The Psychosocial Adjustment of Patients Suffering From Mild-Stroke: a Multilevel Approach

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ABSTRACT:- In a developing nation like Nigeria, it has been observed that stroke patients just like the terminal disease patients suffer more in the hand of the people around them compared to the scourge of the ailment itself. They have suffered a lot of psychological and social withdrawal due to negative attitude and knowledge of every individual which have an adverse effect on their self-esteem, coping strategies, and positive affect. This study examined the psychosocial adjustment of patients suffering from mild stroke and the role played by the family, caregivers, social network in their adjustment to living and life management. Two research questions were raised and answered in this study. The survey research design was adopted for this study. Twenty-one stroke survivors volunteered to participate in the study while just nineteen stroke survivors completed the interviews. The participants included 14 males and 5 females aged between 37 and 66 years. Data were collected through structured interview and questionnaire, which were analyzed using multiple regression and t-test statistical tools of SPSS. Results revealed that 49.9% of the total variability in stroke patients' social and psychological adjustment is accounted for by social stigma, perceived limitation, management of life, financial adjustment, and Intrapersonal adjustment. Also, a significant relative influence was observed on the sources of social support received on stroke patients' psychological adjustment. It was concluded that not all individuals are blessed with the repertoire of psychosocial factors that promote adjustment. Thus, the importance of approaches such as problem solving, decisions about treatment and care, and the potential for personal control over manageable issues of life cannot be over emphasized.

Keywords: *Stroke, patients, adjustment to life*

I. INTRODUCTION

In the world today, the manifestation of some ailments or sicknesses has made every individual especially the caregivers to have a shift in focus from curing towards prevention and caring. Such ailment is stroke. Stroke has been seen today as the most significant global cause of mortality and disability. The global prevalence of stroke survivors was estimated to be 62 million in 2005 and was projected from 67 million to 77 million in 2015 and 2030 respectively. Though, in the developed countries the primary and secondary prevention of stroke has decreased mortality, yet there is an increase demand for rehabilitation (Strong *et al.* (2007).Recent studies have raised concerns about the inadequate psychosocial services available for people following stroke. Clearly, the personal experience of stroke is far more complicated and complex phenomenon than merely physical function. According to Hoyert and Xu (2012) affirm that stroke is the fourth leading cause of death after heart disease, cancer, and chronic lower respiratory diseases. Stroke can leave the individual with one or combination of disabilities such as physical, sensory, cognition and psychological disorders. Furthermore, Nicholl et al., (2002) are of the opinion that disabilities like those mentioned above reduce the capacity for individuals to maintain personal independence at a functional/physical, sensory, or cognitive level. Doshi et al. (2003) noted that there are numerous medical complications which may occur after stroke, many of which are disastrous. As noted by Bernhardt, Dewey, Thrift and Doonan (2004); Kahn (2002), the degree or severity of these physical, sensory and cognitive disabilities determines the functional ability of the stroke survivor.

Studies have shown that people with stroke, mild or severe often suffer from psychological and emotional impairments. Depression has been identified as a common complication impeding the stroke survivor's recovery and rehabilitation (Whyte, Benoit, Mulsant, Rovner, & Reynolds, 2006), while anxiety is a sequelae of stroke leading to lack of confidence and restricting the individual's social activities (Burvill et al., 1995). In addition, there are stroke survivors who experience emotional problems including low self-worth and embarrassment (Gillespie, Joice, Lawrence, & Whittick, 2011). Hence, stroke survivors suffering from psychological and emotional impairments are faced with many obstacles in tackling their altered lifestyles and lengthy recovery process.

The psychosocial aspect of stroke recovery can have a profound effect on the individual's readjustment and rehabilitation. Stroke survivors' may experience problems such as inability to engage in social activities over the long term (Khan, 2004), depression and anxiety (Morris, Raphael, & Robinson, 1992). Khan (2004) provided a list of psychosocial contributions believed to contribute to the development of stroke (post-stroke depression). These included:

- Grief and loss
- Financial difficulties
- Social Isolation
- Poor self-esteem, and
- Relationship difficulties

Overall, there continues to be uncertainty about what mechanisms cause post-stroke depression.

However, psychosocial adjustment revolve round the processes of helping individuals in managing their problems more effectively and develop unused or underused opportunities to cope more fully (Egan, 1998 in Ayodele, 2008), and develop unique internal coping processes within his or her social environment (Ayodele, 2008). Chippindale & French (2001) affirmed that effective management of the patients requires allowing time for the shock of the news to sink in; there may be a period of emotional "ventilation", including overt distress. The counselor should provide an assurance of strict confidentiality and rehearse over time the solutions to practical problems such as who to tell, what needs to be said, discussion around safer sex practices and adherence to drug therapies.

Social support could be seen as an indispensable ingredient that contributes to an individual's ability to adjust life adversity. This might the reason Ferreira and Sherman (2007) view social support as the beneficial receipt of provisions in a relationship, including informational, emotional, and tangible aid, Also, social support as a collection of social, emotional, cognitive, and behavioural processes occurring in personal relationships that provide aid and promotes adaptive coping (Dalton et al., 2001). Studies have reported individuals surrounded by family and friends inspires hope and encouragement when recovering from illness (Popovich, Fox, & Bandagi, 2007), and social support has been associated with better self-care amongst people with a chronic illness (Sayers, Riegel, Pawlowski, Coyne, & Samaha, 2008).

It could therefore be said that social support is a key factor that has a significant influence on the immediate recovery process; and excluding it as an essential component of stroke management will have serious implications. The importance and value of maintaining social relationships and community contacts when someone experiences chronic illness is evident in a study by Beesley, White, Alston, Sweetapple, and Pollack (2011) explored the experiences of 11 stroke survivors who participated in an arts health group programme. They found that social group support improved stroke survivors' Quality of Life (QOL) and wellbeing.

Hypotheses
1. Psychosocial variables will not significantly influence the psychosocial adjustment of patients suffering from stroke.
2. There would be no significant relative influence of the source of social support received on stroke patients' psychological adjustment.

II. METHODOLOGY

Design: The study adopted the survey research design of ex post facto type. Ex post facto design was considered appropriate for this study because the variables of interest had already manifested and no attempt was made by the researcher to manipulate any of the variables.

Sample and sampling techniques: Twenty-one stroke survivors volunteered to participate in the study while just nineteen stroke survivors completed the interviews. The participants included 14 males and 5 females aged between 37 and 66 years.

Measure: Data were collected via structured interview and three (3) validated scales. The validated scales are:
1. **Mental Adjustment Stroke Scale (MASS)** It is originally by **Lewis *et al.* (2001)** to measure coping strategies among stroke patients. Scale categorizes the attitudes of stroke patients toward their illness into five subscales: fighting spirit, (16 items) helplessness/hopelessness, (6 items) anxious, preoccupation, (9 items) fatalism, (8 items) and denial/avoidance (1items). Each item is rated on a 4-point scale ranging from 1='Definitely does not apply to me' to 4='Definitely applies to me'. The total score ranged from 40:160.For fighting spirit, a high score indicates a more positive attitude toward illness, but for the other subscales, a high score indicates a more negative attitude toward illness. In this study, the instrument has an alpha coefficient of 0.876 using Rulon's split-half reliability.
2. **Satisfaction with Life Scale** It is developed by Diener Emmons, Larsen, and Griffin, (1985) it is designed to measure global cognitive judgments of person's life satisfaction. It is consist of 5 items rated on 7-point scale

that ranges from 7 strongly agree to 1 strongly disagree. The total score ranged from 5 to 35. In this study, the instrument has an alpha coefficient of 0.813 using Rulon's split-half reliability.

3. **The Barthel ADL Index (*was used to assess the social support*):** It developed by Barthel (1965) to assess the degree of independence of the patient it is consist of 10 items (transferring, bathing, dressing, toileting, continence, feeding, stairs, exercises, and grooming). Total possible scores range from (0- 20), with lower scores indicating increased disability. Each item scored as follows: (2) for independent performance, (1) for needing assistance in performance, and (0) for total dependent performance. Activities of daily living score ranges between 0 and 20 thus: 0 -7 = Dependent, 8 -12 = Assisted (independent with assistant). 13 - 20 = Independent. In this study, the instrument has an alpha coefficient of 0.900 using Rulon's split-half reliability.

Methods of data analysis: The data obtained were subjected to simple percentages, multiple regression and t-test statistical tools using the SPSS computer package. The research questions were tested at the 0.05 level of significance.

III. RESULTS

Table 1: *Regression Analysis on the effect of psychosocial variables on stroke patients' psychosocial adjustment*

Regression Analysis	Analysis of Variance					
	Source	SS	Df	MS	Beta	F
R = 0.513	Regression	205.115	1	205.115		
R^2 = 0.499	Residual	231.768	18	12.876	0.413	15.930
SE = 13.047	Total	436.883	19			

Significant at 0.05 alpha level

Results presented in Table 1 show the contribution of the psychosocial variables (e.g social stigma, perceived limitation) on stroke patients' social and psychological adjustment. The total variance accounted for by the predictor variables on stroke patients' social and psychological adjustment is 49.9% (R^2 = .499). Analysis of variance shows that this value is significant (F = 15.930, P < .05). Therefore, 49.9% of the total variability in stroke patients' social and psychological adjustment is accounted for by social stigma, perceived limitation, management of life, financial adjustment, and intrapersonal adjustment.

Table 2 below further revealed the individual contributions of the psychosocial variables to the prediction of the stroke patients' psychosocial adjustment.

Table 2: *Test of Significance of the Regression Coefficients of factors affecting the patients Psychosocial Adjustment.*

S/N	Variable	Regression coefficient	T-Value	Sig.
1	Perceived social stigma	.473	8.883	.032
2	Perceived limitation e.g immobility	.669	17.700	.000
3	Adjustment to life	.586	15.321	.000
4	Social support	.444	-5.429	.029
5	Financial adjustment	.501	10.360	.005
6	Interpersonal adjustment	.451	6.015	.000
7	Intrapersonal adjustment	.468	-8.412	.000
8	Management of life	.675	19.731	.011

Table 2 shows that all the t-values associated with all the variables were significant at P<.05 level. The significance is higher in the management of dying, perceived limitation e.g immobility, adjustment to life, financial management etc. The implication of this is that the degree at which the participants perceive their lives, support received from friends and family morally and financially to a greater extent influence their wellbeing and survival likelihood during and after the illness,

Table 3: Relative Contribution of the predictor variables on the criterion variables

S/N	Variable	B	SE	B	T	Sig
1	Spouse (wife or husband)	.350	.051	.401	3.876	.000**
2	Other family members	.227	.086	.252	2.988	.000*
3	Friends	.198	.093	.217	2.098	.016**
4	Medical practitioners	.303	.075	.393	3.002	.019**
5	Employers/significant others	.099	.097	.208	1.384	.000**
	(Constant)	20.197	2.704	4.099		

** Significant at .05 alpha level
* Significant at <.01 alpha level

Table 3 above gives the prediction variables (source of social support received) in the regression equation, the beta values, and significant t-values corresponding to the variables regressed against the criterion variables (stroke patients' psychological adjustment). A critical look at the Table 4 reveals that the Beta values for spouse, medical practitioners, other family members, friends and employers/significant others were found to be significant. The implication of this finding is that the stroke patients needs to find ways to live a psychologically healthy life while suffering from stroke and thereafter and there is need for everyone especially their loved ones to be concerned with their wellbeing.

IV.   DISCUSSION

The outcome of the findings of the first research question indicated that 49.9% of the total variability in stroke patients' social and psychological adjustment is accounted for by social stigma, perceived limitation, management of life, financial adjustment, and the likes. These factors when taken together to a large extent predict the psychosocial adjustment of the stroke survivors that were involved in this study. The test of significance of the regression coefficients of factors affecting the stroke survivors' psychosocial adjustment as shown in Table 2 and the F-value of 15.930 of the analysis was significant at the alpha level of .05 lend credence to the fact that the prediction capacity of the predictor variables of this study did not occur by chance. The study lend credence to previous study of Gillespie, Joice, Lawrence, and Whittick, (2011) that there are stroke survivors who experience emotional problems including low self-worth and embarrassment, and thus suffering from psychological and emotional impairments, which stand as obstacles in tackling their altered lifestyles and lengthy recovery process. Also, this finding is corroborated with the findings of Beesley, White, Alston, Sweetapple, and Pollack (2011) on the importance and value of maintaining social relationships and community contacts when someone experiences chronic illness as evident in their study.

The second research questions revealed the impact of social network on the wellbeing of the stroke survivors. That is, every individual living within the socio-physical environment of the stroke survivors contributed meaningfully to their adjustment of living and management of life or otherwise while on sick bed. The findings further revealed that the contribution of the loved ones which encompasses the parent, spouse, children, friends etc is the most prominent factor in the psychological healthy life of the patients. This result is in tandem with previous studies which have reported that individuals surrounded by family and friends inspires hope and encouragement when recovering from illness (Popovich, Fox, & Bandagi, 2007), and received adequate social support (Sayers, Riegel, Pawlowski, Coyne, & Samaha, 2008). It could therefore be said that social support is a key factor that has a significant influence on the immediate recovery process; and excluding it as an essential component of stroke management will have serious implications on the survival of the stroke patients.

V.   CONCLUSION

In a developing nation like Nigeria, it has been observed that stroke patients just like the terminal disease patients suffer more in the hand of the people around them compared to the scourge of the ailment itself. They have suffered a lot of psychological and social withdrawal due to negative attitude and knowledge of every individual which have an adverse effect on their self-esteem, coping strategies, and positive affect.

Also, the outcome of this finding recognized the value of the relationship between the psychological and social factors and the interplay that occurs between them in particular, when adjusting from serious illness.

Not all individuals are blessed with the repertoire of psychosocial factors that promote adjustment. Thus, the importance of encouraging and working towards coping strategies should involve active participation in planning of care and in seeking social support (WHO, 2008) which must be supported clinically. Such approaches should include encouraging problem solving, participation in decisions about the treatment and care, and emphasizing self-worth and the potential for personal control over manageable issues of life.

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