

Original Research Article

## An Interplay between Quality of Support, Resilience and Health Promoting Behaviors of Adolescent Mothers in Yola, Nigeria: A Preliminary Study

Golfa, Timothy<sup>1</sup>; Adesola, Ogunfowokan<sup>2</sup>; Omolola, Irinoye<sup>2</sup>; Ahmed Suberu<sup>3</sup>; Abubakar, Hamman<sup>1</sup>; Samiyah Jumoh<sup>4</sup>

<sup>1</sup>College of Nursing and Midwifery, Yola, Adamawa State, Nigeria

<sup>2</sup>Department of Nursing Sciences, Obafemi Awolowo University, Ile-Ife, Nigeria

<sup>3</sup>Department of Nursing, Bayero University, Kano, Nigeria

<sup>4</sup>Maternal New-Born and Child Health Project, Kano Field Office, Kano State Nigeria.

Corresponding Author: Golfa, Timothy

Received: 11/07/2015

Revised: 19/11/2015

Accepted: 24/11/2015

### ABSTRACT

**Background:** Resilience and Health Promoting Lifestyles (HPL) are influenced by the accessibility and availability of support systems. However, the quality of these supports is fundamental to elucidating resilience capability and participation in health behaviours among adolescent mothers.

**Aims:** To explore the interconnectedness between quality of support, resilience and HPL

**Methods:** A descriptive cross sectional and correlational design was utilized, employing a purposive sample of 40 adolescent mothers in Yola metropolis using an interviewer administered questionnaire (IAQ) comprising of Adolescent mothers resilience scale(14-item), Modified HPLP II (25-item) and quality of supports(3-item).

**Results:** the results shows that quality of support available to adolescent mothers strongly predicts resilience capability and health promoting behaviour, with consistency of support, satisfaction of support and level of support all explaining a significant amount of variability in resilience and HPL. The findings further reveals that resilience is strongly positively related to HPL ( $r=0.811$ ). Personal competence and acceptance of life and self subscales were also strongly related to HPL ( $r=0.750$  and  $0.620$ ,  $p=0.001$  respectively). Resilience was observed to be strongly correlated with only 3 subscales of HPL: Nutrition ( $r=0.740$ ), Spiritual Growth ( $r=.792$ ), and Stress Management ( $0.773$ ).

**Conclusion:** Availability and accessibility of support do not necessarily influence resilience and HPL, but quality of supports significantly predicts resilience and HPL. Thus, the need for stakeholders in adolescent health to put into consideration the quality of support in implementing policies regarding social supports and social services for adolescent mothers.

**Keywords:** Resilience, Health Promoting Lifestyle, Support Systems, Adolescent Mothers, Quality of Support, Adamawa State.

### INTRODUCTION

When adolescent girl becomes pregnant or has a child, her health, education, earning potential and her entire future could be at risk, ensnaring her in an epoch of poverty, marginalization and helplessness. [1] Majority of these births

are not planned, wanted, or they come sooner than planned, and adolescent mothers commonly living in poverty have parents who have low education levels, and sometimes growing up in single-parent families. [2] Adolescent mothers struggle with high level of maternal depression, [3]

lack of cognitive readiness to fit into the role of parenting with social affiliation and schooling, [4] and most times lack financial resources and tend to rely on public assistance or social support. [5] Mothers who lack social support are less likely to face and overcome their challenges. Adolescent who receive low maternal and peer support have increased feelings of isolation and lower educational aspirations which consequently affect their health promoting behaviour and resilience capability. This has a long term implication for them as individuals, their families and communities. [6]

A health-promoting lifestyle is a multidimensional pattern of self-initiated actions and perceptions that serve to maintain or enhance the level of wellness, self-actualization, and fulfillment of an individual. [7,8] Health promoting lifestyles during pregnancy are affected by age, [9] marital and economic statuses. This would be more obvious for women who are older, married, and have a better economic status. [10] Adams, Bowden, Humphrey, and McAdams indicated that pregnant women who recognize and receive social support develop better health habits and behaviours. [11] Another study also suggested that women will have more healthy behaviours and will be more likely to change unhealthy lifestyles if they receive more social support. [12] Social support is associated with numerous psychological benefits such as improved self-confidence, sense of empowerment, efficiency, and quality of life. Similarly, lack of social support appears to be related to mental manifestations and weaker health perceptions. [13,14] Adolescent mothers could be faced with greater losses and poor health behaviour in the context of fewer social resources and a lower adequacy of social support, both in subjectively perceived support and frequency of contacts. [15]

Adolescent mothers are supported or may have a range of individuals who

support them, even when they may not be satisfied with the support. The support also may not be consistent or the rate of the support may not mean anything to them. However, it is important to point out that not all social supports - peer, parents or other adults or institutions - are in fact supportive. In some cases, young people may turn for help to peers who encourage anti-social behaviour. Similarly, while parents and other family members can be sources of support, providing help and facilitating access to other sources of help, they may act in negative ways or restrict adolescent access to services or positive sources of support because of their own values about the given need for help.

Adolescent girls need to develop their life skills, and improve their links to social networks and social supports that can help them to refuse unwanted sex and to resist coerced sex, actions that they often feel powerless to do. [16] It is important to note that having access to and use of social supports are generally protective factors for many adolescent health and developmental outcomes. Having and using social supports are associated with proper health behaviours and resilience among adolescents. [17]

Resilience which is a precursor of health promoting lifestyle has been defined as a positive characteristic that enhances individual adaptation and moderates the negative effects of stress. It connotes inner strength, competence, optimism, flexibility and the ability to cope positively and bounce back when faced with adversity and challenge. [18] Resilient individuals demonstrate courage and adaptability in the wake of life's misfortunes and manifest adaptive behaviours in the areas of social functioning, morale and somatic health. Resilience is both individual processes that increase survival and the protective processes instigated by larger systems to provide opportunities for individuals to cope under stress. [19,20]

Therefore, since social support influences resilience and health promoting lifestyle practice, it is needful to examine the quality of these supports and to also ascertain the relationships among quality of support, resilience and health promoting life style. Quality of supports in this study refers to as the perceived consistency, satisfaction and extent of supports received by the adolescent mothers. Therefore this study was undertaken to test the following two hypotheses:

- a) Quality (*satisfaction, consistency, and extent*) of support does not significantly predict resilience capability and health promoting lifestyle of adolescent mothers.
- b) Resilience capability of adolescent mothers is not significantly related to Health Promoting Lifestyle of Adolescent Mothers.

## RESEARCH METHODS

**Research Design:** A descriptive cross sectional correlational design was utilized to ascertain the interplay between quality of support, resilience and health promoting lifestyles.

**Study Setting:** The study was carried out in Yola metropolitan area of Adamawa state, Nigeria from 1<sup>st</sup> December, 2014 – 6<sup>th</sup> January, 2015. Established in 1841, Yola is a metropolis that spreads across the hillside of the North-Eastern region of Nigeria. It was the capital of a Fulani state until it was taken over by the British in 1901. Today, it is the capital city and administrative centre of Adamawa State which was created in 1991 from the defunct Gongola State. It is located along the Benue River and has a population of about 336,648. [21] Being the headquarters, Yola-Jimeta has residents of different ethnic groups including Fulani, Longuda, Verre, Chamba, Kilba, Kwah, Bwatiye, Margi, Bura and others. The three main religions practiced in Yola are Islam, Christianity and Traditionalism. There are several primary and secondary schools,

technical Colleges, and private institutions in the state capital. The major occupations of the people in Yola are farming, cattle rearing, and fishing among village communities living on the banks of Rivers Gongola, Benue, and the tributaries of both rivers. About 10 percent of Yola population is civil servants and the state has a Specialist Hospital and a Federal Medical Centre. [21]

**Participant:** With a purposive sampling method, 40 adolescent mothers were recruited for the study. Mothers were eligible to participate if they: (i) were 13-19 years of age (ii) had given birth or are pregnant as of the time of the study (iii) are attending perinatal care in specialist hospital (iv) reside within Yola metropolis.

**Instrument for Data Collection:** An Interviewer Administered Questionnaire (IAQ) was used to collect data for this study. The IAQ consisted of sections A- D. Section A focused on demographic characteristics of the respondents. Section B centred on resilience. Adolescent mothers Resilience Scale (AMRS) adapted from resilience scale by Wagnild and Guinn [18] was used to measure the resilience capability of adolescent mothers. The AMRS was a 14 item summated rating scale which measures an individual's degree of resilience, a personality characteristic that enhances adaptation. Items were arranged in two subscales: Personal Competence (1-10 items) and Acceptance of Self and Life (11-14 items). Participants were asked to rate the extent to which each of the items reflected them on a 7-point scale, that ranged from 1 (strongly disagree) to 7 (strongly agree), giving a total obtainable scores of 70 for personal competence and 28 for acceptance of life and self. Total and subscale scores were computed by summing applicable items, with higher scores (98) reflecting higher resilience. [18,22] The alpha coefficient reliability and 2-week test-retest reliability coefficients

were 0.929 and 0.933 in the present study. The alphas computed for each of the two subscales of resilience are 0.926 for personal competence (10- item) and 0.773 for acceptance of life and self (4- item), thus showing high reliability.

Section C centred on health promoting lifestyle profiles of adolescent mothers. Adapted Health Promoting Lifestyle Profile II (HPLPII) produced by Walker, Sechrist and Pender, was used to measure adolescent mother's health promoting lifestyle practice. [23,24] This scale comprises 25 items arranged in six subscales: health responsibility (4 items); physical activity (3 items); nutrition (5 items); spiritual growth (4 items); interpersonal relations (5 items); and stress management (4 items). Participants indicated, on a 4-point scale that ranged from never (1) to routinely (4), the frequency with which they engaged in the behaviour. Total and subscale scores were computed by summing the applicable items, with higher scores (100) reflecting higher participation in health-promoting lifestyle practices. The alpha coefficient reliability and 2-week test-retest reliability coefficients were 0.909 and 0.913 in the present study. The six subscales of health promoting lifestyle had alpha values as: Health responsibility (0.936), Physical activity (0.852), Nutrition (0.892), Spiritual growth (0.947), Interpersonal relationship (0.798), and Stress Management (0.612). Test-Retest correlation, after two weeks of administration for both resilience and health promoting lifestyle profile II, were 0.933 and 0.913 respectively. This high correlation between the scores at the two time points indicates that the instrument is stable over time. Section D, explored quality of support, which was a 3-item scores that ascertain Consistency of support; Satisfaction with support, and the Extent of support received.

The instrument was translated to Hausa language and reverse translated to English language to ensure validity of the content. Eight (8) purposively chosen experts, two each in the areas of nursing, questionnaire design, adolescent health and educational psychology were asked to review the draft interviewer administered questionnaire (IAQ). Each reviewer independently rated the relevance of each item on the IAQ to the conceptual framework using a 4-point Likert scale (1=not relevant, 2=somewhat relevant, 3=relevant, 4=very relevant). The Content Validity Index (CVI) [25,26] was used to estimate the validity of the items in the questionnaire. CVI of the IAQ was 1.00(8/8); 0.87(7/8); 0.87(7/8); and 1.00(8/8) for section A, B, C, and D respectively.

**Procedure:** Participants were recruited from the Specialist Hospital Yola and were traced back to their homes. Informed consents were obtained from all participants using the inform consent form and assent form. An interview was then used using the IAQ. Each participant was interviewed face-to-face, with the investigator reading the questions and recording the responses which took 15-25 minutes.

**Ethical Consideration:** Ethical clearance was obtained from the ethical committee of Adamawa State Ministry of Health Yola.

**Data Analysis:** All data were analysed using IBM SPSS for Windows version 20.0. Descriptive statistics including frequency, percentage, mean, and standard deviation (SD) were used to examine sample characteristics and variables of the study. Multiple regression analysis was used to examine the associations between variables and also to test hypotheses 1, while Pearson's r correlation to test hypothesis 2. The significance level for all analyses was  $P < 0.05$ .

## RESULTS

### Descriptive Statistics of Study Variables

TABLE 1: DESCRIPTIVE STATISTICS OF RESILIENCE AND HPLS (N= 40)

Variable	Mean	SD	RANGE	
			Possible	Actual
RESILIENCE	63.0750	14.96044	14-98	21-88
Personal competence	45.5500	12.44053	10-70	15-64
Acceptance of life and self	16.7500	4.60072	4-28	6-28
HEALTH PROMOTING LIFESTYLE PRACTICES	56.0000	10.45871	25-100	34-83
Health responsibility	8.3750	2.18018	4-16	4-16
Physical activity	5.6000	1.23621	3-12	3-9
Nutrition	11.1500	2.69425	5-16	5-20
Spiritual growth	10.7500	3.62152	4-16	4-16
Interpersonal relationship	10.5500	2.03747	5-20	7-15
Stress management	9.0500	1.92087	4-16	5-12

The overall resilience score was low ( $M=63.0750$ ,  $SD=14.96044$ ) as against the highest obtainable scores of 98. The scores on the personal competence subscale ( $M=45.55$ ,  $SD=12.44053$ ) and acceptance of life and self subscale ( $M=16.75$ ,  $SD=4.60072$ ) were low as well

as against 70 and 28 respectively. The health promoting lifestyle practice (HPLP) score was moderate ( $M=56.00$ ,  $SD=10.45871$ ) as against the highest obtainable of 100. Also, score of the six subscales indicates a moderate level of participation in HPLP (Table 1)

### Influence of Consistency of Support on Resilience and HPL

Table 2: Multiple Regression Table showing the influenced of Consistency of Support Systems on Resilience capability (A) and Health Promoting Lifestyle (B) of adolescent mothers.

	A					B					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	B	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta				Std. Error	Beta			
(Constant)	45.756	5.154		8.878	.000	42.422	3.287			12.905	.000
Family	8.094	2.289	.523	3.537	.001	6.950	1.460	.642		4.761	.000
Peers/friends	4.548	1.740	.376	2.614	.014	2.862	1.110	.339		2.579	.015
Community	1.199	6.482	.030	.185	.854	1.082	4.134	.039		.262	.795
Professionals	-4.929	2.933	-.238	-1.681	.103	-3.849	1.870	-.266		-2.058	.048
Reg.inst.	.059	2.987	.004	.020	.984	-.517	1.905	-.044		-.272	.788
Government	-10.630	20.228	-.112	-.525	.603	.414	12.901	.006		.032	.975
NGOS	-3.588	13.370	-.053	-.268	.790	-7.908	8.527	-.167		-.927	.361

The results of the regression analyses indicated a strong relationship between consistency of support and resilience capability, and consistency of support explained 27.9% of the variance in resilience capability. By implication consistency of support received, influences resilience capability of adolescent mothers. ( $R=.693$ , Adjusted  $R^2=.279$ ,  $F(7, 32)=3.152$ ,  $P=.012$ ). Therefore the null hypotheses were rejected.

It was further found that family significantly predicted resilience capability ( $\beta = .523$ ,  $p=.001$ ) as did peers ( $\beta = .376$ ,  $p=.014$ ). By implication, a one standard deviation increase in consistency of family

support will lead to a yield of 0.523 SD (standard deviation) in resilience capability. Similarly a 1 SD increase in consistency of friends support will yield .376 SD in resilience capability (Table 2).

Furthermore, the results of the regression in Table 2 further revealed a strong relationship between consistency of support and health promoting lifestyle (HPL), and consistency of support explained 40% of the variance (Adjusted  $R^2 =.400$ ,  $F(7,32)=4.708$ ,  $P=.001$ ). Therefore, the null hypothesis is rejected and the alternate accepted.

The results of the regression equally revealed that three predictors



explained 40% of participation in HPL. It was discovered that family, peers, and professional support significantly

predicted the practice of healthy behaviour ( $\beta = .642, P=.000, \beta= .339, p=.015, \beta=-3.849, P =.048$  respectively).

***Influence of satisfaction with Support on Resilience and HPL***

**Table 3; Multiple Regression Table Showing influenced of satisfaction with Support Systems on Resilience (A) and Health Promoting Lifestyle (B) of the Adolescent Mothers**

	A				B					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta			B	Std. Error	Beta		
(Constant)	116.892	38.860		3.008	.005	86.067	30.634		2.809	.008
Family	16.237	3.130	.796	5.187	.000	9.869	2.468	.692	3.999	.000
Peers/friends	-4.745	4.540	-.152	-1.045	.303	-4.484	3.579	-.205	-1.253	.218
Professionals	-31.055	13.382	-.303	-2.321	.026	-16.274	10.549	-.227	-1.543	.132

MODEL A: RESILIENCE: R=.685, Adjusted R2= .424, F (3, 36) =10.581, P=.000;  
 MODEL B : HPL: R=.569, Adjusted R2 =.268, F (3,36)=5.759, P=.003

Using the enter method it was found that satisfaction with Support Systems explained a significant amount of the variance in the resilience capability (R=.685, Adjusted R<sup>2</sup>= .424, F (3, 36) =10.581, p=.000) and HPL (R=.569, Adjusted R2 =.268, F (3, 36) =5.759, P=.003). The analysis shows that satisfaction with peer support did not significantly predict resilience ( $\beta= .303, p=.303$ ), however, satisfaction with family

support did significantly predict resilience among adolescent mothers ( $\beta=.5187, P=.000$ ) as well as satisfaction with professional support ( $\beta=-.303, P=.026$ ). On the other hand, both satisfaction with peer support and professional support did not significantly predicts HPL. Only satisfaction with family support did significantly predicted HPL as shown in the table 3.

***Influence of satisfaction with Support on Resilience and HPL***

**Table 4; Multiple Regression Table Showing the influence of extents Support offers by Support Systems on Resilience (A) And Health Promoting Lifestyle (B) of adolescent mothers.**

	A				B					
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta			B	Std. Error	Beta		
(Constant)	86.830	46.513		1.867	.071	32.555	34.030		.957	.346
Family	13.798	3.181	.642	4.337	.000	9.242	2.328	.615	3.970	.000
Peers/friends	-6.425	4.399	-.217	-1.461	.153	-3.310	3.218	-.160	-1.029	.311
Community	-20.332	14.170	-.308	-1.435	.160	-10.438	10.367	-.226	-1.007	.321
Professional	-17.311	11.789	-.214	-1.468	.151	-3.971	8.626	-.070	-.460	.648
Religious institutions	21.396	11.537	.410	1.855	.072	13.128	8.441	.360	1.555	.129

MODEL A:RESILIENCE: R=.657, Adjusted R2= .348, F (5, 34) =5.162, P=.001;  
 MODEL B: HPL: R=.614, Adjusted R2 =.286, F (5,34)=4.121, P=.005

A multiple regression was further employed to see if level of support predicted the resilience and HPL of adolescent mothers. Using the enter method it was found that the extent of Support explain 34.8% and 28.6% of the variance in the resilience capability (R=.657, Adjusted R2= .348, F (5, 34) =5.162, P=.001) and HPL (R=.614,

Adjusted R2 =.286, F (5, 34)=4.121, P=.005) respectively. The results shows that the extent of support from peers, community, professionals and religious institution did not significantly predict resilience (P >.05), conversely, level of family support did significantly predict resilience and HPL among adolescent mothers(P=.000) as shown in table 4.

## Relationship between Resilience and HPL

Table 5: Pearson Correlation Analysis between Resilience and Health Promoting Lifestyle and their Subscales (N=40)

	Resilience	Personal Competence	Acceptance of Life and self
HEALTH PROMOTING LIFESTYLE	.811**	.750**	.620**
Health responsibility	.263	.278	.145
Physical activity	.340*	.276	.307
Nutrition	.740**	.716**	.545**
Spiritual growth	.792**	.741**	.526**
Interpersonal relationship	.328*	.303	.297
Stress Management	.773**	.671**	.628**

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

\*\*correlation significant at the 0.01 level (2-tailed)

The results shows a high positive correlation between mothers' resilience and their health promoting lifestyle practices ( $r=.811$ ,  $P=0.000$ ). This indicates a higher influence of resilience on HPL and HPL on resilience. A high positive correlation was also observed between resilience subscales and HPL with personal competence ( $r=.750$ ,  $p=.000$ ) and acceptance of life and self ( $r=.620$ ,  $p=.000$ ). Consequently, resilience was correlated with the six dimensions of health promoting lifestyle. Health responsibility ( $r=.263$ ,  $p=.101$ ), physical activity ( $r=.340$ ,  $p=.032$ ), nutrition ( $r=.740$ ,  $p=.000$ ), spiritual growth ( $r=.792$ ,  $p=.000$ ), interpersonal relationship ( $r=.328$ ,  $p=.039$ ) and stress management ( $r=.773$ ,  $p=.000$ ). This results shows only physical activity is weakly correlated, while interpersonal relationship and physical activity are moderately correlated. However, there is a strong positive correlation between resilience and nutrition, spiritual growth and stress management. The findings further reveals strong positive relationship between personal competence dimension of resilience with spiritual growth ( $r=.741$ ,  $p=.000$ ), nutrition ( $r=.716$ ,  $p=.000$ ), and stress management ( $r=.671$ ,  $p=.000$ ) dimensions of HPL. On acceptance of life and self, dimension of resilience with dimensions of HPL, a strong positive relationship exists in nutrition ( $r=.545$ ,  $p=.000$ ), spiritual growth ( $r=.526$ ,  $p=.000$ ) and stress management ( $r=.628$ ,  $p=.000$ ).

## DISCUSSION

The mean score of the overall resilience (63.0750,  $SD=14.96044$ ) was

low and that of the HPLP was moderate ( $M=56.00$ ,  $SD= 10.45871$ ). This is not unexpected because resilience and HPL improve within multiple systems in which adolescent mothers interact [27,28] and are happy and satisfied. Adolescent who are resilient are able to strive despite unfavourable circumstance because they have array of internal and external resources. [29] The low resilient score is a clear indication of lack of access to array of both external and internal support. This corroborates the finding of Hjemdal, Friberg, Stiles, Martinussen, et al. that adolescents who report negative life events score lower in resilience than adolescents with few or no such experiences. [30] This result further authenticates the fact that resilient is a precursor of HPL which is evident in the moderate level of participation in health behaviour.

The low resilience could also be as a result of deficiency in collaboration between the support systems as mainly family and friends were the dominant sources of support accessible to adolescent mothers. This is believed because resilience is facilitated by synergy among peers, community members, social services and family. When these supports are collaborated, young people can cope with difficult situations. [31] This is consistent with the findings of Black and Gilboe in which resilience score was also low among single parent mothers. [7] On the other hand, the result of HPLP was lower among women with breast cancer [ $M=64$ ] [32] and patients with peptic ulcer [ $M=70.9$ ]. [33] However, the score of this

study is almost similar to the findings in some literatures <sup>[7,10]</sup> in which the HPLP scores are moderate.

More support or services do make adolescent better. However, satisfaction, consistency and the extent of support can affect resilience and participation in HPLP. The complex needs of individual may not be solve by access to network of support. <sup>[34]</sup> Therefore, ascertaining the impact of quality of support on resilience and HPL becomes crucial, thus the formation of the hypotheses. The finding of this study supported that consistency with support influence resilience and HPL ( $R=.693$  and  $R=.712$  respectively) which is similar to findings of Ungar <sup>[35]</sup> in which consistency of support is related to resilience ( $r=.053$ ).

Satisfaction with support can play an immeasurable influence to resilience capability and participation in HPL. In this study, while more than four-fifth of the respondents are satisfied with support from family and peers, results from multiple regression shows that a strong influenced exists between satisfaction with support and resilience capability, and also between satisfaction with support and HPL which explained 42.4% and 26.8% variability respectively. The findings showed that both satisfaction with family and professional support predicted resilience such that one standard deviation increase with satisfaction with family support yields 0.796 standard deviation increase in family support. Additionally, one standard deviation increase with satisfaction with family support yields 0.692 standard deviation increase in participation in HPL. However, satisfaction with peer support is both non-significant to resilience and HPL ( $P>0.5$ ). This will not be unconnected to lack of obligations that friends have to each other and the findings of Sherman, and Greenfield (2013) explains that support from peers who have no experience of parenthood will have a negative influence on adolescent mothers.

<sup>[36]</sup> When adolescents are satisfied with the support they receive, there is a strong likelihood of participation in HPL. This empirically supports the findings of this study in which relationships were established between satisfaction and resilience, and satisfaction of support and HPL. This is also similar in the case of extent of support and resilience and, also, in the case of extent of supports and HPL. The extent of support can have a tremendous impact on resilience capability and participation in HPL. Sherman, and Greenfield (2013) buttress further that resilience of adolescent mothers are related to the extent of support they received from parents, significant others and members of the community. <sup>[36]</sup>

Family support is extremely crucial and a strong predictor for HPL and resilience. The finding of this study supports that consistency of family support plays a crucial role in influencing and predicting resilience and HPL. This cannot be unconnected with findings of Borchering, Smith Battle, and Schneider (2005) that when adolescent mothers give birth, family members are plunged into new relationship and responsibilities whereby, in most cases, the adolescent mothers live with their parents and their entire need is being supported by the family. <sup>[37]</sup> The WHO added that even when formal health and social services infrastructure exist, adolescent generally prefer to rely on family and friends first and only subsequently turn to formal services, health or otherwise. <sup>[17]</sup> Other sources of support could not predict resilience or HPL could be basically due to inaccessibility to these sources of support. This is because the findings reveals that government and non-governmental organization do not have a specialized programme aimed at meeting the needs of adolescent mothers. In fact, communities and neighborhoods could not see adolescent mothers as people that need supports rather they might be seen as



group with bad influences, thus parents in community might asked their wards to desist from associating them. In the other hand, husband of adolescent mothers might prevent adolescent mothers from associating with unmarried peers. Consequently, religious organization might not come to rescue of adolescent mothers instead they might punished them to serve as deterrent to others. These various challenges might have to less impact of some support systems in the model.

The correlation between resilience and HPL, the results show a very high positive relationship ( $r=.811$ ). This validates the interrelatedness and interconnectedness of resilience as a precursor of HPL. This, also, is consistent with the findings of Black and Gilboe who observe a positive relationship between resilience and HPL. [7] This finding is the foremost reason resilience is defined to showcase inner strength and healthy behaviour. Resilience is the capacity of individual exposure to negative event to remain healthy and to cope flexible with challenges of life. [38,39] Therefore, resilience is the function of HPL practice. It is that inner strength that brings about the desire and practice of healthy living. Further analysis of the subscales shows significant relationships between resilience and HPL. The correlation was highest with spiritual growth, stress management, and nutrition. This indicates that spiritual growth, stress management, and nutrition are essential for resiliency. If adolescent mothers can develop their spiritual strength and management their stress properly in the presence of adequate nutrition resiliency can be inferred. Correspondingly, persons with high spiritual growth, proper stress management, and good nutrition most be resilient by default. Thus, the need to boost spiritual growth, stress management, and nutrition in adolescent health and parenthood. This finding is consistent with

finding in literatures where resilience had the strongest relationship with spiritual growth and stress management. [40,41]

### **IMPLICATIONS FOR PRACTICE**

The outcomes of this study provide relevant information about the link of support systems to resilience and health promoting lifestyle of adolescent mothers. The resilience and HPL was low and moderate implying needs for more support and specialized programme including formation of groups for adolescent mothers towards enhancing health and educating the adolescent mothers. This is more so because resilience is a function of HPL, which correspondingly depends on network and availability of support. Therefore, Government, Community and NGOs must work towards curbing the challenges of adolescent mothers, rather than leaving such to immediate families and close relations of the adolescent mothers. In fact, family peers, health professionals and social workers, are key stakeholders in adolescent health and have tremendous roles in adolescent resiliency and participation in HPL. Hence, this must be considered in policy making. Besides, planning interventions aimed at improving the adaptation of adolescent mothers to early parenthood must be activated.

### **CONCLUSION**

Accessibility and availability of support do not necessarily influence resilience and HPL, but consistency of the support, satisfaction with the support and the extent of support which indicators for quality of support play a crucial role in developing and enhancing resilience capability and participation in healthy behaviour.

### **Limitations of the Study**

One of the limitations of this study is that data collection was restricted to Yola metropolis only. Another limitation encountered is that the cross-sectional design does not lend itself to causal interpretation. Hence, no cause effect

relationships can be inferred. Also, the data are collected at one point in time in a cross-sectional research design. Such data measure what exists today and do not attempt to document changes over time (past or future). Above all, this study lacks generalizability beyond the geographic area of the participants.

## REFERENCES

1. United Nations Population Fund, Adolescent pregnancy: A Review of the Evidence, L. Edilberto and L. Mengjia, Editors. 2013, UNFPA.; New York., p. 1-57.
2. Centers for Disease Control, National Vital Statistics Reports. 2009.
3. Lanzi, R.G., et al., Depression among a sample of first-time adolescent and adult mothers. *Journal of Child and Adolescent Psychiatric Nursing*, 2009. 22(4): p. 194-202.
4. Sieger, K. and K. Renk, Pregnant and parenting adolescents: A study of ethnic identity, emotional and behavioral functioning, child characteristics, and social support. *Journal of Youth and Adolescence*, 2007. 36: p. 567-581.
5. Pogarsky, G., T.P. Thornberry, and A.J. Lizotte, Developmental outcomes for children of young mothers. *Journal of Marriage and Family*, 2006. 68(332-344).
6. United Nations Population Fund, Motherhood in Childhood; Facing the challenge of adolescent pregnancy, in state of world population 2013, K. Richard, Editor. 2013, UNFPA.: New York.
7. Black, C. and M. Ford-Gilboe, Adolescent mothers: Resilience, Family health work and Health-promoting practices. *Journal of Advanced Nursing*, 2004.48(4):p. 351-360.
8. Pender, N., *Health Promotion in Nursing Practice*, ed. r. edn. 1996, Stamford, CT: Appleton & Lange.
9. Viau, P.A., C.A. Padula, and B. Eddy, An exploration of health concerns& health-promotion behaviors in pregnant women over age 35. *MCN Am J Matern Child Nursing*, 2002. 27: p. 328-34.
10. Lin, Y.-H., et al., Health Promoting Lifestyles and Related Factors in Pregnant Women. . *Chang Gung Med J* 2009. 32: p. 650-661.
11. Adams, M.H., et al., Social support and health promotion lifestyles of rural women. *Online J Rural Nurs and Health Care*, 2000. 1: p. 1-20.
12. Croghan, E., Supporting pregnant women through behaviour change. *Nurs Stand*, 2005. 19: p. 48-50.
13. Baheiraei, A., et al., Social support for women of reproductive age and its predictors: a population-based study. *BMC Women's Health* 2012. 12(30): p. 1-7.
14. Bøen, H., O.S. Dalgard, and E. Bjertness, The importance of social support in the associations between psychological distress and somatic health problems and socio-economic factors among older adults living at home: a cross-sectional study. *BMC Geriatrics* 2012. 12(27): p. 1-12.
15. Golden, J., et al., Loneliness, social support networks, mood and well-being in community-dwelling elderly. *Int J Geriatr Psychiatry*, 2009. 24: p. 694-700.
16. World Health Organization, Early marriages, adolescent and young pregnancies. 2012, WHO. p. 1-4.
17. World Health Organization, Adolescents, social support and help-seeking behaviour: An international literature review and programme consultation with recommendations for action, in *Who discussion papers on adolescence*, G. Barker, Editor. 2007, Department of Child and Adolescent Health and Development: Geneva 27, Switzerland.
18. Wagnild, G. and P. Guinn, *The Resilience Scale user's guide for the US English version of the Resilience Scale and the 14-item Resilience Scale*, 2011.
19. Ungar, M. and L. Liebenberg, Assessing resilience across cultures using mixed methods: Construction of the Child and Youth Resilience

- Measure. *Journal of Multiple Methods in Research*, 2011. 5: p. 126-149.
20. Zautra, A., J. Hall, and K. Murray, Community development and community resilience: An integrative approach. . *Community Development*, 2008. 39: p. 1-18.
  21. CLEEN Foundation Adamawa State: Election Security Threat Assessment. 2011. 1-5.
  22. Wagnild, G.M., ed. *The Resilience Scale user's guide for the US English version of the Resilience Scale and the 14-Item Resilience Scale (RS-14)*. ed. M. Worden. 2009, The Resilience Center.
  23. Walker, Sechrist, and Pender, *The Health Promoting Lifestyle Profile: development and psychometric characteristics*. *Nurs Res*, 1995. 36: p. 76-81.
  24. Monteith, B. and M. Ford-Gilboe, *The relationships among mothers' resilience, family health work and mothers' health-promoting lifestyle practices in families with preschool children*. *Journal of Family Nursing*, 2002. 8(4): p. 387-407.
  25. Lynn, M.R., *Determination and quantification of content validity*. *Nursing Research*, 1996. 35(382-385).
  26. Parsian, N. and T. Dunning, *Developing and Validating a Questionnaire to Measure Spirituality: A Psychometric Process*. *Global Journal of Health Science* 2009. 1: p. 1-10.
  27. Eggerman, M. and C. Panter-Brick, *Suffering, hope, and entrapment: Resilience and cultural values in Afghanistan*. *Social Science & Medicine*, 2010. 71(1): p. 71-83.
  28. Panter-Brick, C., et al., *Mental health and childhood adversities: A longitudinal study in Kabul, Afghanistan*. *Journal of American Academy of Child and Adolescence Psychiatry*, 2011. 50(4): p. 349-363.
  29. Benson, P.L. and P.C. Scales, *Executive summary; successful young adult development*. 2004. p. 53-57.
  30. Hjemdal, O., et al., *A new scale for adolescent resilience: grasping the central protective resources behind healthy development*. . *Measuring and Evaluation in Counselling and Development*, 2006. 39: p. 84-96.
  31. Theron, L., C., A.M. Theron, and M.J. Malindi, *Toward an African Definition of Resilience: A Rural South African Community's View of Resilient Basotho Youth*. *Journal of Black Psychology* 2013.39(1):p.63-87.
  32. Chen MY, Chang HC, and Li MY, *Health promotion behaviors among women with high risk breast cancer - from the self-care perspective*. *J Health Sci*, 2002. 4(63-74).
  33. Chen MY, Lai HG, and Chen ML, *The health promoting behaviors among the peptic ulcer patients before first hospitalization*. *Chang Gung Nurs* 1999. 10: p. 1-8.
  34. Ungar, M., et al., *Patterns of service use, individual and contextual risk factors, and resilience among adolescents using multiple psychosocial services*. *Child Abuse & Neglect* 2013. 37: p. 150-159.
  35. Ungar, M., *Resilience, trauma, context, and culture*. *Trauma Violence Abuse*, 2013. 14(3): p. 255-266.
  36. Sherman, L.E. and P.M. Greenfield, *Forging friendship, soliciting support: A mixed-method examination of message boards for pregnant teens and teen mothers*. *Computers in Human Behavior*, 2013. 29(1): p. 75-85.
  37. Borcharding, K., L. SmithBattle, and J.K. Schneider, *A Preliminary Investigation of the Grandparent Support Scale for Teenage Mothers*. *Journal of Family Nursing*, 2005. 11(3): p. 289-306.
  38. Brenda, J.M., *Resilience factors and processes: no longer at risk*. *The Alberta Journal of Educational Research*, 2007. 53(2): p. 127-142.
  39. Bonanno, G.A., *'Loss, Trauma, and Human Resilience'*. *American Psychologist*, 2014. 59(1): p. 20-28.
  40. Wagnild, G.M. and H.M. Young, *Development and psychometric evaluation of the Resilience Scale*. *Journal of Nursing Measurement*, 1993. 1(2): p. 165-178.
  41. Monteith, B., Ford-Gilboe M., *The relationships among mothers'*

resilience, family health work and mothers' health-promoting lifestyle practices in families with preschool

children. Journal of Family Nursing 2002. 8(4): p. 387-407.

How to cite this article: Timothy G; Ogunfowokan A; Irinoye O et al. An interplay between quality of support, resilience and health promoting behaviors of adolescent mothers in yola, Nigeria: a preliminary study. Int J Health Sci Res. 2015; 5(12):282-293.

\*\*\*\*\*

**International Journal of Health Sciences & Research (IJHSR)**

**Publish your work in this journal**

The International Journal of Health Sciences & Research is a multidisciplinary indexed open access double-blind peer-reviewed international journal that publishes original research articles from all areas of health sciences and allied branches. This monthly journal is characterised by rapid publication of reviews, original research and case reports across all the fields of health sciences. The details of journal are available on its official website ([www.ijhsr.org](http://www.ijhsr.org)).

Submit your manuscript by email: [editor.ijhsr@gmail.com](mailto:editor.ijhsr@gmail.com) OR [editor.ijhsr@yahoo.com](mailto:editor.ijhsr@yahoo.com)