

The Regulating Influence of Rehabilitation and Awareness Campaign on the Relationships between Transportation, Stigma, Quality of Health and Health-seeking Behavior among Obstetric Fistula Patients in North-west Nigeria: A Pilot Study

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Abstract—This study evaluates a small sample size from positivist's orientation regarding the regulating influence of rehabilitation and awareness campaigns on the relationships between transportation, stigma, quality of health and health-seeking behavior among obstetric fistula patients in north-west Nigeria. The study utilized a descriptive cross-sectional survey design, a simple random sampling method, and collected 100 completed questionnaires. The study employed six constructs for assessment. Data were analyzed utilizing the statistical package for social sciences, SPSS v22, which was complemented by meticulous perusal by the panel of experts to evaluate the reliability and the validity of the construct's items. Consequently, the findings of the pilot study confirmed that all the adapted items of the constructs are reliable and valid, and they are suitable for application in the main study.

Keywords: Rehabilitation, awareness Campaign, transportation, stigma, quality of health, health-seeking behavior, obstetric fistula, pilot study

I. INTRODUCTION

Obstetric fistula is a hole between the vagina and rectum or urinary bladder, which occurs commonly due to prolonged obstructed labor [3], [27]. The disease is characterized by physical, medical, and psychological signs and symptoms as well as consequences [12], [50]. Precisely, the fistula disease is a condition affecting women and girls that lead to the uncontrollable discharge of feces or urine or both [50], [27]. Although fistula could occur among women and children of all age groups, however, the disease is more common among women of reproductive age [27].

Worldwide, obstetric fistula devastated the lives of women estimated to be about 2-3 million [50], [3], with a yearly incidence estimated to be around 50,000-80,000 commonly in developing nations such as Nigeria [34], [12]. In Nigeria, an estimate put the number of women with obstetric fistula to be around 600,000-1,000,000 victims [12], [31], with nearly 20,000 new cases of the disease occurring each year [50], [34], [27]. Northern Nigeria has an estimated 500,000-750,000 cases of the ailment, which accounts for close to 70

percent of the total cases of the disease in Nigeria [12], [31]. Also, in northern Nigeria, an average of 2 to 5 cases of obstetric fistula occur in every 1,000 delivery compared to only 0.44 cases for each 1,000 delivery in Southern Nigeria [12]. More worrying is that despite the vast number of obstetric fistula patients in Nigeria, and mainly northern Nigeria, only an estimated 5,000 patients undergo repairs annually; this compound the disease profile in the country [12], [31]. Furthermore, even in northern Nigeria, the north-west has the highest number of obstetric fistula, with an estimated 250,000 disease cases, with less than 2500 women treated annually [12], [27].

In recent times, a report by the Federal Ministry of Health, Nigeria, showed that possibly the inability of most states in northern Nigeria to eliminate the obstetric fistula disease might well be due to several explanations, including insufficient training of health professionals, inadequate healthcare organization, and absence of knowledge that the disease can be treated using modern healthcare facilities among others [12], [31]. Furthermore, perhaps obstetric fistula disease might have continued to exist in northern Nigeria, north-west in particular because most patients do not look out for appropriate medical support, maybe due to specific influences, including but are not limited to transportation issues [9], stigma [17], [51], [25], and Quality of health [26], [46], [24]. Conversely, other scholars [28], [41], [38], [39], [29], believe that even where the factors above are not all right yet, several individuals seek out healthcare facilities.

Several studies have assessed the impact of transportation, stigma, and quality of health on health-seeking behavior among sick individuals, and have established some inconsistencies in their results. So, for instance, a study of transportation and its perceived influence on health-seeking behavior among disease victims by reference [24] suggested that poor public transportation impede health-seeking behavior. Conversely, reference [39] opines that public transportation does not constitute a threat to participation in the utilization of healthcare services. Furthermore, studies

concerning stigma show that patients who suffered from chronic diseases are subjected to stigmatization [15], [25]. Conversely, references [38], [28], and [41] disagreed.

Additionally, a study regarding the quality of health shows some inconsistencies in their results. So, for instance, reference [46] found a positive relationship between chronic diseases and health-seeking behavior. Conversely, reference [24] found a negative relationship between chronic diseases and health-seeking behavior. Moreover, accounts from the reference [12] shows that prior intervention programs aimed at motivating the sick to visit healthcare centers for therapy have been ineffective when compared to the amount of the programs and high backlog of unrepaired obstetric fistula patients, coupled with the high number of disease cases currently in Nigeria.

Therefore, based on the inconsistencies among earlier studies, those have justified the introduction of a regulator [4]. A regulator is introduced if the relationship between predictor (independent variables) and an outcome (dependent variable) is inconsistent or weak [4]. Also and more importantly, a study can introduce an appropriate regulator if there is evidence that previous intervention programs have been weak or ineffective [14], [4]. Therefore, the above scenarios created a gap in knowledge which was filled by this study through the introduction of an appropriate regulator (rehabilitation & awareness campaign) to strengthen the relationships between transportation, stigma, quality of health (predictors/independent variables) and health-seeking behavior (outcome/dependent variable).

Therefore, this pilot study assesses the reliability and validity of the measuring instruments before they are utilized in the main study. Consequently, this research includes five major sections. The first section covers the introduction, while the second section consists of the literature review of the significant study's constructs. The third section deliberates the research methodology, followed by the results of the pilot study in the fourth section. Finally, the fifth section presented the study's conclusion and recommendations.

II. LITERATURE REVIEW

Health-seeking behavior refers to the action that a person or groups of persons with specific health trials undertake to promote health, prevent illness, and or treat specific illnesses [51], [1]. Moreover, the concept of health-seeking behavior represents activities that comprise of commitments from the patients who are experiencing apparent challenges; in that, the individuals have to be willing to consent to the fact that they will not progress or cure of the illnesses bedeviling them. The pledge is one that they can make through the appreciation of instructions from competent health personnel to improve health-seeking [5], [1]. In the main, the concept signifies to a patient working along with other individuals to gain support that might be in the form of info, therapy, and general support due to a particular problem that an individual presents with him/her [50], [1]. The other meaning of the concept shows

that medical personnel, specifically, those charged with the responsibility for the care of obstetric fistula patients are starting to appreciate the paradigm of health-seeking behavior as a significant aspect of their profession. Furthermore, about the concept of health-seeking behavior, the health personnel must understand the various social and psychological elements such as, transportation, stigma, quality of health, and more significantly, the regulating factors such as, awareness campaign and rehabilitation that influence patients to seek for healthcare services [51].

The term transportation refers to the simplicity with which information, goods, and people move from one place to another [31]. In this study, transportation is defined as access to excellent transportation facilities such as cars, buses, and other vehicles and facilities that could convey obstetric fistula patients from their residences to health care centers to seek a cure. The main essence of transportation includes the desire to satisfy the need for mobility because transportation exists only if people, product, and information can move from one place to another; where this is not the case, the concept is not meaningful [18], [31]. Conversely, the absence of transportation weakens the ability of individuals within a social setting to gain information, goods, and services as well as ensure movement from one place to another [23]. Additionally, reference [45] observed that the concept of transportation is a necessary tool for ensuring access and or participation in programs aimed at improving health and disease cure because whenever individuals are sick, they need to visit competent health care providers for advice and medication. However, lack of access to transportation could lower the intention of sick individuals to seek clinical intervention, which results in deterioration in health conditions [50], [3].

Also, transportation has been identified as an essential motivator in accessing health care services, which further serves as a connection between health services and residence of individuals that need these services [1]. In less affluent societies, a poor road network and lack of resources to use transport facilities make rural areas unapproachable, thereby, making it difficult for individuals to access health services that are not available or provided in rural health centers [50]. Several studies [39], [18] have examined transportation access about health-seeking behavior, and they have established some inconsistencies. According to reference [18], a shortage of access to the community transportation system adversely affects the consumption of health care facilities. Conversely, reference [38] argues that transportation only affects people under certain conditions. The scholars opined that an example of a common problem is public transport-in this case, if we do not want buses and cars for transportation to health centers, community transportation does not create difficulties in health-seeking, which is also the case for individuals who do not need buses, cars or motorcycles; instead, they utilize other sources of transportation such as camels, donkeys, horses or carts among others [38]. Moreover, a cross-sectional study by

reference [35] using a sample of 46,65 respondents in the USA on access to health care services among older adults shows that distance to treatment centers affects transportation and subsequent treatment-seeking. Conversely, a study of driving distance and diabetes treatment by reference [44] using a cross-sectional design suggested that distance from the residence of the patients to health centers does not affect subsequent utilization of health services.

Stigma is defined as the feeling of indignity or humiliation by a person facing a specific stressful situation. Stigma leads to prejudice and discrimination [25]. In general, the term implies displaying discriminatory or harmful behavior to people based on gender, race, socio-economic status, health and so forth. However, since the construct represents negativity, this study uses the term in a positive sense to represent low-stigma. Hence, the concept is operationally defined as deep feelings of shame and disgrace exhibited by obstetric fistula patients, which could encourage the sick to take part in programs aimed to better up their lives. Several studies have examined stigma concerning health-seeking behavior among people with acute and chronic diseases, and have found some inconsistencies in their results. So, for instance, references [15], [25] reported that clients with chronic diseases such as mental illnesses suffer stigmatization from family, friends, and society, which affect treatment-seeking behavior due to isolation. Conversely, studies by references [41], [28] indicated that most families and friends of patients do not stigmatize them. Similarly, a study by reference [38] indicates that the family and friends of fistula victims treat them nicely and that the significant others support the victims to seek competent healthcare services. Additionally, a study by reference [22] found no significant association between stigmas and help-seeking behavior among veterans with depressive symptoms in the United States of America. In essence, the study found that the majority of the respondents visit health centers for treatment despite the stigma. Similarly, reference [32] in their study of stigma among Singaporeans, indicated that stigma does not impede treatment-seeking intention. In essence, there is a positive relationship between low-stigma and treatment-seeking. Conversely, reference [2], in their study among urban Singaporeans, found that stigma impede health-seeking.

Quality of health (QOH) is another crucial construct that influence health-seeking, which is defined as a subjective phenomenon, which encompasses gladness, upright health condition, life fulfillment, a living standard that is above average, good housing condition, educational prospects, freedom to express oneself and excellent transportation and freedom of movement [13]. The concept also captured the feelings of joyfulness within one's immediate environment, among others [21]. This concept also involves assessing clients to understand their past and present status of health [13], [8]. Conversely, poor quality of health represents the absence of complete physical, social, and psychological well-being of an individual [8]. The World Health Organization

defined the concept of QOH as the sum of a person's awareness of their level in health-related to a value system and culture within which they live, as well as about his/her standards, goals, concerns and expectations [13]. This definition attaches importance to the subjective aspect of the wellbeing of quality of health, the sense of happiness, morale, and satisfaction [13]. In this study, QOH refers to reasonably sound physical and psychological health attained by obstetric fistula patients, which facilitate the individual's resolve to look out for healthcare services. Also, it is essential to note that the low quality of health is a common feature among people living with chronic diseases such as musculoskeletal pains (pains in the muscles and bones), HIV/AIDS, Tuberculosis and other reproductive diseases [7]. Conversely, an upsurge in the quality of health denotes physical, social, and psychological well-being among individuals in a given society [7]. Similarly, the concept of QOH is essential because it serves as a tool for the assessment and explanation of the outcome of disease conditions, especially conditions that are chronic ones [8]. Also, the concept of QOH can be measured both objectively and subjectively. The concept's measurement is captured objectively through focusing on such issues as physical things, such as quality drinking water, qualitative health infrastructure, good referral vehicles, quality drugs, among others. Subjectively, the focus of measurement encapsulates the issues such as the perception of individuals about satisfaction with facilities and life processes in society [21]. Several studies regarding the quality of health have reported some inconsistent findings. So, for instance, reference [24] found negative relationships between sleep deprivation and quality of health. Conversely, reference [26] found a positive relationship between inadequate sleep and quality of health as well as improvement in subsequent health-seeking behavior. In essence, sleep deprivation, according to reference [26] affects the quality of health and subsequent participation in treatment. Similarly, reference [46] observed that among clients with a mild eye disease (glaucoma), which has not caused severe physical, physiological, and psychological disturbances, the patients are more likely to seek follow up treatment. In essence, the relatively stable condition of health among patients encourages treatment-seeking intention. Conversely, reference [29] argues that among a County hospital population, the majority of clients that reported for follow-up treatment are those with chronic diseases. In essence, clients with less severe diseases do have lower intentions to seek treatment and subsequent follow-up care.

Based on the inconsistencies in the previous studies on transportation, stigma, and quality of health, those have justified instituting a regulating variable in this study, which is in line with the opinions of reference [4], [14]. In line with the preceding opinion, references [6], [42] have suggested for the introduction of regulator; which is an awareness campaign and rehabilitation programs to strengthen the relationships between the independent variables and the dependent variable of the study.

The health-related rehabilitations are special activities aimed at positively modifying an individual's physical, social, and mental health [12]. Rehabilitation involves activities such as counseling, therapy-medical and surgical, and skills acquisition programs, among others, that are provided to the patients to stimulate their health-seeking behavior [16], [48], [6]. Also, awareness campaign programs refer to the health intervention programs offered to the community through the pamphlets, posters, and radio among others, which promotes public health [19], [20]. Besides, health campaigns are special activities, which include but are not limited to the awareness and educational campaigns that are employed to motivate sick individuals to seek for healthcare facilities [33], [6]. Health educational campaign as an aspect of intervention programs on obstetric fistula involves the use of print and electronic media to enlighten the target audience, which is aimed at strengthening positive attitudes towards health-seeking [48].

Despite the several efforts made by the government of Nigeria through various intervention programs, including, but are not limited to thematic evaluation campaign to end fistula [11]; obstetric fistula needs assessment [47]; the training of doctors [49], and literacy campaign [12] among others to eliminate obstetric fistula, the disease prevalence rate remains high, perhaps because the preceding programs have not been active [6]. Therefore, because of the ineffectiveness of the previous intervention programs in influencing obstetric fistula women towards health-seeking, reference [6] suggests that future studies should include appropriate programs such as, awareness campaign through radio and educational pamphlets as well as rehabilitation programs; the selection of the later programs were meant to stimulate health-seeking among obstetric fistula patients.

It is important to note that reliability assesses the degree to which an instrument of research is error-free, consistent, and constant across several items of the scale [30], [40]. Whereas validity assesses the degree to which a given instrument is measuring what it is supposed to measure [30]. Therefore, this study deals with the result of the pilot study concerning the regulating influence of rehabilitation and awareness campaigns on the relationships between transportation, stigma, quality of health and health-seeking behavior among obstetric fistula patients in north-west Nigeria.

III. MATERIAL AND METHODS

This study primarily undertook a pilot study to clear doubts on the part of the researchers concerning the validity and the reliability of the measurement instruments employed in this research. Also, the results of the pilot study will be integrated into the main study and perhaps evaluate the measuring instruments if need be, which is in line with the views of reference [30]. Consequently, a descriptive cross-sectional survey research design was employed in this study to evaluate the views of obstetric fistula patients in north-west Nigeria, concerning the power of rehabilitation and awareness campaign combined with transportation, low stigma and

quality of health to encourage health-seeking, which is similar to the opinions of reference [40]. Usually, in a pilot study, the sample size employed is small [30]. However, it is a quantitative research tradition to increase the sample size to somewhat about 100 participants to guard against bias [10]. As a result, this study randomly administered a total of 120 researcher-administered questionnaires to respondents in Sokoto, Zamfara, Kebbi, and Katsina.

The reason for employing a researcher-administered questionnaire in this study was because the instrument allows researchers to collect data within a short period. Besides, the instrument reduces stress on the part of the participants as well as eliminates contradictions in the research result. An additional benefit of a researcher-administered questionnaire is that it provides a higher response rate because the questionnaires are gathered immediately. The researcher filled-in the answer chosen by the respondents. Again, due to additional supports provided by questionnaire over other instruments such as ease of coding, tabularization, and aid respondents in making a quick choice which is more comfortable for the researcher to code for onward analysis; this provides further justification why the study used a closed-ended questionnaire [30], [40].

Moreover, items of the questionnaire were measured on five Likert-scales based on the suggestion of reference [30]. From the 120 questionnaires administered by this researcher, 100 questionnaires were properly completed, while 20 questionnaires were not filled correctly. Thus, only 100 questionnaires were utilized for the final data analysis. The high response rate of 83.3% was attained mainly because the questionnaires were researcher-administered, where the researcher marked the answers chosen by the respondents.

Table no. 1: Measurement Instruments, Sources, and Items

S/n	Instrument	Sources	Items
1.	Transportation	Rodriguez (2012), and Syed et al. (2013).	9
2.	Stigma	rangal, Brady, & Fritz (2012)	8
3.	Quality of Health	inopman, Zmud, Ecola, Mao, & Crane (2015)	7
4.	Health-seeking Behavior	Bahrami et al. (2014)	12
5.	Rehabilitation	Gerten et al. (2009) and Bellows et al. (2015).	9
6	Awareness Campaign	Keating et al. (2006) and Karki et al. (2008)	10
	Total		55

This study consists of six (6) constructs, as shown in Table 1, that are transportation, stigma, quality of health, rehabilitation, and awareness campaign, which are the independent variables, while health-seeking behavior is the dependent variable. The construct of transportation employed in this study has nine items, which was adapted from the original studies of reference [37], [45]. Additionally, the construct of stigma consists of 8 items adapted from the

original work of reference [41]. Moreover, the construct of quality of health modified in this study consists of 7 items from the original work of reference [23]. Also, the construct of health-seeking behavior consists of 12 items, adapted from the original work of reference [5]. In addition, the construct of rehabilitation comprises nine items, adapted from the original works of references [16], [6]. Finally, the construct of awareness campaign consists of 10 items, adapted from the original works of reference [19], [20].

IV. RESULTS

Validity Test

The validity test indicates proof that the instruments used in a specific study are suitable in measuring the proposed research construct [30], [40]. This study utilized content validity to confirm that the items are valid, and they appropriately measure the construct; this is similar to the opinions of reference [40] and [10]. The study requested a panel of experts and a few sample sizes of 120 respondents to make comments and provide feedback concerning the suitability of the adapted items in measuring the selected study’s constructs. The panel of experts who assessed the clarity of the survey instrument included nurses and midwives, medical doctors’, and other allied health professionals from Maryam Abacha Women and Children Hospital, Sokoto and Farida general hospital Sokoto.

Furthermore, the questionnaires were administered to sampled obstetric fistula patients to gain their feedback. After receiving the feedback from the experts and the patients, certain items were re-phrased to measure the construct, by extension, for a natural understanding of the part of the respondents in the main study.

Reliability Test

The reliability test focuses on the extent to which answers to questions provided by the respondents in a study are consistent [40]. Thus, this study tested the reliability of the constructs with the aid of SPSS software. From the several existing statistical techniques for measuring reliability, this study employed Cronbach’s alpha coefficient, which is in line with the suggestion of reference [30].

The result of reliability test as indicated on Table 2, established that the entire six (6) constructs have a high-reliability scores that ranged from 0.82 to 0.93; this is in line with the suggestion of reference [40] that, a Cronbach’s alpha coefficient threshold must be 0.70 or greater to accept that an instrument possesses high reliability. Thus, Table 2 presents a summary of the reliability results. From this result, it is evident that the piloted study had presented the Cronbach’s alpha scores of the six (6) individual constructs under study, which have surpassed 0.70. Consequently, based on the documented benchmark of 0.70, it can be confirmed that all the constructs are reliable; thus, there was no need to get rid of any item in the conduct of the first study.

Table no. 2: Reliability Test Result

S/N	Construct	No. of Items	Cronbach’s Alpha
1.	Transportation	9	.91
2.	Stigma	8	.88
3.	Quality of Health	7	.82
4.	Health-seeking Behavior	12	.93
5.	Rehabilitation	9	.89
6.	Awareness Campaign	10	.85

Moreover, Table 3 shows the descriptive analysis of the characteristics of the respondents. With regards to the educational status of the respondents, Table 3 indicates that 96 (96%) that are the majority do not possess formal education, while the least 1 (1%) attended secondary school, which implies that the majorities of the respondents are not well-educated.

Table 3: Characteristics of Respondents

Demographic Variables	Categories	Frequency	Percentage (%)
Educational status	No formal education	95	95.0
	Primary School	2	1.0
	Secondary School	1	1
	Did not Graduate	2	2.0
Total		100	100.0
Occupation	Employed	1	1
	Unemployed	96	96.0
	House-wife	3	3.0
Total		100	100.0
Income per month	Less than N3000	97	97.0
	N7000-N10000	2	2.0
	Above N11000	1	1.0
Total		100	100.0
Rehabilitation	Yes	71	71.0
	No	29	29.0
Total		100	100.0
Awareness Campaign	Yes	52	52.0
	No	48	48.0
Total		100	100

Furthermore, concerning the employment status of the respondents, Table 3 indicates that the majority of the respondent, 96 (96%), are unemployed, while the least, 1 (1%) of the respondents are employed. Additionally, with regards to income per month, the majority of the respondents, 97 (97.0%) earned less than N3000 (less than \$8 per month),

while the least respondent 1 (1%) earned N7000-11000 (\$17-25 per month). Also, regarding rehabilitation programs, majority, 71 (71.0%) of the respondents were influenced by rehabilitation programs provided by health centers to seek healthcare-services, while rehabilitation programs did not motivate the least respondents, 29 (29%). Moreover, concerning awareness campaigns, the majority of the respondents, 52 (52%), feel motivated to seek healthcare services due to the campaign program, while the least respondents, 48 (48%), were not motivated by campaign programs, but by other sources. Therefore, this result showed that the majority of the obstetric fistula patients have participated in health-seeking because of various rehabilitation and awareness campaign programs. Consequently, by extension, perhaps in the main study, rehabilitation and awareness campaign programs, combined with transportation, low-stigma, quality of health, may well be a significant regulator in encouraging health-seeking behavior among fistula patients in north-west Nigeria.

V. DISCUSSION, CONCLUSION, AND LIMITATION

The eventual goal of this study was to test the validity, and the reliability of the measuring instruments of the six (6) selected constructs to confirm that the instruments are free from mistakes before they are used in the main study. Therefore, based on the previous study's goal, the outcome of this study has accomplished its overall objective. Precisely, the validity of the measuring instruments was realized since the respondents of the study have demonstrated a good understanding of the adapted questions that they were probed. The preceding development was achieved because of the meticulous perusal of the adapted questionnaire by the panel of experts and the responses gotten from the 100 obstetric fistula patients in the pilot study.

Furthermore, the reliability of the measurement instruments was achieved using the Cronbach's alpha coefficient. The findings of the reliability test showed that all the constructs of the study are above 0.70 benchmarks. Based on the previous findings, it is evident that the validity and the reliability of the study's instruments have been achieved, and all the items of the constructs are suitable for use in the main study. The study has some limitations; in that, the researcher spent much time than the usual 20-30 minutes trying to interpret to most of the respondents the researcher-administered questionnaire that was designed in the English language to their local language (Hausa Language).

Therefore, because of the preceding shortcoming during the pilot testing, these researchers recommend for seeking the assistance of a qualified translator to interpret the researcher-administered questionnaire designed in English language to the Hausa language, which is the local language of most of the study respondents to simplify data collection in the primary research.

REFERENCES

- [1] Akhter, S. Maternal health care seeking behaviour of women from lower and upper socio-economic groups of Dhaka, Bangladesh-fear or fusion? Submitted in fulfillment of the requirements for the degree of doctor of philosophy (PhD), school of economist, Flinders University, Adelaide, Australia. 2015
- [2] Aroma, E., Tolvanen, A., Tuulari, J. & Wahlbeck, K. Personal Stigma and use of mental health services among people with depression in general population in Finland. *Biomed central psychology*, 2011, 11(52), pp. 102-111
- [3] Baba, S. B. Birth and Sorrow: The psychosocial and medical consequences of obstetric fistula. *International Journal of Medical Sociology and Anthropology*, 2014; 2(2), 055-065.
- [4] Baron, R. M. & Kenny D. A. The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 1986; 51(6) 1173-1182.
- [5] Behrami, M. A., Afashbahar, O., Shakahifar, M. & Montazeri, F. R. Developing a treatment seeking behaviour survey for Iran. *Journal of novel applied sciences*. 2014, 3(6), pp. 651-660.
- [6] Bellows, B., Bach, R., Baker, Z. & Warren, C. Barriers to obstetric fistula treatment in low-income countries: A systematic review, *Population council*. 2014, 22, pp. 1-4
- [7] Bjomsdottir, S. V., Jonsson, S. H., & Valdimarsdottir, U. A. Mental health indicators and quality of life among individuals with musculoskeletal chronic pain: a nationwide study in Iceland. *Scand journal rheumatoid*, 2014, 43, pp.459-423.
- [8] Borgeonkar, M. Quality of life measurement in gastrointestinal and liver disorders. *Review*, 2013, 47, pp. 444-454.
- [9] Borgman, R. & Akin, J. Social support, gender, and treatment-seeking behavior for substance abuse: does social support influence treatment attendance among substance abusing women and men. *Discovery; Georgia state honors college undergraduate research journal*: 2012, 1(13). Pp.11-16
- [10] Creswell, J. W. *Research design: Qualitative, quantitative, and mixed methods approaches*, Sage publication, Lincoln. 2014.
- [11] Durgburg, E., Reyners, M., Ilyasu, Z., & Medina, M., (2009). Thematic evaluation of National programmes and UNPFA experience in the campaign to end fistula: country assessment Nigeria. *HERA/Draft report*. 2009.
- [12] Federal Ministry of Health (2012) *National Strategic Framework for the Elimination of Obstetric fistula in Nigeria, 2011-2015*, 2012, 7- 20.
- [13] Folasire, O. F., Irabor, A. E., & Folasire A. M. Quality of life of people living with HIV and AIDS attending the antiretroviral clinic, university college hospital, Nigeria. *Afr j. Prm health care fam med.*, 2012, 3(22), pp. 294-298.
- [14] Frazier, P. A., Barron, K. E. & Tix, A. P. Testing moderator and mediator effects in counselling psychology research. *Journal of counselling psychology*. 2004; 51(1), 115-134
- [15] Gharoro, E. P. & Agholor, K. N. Aspect of psychosocial problems of patients with vesicovaginal fistula. *Journal of obstetrics and gynecology*, 2009, 29(7), pp. 644- 647.
- [16] Gerten, K. A., Venkatesh, S., Norman, A. M., Shuaibu, J., & Richter, H. Pilot study utilizing a patient educational brochure to a vesicovaginal fistula, *Hospital in Nigeria, Africa. International urogyn ecol journal pelvic floor dysfunction*, 2009, 20(1), pp.22- 37.
- [17] Gurman, S. What can we learn from disease stigma's long history? *PLSO biomedicine journals community blog.* 2012, 6, pp 1-4.
- [18] Jeremy, M. Transportation, distance and healthcare utilization for older adults in rural and small urban areas. *Small Urban and Ruraltransit centre Upper Great Plains transportation institute*, North Dakota State University, Fargo. 2010,
- [19] Karki, Y. B. & Agrawal, G. Effects of communication campaigns on health behaviour of women of reproductive age in Nepal. *Further analysis of 2006.Nepal demographic and health survey*. 2008,
- [20] Keating, J. Meakers, D. & Adeniyi, A. Assessing effects of media

- campaign on HIV/AIDS awareness and prevention in Nigeria: results from the vision project. *Biomed central*, 2000, 6 (123), pp. 13-23
- [21] Knopman, D. Zmud, J. Ecola, L., Mao, Z. & Crane, K. Quality of life indicators and policy strategies to advance sustainability in the Pearl River Delta. RAND corporation, Santa Monica. 2015, pp.1-2.
- [22] Kulesza, M., Pedersen, E., Corrigan, P., Psy, D. & Marshl, G. Help-seeking stigma and mental health treatment seeking among young adults veterans. *Mil. Behavior health*, 2015, 3(4), pp. 230-239.
- [23] Lankowski, A. J., Sledner, M. J., Bangsberg, D. R. & Tsai, A. C. (2014). Impact of geographic and transportation-related barriers on HIV outcomes in sub-Saharan Africa: A systematic review. *Aids behavior*, 2014, 33, pp. 1-25.
- [24] Lo, C. M. & Lee P. H. Prevalence and impacts of poor sleep on quality of life and associated factors of good sleepers in a sample of older Chinese adults. *Health quality of life, biomed central*, 2012, 10(22), pp. 05-13
- [25] Mizck, L. S. & Russinova, Z. Intersectional stigma and the acceptance process of women with mental illness. *Women and therapy*, 2015, 38, pp. 14-30,
- [26] Morphy H., Dunn, K. M., Lewis, M., Boardman, H. F. & Craft, P. R. Epidemiology of Insomnia: a longitudinal study in a UK population, *Sleep*, pubmed, 2007, 30(3), pp. 274-280
- [27] Muhammad, A. N. Moderating effects of intervention programs on the relationship between psychosocial factors and intention to seek treatment. Submitted in fulfilment of the requirements for the degree of doctor of philosophy (Ph.D). School of Government, Universiti Utara Malaysia. 2018.
- [28] Muleta, M., Hamlin, E. C., Fantahun, M., Kenedy, R. C. & Tafessa, B. Health and social problem encountered by treated and untreated obstetric fistula patients in rural Ethiopia. *Journal obstetrica gyenecology Can.* 2008, 30(1), pp. 44-50
- [29] Murakami, Y., Lee, B.w., Duncan, M., Kao, A., Huang, J. Singh, K., & Lin, S. C. Racial disparities in adherence to glaucoma follow up visit in a county hospital population. *Arch. Ophthalmol*, 2011, 129(7), pp. 872-878.
- [30] Neuman, L. W. (2006). *Social research methods: qualitative and quantitative approaches*, Boston, Pearson educational incorporation
- [31] Newswatch VVF prevalence soars in Nigeria. 2013.
- [32] Ng T. P., Jin, A. Z., Ho, R., Chua, H. C. Health beliefs and help seeking for depressive and anxiety disorder among urban Singaporean adults. *Psychiatr serv.*, 2008, 59(1). Pp. 17-25.
- [33] Odoemelam C. C. Pattern of exposure to communication intervention on obstetric fistula among men in Ebonyi state, Nigeria. *New media and mass communication*, 2015, 33, pp. 1-12,
- [34] Odu, B. K. The impact assessment of vesicovaginal fistula among women in developing countries: A case study of northern Nigeria. *International journal of academic research and reflection*. 2013; 1(3), 1-7.
- [35] Okoro, C.A, Strine, T. U, Young, S. L, Bulluz, L. S. & Mokmad, A. H. Access to healthcare among older adults and receipt of preventive services. Results from the behavioural risk factor surveillance system, 2002, *preventive medicine*, 2005, 40(3), pp. 337-343.
- [36] Robinson, A. What is transportation and logistics management, and are they the same thing. Cerasis. 2013
- [37] Rodrigue, J. P., Comtois, C. & Slack, B. *The geography of transport system*. Routledge publishers, New York, NY. Dimension. 2013.
- [38] Roush, K. M. Social implication of obstetric fistula: An integrative review. *Journal of midwifery & women's health*. 2009, 54(2), pp. 21-33.
- [39] Scheppers, E., Dongen, E. V., Dekker, J., Geertzen, J. & Dekker, J. Potential barriers to use of health services among ethnic minorities: a review. *Family practice advances*. 2006, 231, pp. 325-348
- [40] Sekaran, U., & Bougie, R. *Research methods for business: A skill building approach*, 6th edition, United Kingdom: John Wiley & Sons Ltd. 2013.
- [41] Siddle, K., Mwambingu, s., Malinga, T. & Fiander, A. Psychosocial impact of obstetric fistula in women presenting for surgical care in Tanzania. *International gyenecol journal*, 2013; 24, 1215-1220.
- [42] Sina, O. J., Jegede, L. I. & Kunle, A. M. Socio-economic status and utilization of healthcare facilities in rural Ekiti, Nigeria. *Standard research journal of medicine and medical sciences*, 2014; 2(1), 1-43.
- [43] Strangl, A. L., Brady, B. & Fritz, K. HIV stigma and discrimination. *International center for research on women*, Washington D.C. 2012.
- [44] Strauss, K., Maclean, C., Troy, A. & Litternburg, B. Driving distance as a barrier to glyceric control in diabetes. *Journal of general internal medicine*, 2006, 21 (4), pp. 378-380.
- [45] Syed, S. T., Gerber, B. S. & Sharp, L. K. Travelling toward disease: transportation barriers to healthcare access *Journal community health*, 2013, 38(5), pp. 976-993.
- [46] Thompson, A. C., Thompson, M. O., Young, D. L., Lin, R. C., Sanislo, S. R., Moshfeghi, D. M. & Singh, K. Barriers to follow up and strategies to improve adherence to appointments for care of chronic eye disease. *Investigative ophthalmology and visual science*, 2015, 56, pp. 4324-4331.
- [47] UNFPA and Engenderhealth. *Obstetric fistula needs assessment report: Funding from nine African countries*. 2003.
- [48] USAID, *Fistulacare & Engenderhealth. Fistula using awareness: Nigeria*. 2014.
- [49] Waaldijk, K. *National VVF project: Nigeria evaluation report xi, first half 1997*, Katsina, kano, Sokoto, Birnin Kebbi and Maradi. 2010.
- [50] Wall, L. L. Overcoming phase 1 delays: the critical components of obstetric fistula prevention programs in resources-poor countries. *Wall BMC pregnancy and childbirth*, 2012; 12(68), 1-13.
- [51] Woldeammanuel. Factors contributing to the delay in seeking treatment for women with obstetric fistula in Ethiopia. *Doctoral (PhD) thesis*. 2012