizophrenic patients have also been reported as follows; psychological adjustment in life in terms of becoming stronger and better able to manage stress and problems, provision of social support (becoming a social resource person to meet the social needs of the patients), showing empathy for others (understanding other person's feeling and experience of the person living with schizophrenia), spiritual growth through prayers to cope with care giving demands, developing a deeper sense of purpose in life with a greater focus on priorities (values) relating to challenges of Schizophrenia care giving, changes in interpersonal relationships and self view (Ukpong, 2012).

There is insufficient information relating to burden and benefits of care giving to schizophrenic patients treated in University of Port Harcourt Teaching Hospital, Port Harcourt in Rivers state specifically. The present study, therefore, seeks to investigate the level of perceived burden and benefits of care giving among caregivers of schizophrenic patients in University of Port Harcourt Teaching Hospital, Rivers State.

2. Materials and Methods

The study adopted a cross-sectional descriptive design. The study was conducted at the University of Port Harcourt Teaching Hospital (UPTH), Rivers State, Nigeria. The University of Port Harcourt Teaching Hospital is a Federal

Government health institution established in 1982. It serves as a referral centre for other hospitals, health centres and other health institutions in and outside Rivers State. The hospital also offers Tertiary health care services and serves as a training and research centre for medical, nursing and other healthcare professions. The population of the study comprised 160 caregivers of schizophrenic patients working at the Department of Neuropsychiatric, UPTH. The instrument for data collection was a structured questionnaire. The instrument was adapted and modified from three instruments: benefits finding scale (Antoni & Lehman, 2010), modified ZBI scale (Zarit & Edward, 2008) designed to determine the feeling of caregivers when caring for elderly patients with dementia, and burden and benefits of caregiving scale (Akpan, 2012). The instrument was vetted using two consultant psychiatrists from the department of Neuropsychiatry of UPTH. The experts ensured that both face and content validity of the instrument was ascertained. The reliability of the instrument was determined using test retest reliability. Two pilot tests were conducting by administering 20 copies of the questionnaire care givers working at Federal Neuropsychiatric Hospital, Enugu, at two different occasions within a two-week interval. Data collected was collated, organized and analyzed using the statistical package for social sciences software (SPSS) version 21.0. Frequency tables, percentages, bar charts, mean and standard deviation were used to answer research questions. Inferential statistics like the analysis of variance (ANOVA) was used to analyze differences in mean while simple linear regression analysis was used to analyze relationships between variables at 0.05 level of significance.

Ethical Considerations

Ethical approval was obtained from the research and Ethics committee of University of Port Harcourt Teaching Hospital (UPHTC), Port Harcourt, Rivers State. Also, informed consent of was obtained from participants, with anonymity and confidentiality maintained.

3. RESULTS

Out of the one hundred and sixty (160) questionnaires administered to the respondents, one hundred and fifty-four (154) were correctly completed and returned giving a return rate of 96%.

Socio-Demographic Data

Table 1: *Distribution of respondents based on socio-demographic variables, n=154*

	Variable	N	%	Remark
Sex	Male	75	48.7	
	Female	79	51.6	*
Age	18-20	17	11.0	
	21-30	28	18.2	
	31-40	29	18.8	
	41-50	26	16.9	
	51-60	31	20.1	*
	Above 60 years	23	14.9	
Religion	Christianity	130	87.8	*
	Muslim	9	6.1	
	Africa traditional Religion	15	9.7	
Marriage	Single	52	33.8	
	Marriage	59	38.3	*
	Separated	6	3.9	
	Divorced	14	9.1	
	Widowed	23	14.9	
Education	No formal education	26	16.9	
	Primary education	22	14.3	
	Secondary education	42	27.3	
	Tertiary education	64	41.6	*
Employment	Not employed	20	13.0	
	Artisan	3	1.9	
	Trader	37	24.0	*
	Farmer	11	7.1	
	Contractor	13	8.4	

	Retired	18	11.7	
	Civil/public servant	27	17.5	
	Student	25	16.2	
Duration of care	6 months – 1 year	35	22.9	
	2-5 years	63	41.2	*
	6-9 years	42	27.5	
	10 years and above	14	9.1	
Relationship	Parent	56	36.4	*
	Spouse	21	13.6	
	Sibling	37	24.0	
	Friend	24	15.6	
	Brethren	16	10.4	

Table 1 showed the distribution of the respondents based on their socio demographic

Table 2: *Frequency and percentages on the functional level (FL) of schizophrenic patients under study (n = 154)*

Items	Yes		NO		N	Decision
	n	%	n	%		
Eating (Need someone to feed him/her)	128	83.1	26	16.9	154	#
Bathing (need someone to bath him/her)	127	82.5	27	17.5	154	#
Dressing (put on appropriate Clothing)	78	50.6	76	49.4	154	#
Grooming (brushing hair, teeth)	81	52.6	73	47.4	154	#
Using the toilet appropriately	45	29.6	107	70.4	152	*
Incontinence (wet bed or clothing)	137	90.1	15	9.9	152	*
Sleeping well	73	47.4	81	52.6	154	*
Preparing meals	80	51.9	74	48.1	154	#
Staying alone, must be supervised	86	55.8	68	44.2	154	*
Taking medication	45	29.2	109	70.8	154	*
Managing money or finances	74	48.4	79	51.6	153	*
Performing household chores	54	35.1	100	64.9	154	*
Using the Telephone properly	40	26	114	74.0	154	*
Mobility	14	9.1	140	90.9	154	*
Wandering or potential to wander	87	56.2	67	43.8	154	*

For any correct response; Below 50% = High FL, 51% and above = low FL

Table 2 showed that majority of the schizophrenic patients had low functional ability while only few had high functional ability in the performance of daily activities. Out of the total number of the schizophrenic patients who had low functional ability, 137 (90.1%) had problem of incontinence, 127 (82.5%) needs someone to bath them, 107 (70.4%) had problem of using the toilet appropriately, 109 (70.8%) had problem of

variables. The data showed that most of the respondent were female 79 (51.6%) while 75 (48.7%) were males. 31(20.1%) were within the age of 51-60 years. Majority 130 (87.8%) of the respondents were Christians, 59 (38.3%) were married, 64 (41.6) had tertiary education, 42 (27.3%) had secondary education, 26 (16.9%) had no formal education, and only about 22 (14.3%) had primary education, 37 (24.0%) were traders, 27 (17.5%) were civil servants, 25 (16.2%) were students, and 13 (8.4%) of the respondents were contractors. However, 63 (41.2%) of the respondents had 2-5 years duration of caregiving role, 42 (27.5%) had 6-9 years experience of caregiving, 35 (22.9%) had just 6 months 1 year duration of caregiving while only 13 (8.5%) had caregiving experience of 10 years and above. 56 (36.4%) of the respondents were parents of the schizophrenic patients, 37 (24%) were sibling, and 21 (13.6%) were spouse to the patients.

taking their medication, 86 (55.8%) need to be supervised when staying alone while 87 (56.2%) have the potential to wander about.

Table 3: *Frequency and percentage responses on Zarit Burden Interview (n = 154)*

Level of burden		N	%	Remark
0-20:	Little or no burden	0	0.00	

21-30	Mild burden	10	6.50	
31-40	Moderate burden	45	29.20	
41-88	Severe burden	99	64.30	*

- Dominant, Note: Total score = 88

Table 3 showed that the level of burden measured on the 4-point scale indicating that most of the respondents 99 (64.30%) of the respondent perceived serve burden, 45 (29.20%) perceived moderate burden and 10 (6.50%) perceived mild burden level. None of the respondents perceived little or no burden.

Table 4: *Summary of linear regression analysis on the relationship between caregivers' perceived burden and the desire to continue caregiving*

A. Model Summaryb

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1.	.312 ^a	.097	.091	.55905	1.975

a. Predictors: (Constant), level of caregivers' burden

b. Dependent Variable: desire to continue with informal care giving role

B. Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.563	.222	-.312	16.050	.000
	Level of caregivers	-.43	.107		-4.000	.000

	burden	4			50	
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a. Dependent Variable: Desire to continue with informal care giving role

$$y = 3.563 + .434x$$

C. ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1.	Regression	5.147	1	5.127	16.405	.000 ^b
	Residual	47.506	152	.313		
	Total	52.633	153			

a. Dependent Variable: Desire to continue with informal care giving role

Predictors: (Constant), Perceived burden

Result of simple linear regression on Table 4 showed that the relationship between caregivers' perceived burden and the desire to continue care giving was strong and negative (Beta -0.312). The R-square (r²) of 0.097 showed roughly a contribution of 9.7% of perceived burden of caregivers to desire to continue with caregiving role. The regression equation, $y=3.563-.434x$ showed that any increase in perceived burden will lead to decrease in the desire to continue with caregiving role.

4. Discussion of Findings

The result of socio-demographic data shows that schizophrenic caregiving is dominated by females; this has implications on the level of burden experienced by the respondents. There is evidence of gender inequalities in caregiving, with women being more enmeshed in the role and more likely to perform more personal care tasks (Franks, Stephens & Paris, 2009). Majority (20.1%) of the respondents were in their less productive age of 51-60years. The result is not in support of earlier studies (Grater, 2010; Groode, Haley, Rooter & Ford,

2009), which reported that care givers of schizophrenic patients are relatively young. However, the finding agrees with an earlier study (Zarit & Edward, 2008) who also reported that although age of caregivers' cuts across all age spans, but majorities of them are in middle/elderly aged (35-64years). Although care giving cuts across religions, the result shows that majority (87.8%) of the respondents were Christians. This is expected given that the study area is predominately Christian community. On relationship of respondents to care receiver, majority (36.4%) were parents followed by sibling (24%) as earlier reported by some researcher (Obrest, 2000; Amstrong, 2010; WHO, 2008)

The findings from the study indicate that most of the respondents (64.30%) perceived severe burden while none perceived little or no burden. This points to the need for early assessment, nursing diagnosis and potential intervention to reduce caregivers' burden. This corresponds with a study (Lambert, Liu & Lambert, 2010) that reported that primary caregivers' experienced severe to moderate and trivial level of burden. Although studies (Ohaeri, 2011) had reported low level of burden due to access of the caregivers to all forms of materials like social support and human intervention.

The result also indicated that caregivers experience various forms of burden ranging from physical, social, psychological and financial. The magnitude of burden experienced by care givers was highest in the social burden ($K2.10$ & 0.91). Several researchers (Johnnaes, Stewart & Veltman, 2008; Magana et al., 2009; Prabbkar, et al., 2011; Oshodi et al., 2011; Dyck, Arai, Kudo, Wasgo & Muira, 2013) have reported in different studies that caregivers experienced various forms of stress such as physical, behavioral, emotional, financial and social. The shift of care for patients with schizophrenia has resulted in transferring responsibility for day-to-day care of patients to their family members which has led to profound psychological, physical and financial burden on patients' families (Yates, Tennestedt & Charge, 2011).

There was no statistically significant relationship ($F = 0.491$, $P > 0.05$) between duration of care and caregivers' perceived burden. This implies that years, months or hours spent in caregiving role is not a predictor of caregivers' perceived burden. However, the study indicates that perceived burden seem to decrease as duration of care increases. This result contradicts the findings of an earlier study (Zarit, 2006) which revealed that the amount of care period per week is a strong determinant of the caregivers' mental health status. This is because caregivers' burden increases with the length of time spent in caring especially with patient with chronic physiological disorder (Grater, 2010).

In addition, the result showed inverse relationship between perceived burden and the desire to continue care giving role ($F1$, $152 = 16.405$, $P < 0.05$). This implies that any increase in the perceived burden of caregiver, will lead to decrease in the desire to continue care giving role. The result correlates with an earlier study (Sisk, 2011) which showed that as the burden of caregiving increases, it disrupts the daily activities of caregivers. In an attempt to cope with care giving experience, a care giver may appraise caregiving as less burdensome (Sisk, 2011).

5. Conclusion

Caregivers of schizophrenic patients experienced burden rated as either no burden, mild, moderate to severe burden. The forms and magnitude of burden perceived by the caregivers include social, psychological, financial and physical burden. Factors that predict high burden were gender, functional ability of care receivers, while perceived benefits were good predictors of the continuity of caregiving role. Healthcare professional should identify and prioritize caregiver's burden and develop strategies to help them with their role of caregiving.

Conflict of interest: The authors declare that there is no conflict of interest

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