



## Research Article

# Role of perceived spousal social support in medication adherence among hypertensive patients attending family medicine clinic in federal teaching hospital, ido-ekiti, Nigeria

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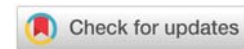
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## Abstract

**Background:** There abound many strategies to control hypertension, however, many patients still have difficulty adhering to medications and this results to poor Blood Pressure (BP) control. And because the condition requires life - long treatment, many patients need additional effort from their spouses. The spouse shares intimacy with patient and is the chief source of social support that provides financial assistance, reminds and encourages medication use, shows concern and interest by discussing issues related to the disease. Therefore, exploring the role of perceived spousal social support in medication adherence will help the physician and other stakeholders harness the gains of this association to achieving BP control, prevent complications and death.

**Objectives:** To determine the relationship between Perceived Spousal Social Support (PSSS) and Medication Adherence (MA) among hypertensive patients attending Family Medicine Clinic in Federal Teaching Hospital, Ido-Ekiti, Nigeria.

**Materials and methods:** It was a hospital - based cross - sectional analytical study carried out among 298 hypertensive patients aged between 18 and 65 years between June and August 2016 at the Family Medicine Clinic of the Federal Teaching Hospital, Ido Ekiti. Data collection was done using pre-tested, semi-structured questionnaire on sociodemographic characteristics, blood pressure measurement, Morisky Medication Adherence Scale (MMAS-8) for medication adherence and a 4-point Likert Social Support questionnaire for compliance to measure the perceived spousal social support. Data was analysed using SPSS IBM version 17.0.

**Results:** The mean age of respondents was  $56.0 \pm 8.5$  years. Overall, there was a statistically significant relationship between PSSS and MA ( $\chi^2 = 17.93$ ,  $p < 0.001$ ). Gender and PSSS were found to be independent predictors of MA.

**Conclusion:** Spousal social support impacts positively on medication adherence, therefore exploring this social resource will improve MA and the management outcomes of hypertension.

## Introduction

Thoits defined social support as – emotional, informational and practical assistance from significant others, such as family members, friends or co-workers, and that support actually may be received or simply perceived to be available when needed [1]. Spousal social support is the degree to which interpersonal relationship with one's spouse or partner serve the purpose of providing emotional, informational or instrumental support for an individual [2]. Medication adherence is the extent to which a person's behaviour of taking of medications, following a dietary plan, and/or executing lifestyle with respect to the timing, dosage, frequency, and duration of a prescribed medication conforms with the agreed recommendations by a health care provider [3]. In a meta analytical study on social support and adherence to treatment in hypertensive patients, functional social support was associated with medication adherence [4]. Danielle and colleagues in a qualitative analysis of peer reviewed journals on the association between different types of support and medication carried out among Americans reported that, practical/tangible support such as financial support was associated with high medication adherence [5]. A cross-sectional survey using self-reported questionnaire also found that cumulative perceived functional spousal support such as financial support for drug purchase, having someone to talk to about hypertension, showing concern, interest in one's spouse and reminding patients to use drugs lower the odds of high blood pressure [6]. Though the association between family social support, hypertension and medication adherence have been widely studied, there is, however paucity of data specifically on the role spouses play in medication adherence among hypertensive patients, therefore this study will serve as a template and encourage more researches in this area so as to reduce the morbidity and mortality among this group of people. This study identified the role of perceived spousal social in medication adherence among hypertensive patients in Ekiti State, Nigeria.

## Materials and methods

### Study area and design

This study was conducted among adult hypertensive patients 18- 65 years attending the Family Medicine Clinic of Federal Teaching Hospital Ido-Ekiti (FETHI), Nigeria. Ido-Ekiti is a town with a population of 67,470 and serves as the headquarter of Ido/Osi Local Government Area. The town is located at 8.7 nautical miles Southwest of Ekiti State University, Ado Ekiti, at latitude 7° 50' 46N and longitude 5° 10' 59E [7]. The hospital which was established in 1998 is the only Federal Government-owned tertiary health institution in Ekiti State and provides primary, secondary and tertiary health care to indigenes and also receives patients from Kwara, Kogi, Ondo and as far as Lagos State. Apart from the medical undergraduate, residency and nursing programmes offered by the hospital, health care services with the full complement of allied services are provided in the following departments: Family Medicine, Accident and Emergency, Internal Medicine, Surgery, Neurosurgery, Obstetrics and

Gynaecology, Paediatrics, Psychiatry, Dentistry, Orthopaedics, Ear, Nose and Throat, Ophthalmology, Community Medicine, Laboratory Medicine and Radiology. The Family Medicine department is accredited for both medical undergraduate and residency training and it comprises the Family Medicine (General Outpatient ) clinic which runs a 24-hour service 5 days a week, general outpatient, urgent, emergency care (in conjunction with accident and emergency department) during week days and weekends, and special care clinics in geriatrics, palliative, lifestyle, HIV/AIDs and rural outposts. It manages undifferentiated diseases irrespective of age and gender. The clinic has seven consulting rooms with a semi-detached 10-bedded ward for short inpatient admission.

### Sample size estimation

The sample size of 298 was determined using the formula [8].

$$n = z^2p(1-p) / d^2 \text{ and}$$

$$nf = n / 1 + (n / N)$$

Where:

n = the minimum sample size when the study population is more than 10,000.

nf = the minimum sample size when the study population is less than 10,000.

N = the estimate of population size in a given year i.e. hypertensive patients who attended the Family Medicine Clinic of Federal Teaching Hospital in 2015 was 3600.

z = Standard normal deviate corresponding with the level of significance of 95% set at 1.96

d = Desired level of precision (maximum error of estimate) set at 0.05

p = Estimated prevalence of medication adherence among hypertensive patients in a given

population. From a local study, the prevalence of medication adherence among hypertensive

patients in a tertiary hospital, South-West Nigeria was 25.6 percent [9].

$$q = 1 - p.$$

Therefore, using the above formula:

$$n = 1.962 (0.256 \times 0.744) / 0.052$$

$$n = 292.67, \text{ approx. } 293$$

Therefore, using the formula  $nf = n / 1 + (n / N)$  since population size is less than 10,000

$$nf = 293 / 1 + (293 / 3600)$$

$$nf = 270.9 \text{ approx. } 271$$

The minimum sample size was 271 and with the addition of an attrition rate of 10%, it came to 298 respondents for the study.

### Sampling method

Systematic random sampling technique was used to recruit subjects among hypertensive patients attending the clinic. In the General Outpatient medical record of the hospital, 15 hypertensive patients attended the clinic daily, which translated to 75 patients per week using the lower limit and 900 within the 12-week period of the study. A sampling interval (K) was calculated using the formula:

$$K = N / n$$

Where: N = total number of patients and n = calculated sample size.

$$\text{Therefore } K = 900 / 298 = 3.$$

Every 3rd hypertensive patient who met the inclusion criteria was enrolled for this research and five patients were recruited daily. In selecting the first participant each day, balloting technique was used in which three small papers were rolled, one was labelled 'Yes' and the other two had 'No' written in them. Using the balloting system for the first three hypertensive patients on the attendance list for each day, the patient who picked 'Yes' was seen first, thereafter, every 3<sup>rd</sup> hypertensive patient was enrolled until the required number for the day was attained. For selected participants who declined to participate, he or she was given appropriate treatment, but was not included in the study. The next patient on the list was then selected for study. This was repeated every clinic day until the sample size was completed. The case file of each of the selected participants was tagged using a red colour code to prevent a second recruitment. By the end of the 12 - week period, the required number of subjects (n= 298) was attained.

### Research protocol

Four bilingual (English and Yoruba) research assistants who were; two junior resident doctors and two nurses were recruited and trained by the researcher for two days for the purpose of pretesting and sorting of participants, data collection and questionnaire administration during the study. A written informed consent was obtained by the researcher from willing participants using the information sheet as guide. The researcher also assured them of confidentiality of the information provided. On daily basis, the nursing research assistants sorted out the clinical records of all hypertensive patients and applied the inclusion criteria. The selected patients were invited into a seminar room where the researcher introduced them to the study, screened them for exclusion criteria and took informed consent. Those who did not meet the criteria or declined consent were not included in the study, but were given treatment as appropriate. Using the sampling technique, five participants were recruited per day. The respondents were then given the routine medical care for hypertension and thereafter the researcher documented the socio-demographic and the BP of participants using section

A and B of the questionnaire. The participants were then led to a consulting room where a junior resident conducted an exit interview on them using the MMAS-8 questionnaire for medication adherence in section C and Perceived Spousal Social Support Scale to determine the level of Perceived Spousal Social Support in section D.

### Participants' selection and collection of background information

Pre-tested semi-structured interviewer-administered questionnaire drafted in English language was used for this study. It was translated into Yoruba language for respondents who spoke only Yoruba and back translated into English language by the bilingual research assistants. The questionnaire was divided into four sections namely: Section A is a proforma for socio-demographic characteristic. The information collected included age, gender, family type, level of education, occupation and income. Section B was used to record Blood Pressure (BP) measurements of the respondents. Section C was the medication adherence tool used to assess the level of adherence among respondents. This was determined using the validated eight-item Morisky Medication Adherence Scale (MMAS-8) which is an 8-item scale originally developed by Morisky *et al* with a high alpha reliability of 0.83 and 93% sensitive in detecting BP control at p value of < 0.05 [10]. The tool has been particularly useful in chronic conditions such as hypertension and has been used in Nigeria [11]. Each response was scored 'Yes' or 'No' as 0 or 1 respectively except item number 5 in a reverse code response. For instance, if item 5 = 0 Item 5r = 1 (high adherence). Item number 8 also had a standardised code as explained in the tool. The scoring scale has a range of 0 to 8. The medication adherence level scores for individuals were calculated and summed up to give the total adherence score as low adherence (< 6), medium adherence (6 to < 8) and high adherence as (8). Section D was the perceived spousal social support questionnaire used to assess the level of the perceived spousal support. It is a 4-point Likert-type adapted from the Social Support questionnaire for compliance, which has been used in Nigeria [12]. The original questionnaire is a Multidimensional Scale of Perceived Social Support developed by Zimet *et al* in 1988 and has an alpha reliability of 0.88. The modification was that the word 'family' in the four questions in the perceived family social support section used by Pauline was replaced by 'spousal'. The questionnaire consists of 4 questions and the response included any of the following: "(0) I Don't know" "(1) Not very", "(2) very" or "(3) Extremely". The four domains of the PSSS were combined in a construct such that the higher the score, the stronger the level of PSSS. The maximum score was 12 and 4 was the minimum with PSSS score of < 5, 5 to 8 and 9-12 as Poor PSSS, Fair PSSS and Strong PSSS respectively.

### Blood pressure estimation

The researcher used Accosson® brand of Mercury Sphygmomanometer to measure the blood pressure of participants in sitting position using the left arm with a stethoscope and appropriate blood pressure cuff after at least 5 minutes of rest in a sitting position with the legs uncrossed.



The blood pressure cuff was at the level of patient's heart and the forearm was rested on a table, the brachial pulse was palpated in the antecubital fossa of the arm, and the cuff was inflated to 20mmHg above the point at which the brachial pulse disappeared. The cuff was deflated and the pressure at which the pulse re-appears was noted (rough systolic). The cuff was re-inflated to 20mmHg above the point at which the brachial pulse disappeared. The stethoscope diaphragm was placed over the brachial artery ensuring complete skin contact with no clothing in between. The cuff was deflated slowly (2 mmHg per second) while listening for the first and fifth Korotkoff sounds which correspond with the systolic and diastolic blood pressure respectively. A cut off level of BP measurements of < 140mmHg and < 90mmHg for systolic and diastolic blood pressure respectively was considered controlled BP while  $\geq$  140 mmHg and  $\geq$  90 mmHg for systolic and diastolic BP were considered uncontrolled BP.

### Data analysis

The independent variable was the PSSS level while the MA level was the dependent variable. The data were summarised and analysed using the IBM SPSS version 17.0. Data collated were summarised with descriptive statistics and association between categorical variables were analysed using chi-square and logistic regression and statistically significant result was when p-value was less than the significance level of 0.05.

### Results

A total of 298 adult hypertensive respondents were recruited into the study over a 12 - week period between June and August 2016. Respondents' ages ranged from 31-65 years with a mean age of 56.0 ( $\pm$  8.5). There were two hundred and nine females (70.1%) and 89 (29.9%) males with male to female ratio of 1:2.3.

The mean PSSS score was 8.0 ( $\pm$ 2.9) and about half of the respondents 150 (50.3%) had strong PSSS. Majority, 189 (63.4%) of the subjects reported that their spouses were not very helpful in providing financial support, however, 143 (48.0%), and 150 (50.3%) respondents reported that their spouses were extremely helpful in terms of showing concern about their health disease state and extremely helpful by showing interest and talking about their hypertensive condition respectively. Furthermore, 126 (42.3%) of the subjects perceived that their spouses were extremely helpful in reminding them to use their medications and less than one-quarter of the respondents, 22.5% achieved high medication adherence and overall, 61.1% were adherent (medium and high adherence).

Overall, there was a statistically significant relationship between perceived spousal social support and medication adherence ( $\chi^2 = 17.93$ ,  $p < 0.001$ ). It was found that the stronger the PSSS, the better the medication adherence. Majority of respondents, 43.9% whose spouses were not very helpful financially had low medication adherence and this was statistically significant ( $\chi^2 = 20.08$ ,  $p < 0.001$ ). In the same vein, more than half, 52.0% of respondents whose spouses were not very helpful in reminding them to use their medications had

low medication adherence and this was statistically significant ( $\chi^2 = 24.73$ ,  $p < 0.001$ ).

Gender and perceived spousal social support were independent predictors of medication adherence among the respondents. The female gender was about 13 times more likely to achieve medication adherence than the male counterpart. Similarly, it was demonstrated that participants with strong spousal social support were 7 times more likely to achieve medication adherence Tables 1-6.

### Discussion

The result of this study showed that the mean age of respondents is 56.0  $\pm$  8.5 years and this is comparable with the work done by Ojo et al in Abeokuta, which found an overall mean age of 55.4  $\pm$ 10.5 years in a study conducted among hypertensive patients [13]. In a related study to determine

**Table 1:** Age, Gender, Family Type and Educational Level of Participants.

Variables	Frequency n = 298	Percentage %
Age (years)		
31-40	31	10.4
41-50	38	12.7
51-60	117	39.3
61-65	112	37.6
Mean $\pm$ SD	56.0 $\pm$ 8.5	
Gender	v	
Female	209	70.1
Male	89	29.9
Family Type		
Monogamous	213	71.5
Polygamous	85	28.5
Educational Level		
No Primary Education	19	6.4
Primary	70	23.5
Secondary	76	25.5
Tertiary	103	34.5
Postgraduate	30	10.1

**Table 2:** Occupation and Monthly Income distribution of Respondents.

Variables	Frequency n = 298	Percentage %
<b>Occupation</b>		
Civil Servants	93	31.3
Trading	104	34.9
Farming	18	6.0
Self-Employed	32	10.7
Retired	51	17.1
Monthly income (N)		
$\leq$ 50,000	189	63.4
>50,000 - 100,000	93	31.2
> 100,000	16	5.4
Median (Range)	30,000 (2,000 - 200,000)	



the link between social support and adherence to medications among hypertensive patients, Ofoli et al reported a mean age of 56 ± 11.6 years [14]. This observation is not surprising because reports from similar studies have shown that the prevalence of hypertension increases with age in most populations [15-17]. However, this result is higher than that in Ibadan which reported 42.1 ± 21.6 years and in Enugu where 43.8 ± 13.7 years was noted [18,19]. This difference could be accounted for probably because these were community-based studies. Also the fact that larger participants, including the younger population in these semi-urban areas were recruited and data was collected on other CVD risk factors such as body mass index and cholesterol level which not only affect the middle aged population but also the younger people [19]. The mean age in this study was lower than 64.7 years reported in a study in Ireland [15]. This may be explained by lower life expectancy in Nigeria when compared to the developed world.

The study's finding of female preponderance of 70.1% is in keeping with previous reports of female dominance compared with their male counterparts in most hospital-based studies

**Table 3:** Perceived Spousal Social Support (PSSS) level among Respondents.

Perceived Spousal Social Support	Frequency n = 298	Percentage (%)
<b>PSSS Level</b>		
Poor (0-4)	70	23.5
Fair (5-8)	78	26.2
Strong (9-12)	150	50.3
Mean PSSS score ± SD	8.0 ± 2.9	
<b>Spousal financial support</b>		
Extremely helpful	58	19.5
Very helpful	51	17.1
Not very helpful	189	63.4
<b>Spousal concern</b>		
Extremely helpful	143	48.0
Very helpful	85	28.5
Not very helpful	70	23.5
<b>Spousal interest</b>		
Extremely helpful	150	50.3
Very helpful	55	18.5
Not very helpful	93	31.2
<b>Spousal reminder</b>		
Extremely helpful	126	42.3
Very helpful	66	22.1
Not very helpful	100	33.6
Don't know	6	2.0

**Table 4:** Level of medication adherence among the respondents.

Medication adherence	Frequency n = 298	Percentage %
Low Adherence (< 6)	116	38.9
Medium Adherence (6 to < 8)	115	38.6
High Adherence (8)	67	22.5
Mean MA Score ± SD	5.7 ± 2.1	

**Table 5:** Relationship between Perceived Spousal Social Support and Medication Adherence.

Perceived Spousal Social Support (PSSS)	Medication Adherence			χ <sup>2</sup>	Df	p-value
	Low (< 6) n (%)	Medium (6 – 7.75) n (%)	High (8) n (%)			
Poor PSSS (0-4)	34(48.6)	18(25.7)	18(25.7)	17.93	4	< 0.001*
Fair PSSS (5-8)	35(44.9)	36(46.1)	7(9.0)			
Strong PSSS (9-12)	47(31.3)	60(40.0)	43(28.7)			
<b>Spousal financial Support</b>						
Extremely helpful	13 (22.4)	20 (34.5)	25 (43.1)	20.08	4	< 0.001*
Very helpful	20 (39.2)	24 (47.1)	7 (13.7)			
Not very helpful	83 (43.9)	70 (37.0)	36 (19.1)			
<b>Spousal concern</b>						
Extremely helpful	34 (23.8)	66 (46.2)	43 (30.0)	33.71	4	< 0.001*
Very helpful	48 (56.5)	30 (35.3)	7 (8.2)			
Not very helpful	34 (48.6)	18 (25.7)	18 (25.7)			
<b>Spousal interest</b>						
Extremely helpful	41 (27.3)	66 (44.0)	43 (28.7)	22.21	4	< 0.001*
Very helpful	24 (43.6)	24 (43.6)	7 (12.8)			
Not very helpful	51 (54.8)	24 (25.8)	18 (19.4)			
<b>Spousal reminder</b>						
Extremely helpful	35 (27.8)	54 (42.9)	37 (29.4)	24.73	6	< 0.001f
Very helpful	29 (43.9)	24 (36.4)	13 (19.7)			
Not very helpful	52 (52.0)	30 (30.0)	18 (18.0)			
Don't know	0(0.0)	6 (100.0)	0 (0.0)			

f Fischers Exact Test \* Statistically Significant

**Table 6:** Logistic Regression for Independent Predictors of Medication Adherence.

Variables	B	S. E	Wald	df	p-value	Exp (B)
Monthly Income	-0.504	0.313	2.598	1	0.107**	0.604
Educational Level	0.049	0.310	0.025	1	0.873**	1.051
Family type	0.279	0.348	0.642	1	0.423**	1.322
Gender	-1.041	0.292	12.732	1	< 0.001*	0.353
Spousal Social Support	-1.034	0.376	7.540	1	0.006*	0.356
Constant	1.008	0.423	5.695	1	0.017	2.741

\* Statistically Significant \*\* Not Statistically Significant

[20,21]. This finding supports the study in Northern Nigeria which reported that 75% of hypertensive patients were females [14]. This deduction suggests that women exhibit more health caring attitude and have enough time to visit the clinic than men, this was further supported by cross sectional studies in Spain and the US where similar findings were reported [21,22]. However, in another related study on the appraisal to determine the level of BP control in a hospital-based prospective study among 207 hypertensive outpatients in Port Harcourt, South-South Nigeria, a lower female predominance of about 52% was reported [20]. This is not unrelated to the high concentration of women in the rural area where this study was conducted in contrast with the urban area like Port Harcourt where the younger ones have migrated to seventy-one percent of the



subjects in this study were in monogamous marriage. This could be due to the fact that people residing in Ekiti practice Christianity which only permits one man, one wife. In contrast, Rasaan et al, in Kwara, North Central Nigeria reported that 71% of the people practice polygamy being Muslims [23].

Seventy percent of respondents in this study attained secondary school education and above. This is similar to 60.2% quoted by Ojo et al in Abeokuta and 63.6% by Fatusin in Ekiti [13,24]. This may be explained by the fact that like any Southwestern State of Nigeria, Ekiti indigenes are well educated. This finding could also be because many of the participants enjoyed the free education of the old south-western region. However, Pauline in a community-based cross-sectional descriptive social support and hypertension management study of 440 community residents in Idikan community in Ibadan reported that about 50% of the respondents had no formal education [12]. This difference is obvious going by the hospital-based nature of this study when compared with the one at Idikan, Ibadan.

Most of the participants were either civil servants or traders indicating that Ekiti State is a civil service state and that women, who are known for trading constituted the larger percentage of the study.

The income of participants in this study ranged from N 2,000 to N 200,000 (\$ 5-500) while the median income was N 30,000.00 about \$ 75 per month (\$1 = N 400). This view was also shared by Fatusin et al who found a range of N 10,000 and N 194,000 [24]. This could be attributed to the level of education and the good occupational rate among them, bearing in mind that the monthly minimum wage of an average Nigerian is N 18,000 or \$45 or less than two dollars a day [25]. However, about 63% of the respondents lived on a monthly income of  $\leq$  N 50,000. This corroborates Ojo in Abeokuta and Rasaan in Ibadan, in which 64% of their study respondents also earned  $\leq$  N 50,000 monthly [13,26]. Also, in a descriptive cross-sectional study of high blood pressure in a semi-urban area in Uyo, South-South Nigeria, Ekanem et al reported that majority of the participants, 45% earned between N 30,000 and N 50,000 monthly [27]. A Lagos study on the prevalence and socio-demographic profile of hypertensive outpatients, majority, 45% of the respondents earned less than N 10,000 monthly [28]. The reason for this is probably because many Nigerians are underemployed and live from hand to mouth due to the poor economic state of the country.

The finding of half or 76% of the participants having strong or fair/strong spousal social support respectively lays credence to a cross sectional study on BP control and perceived social support conducted by Ojo and colleagues in Abeokuta, Southwest Nigeria in which about 79% of the respondents reported strong perceived social support [13]. This corroborates the fact that Africans have a naturally rich social support network even though could sometimes be without financial capability. The strong family ties of the Yoruba culture and the rural nature of the study area could also be responsible and because the participants were in a marital relationship. A similar study done in Ibadan among the hypertensive patients reported that 93% of the subjects received some social support

from family members [12]. Previous research works have also shown that in family-centered societies, people tend to gain support from family members, especially the spouse or the significant other [29,30].

In this study, MMAS-8 scale was used and 22.5% of respondents were found to achieve high medication adherence, and when medium and high adherence were combined as adherent, the proportion rose to 61.1%. Ambaw and colleagues in Gondar Hospital in Ethiopia using a dichotomised version also reported adherence prevalence of 64.6% [31]. Similarly, Rasaan and colleagues in Ilorin, Southwest, Nigeria in a hospital-based cross-sectional study among 400 hypertensive patients in a Nigerian Family practice setting found an adherence prevalence of 65.5% [26]. Conversely, in Eastern Nigeria it was as low as 43% [32]. These difference might not be unconnected with the small sample size and data collection tools used in Eastern Nigeria.

This study found an association between perceived spousal social support, its four domains and medication adherence to anti-hypertensive medications. Perceived spousal support was also an independent predictor of medication adherence. In the study of social support and adherence among hypertensives in India, social support predicted medication adherence [33]. Likewise, in a meta analytical study on social support and adherence to treatment in hypertensive patients, functional social support as looked into in this work was associated with medication adherence [4]. The likely reason for this finding could be that, spouses or the closest other buffer the negative effects of unsatisfactory physician-patient relationship such as too short consultations and stressful interactions with other caregivers. However, Bader and colleagues in the UAE found no such association [34].

Female gender was also found to be an independent predictor of medication adherence. This corroborates earlier work done by Lee in China which that women were reported to have higher odds of medication adherence when compared with the men [35]. Several reasons that could probably explain this are that women are more likely to receive financial support from their spouses to cater for themselves among other things and so much so because they utilise health care services more than men [21,22]. However, this finding is in contrast with the work done by Shah which found that males are more likely to adhere to antihypertensive medications [36]. Factors associated with adherence in male patients include less causal attribution to culture, more attribution to risk factors, fewer symptoms and uncertain symptoms related to high blood pressure. While for women, poor adherence was related to more causal attribution to balance and risk factors, less personal control, cost of multiple prescriptions due to co-morbidities [36].

## Conclusion

Fifty percent of adult hypertensive patients attending Family Medicine Clinic of Federal Teaching Hospital, Ido-Ekiti demonstrated strong perceived spousal social support and there is a strong association between spousal social support, gender and medication adherence.



Therefore, spouses should be made to know that emotional and practical spousal social support is critical to the wellbeing of their hypertensive spouses. They should be encouraged to show concern and interest in the plight of their hypertensive spouses as this will go a long way to improve medication adherence and blood pressure control.

Furthermore, they should also be encouraged to constantly remind their hypertensive spouses to regularly take medications as agreed on by the patient and the doctor. Efforts to harness spousal social support should be encouraged by doctors and other stakeholders in the management of hypertension. Also, once hypertension is diagnosed, the level of spousal social support and medication adherence should be determined as quickly as possible towards the achievement of BP control, prevention of complications and death.

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## Authors' contribution

Ekundayo, Oladeji Olusola – Conceptualisation, manuscript writing, literature search, protocol implementation, planning, data collection, data analysis and discussion.

Elegbede, Olayide Toyin and Gabriel-Alayode, Olusegun Emmanuel – Contributed to protocol implementation, planning, proof reading of draft and proof reading of materials for intellectual content.

Agboola, Segun Matthew; Shabi, Olabode Muftau; Bello, Ibrahim Sebutu; Omosanya, Olusegun Emmanuel and Ajetunmobi, Oluwaserimi Adewumi – Contributed to proof reading of draft, proof reading of materials for intellectual content.

Fashola, Adebayo Matthew – Contributed to data analysis and discussion.

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## Consent

Written informed consent was obtained from patients who participated in this study.

## Ethical approval

This was obtained from the Health Research and Ethics Committee of Federal Teaching Hospital, Ido-Ekiti.

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