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Resilience, Social Support and Economic Status as Predictors of Quality Of Life among Clients with Stroke in Teaching Hospitals in Ekiti-State

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Abstract: *Stroke is a leading cause of long-term disability in western countries causing major individual, social and economic burdens. Stroke as a disease is considered to be a chronic disease that affects physical, functional, cognitive/psychological, social, economic and spiritual functions, and leads to deep changes in the survivors' everyday life. This study therefore investigated the prediction of resilience, social support and economic status on stroke patients'quality of life in selected teaching hospitals in Ekiti State, Nigeria.*
The study adopted a descriptive survey research design while total enumeration sampling technique was used to select the 137 participants of this study. Four standardized questionnaires were used for data collection, which was pilot tested through test-re-test and yielded a reliability coefficient (index) of 0.83. Four research questions were tested. Analysis of data was done using descriptive statistics, regression analysis and Pearson Correlation fixed at the 0.05 level of significance.
About 42% of the respondents were between 51-60 years, 61.3% were males, and 35.8% of the respondents were certificated with first degree and 5.4% are above 65 years. The employment status before the illness showed that 59.1% of the respondents were working in privately owned institutions. The findings of the study revealed that stroke patients'quality of life were influenced by resilience, economic status (financial power), and the social support they received from significant others like family and friends ($R = .535$; $R^2 = .284$; Adj. $R^2 = .284$; $F_{(3, 136)} = 16.486$; $p = .000$). The most potent predictor of stroke patients'quality of life is resilience ($\beta = .284$; $t = 9.611$; $p = .000$) followed by economic status ($\beta = .185$; $t = 5.817$; $p = .000$), and lastly by social support ($\beta = .132$; $t = 4.523$; $p = .000$). Resilience, social support and economic status combined and relatively influence male and female stroke patients'quality of life. The result further show direct and positive correlation between the stroke patients'quality of life and resilience ($r = .509$, $p = .01$),social support ($r = .247$, $p = .01$) and economic status ($r = .255$, $p = .01$).
The study concluded a connection between resilience, social support, economic status and stroke patients'quality of life. It requires adaptive responses to these patients' new condition of life. This justifies the program of care that promotes a patient's ability to manage their lives.

Keywords: *resilience, social support, economic status,stroke patients, quality of life*

Background: *Stroke has an unexpected and destructive effect on patients' lives and affects their quality of life. Health-related quality of life (HRQOL) is being increasingly recognized as a better marker for disease burden within a population. Quality of life (QOL) is central in stroke rehabilitation, wherein optimizing functions or adaptations to everyday life are common essential goals shared by stroke survivors and professionals (Wiklund, 2017). However, QOL is a broad and multifaceted phenomenon that may convey many meanings (Post, 2014). Stroke may cause a variety of impairments, which have long-term physical, cognitive, psychological and social consequences for approximately one-third of survivors (Wolfe, 2015). Recovery after stroke is described as a dynamic process in which patients' outcomes are heterogenous and characterized by individual recovery patterns (Langhorne, Bernhardt, &Kwakkel, 2017). Resilience is the process involving an ability to withstand and cope with ongoing and repeated demands and maintain healthy functioning in different domains of life such as work and family (DunkelSchetter&Dolbier, 2011). This definition is comprised of three interconnected components: (1) recovery as returning to baseline functioning following a major stressor; (2) sustainability as the capacity to continue forward during exposure to traumatic or demanding stressors and maintain functioning without any disruption; (3) growth as the enhanced adaption beyond original levels of functioning. These three components outline the mechanisms of resilient behaviour rather than the outcome of resilient behaviour (Zautra, 2010).The above mentioned skills and resources refer to resilient resources: characteristics of the individual and (social) environment that stimulate the ability to maintain functioning despite the demands of the situation and moderate the effects of stressors on health and adjustment indicators (Gowan, Kirk & Sloan, 2014). Social support refers to various types of aid and succor provided by members of one's social networks*

(Weiten& Lloyd, 2013). Adedipe (2016) defined social support as helping behavior which included the acts of listening, offering advice, expressed view points, positive feedback, and expressed caring or concern. Social relations have shown to buffer the effects of stress on a person's mental health (Bolger &Eckenrode, 2017). It is widely recognized that the level of functional outcomes among stroke survivors, such as movement dysfunction or disability, can cause stress and dissatisfaction in life (Chou, 2015), but that social support may mitigate the effect of these functional outcomes (Mayo, 2015). Social support provided by people within an individual's social network is a crucial factor in helping individuals adapt to life after a chronic illness such as stroke (Kruithof, Van Mierlo, Visser-Meily, Van Heugten, & Post, 2013).Stroke has multitude of negative consequences on an individual's life ranging from institutionalization, and loss of independence to cognitive and communication difficulties. This requires a major adjustment in the social function and psychology of stroke survivors. It has a detrimental effect, both on short term and/or long term QoL (Adedipe, 2016; Yang, 2017). While life expectancy during and after stroke has increased owing to the advancement of medicine, little is known about how resilience, social support and economic status might predict quality of life among stroke patients. Predictors of quality of life (QOL) among stroke survivors also differed between developed and developing countries. Therefore, this study assessed resilience, social support and economic status as predictors of quality of life among stroke patients in selected teaching hospitals in Ekiti State, Nigeria.

Methods and Materials: *This research study adopted a descriptive survey study design to assess resilience, social support and economic status as predictors of quality of life among stroke patients the teaching hospitals in Ekiti State (Federal Teaching Hospital, IdoEkiti and Ekiti State University Teaching Hospital, Ado Ekiti), Nigeria. The survey method involves the use of structured questionnaire, designed to obtain data from respondents on the stroke patients on quality of life. A total enumeration was used to recruit the 220 stroke patients from the Neurologic clinic of the Ekiti State UniversityTeaching Hospital (EKSUTH), Ado- Ekiti with 120 patients and 100 patients from Federal Teaching Hospital (FTH), Ido-Ekiti. EKSUTH has approximately 25 to 30 stroke patients in a week while 20 to 25 stroke patients were reported in FTH, Ido.*

Results: *This study has shed light on the connections between resilience, social support, economic status and stroke patients'quality of life, and positive linear correlations were expectedly shown between resilience, social support and economic status on stroke patients' quality of life. It requires adaptive responses to these patients' new condition of life. This justifies the program of care that promotes a patient's ability to manage their lives. Also, gender was found not to moderate the connections between resilience, social support, economic status and stroke patients'quality of life.*

Conclusion: *This study achieved its initial objectives of assessing the influence of resilience, social support and economic status on stroke patients'quality of life in selected teaching hospitals in Ekiti State, Nigeria. Stroke is a leading cause of long-term disability in western countries causing major individual, social and economic burdens. Stroke as a disease is considered to be a chronic disease that affects physical, functional, cognitive/psychological, social, economic and spiritual functions, and leads to deep changes in the survivors' everyday life. This study has shed light on the connections between resilience, social support, economic status and stroke patients'quality of life, and positive linear correlations were expectedly shown between resilience, social support and economic status on stroke patients' quality of life. It requires adaptive responses to these patients' new condition of life. This justifies the program of care that promotes a patient's ability to manage their lives. Also, gender was found not to moderate the connections between resilience, social support, economic status and stroke patients'quality of life.It is therefore concluded that important insights into the considerable treatment burden experienced by people who have had a stroke and the factors that affect their capacity to manage health. Also, co-ordination of care should be improved, shared decision making enhanced, and patients better supported following discharge from hospital.*

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I. Introduction

Stroke has an unexpected and destructive effect on patients' lives and affects their quality of life. Stroke is regarded as one of the most common neurological conditions. Stroke as defined by the World Health Organization is "a focal (or at times global neurological impairment of sudden onset, and lasting more than 24 hours (or leading to death) and of presumed vascular origin" (Sacco, Kasner, Broderick, Caplan, Connors, &Culebras, 2013). Cerebrovasculardisease has been documented globally to be the sixth commonest cause of an ongoing disease burden; but it is expected to move to the fourth (United States- Centres for Disease Control and Prevention, 2013).

Health-related quality of life (HRQOL) is being increasingly recognized as abetter marker for disease burden within a population. Quality of life (QOL) is central in stroke rehabilitation, wherein optimizing functions or adaptations to everyday life are common essential goals shared by stroke survivors and

professionals (Wiklund, 2017). However, QOL is a broad and multifaceted phenomenon that may convey many meanings (Post, 2014). Studies have implied a connection between physical function and QOL, but the results vary with some studies implying a connection while others do not (Gunaydin, Karatepe, Kaya, &Ulatas, 2017; Samsa&Matcha, 2014). Other studies found that QOL is a complex phenomenon that embraces more than merely physical functioning (Green & King, 2019).

Although many studies have investigated QOL and its impacting factors, we have not found studies exploring QOL as experienced by stroke survivors across health-care systems and cultures. In this study, our understanding of QOL was framed through the World Health Organization's (WHO) definition: 'an individual's perception of their position in life in the context of the culture and value systems in the society which they live and in relation to their goals, expectations, standards and concerns. It is a broad-ranging concept affected in a complex way by the person's physical health, psychological health, personal beliefs, social relationships and their relationship to salient features of their environment'(World Health Organization, 2018). This definition is broad and sufficiently open for empirical exploration of different aspects of the phenomenon as experienced by stroke survivors themselves.

Stroke may cause a variety of impairments, which have long-term physical, cognitive, psychological and social consequences for approximately one-third of survivors (Wolfe, 2015). Recovery after stroke is described as a dynamic process in which patients' outcomes are heterogenous and characterized by individual recovery patterns (Langhorne, Bernhardt, &Kwakkel, 2017). Several studies (Arntzen, Borg, &Hamran, 2015; Meijering, Nanninga, &Lettinga, 2016) have described different trajectories, patterns and transitions during recovery following stroke.

The American Heart Association (AHA) has categorized stroke into three (3) main types: ischaemic stroke (obstruction of the blood vessels), haemorrhagic stroke (rupture of the blood vessels) and transient ischaemic attacks (caused by a temporary clot. Often called a "ministroke") (American Heart Association, 2012; American Stroke Association, 2012). Ischaemic stroke accounts for 87% of all stroke cases (National Institute of Neurological Disorders and Stroke, 2009; American Heart Association, 2012; American Stroke Association, 2012).

The main risk factor for stroke is uncontrollable high blood pressure (National Stroke Foundation, 2015). Other risk factors include tobacco smoking, obesity, high blood cholesterol, diabetes mellitus, previous transient ischaemic attacks, atrial fibrillation, drug abuse, the use of birth control pills, smoking, heart diseases, sickle- cell anaemia, family history of stroke, high fat diet and excessive alcohol intake (National Stroke Foundation, 2015).

In 2010, approximately 17 million people had a stroke and 33 million who had previously had a stroke survived (Kutty&Kamraj, 2014). Between 1990 and 2010, the number of stroke cases which occurred each year decreased by approximately 10% in the developed world and increased by 10% in the developing world (Feigin et al., 2014). In 2013, stroke was the second most frequent cause of death after coronary artery disease, accounting for 6.4 million deaths (12% of the total) (Global Burden of Disease, 2014). About 3.3 million deaths resulted from ischaemic stroke whereas 3.2 million deaths resulted from haemorrhagic stroke (Global Burden of Disease, 2014). Generally, two-thirds of stroke occurred in those over age 65 (Feigin et al., 2014).

The incidence of stroke increases exponentially with age from 30 years, and the etiology varies by age. Advanced age is one of the most significant stroke risk factors. About 95% of strokes occur in people age 45 and older; and two-thirds of stroke occur in those over the age of 65 (National Institute of Neurological Disorders and Stroke, 1999; Longo et al., 2012). More than 80% of stroke burden occurs in low and middle-income countries, yet accurate epidemiological data on stroke in Africa is scanty (Sajjad et al., 2013). However, age adjusted standardized annual stroke incidence rates may be up to 316 per 100 000, and age adjusted standardized prevalence rates may be up to 981 per 100 000 (Owolabi et al., 2015). From the Global Burden of Disease model-based estimates, stroke incidence appears to be increasing in Africa. There are few studies on the cost of stroke care in Africa

Stroke is the second most common cause of death worldwide, with an annual mortality rate of 5.5 million and the most common cause of disability in older people. It accounts for two-third of adult onset disabilities, especially among people older than 65 years (Feigin, Forouzanfar, Krishnamurthi, Mensah, Connor &Bennett ,2016). Stroke is also rapidly becoming a major public health concern in Sub-Saharan, Africa, with an estimated incidence rate of 938per 100, 000 in 2015. In Nigeria, the current prevalence of stroke is between 4 and 6 per 1000, in a year, with the 30-day case fatality rate being as high as 40% (Dike ,Ekeh&Ekrikpo, 2014).

Social support refers to various types of aid and succor provided by members of one's social networks (Weiten& Lloyd, 2013). Adedipe (2016) defined social support as helping behavior which included the acts of listening, offering advice, expressed view points, positive feedback, and expressed caring or concern. Social relations have shown to buffer the effects of stress on a person's mental health (Bolger &Eckenrode, 2017). Perceived social support can be defined as a potent predictive variable for an individual's behavior towards acquiring any interpersonal assistance.

Perceived or received social support, both types help in maintaining mental health, the former may be defined as how much assistance is available in any need while the latter may be defined as the actual or real assistance got. Both types are helpful and protective for the individuals in the stressful situations and it also increase their faith that certain assets are presents for them. Social support determines stress related appraisal and coping strategies (Lakey& Cohen, 2010). Several studies have indicated that social support levels are negatively correlated with anxiety and depression (Zimet, Dahlem, Zimet, & Farley,2018).

It is widely recognized that the level of functional outcomes among stroke survivors, such as movement dysfunction or disability, can cause stress and dissatisfaction in life (Chou, 2015), but that social support may mitigate the effect of these functional outcomes (Mayo, 2015). Social support provided by people within an individual's social network is a crucial factor in helping individuals adapt to life after a chronic illness such as stroke (Kruithof, Van Mierlo, Visser-Meily, Van Heugten, & Post, 2013).

A concept that has been used in connection with dealing with stressful events is resilience (Mansfield, Beltman, Price &McConney, 2012; Gupta, Sood, &Bakhshi, 2012). In recent years increased attention has been focused on studying resilience among different professions. Some of these studies focus have been on specific professions such as teachers, medical staff (Gupta *et al*., 2012; Mansfield *et al.*, 2012; Pipe, *et al.*, 2012) while other studies take a more general approach by including people from all professions (van Breda, 2011). The reason for more general approach might be to the fact that researchers want establish a comparism among different employees in dealing with stressful events.

Resilience is the process involving an ability to withstand and cope with ongoing and repeated demands and maintain healthy functioning in different domains of life such as work and family (DunkelSchetter&Dolbier, 2011). This definition is comprised of three interconnected components: (1) recovery as returning to baseline functioning following a major stressor; (2) sustainability as the capacity to continue forward during exposure to traumatic or demanding stressors and maintain functioning without any disruption; (3) growth as the enhanced adaption beyond original levels of functioning. These three components outline the mechanisms of resilient behaviour rather than the outcome of resilient behaviour (Zautra, 2010).

The above mentioned skills and resources refer to resilient resources: characteristics of the individual and (social) environment that stimulate the ability to maintain functioning despite the demands of the situation and moderate the effects of stressors on health and adjustment indicators (Gowan, Kirk & Sloan, 2014). Resilience is associated with basic protective systems, which include problem solving, mastery, reasoning, meaning making and self-regulation (Theron, 2012). In the same vein, parenting styles and resilience are closely associated with emotional intelligence.

Due to advancements in medical technology, the number of deaths from stroke has fallen. However, many stroke patients are left with severe disabilities, including hemiplegia, language impairment, communication disorders, cognitive impairment, and emotional disorders. Due to these post-stroke disabilities, patients undergo long-term rehabilitation, such as physical therapy, occupational therapy, and speech therapy, which puts a heavy psychological and financial burden on the patients and their families (Yang, 2017; Statistics Korea, 2013).

In Nigeria, many studies have attempted to observe the quality of life in stroke patients and the factors that may influence the quality of life of Nigerian stroke survivors. An example of this is one carried out by Badaru (2017). Stroke has multitude of negative consequences on an individual's life ranging from institutionalization, and loss of independence to cognitive and communication difficulties. This requires a major adjustment in the social function and psychology of stroke survivors. It has a detrimental effect, both on short term and/or long term QoL (Adedipe, 2016; Yang, 2017). While life expectancy during and after stroke has increased owing to the advancement of medicine, little is known about how resilience, social support and economic status might predict quality of life among stroke patients. Predictors of quality of life (QOL) among stroke survivors also differed between developed and developing countries. Therefore, this study assessed resilience, social support and economic status as predictors of quality of life among stroke patients in selected teaching hospitals in Ekiti State, Nigeria.

II. Material and Methods

This research study adopted a descriptive survey study design to assess resilience, social support and economic status as predictors of quality of life among stroke patients the teaching hospitals in Ekiti State (Federal Teaching Hospital, IdoEkiti and Ekiti State University Teaching Hospital, Ado Ekiti), Nigeria. The survey method involves the use of structured questionnaire, designed to obtain data from respondents on the stroke patients on quality of life. A total enumeration was used to recruit the 220 stroke patients from the Neurologic clinic of the Ekiti State UniversityTeaching Hospital (EKSUTH), Ado- Ekiti with 120 patients and 100 patients from Federal Teaching Hospital (FTH), Ido-Ekiti. EKSUTH has approximately 25 to 30 stroke patients in a week while 20 to 25 stroke patients were reported in FTH, Ido.

Study Design: Descriptive survey study design.

Study Location: Teaching hospitals in EkitiState : Federal Teaching Hospital, IdoEkiti(FTH) and Ekiti State University Teaching Hospital, Ado Ekiti (EKSUTH), Nigeria.

Study Duration: March 2019 to March 2020

Sample size: 220 patients.
Sample size calculation: A total enumeration was used to recruit the 220 stroke patients from the Neurologic clinic of the Ekiti State UniversityTeaching Hospital (EKSUTH), Ado- Ekiti with 120 patients and 100 patients from Federal Teaching Hospital (FTH), Ido-Ekiti. EKSUTH has approximately 25 to 30 stroke patients in a week while 20 to 25 stroke patients were reported in FTH, Ido

Inclusion criteria:
All stroke patients that are receiving treatment at the Neurologic clinic of the Ekiti State University Teaching Hospital, Ado Ekiti and Federal Teaching Hospital, IdoEkiti.

Exclusion Criteria:
1. Patients that are suffering from global or expressive aphasia
2. Patients with limited comprehension or cognitive impairment prior to stroke.
3. Patients that their situation were too severe for them to give consent or to be capable of participation.

Procedure methodology
An introductory letter was obtained from Babcock University School of Nursing to Ekiti State University Teaching Hospital, Ado Ekiti and Federal Teaching Hospital, IdoEkiti respectively to gain permission to conduct the study. Four research assistants from Ekiti State University Teaching Hospital (EKSUTH) were recruited and trained by the researcher and briefed on the instrument of data collection. Data collection was in two phases (Pre- visit and Questionnaire administration session) for a period of four (4) weeks.
1. During the pre-visit, the researcher introduced herself and her assistants to the nurse in charge of the Neurology clinic, familiarized with the routine of the clinic, participants were recruited.
2. Questionnaire administration session: self-structured questionnaire which was in English language were administered on one on one basis explaining and interpreting to illiterate respondents. Procedure was explained to respondents and they were assured of strict confidentiality.
An approval was sought from the management of Ekiti State University Teaching Hospital, Ado Ekiti and Federal Teaching Hospital, IdoEkiti respectively, and on presentation of introductory letter from the school of Nursing, Babcock University Ilishan and approval of Health and Ethics Research Committee of Babcock University. All respondents were informed of the purpose of the study, assured of strict confidentiality and the grace of withdrawing from the study when they feel like

Statistical analysis
Data was processed using Statistical Package for Social Sciences (SPSS VERSION 23) software and data analysis was descriptive and inferential. Descriptive analysis was expressed as frequency count and percentage, answering the research questions while inferential analysis of regression analysis (Hypothesis 1, 2, 4, and 5) and PPMC (hypothesis 3) were used for the hypotheses. All tests were at 0.05 level of significant.

III. Result

Preliminary Analyses
Preliminary analysis was conducted on data using the descriptive statistics as presented in Tables 4.1. It should be noted however that one hundred and thirty-seven (137) respondents participated in the study (78 from EKSUTH and 59 from FTH).

Table 4.1: Respondents Demographical Data
N = 137

Variables	Frequency	Percentages (%)
Gender		
Male	84	61.3
Female	53	38.7
Age		
20-30	7	5.1

31-40	10	7.3
41-50	39	28.5
51-60	58	42.3
60 above	23	16.9
Educational qualification		
Primary	24	17.5
O level	43	31.4
B.SC/B.A/B.Ed	49	35.8
M.SC/M.Ed	19	13.9
PhD	2	1.5
Religion		
Christianity	51	37.2
Islamic	76	55.5
Other	10	7.3
Employment before the illness		
Government	56	40.9
Private	81	59.1

The result of the analysis of the demographic variables of the study based on gender showed that 61.3% were males and 38.7% of the respondents were females. Majority (42.3%) of the respondents are within the age bracket of 51-60years. The educational qualification revealed that majority (35.8%) of the respondents were certificated with first degree. The result of the analysis further revealed that 55.5% of the respondents were Muslims. Results on the employment status before the illness showed that 59.1% of the respondents were working in privately owned institutions and the remaining 40.9% were working with government established institutions.

4.2 Hypotheses Testing

Hypothesis One: There is no significant combined influence of resilience, social support and economic status on stroke patients'quality of life.

Table 4.2: Model Summary of the Regression Analysis for the composite contribution of resilience, social support and economic status on stroke patients'quality of life

Source of variation	Sum of Squares	Df	Mean Square	F-Ratio	P
Regression	1617.864	3	539.288	16.486	.000[b]
Residual	4350.696	133	32.712		
Total	5968.560	136			

R = 0.535; Multiple R = 0.284; Multiple R^2 (Adjusted) = 0.284; Stand error estimate = 5.619

a. Dependent Variable: quality of life

b. Predictors: (Constant), resilience, social support, economic status

The results in Table 4.2 indicated that with all the predictor variables (resilience, social support and economic status) in the regression model jointly predicted stroke patients'quality of life (R = .535; R^2 = .284; Adj. R^2 = .284; $F_{(3, 136)}$ = 16.486, p = .000). This showed that all the predictor variables accounted for 28.4% of the variance in the stroke patients'quality of life. The null hypothesis which stated that "There is no significant combined influence of resilience, social support and economic status on stroke patients'quality of life" was rejected by this finding. This implies that stroke patients'quality of life will significantly be influenced by their resilience, their economic status (financial power), and the social support they received from significant others like family and friends.

Hypothesis Two: There is no significant relative influence of resilience, social support and economic status on stroke patients'quality of life.

Table 4.3: Beta Coefficients and t Ratio for Relative Contributions of resilience, social support and economic status on stroke patients'quality of life

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	18.251	2.479		13.009	.000
Resilience	.169	.018	.284	9.611	.000
Social support	.075	.017	.132	4.523	.000
Economic status	.180	.031	.185	5.817	.000

a. Dependent Variable: quality of life

The results in Table 4.3 revealed the strength of causation of the predictor variable on the criterion variable. The most potent predictor of stroke patients'quality of life among the predictor variables of the study is

resilience (β = .284; t = 9.611; p = .000). Economic status is the next potent factor (β= .185; t = 5.817; p = .000), and lastly by social support (β= .132; t = 4.523; p = .000) in the prediction of stroke patients'quality of life. The hypothesis of no significant relative contribution of resilience, social support and economic status on stroke patients'quality of life was rejected by this finding. This implies that there is a significant relative contribution of resilience, social support and economic status on stroke patients'quality of life, while resilience was observed as the most potent predictor among the three.

Hypothesis three: There is no significant relationship among resilience, social support, economic status and stroke patients'quality of life

Table 4.4: Pearson Product Moment Correlation Coefficients of the interrelationship between resilience, social support, economic status and stroke patients'quality of life

		Resilience	social support	economic status	quality of life
Resilience	Pearson Correlation	1	.339**	.110*	.506**
social support	Pearson Correlation	.339**	1	.222**	.247**
economic status	Pearson Correlation	.110*	.222**	1	.255*
quality of life	Pearson Correlation	.506**	.247**	.255**	1**

N = 137; **. Correlation is significant at the 0.01 level (2-tailed).

The table above depicts the direct and positive correlation between the stroke patients'quality of life and resilience to be direct and positively correlated (r = .509, p = .01). Stroke patients'quality of life was positively correlated with social support (r = .247, p = .01) and economic status (r = .255, p = .01). Therefore, the hypothesis that stated "There is no significant relationship among resilience, social support, economic status and stroke patients'quality of life" cannot be sustained.

Hypothesis Four: There is no significant joint influence of resilience, social support and economic status on male and female stroke patients'quality of life.

Table 4.5: Model Summary of the multiple regression analysis of the jointinfluence of resilience, social support and economic status on male and female stroke patients'quality of life

Model	R	R^2	Adj. R^2	SE	Change Statistics				
Gender					R^2 Change	F Change	d f 1	d f 2	Sig. F Change
Male	.462	.213	.211	6.992	.211	31.081	1	83	.000
Female	.398	.158	.157	5.379	.157	26.319	1	52	.000

a. Predictors: (Constant), resilience, social support, economic status

b. Dependent Variable: quality of life

The results in Table 4.5 indicated that when all the predictor variables (resilience, social support, and economic status) entered into the regression model at once, they combine to predict stroke patients'quality of life based on gender. For male stroke patients'quality of life (R = .462; R^2 = .213; Adj. R^2 = .211; $F_{(1,83)}$ = 31.081; p = .00), it was observed that all the predictor variables accounted for 15.8% variability of male stroke patients'quality of life; while 21.3% was observed for female stroke patients'quality of life (R = .398; R^2 = .158; Adj. R^2 = .158; $F_{(1,52)}$ = 26.319; p = .00). Therefore, the null hypothesis which stated that there is no significant joint influence of resilience, social support and economic status on male and female stroke patients'quality of life was rejected by this finding. This implies that resilience, social support and economic status favoured the male stroke patients'quality of life better than their female counterparts.

Hypothesis Five: There is no significant relative influence of resilience, social support and economic status on male and female stroke patients'quality of life.

Table 4.6: Beta coefficients and t Ratio for relative contributions of resilience, social support and economic status on male and female stroke patients'quality of life based on gender

		Unstandardized Coefficients		Standardized Coefficients	t-ratio	Sig.
		B	Std. Error	Beta (β)		
Female	(Constant)	19.500	5.111		3.976	.000
	economic status	.098	.022	.071	1.779	.000
	social support	.081	.019	.039	1.063	.001
	Resilience	.100	.031	.130	2.132	.000
Male	(Constant)	25.005	7.222		7.419	.000

	economic status	.113	.025	.151	3.768	.011
	social support	.107	.029	.124	2.389	.009
	Resilience	.144	.041	.200	5.135	.000

a. Predictors: (Constant), resilience, social support, economic status
b. Dependent Variable: quality of life

The results in Table 4.6 revealed the strength of causation of the predictor variables on the criterion variable. The most potent predictor of female stroke patients'quality of life among the predictor variables of the study is resilience (β = .130; t = 2.132; p = .00), followed by economic status (β= .071; t = 1.779; p = .00), and lastly by social support (β= .039; t = 1.063; p = .000). For the male stroke patients'quality of life, the most potent predictor is resilience (β = .200; t = 5.135; p = .00), followed by economic status (β= .151; t = 3.768; p = .00), and lastly by social support (β= .039; t = 1.063; p = .00) was the next potent factor. The null hypothesis of no relative influence of resilience, social support and economic status on male and female stroke patients'quality of life was not sustained by this finding. This implies that resilience, social support and economic status relatively influence male and female stroke patients'quality of life.

IV. Discussion

Combined Influence of Resilience, Social Support and Economic Status on Stroke Patients'Quality of Life.

The results indicated that with all the predictor variables (resilience, social support and economic status) in the regression model jointly predicted stroke patients'quality of life. This implies that stroke patients'quality of life will significantly be influenced by their resilience, their economic status (financial power), and the social support they received from significant others like family and friends. It could then be said that an improvement in resilience across the time span is a promising result and might reflect the patient's own ability to cope with the adversity by adapting well or might be caused by good rehabilitation care, or both. In this study, resilience might also have given the patients an increased awareness of the transience of health and life in general which might presumably cast a positive light on their adaptation ability. The current findings are in line with the findings of Pöppl et al. (2014) who likewise found a significant improvement in resilience scores across the period of rehabilitation. Supporting this too is the findings of Adekanbi (2018) who found that financial status significantly predicted higher positive emotions at three month post stroke. Social support is also positively related to coping with stresses and strains which aids the participation process.

Relative influence of resilience, social support and economic status on stroke patients'quality of life.

The results revealed the strength of causation of the predictor variable on the criterion variable and the most potent predictor of stroke patients'quality of life among the predictor variables of the study is resilience. It is deduced that if positive adaptation occurs within the domains of human functioning (physical, psychological, and social domains) perceived changes to QoL could be expected. It follows conceptually that resilience, at a minimum, may directly influence the psychosocial aspect of QoL, and may mediate the relationship between the disablement experience and survivors' QoL (Tian& Hong, 2014; Wu et al., 2015). This suggests that resilience may play a protective role in buffering the adverse influence of stroke experience on QoL. The findings of the present study are consistent with those of Tian and Hong (2014). In their study, Tian and Hong (2014) reported that a relationship existed between resilience and QoL in individuals diagnosed with digestive cancer; however, they stated that the nature of this relationship was not fully understood.

Economic status is reported to be the second potent factor in the prediction of stroke patients'quality of life. This is in agreement with previous research that showed that stroke patients' QOL was higher when they had an occupation and were in a financially better condition (Akosile et al. 2013; Chandran, 2017), and suggests that a post-stroke return to work helps lead to a recovery of physical functions, increased sense of achievement, and less depression. Since it is hard for stroke patients to fully recover physical functions, and because a stroke is accompanied by disabilities and disorders, patients might experience a loss of self-esteem when returning to their previous jobs. Therefore, financial factors can be as important as physical condition and functional elements in the factors influencing stroke patients' QOL.

Social support was seen as the third in the prediction of stroke patients'quality of life in this study. Thus, stroke patients' QOL could also be based on the support received from family and friends. Stroke survivors who live alone are at greater risk of increased depressive symptoms (Hamza, Al-Sadat, Loh, &Jahan, 2014; Tan-Kristanto&Kiropoulos, 2015). Another study showed that stroke patients showed high enthusiasm and voluntary participation in cognitive behaviour-related group counseling programs with their spouses, and this program triggered strong motivation in patients' commitment to rehabilitation and had a positive impact on

enhancing QOL of both stroke patients and their families (Kolawole, 2018). It should be noted that in rehabilitating stroke patients, families (in the same household) could have a significant influence; the role of the spouse is particularly important.

Relationship among resilience, social support, economic status and stroke patients'quality of life

The outcome of this study shows that a direct and positive correlation exist between the stroke patients'quality of life and resilience, as well as social support and economic status. This corroborates the findings of Xu and Ou (2014) similarly found significant results. In their correlation table they report significant correlation coefficients for social support with resilience. On the other hand, the qualitative study by McCabe and O'Connor (2012) notes that chronically ill neurologic patients with high resilience scores were more prone to seek social support as a resource for disease management. Patients with low resilience scores were more accustomed to let tasks get taken over by others. Pöppl et al. (2014) similarly found a correlation between resilience and quality of life.

Furthermore, Akosile et al. (2013) outline the skill of resilient individuals to nurture positive emotions in themselves and others which generates a supportive social network to help in the process of coping. These considerations in mind, it would be interesting to say that resilience, social support, and economic status are interrelated in determining stroke patients' quality of life.

Additionally, Dubey et al. (2015) report that strong social support systems that may include family members, significant others, and peers as central protective factors that are fundamental to resilience. Given previous findings in published literature and the findings of the present study, it appears that individuals' capacity for strong social functioning interacts with their resilience.

Combined and Relative Influence of resilience, social support and economic status on male and female stroke patients'quality of life.

The results indicated that resilience, social support, and economic status combined and relatively predict stroke patients'quality of life based on gender.This is in line with the study that found effect of stroke on quality of life is similar for survivors of both gender (Akosile et al, 2013). Similar studies have shown that the gender of stroke survivors had no influence on their QoL (Owolabi 2010). But on the contrary, Enato et al, (2011) found that Nigerian women had significantly poorer QoL when compared to men based on activities of daily living. The disparity in the results obtained could be due to the difference in the domains of QoL investigated. It will still be difficult to draw any conclusion on the influence of gender on quality of life of stroke survivors in Nigeria based on their resilience, social support and economic.

V. Conclusion

This study achieved its initial objectives of assessing the influence of resilience, social support and economic status on stroke patients'quality of life in selected teaching hospitals in Ekiti State, Nigeria. Stroke is a leading cause of long-term disability in western countries causing major individual, social and economic burdens. Stroke as a disease is considered to be a chronic disease that affects physical, functional, cognitive/psychological, social, economic and spiritual functions, and leads to deep changes in the survivors' everyday life.

This study has shed light on the connections between resilience, social support, economic status and stroke patients'quality of life, and positive linear correlations were expectedly shown between resilience, social support and economic status on stroke patients' quality of life. It requires adaptive responses to these patients' new condition of life. This justifies the program of care that promotes a patient's ability to manage their lives. Also, gender was found not to moderate the connections between resilience, social support, economic status and stroke patients'quality of life.

It is therefore concluded that important insights into the considerable treatment burden experienced by people who have had a stroke and the factors that affect their capacity to manage health. Also, co-ordination of care should be improved, shared decision making enhanced, and patients better supported following discharge from hospital.

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