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Socio-Demographic Attributes, Religious Practice and Treatment Adherence among the Mentally–Ill Attending Out- Patient Clinicofa Neuropsychiatric Hospital, South West, Nigeria

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Abstract

- ***Background:***
Treatment Adherence is as important as the air a mentally-ill person breathes, and it's a long term issue while religious practices is a factor that may influence either positively or negatively.

- ***Objective:***
To determine the influences of religious practices on treatment adherence among the mentally-ill attending the out-patient clinic of a Neuropsychiatric Hospital, Abeokuta.

- ***Methods:***
Both quantitative (cross sectional survey) and qualitative (focus group discussion) designs was utilized for the study. The target populations for the study were the patients attending the out-patient clinic of Neuropsychiatric hospital, Abeokuta. The sample included 167 participants that answered the questionnaires and four focus group discussions consisting of 40 participants. Simple random sampling was used to select the participants.

- ***Results:***
The overall treatment adherent level reveals that majority of the respondents where adherent (63.7%), 6.6% were non adherent while 28.7% were neutral. 86.8% agreed that their religious practices do not affect their treatment adherence but 13.2 said religious practices influence their treatment adherence. Despite the fact that 59.3% of the participants were unemployed, the rate of treatment adherence was still high among the respondents and 55.7% said side effect of the drug do not affect their drug compliance.

- ***Conclusion:***
The study concluded that the respondents were adherent and that religious practice do not influence their treatment adherence.

Keywords:- *Mentally-ill, Out-patient, Religious Practice, Treatment Adherence.*

I. INTRODUCTION

The purpose of any health care practitioner is to help the patient recover to his pre-morbid state or even better but in the case of some mentally ill, recovery is short lived as some of these patients become non-adherent to treatment. This could be attributed to religious practices, socio-demographic factors such as low income, educational status, marital status, duration of therapy, frequency of usage of drug and stigma. Treatment adherence is an important aspect of management of the mentally ill. It helps to improve the health status of the patient and makes them to be productive within the community. On the other hand, religious practices is a factor that helps an individual to be at peace with himself and others around him, however, it has a compelling force that can interfere with decision. Mentally-ill individuals are not exempted from this, hence religious practices may either lead them to make up their minds to be adherent to treatment or otherwise.

From time in memorial, religion has been labeled as problematic in psychiatry. Sigmud Freud went ahead to describe religion as a universal obsession neurosis. In fact, when psychiatry was emerging as a field, some clergymen perceived psychiatry as 'anti-Christian" or dangerous, but in the last three decades, religion was being seen as an important factor in the treatment of the mentally ill due to the significance of patients culture as well as the salutary effects on mental health (Weber & Pargament, 2014).

The management/treatment of psychiatric patients' has progressed over time due to the development of psycho pharmacological agents for treatment of the mentally ill but adherence to treatment remains an enormous problem bearing in mind that adherence is one of the major determining factor of the effectiveness of psychiatric treatment. (Zaid, Befikadu, Gesrehiwot, Birhanu & Tenodros, 2014).The management/treatment of psychiatric patients' has progressed over time due to the development of psycho pharmacological agents for treatment of the mentally ill but adherence to treatment remains an enormous problem bearing in mind that adherence is one of the major determining factor of the effectiveness of psychiatric treatment. (Zaid, Befikadu, Gesrehiwot, Birhanu & Tenodros, 2014) Adherence can be defined as the extent to which patient's behaviors such as medication taking; balanced diet and life style modification comply with doctor's recommendations. Non-adherence is a familiar word among the health care givers, it is used for patients who stop taking their drugs, not attending clinic regularly or refuse to keep to their treatment regimen.

In Nigeria, a study on non-adherence to medication in out-patient settings and its effect on employment by Okuboyejo (2013) revealed religious belief/practice as a factor for non-adherence to medication and that factors such as age, sex, income, mental status ,ethnic background are patient characteristics that may not be a direct determinants of adherence. Religion is of importance in shaping an individual's identity and existence because it involve core emotional and socio-cultural experiences, attitudes, affective states as well as influences on state of consciousness, life style, significant relationships, the meaning given to suffering, stress and how to cope with distress. It also determines the motivation to receive different types of help and support for treatment received in case of acute or chronic illness (Lassi & Mugnaini, 2015).

The decision of the mentally ill patient to incorporate religion into his management may lead to conviction of delusional belief; severity of the symptoms, low level of functioning and poor adherence. It has been observed by the researcher that non-compliance with treatment based on religious practices is gradually becoming an issue in the management of psychiatric patients as some who at one time or the other were good at treatment regimen compliance suddenly stop taking their medication believing that God has healed them or has told them not to use drugs again because he will heal them. When such patients present in the hospital especially during the assessment of the patient, it is often discovers that they would have tried non-orthodox method such as going to a spiritualist before coming to the hospital and when questioned further, he/she would express strong confidence in the healing power of a supernatural being. There is therefore need for increase awareness of the influence of religious practices on treatment adherence of the mentally ill due to its effect on their mental health. Socio-demographic factors affecting their mental health needs to be assess as well, therefore it is the intention of the researcher to investigate the relationship between socio-demographic attributes, religious practices and treatment adherence among patients attending the Out Patients Clinic of the Neuropsychiatric Hospital, Aro, Abeokuta. In order to bridge the gap created by many previous research that focused on schizophrenic's patients and their religiosity. The specific objectives were to:

- Identify socio-demographic variables of the respondents
- Identify religious practice of the respondents
- Assess the relationship between socio-demographic variables and respondents' adherent to treatment
- Assess the relationship between socio-demographic variables and religious practices of the respondent
- Assess how socio-demographic variables and religious practices of the respondent influence treatment adherence.

II. METHODS

The research design was a descriptive cross sectional survey of patients diagnosed with mental illness. Questionnaire as well as focus group discussions were used for data collection. The study was carried out at Neuropsychiatric Hospital, Abeokuta. The total number of participants that were involved in this study was 207and were made up of both female and male patient who are 18years and above and have being attending the out-patients clinic of the hospital. They must have been diagnosed of mental illness for more than a year and are mentally stable while the exclusion criteria include those patients that are not attending out-patient clinic.

The sample size was determined by using a formula for Likert scale questionnaire propounded by Soyinka (2016)

$$n = \frac{\left[\left\{\exp(Z_{\alpha/2} + Z_{\beta})\right\} - 1\right]^2 s^2}{(ks)^2}$$

The respondents' level of religious practice influence on treatment adherence was measured on a 5 points likert scale of agree, strongly agree, neutral, disagree, strongly disagree with attributed figure of 5-1 with tolerance of standard scale unit at 95% confidence interval. Four different focus group discussions were organized for collection of data for the qualitative aspect of the study and each group had 10 patients. Those who participated in the quantitative were exempted from the focus group discussions. The discussion was held with each group on different days. Some of the questions asked were: Do you belong to any religious affiliation; if yes tell us the name, what do you understand as religious practices? Describe how religious you are, what are those religious practices you are involved in? What do you understand by adherence to treatment? And discuss the socio-demographic factors that is affecting you adherence to treatment

Data were analysed using the Statistical Package for the Social Sciences (SPSS) version 23. The descriptive and inferential statistics were used to report the data analyses which were quantitative in nature. Simple percentages alongside with decisions from test hypotheses at *p*-value less than 0.05 was used in making inferential decisions and regression analysis was used to test hypothesis.

Reliability: A pre-test was carried out among 17 outpatients of State Community Psychiatric Centre, Oke-Ilewo, Abeokuta. The data was analysed using Cronbach's Alpha coefficient and the result yielded an overall reliability of 0.8

Ethical Consideration: Ethical approval for this study was obtained from Babcock University Health Research Ethics (BUHREC), Ilishan-Remo. Letter of introduction was presented to Head of Nursing Department of NPH, Aro. Only consenting participants took part in the study and were assured that their contribution would remain anonymous and their responses kept confidential and used only for the research study. All questionnaires were distributed, adequately filled and used in the analysis. Thus, 100% questionnaire retrieval success was ensured.

SN	Variable		N = 167	
			Freq.	%
1	Gender	Female	80	47.9
		Male	87	52.1
2	Age	Less than 25 years	26	15.6
		26-40 years	54	32.3
		41-55 years	58	34.7
		56 years above	29	17.4
		Mean age = 32.8, Standard Dev. = 5.13		
3	Marital Status	Married	78	46.7
		Single	69	41.3
		Divorced/Separated	13	7.9
		Widowed	7	4.2
4	Ethnicity	Yoruba	145	86.8
		Igbo	14	8.4
		Hausa	3	1.8
		Others	5	3
5	Religion	Christianity	114	68.3
		Islam	50	29.9
		Others	3	1.8
7	Occupation	Employed	68	40.7
		Unemployed	99	59.3
8	Education	No formal education	27	16.2
		Primary Education	32	19.2
		Secondary Education	54	32.3
		Higher Education	54	32.3

Table 1:- Socio-demographic profile of the respondents

Religious Practices and Treatment Adherence	Respondents' Responses		
	Agreed	Undecided	Disagreed
Value religious activities than coming to clinic	26 (15.6)	21 (12.6)	120 (71.8)
Relapse due to lack of prayers	30 (18.0)	18 (10.8)	119 (71.2)
Spiritual intervention better than drug	25 (15.0)	26 (15.7)	116 (69.3)
Prefer ritualistic acts to clinic attendance	25 (15.0)	21 (12.6)	121 (72.4)
Religion organization don't believe in usage of drugs	10 (6.0)	16 (9.6)	141 (84.4)
Spiritual first, than clinic	17 (10.2)	14 (8.4)	136 (81.4)
Prayer meeting first than clinic	18 (11.0)	17(10.2)	132 (79.0)
Reading holy books comes ahead of clinic	15 (9.0)	17 (10.2)	135 (80.8)
Religion influence adherence to treatment	39 (23.4)	16 (9.6)	112 (67.0)
Overall religious practice	22 (12.2)	52 (31.1)	93 (55.7)

Table 2:- Religious practices of the respondent

Information on what religious practices are in relation to adherence to treatment among the respondents revealed that the respondents involved themselves in various religious practices such as carrying out ritualistic acts, attending prayer meeting, reading of holy books and religious activities. Also, the participants that took part in the focus group discussion claimed they were involved in religious practices such as prayers, reading of the holy books, both group and individual fellowship and other activities that are assigned by the religious group they belong to.

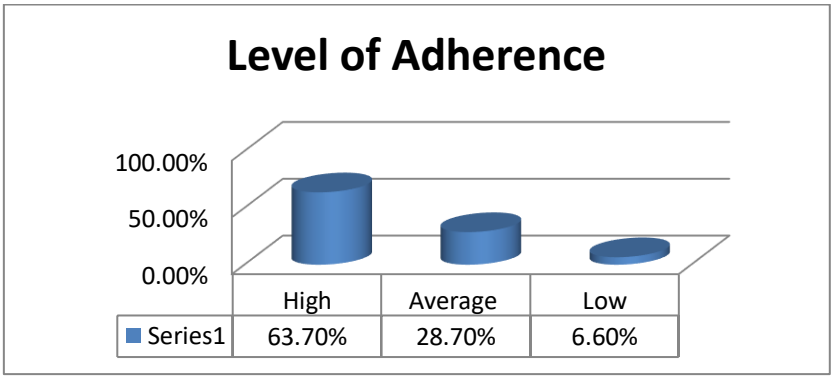

Fig 1:- Respondents' adherence level to treatment

➢ *Hypotheses*

Ho_1: There will be no relationship between religious practices and respondents' adherent to treatment?

Religious practices	Adherence level			X^2	Df	p-value	Decision
	Disagree	Agree	Total				
Disagree	49 (29.3)	96 (57.5)	145 (86.8)	1.137	1	.286	Not significant
Agree	10 (6)	12 (7.2)`	22 (13.2)				
Total	59 (35.3)	108 (64.7)	167 (100)				

Table 3:- Cross tabulation of Respondents Information on how Religious practices affect treatment adherence

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Table 3 shows the association between religious practices and treatment adherence was not significant as the result has 1.137 as the p-value. However in the focus group discussion, almost all the participants agreed that their religious practices do not affect their treatment adherence or their health decision, they went further to say that none of their religion teaches non – adherent.

Ho_3: Socio-demographic variables and religious practice will not significantly influence the respondents' adherent to treatment.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.256	.639		11.876	.000
	Gender	.028	.067	.096	2.107	.000*
	Age	.031	.063	.118	2.782	.003*
	Marital status	.049	.048	.103	2.654	.000*
	Ethnicity	.007	.003	.012	.713	.654
	Religion	.018	.011	.018	1.061	.085
	Occupation	.010	.008	.023	1.097	.107
	Education	.159	.301	.120	3.111	.009*

Table 4:- Multiple Regression Analysis of socio-demographic factors influencing respondents' adherence to treatment

Table 4 showed the relative contribution of each of the socio-demographic factors to the variance in the respondents' adherence to treatment. Education has a beta value of .120 and t-value of 3.111 significant at less than .05 alpha level; followed by age (beta = .118, t = 2.782), marital status (beta = .103, t = 2.645) and gender (beta = .096, t = 2.107) significantly influenced respondents' adherence to treatment. Therefore, 4 out of the socio-demographic factors except ethnicity, religion, and occupation relatively influenced the respondents' adherence to treatment.

Religious practice will not significantly influence the respondents' adherence to treatment.

Source of variation	Sum of Squares	Df	Mean Square	F-Ratio	P
Regression	29.938	1	29.938		
Residual	2608.155	165	15.807	1.894	.311
Total	2638.093	166			
R = 0.202; Multiple R (Adjusted) = 0.040 Multiple R^2 (Adjusted) = 0.040; Stand error estimate = 2.645					

Table 5:- Multiple Regression Analysis of religious practice influencing the respondents' adherence to treatment

Result presented in Table 6 revealed that the respondents' adherent to treatment yielded a coefficient of multiple regressions (R) of .202 and adjusted multiple correlation square of .040. This shows that 4% of the total variance in the respondents' adherent to treatment is accounted for by the religious practice. The table also indicated that the analysis of variance of the multiple regression data produced an F-ratio value not significant at 0.05 level ($F_{(1,166)}$ = 1.894; P = .311). Thus, religious practice did not significantly influence the respondents' adherence to treatment.

Summarily, some socio-demographic variables influence treatment adherence while religious practices did not significantly influence adherence.

III. DISCUSSION

➢ *Discussion on participants' religious practices*

This finding shows that focus group discussants were involved in religious practices and that those that filled the questionnaire still practice religious activities but not at the expense of treatment adherence. The implication of this is that the participants were well informed about the importance of treatment adherence which was discussed during the health education usually given at the out-patients clinic to all the patients that attend clinic. The health talk includes topics on religious practice and treatment adherence and how to cope with any socio-demographic variables that may want to affect their health decisions negatively.

It also shows that some of the participants were also using religious practices as a way of coping with their illness for instance, some of the focus groups participants believed that the treatment become more effective as they pray to God. This is in line with findings of Archer (2017). Archer (2017) while writing on the positive effects of religion on mental health stated that there is a difference between those who are religious and those who are not, the religious appear to be more emotionally stable and have a better social support, positive outlook, greater hope and motivation to recover. The author went further to say that religion involvements is related to better coping with stress, less depression, suicide, anxiety and substance abuse. Religious practices to her means religion affiliation, involvement and church attendance, all these are what participants in the focus group discussion said they were doing when at home (Archer, 2017).

- *Discussion on the adherence to treatment among the participants*

The overall adherence level shows that 63.7% were adherent, this shows that over 60% of the patients attending out-patients clinic were adherent to treatment. This is contrary to most of the studies that have been carried out among which are Ibrahim et al. (2015) who recorded a 62.5% non – adherence which is about 30- 65% reported in previous studies by Yang et al. (2012), Kassis et al. (2014) .Zaid et al. (2014) recorded 71.6% were adherent and this is similar to the result of this study. Farooq and Naeem (2014), in their study attributed variation in non-adherence to different population, variety of diagnosis variable follow up periods, and different definitions and measurement methods used in research.

Based on the response of the participants of the focus group discussions some of them who initially were non – adherent later became adherent because of many lessons learnt during the period of their non – adherence. For instance, a participant exercised faith and experienced a relapse, another who has tried traditional healers without any remission in his care decided to keep to his treatment regimen.

- *Discussion on religious practice and adherence to treatment*

In the entire study, 55.7% of the respondents agreed that religious practice do not influence their treatment adherence, the association between religious practices and treatment adherence was not significant. However in the focus group discussion, all the participants agreed that their religious practices did not affect their treatment adherence or their health decision, two of them shared how they exercised faith and tried alternative medicine/therapy without any success and have resolved to keeping to their treatment regimen. They believed that as one worship God and pray, the treatment becomes more effective, that shows that their religious practices and belief has a positive effect on their treatment adherence.

The implication of above findings was that more than 55% of the mentally-ill attending the out patients clinic of the hospital do not allow religious practice to influence their treatment adherence. However, the findings of this study especially the focus group discussion is in line with the discovery of Lassi and Mugnaini (2015), on the role of religion and spirituality on mental health and resilience in Italy, they discovered that there is a general positive effect between religious and health variable and that religious practices and beliefs promote healing and facilitate recovery.

Wrinkle (2014), said the circumstance people find themselves in, determine their belief and that some follow their religious beliefs when ill because of rules that forbid them from habits that affect their health such as no alcohol consumption for both Muslim and Christians, which if followed will help in the treatment of alcoholism.

The results goes with the longitudinal study by Zagozdzon and Wrotkowska (2017), who says that spiritual orientation plays an important role in the recovery from addiction and that a better treatment adherence was observed in religious patient diagnosed with depression that are religious.

- *Discussion on Socio – Demographic factors and treatment adherence*

In this study, age, gender, educational and marital status, unemployment, level of income/cost of treatment were key socio demographic factors that has effect on adherence while social demographic factor such as ethnicity, place of residence did not have any association with treatment adherence. However, majority of the participants of the focus group discussion strongly agreed to the fact that educational level and marital status should influence adherence positively, some of their responses are *"My husband knows about this problem before we got married and has being very supportive." "The sickness is not a hidden type, you can't hide it from your spouse so my spouse is aware and she's supportive"*

The tendency of adherence to treatment is higher among the respondents of age groups <25 and 26-45 compared to the elderly age. This implies that those that falls below 25 years of age to 55 years among the mentally –ill attending Out Patient Clinic the hospital are more adherent than those above age 55, the higher the level of education of the mentally-ill attending the out-patients of the hospital, the more adherent to treatment they are. Furthermore, 59.4% of the respondents were unemployed, the implication of this to the study is that more than 55% of the patient attending the out-patients clinic of the hospital were adherent to treatment despite the fact that they are unemployed. While responding to effect of side-effect of drugs, 55.7% agreed that side effect of drugs do not affect their adherence, this shows that despite the side effect experienced by some of the mentally-ill attending the clinic, they were still adherent to treatment.

This is contrary to many previous studies on treatment adherence. Zagozdzon and Wrotkowska (2017), identified gender, ethnicity, marital and educational status as not consistent predictions of non-adherence. Amr, El-Mogy and El-Masry on their own part reported that there were no - significant difference between medication adherent and non – adherent respondents in term of demographic variables such as gender, marital status and employment status, discussants of the focus group discussions strongly agreed that lack/insufficient money is a major factor in the treatment of mental illness which they believe could be as a result of unemployment, low economic status, nonpayment of salary or economic situations prevailing in the country.

Mossa, Jeenah and Kazadi (2014), mentioned low socio – economic status as one of the patient – related factors of non-adherence. Low socio – economic status has great influence on treatment adherence as experienced by the focus group members who complained about not

having sufficient money to purchase drug and the cost of transportation which is compounded by fuel shortage that is experience in the nation once in a while. Ibrahim et al. (2015), while studying medication – related factors of non-adherence among patients with schizophrenia and bipolar disorder in the North – eastern Nigeria reported cost of medication as an independent medication related predicators of non – adherence, went further to say that the higher the cost of the medication the higher the rate of non – adherence which perhaps may be responsible for the high non – adherence rate of 54.2% they obtained in their study. One of the reasons for this may be the setting used for the study which is the North – Eastern Nigeria which is one of the places with highest poverty rated area in the country where 70% of inhabitants are living below the $1 per day benchmark. In addition to this, the insurgency of "Boko Haram" has further complicated health care situation. The report of Zaid et al (2014) is similar to the findings of this study; they observed an increase in level of adherence as age increases till the age of 55. This is contrary to finding of Zagozdzon and Wrotkowska (2017), who categorized age as not consistent predictors of non – adherence while Okuboyejo (2013) in her report said age is insignificant to adherence. The difference in the report may be as a result of inclusion of other types of psychiatric illness in addition to schizophrenia which is the focus of most of the studies and the difference in the population of the study.

IV. CONCLUSION

It was discovered that there was good adherence to treatment among the mentally ill despite the fact that they belong to different religious groups and that their level of religious practices do not affect their adherence. The focus group believed that marriage is a weapon that can be used to promote treatment adherence. Interestingly, the level of unemployment do not reflect low level of treatment adherence among the participant, however there is a general consensus among the focus group participants that the cost of purchase of drug and transportation are factors that are capable of influencing treatment adherence negatively. In addition to these, the focus group participants agreed that side effect of drug could have a negative impact on medication adherence. Age on the other hand was observed to have an association with duration of treatment, worthy of note is that the rate of adherence in terms of how long the patient has been on medication kept increasing from age 26 – 45years.

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