International Journal of Healthcare Sciences ISSN 2348-5728 (Online)
Vol. 7, Issue 2, pp: (328-336), Month: October 2019 - March 2020, Available at: www.researchpublish.com

The Application of Theory of Reasoned Action and Theory of Planned Behaviour to Explain Intention to Participate in Cure among Obstetric Fistula Women in Nigeria

Muhammad Anka Nasiru[1], Faruk U. Abubakar[2]

Department of Nursing Sciences, College of Health Sciences, Usmanu Danfodiyo University Sokoto, Nigeria

***Abstract*: This research applied the theory of reasoned action (TRA) and its extension lead, the theory of planned behavior (TPB) to health-seeking behavior analysis. The purpose of the study was to assess if the variables of the TRA and TPB would predict intentions to participate in cure among obstetric fistula women in Nigeria. Data was collected from 300 respondents relating to the study constructs in Nigeria and was exposed to structural equation modeling analysis. The results of this study indicated that the critical motivation to participation in cure is attitude, subjective norms, and perceived behavioral control. As a final point, the implication and recommendation of these results were discussed**

***Keywords:* Theory of reasoned action, Theory of planned behaviour, intention, Attitude, Subjective norms; Perceived behavioral control, obstetric fistula.**

I. INTRODUCTION

Obstetric fistula (OF) is a catastrophic disease condition that mostly occurs during childbirth [16]. Worldwide, there are an estimated 2-2.5 million women afflicted with the disease, with about 98% cases occurring in Sub-Saharan Africa and Asia [14], [4]. Nigeria is labeled to be one of the countries with the highest figure of women living with Obstetric fistula in the world [8], [17]. [14], [4]. What conceivably made the disease incidence worse is that not many sufferers of the disease are willing to reveal their status in the community so that they could have attention and medical cure [14], [4]. Although considerable number of women are afflicted with OF disease in Nigeria, however, merely a small number of the victims visit hospital for cure; this situation was further worsened by the lack of repair progress on the part of officials because only about 4000 repairs are undertaken annually [8], [4].

In recent times, a report from the National Strategic Framework for the eradication of the OF 2011-2012, in Nigeria, indicated that the scheme has not yielded the desired result in drastically reducing incidence of the disease, possibly because women that are affected by the disease are unwilling to seek for cure [8]. Also and more importantly, OF perhaps continue to exist because the affected women hardly seek cure [8], [17], [14], owing to explanations related to the attitude, subjective norms and perceived behavioral control [15], [2].

Numerous studies have utilized behavioral science theoretical models to appreciate why individuals plan or refused to plan to seek cure among patients with various health challenges [15], [1], but the studies have some shortcomings. First, most of the studies were carried out in Bangladesh, Nepal, South Africa, Malaysia, & Thailand, which are contextually different from Nigeria. Second, the majority of the studies focused on health-related problems such as HIV/AIDS, maternal and other reproductive health issues as well as vesicovaginal fistula alone. Third, researchers, particularly, references [15] and [3] have complained that health-seeking behavior studies that focused on vesicovaginal fistula and other reproductive health issues have frequently depended on soft conceptualizations, ignoring the logical application of formal psychosocial theories. Thus, it is vital to increase the utilization of the health and illness behavior models because they focus on both the individual social behaviors that could result in health and diseases as well as the implications of the

individuals' behavior to the society within which they live. Fourth, most of the previous studies fail to employ a robust technique of data analysis that accurately tests the predicted relationships among the theory's constructs, which can be adequately remedied through a path modeling approach.

Based on the identified weaknesses of the previous studies above, and because there is the scarcity of empirical research on application of theory of reasoned action (TRA) and theory of planned behavior (TPB) to health-seeking intention among obstetric fistula patient in Nigeria, these researchers decided that a preliminary empirical investigation of the preceding issue in further detail was valuable. Therefore, this study represents an initial effort to address health-seeking behavioral intention among obstetric fistula women in Nigeria. This research provides valuable insights into the motivations underlying the intentions to seek obstetric fistula cure in developing nations such as Nigeria. The opinions articulated by the scholars indicated in the preceding discussion present challenges to the Nigerian government to put a plan in place that originated from meticulously tested theories. As a result, in this study, the researchers will apply the theory of reasoned action (TRA) and its extension lead, the theory of planned behavior (TPB), to predict the intention of the OF women to participate in treatment programs offered by government and non-governmental organizations. Based on the knowledge of these researchers, it is the first endeavor in Nigeria to test health-seeking behavior theories for the OF disease that was adapted from the theories of reasoned action and theory of planned behavior.

Consequently, this study filled in the gaps concerning the issues raised in the preceding discussion by employing path modeling technique to test the theories of reasoned action and its extension lead, the theory of planned behavior, which helps to explain why obstetric fistula patients plan to seek a cure at the designated healthcare facilities.

II. LITERATURE REVIEW

Several studies have examined the behavioral intention to seek cure utilizing psychosocial theories such as the TRA [2], [7]. [12] and the TPB [2], [13]. The previous studies offered valuable insights and suggestions for understanding an individual's intention of participating in a cure. Also, the theories have identified many elements that influence the utilization of government health programs, including but are not limited to attitude of health personnel (APH), quality of health (QOH), low-stigma (LSTM), social support (SSU), decision-making (DM) and transportation (TRP).

A. Attitude

For long, Attitude has been identified as a foundation of intention. Scholars have deliberated on the construct of attitude for years. So for instance, references [2] and [1] have classified the construct of attitude into two; namely, attitude toward the object and attitude toward the behavior. The attitude towards behavior implies a person's evaluation of a particular behavior. The evaluation of the particular behavior leads to the specified behavioral intention which leads to behavioral action.

While adapting the preceding general principle, in this study attitude toward participation in cure is defined as a situation in which the obstetric fistula women believe that participating in cure is beneficial, because it would make them live a healthy life, coupled with the perception they held about the positive attitude of health personnel and the victims relative stable quality of health; these beliefs influenced their behavioral intention to participate in cure. In health seeking-behavior research, such as the use of a condom, it is also believed that men are likely to have formed beliefs and attitude concerning the condom use even before the actual behavior to use it [2], [7], [15]. Similarly, in health communication studies, attitude is the construct that gets the most attention and is used the most far and wide for predicting beneficiaries' possibility to participate in cure [12], [3], [13].

As a relatively new development, participating in cure at the government designated intervention programs centers is still in its early period. Vast numbers of patients who participate in cure merely do not exist in many states in Nigeria. As such, an exploration of attitudes toward cure and identification of its relationship to participate in cure is more appropriate and practically appreciated for predicting behavior. Therefore, this study hypothesized that:

HI: Attitude will have a significant favorable influence on Intention to participate in cure.

B. Subjective Norms

According to reference [2], the subjective norm is an individual's belief that the majority of people who are significant to him think he should (or should not) carry out a particular behavior. Related to this study, it implies that for an OF woman to participate in a cure or not to depend on the opinion of the victim's family or what friends have to say concerning the behavior; especially the significant others who usually provide support as well as treat the victim with dignity.

Participation in cure among the sick, particularly among the OF women, is considered as an essential condition for the overall success of the disease eradication: however, refusal to visit designated centers for a cure by the victims is a well-known problem [13]. The references [16] and [8] argued that poor participation in cure has long been a barrier to the success of treatment, which, if the poor attitude is shunned, could assist in the eradication of the OF disease. In planning to take part in health programs for a cure, the victims of obstetric fistula are likely to be affected by internal and social influences. Social influence is a vital contributing factor to behavioral intention and subsequent behavior. Therefore, the next hypothesis stated that:

H2: Subjective norms will have a significant favorable influence on Intention to participate in cure.

C. Perceived Behavioural Control

Reference [2] contends that perceived behavioral control refers to the belief concerning access to the resources and opportunities needed to carry out a particular behavior. Perceived behavioral control seems to include two factors. The first is "facilitating conditions," which mirrors the availability of resources needed to perform a particular behavior, which might include access to the time, money, and other specialized resources. In this case, the victims of the OF will require a viable transportation system [11] to be able to plan for a visit to healthcare facilities since, most of the victims reside in the rural areas, and without vehicles and good road network, it will be difficult for them to seek cure in the hospitals that are mainly located in the cities. The second factor is self-efficacy [2], that is, becoming confident of the ability to behave successfully in the discharge of particular behavior. In this regard, a woman with decision-making autonomy is more inclined to participate in a cure. Thus, this study hypothesizes that:

H3: Perceived behavioral control will have a significant favorable influence on Intention to participate in cure. Overall, the proposed research model is presented in Figure 1.

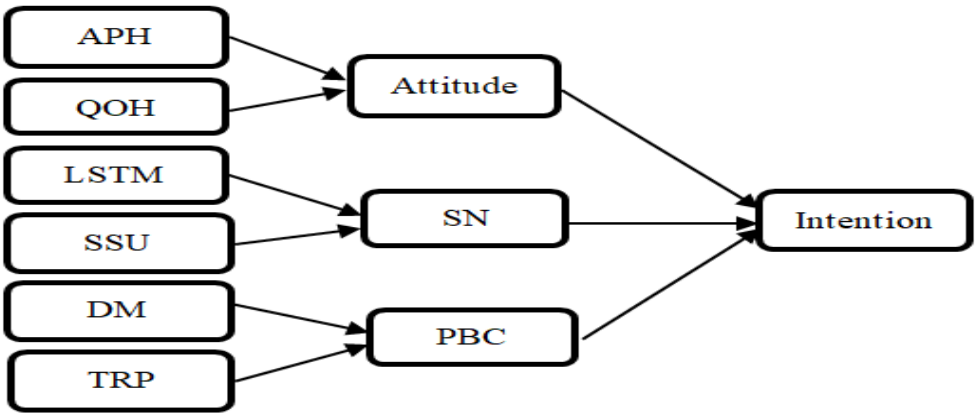

Figure 1 Research Model

III. RESEARCH METHODOLOGY

Obstetric fistula women on admission from the six geopolitical zones in Nigeria, namely Sokoto, Zamfara, Gombe, Osun, Benue Anambra, and Delta, were selected as the target sample using a simple random sampling technique. Three hundred twenty-five questionnaires were distributed and 300 respondents replied, that is to say, the response rate was 92.5%. The research model was tested utilizing Structural Equation Modeling (SEM) techniques using SmartPLS computer software. The SEM is a comprehensive method of testing hypotheses about relationships among observed and latent constructs [10]. The statistical approach incorporates a path analysis of a theoretical model for the analysis of latent constructs and measurable variables, allowing simultaneous estimation of both measurement and structural models [10].

IV. FINDINGS AND DISCUSSION

A. Demographic Profile of the Respondents

The demographic outline of the surveyed respondents is presented in Table 1. The overall sample for the study comprises of 300 respondents. The age distribution of the respondents is 94.0%, which is the majority, while the least is 6.0%. Regarding the educational level of the respondents, the highest number of respondents in this study is 86.6% who do not have formal education, while the least is 8% who were educated to the secondary school level. Concerning the person that

chooses to participate in the cure, the majority who constituted 33.7% stated that they made personal decision to participate for a cure while the least, 10.7% mentioned their husband's relatives as the lone decision-makers. Also, concerning means of transportation to health centers, the majority of the respondents who constituted 91.0% of the sample visit hospital by using commercial vehicles, while 9% used personal vehicles

Table 1: Demographic Profile of Respondents

Demographic Variables	Categories	Frequency	Percentage %
Age	12-32	281	94.0
	33-53	19	6.0
	Total	300	100.0
Educational level	No formal education	260	86.6
	Primary school education	32	10.7
	Secondary school education	8	2.7
	Total	300	100.0
Religion	Islam	228	76.0
	Christianity	72	24.0
	Total	300	100.0
Marital status	Divorce	287	72.5
	Married	12	22.2
	Single	1	.3
	Total	300	100.0
Occupation	Unemployed	288	95.4
	Employed	11	3.6
	Total	300	100.0
Monthly income	Below N6000	249	83.0
	N7000-10000	50	16.6
	N15000-18000	1	0.4
	Total	300	100.0
Choice to visit hospital	I do	101	33.7
	Husband	97	32.3
	My relatives	70	23.3
	Husband's relatives	32	10.7
	Total	300	100.0
Means of transport	Personal	27	9.0
	Commercial	273	91.0
	Total	300	100.0

B. Individual Item Reliability

The individual item reliability was examined through assessing outer loadings of every construct's measure, which is in line with the recommendations of reference [10]. Adhering to the rule of thumb for items retention with loadings between 0.40 and 0.70 [10], it occurred that out of 72 items, 14 items were deleted due to loading problems. Therefore, in the current model, 43 items were retained because they had loadings between 0.42 and 0.97, as indicated in Table 2.

Table 2: Measurement Model: Reliability

Constructs	**Items**	**Loadings**	**CR**	**AVE**
AHP	AHP2	0.86	.94	0.75
	AHP3	0.91		
	AHP4	0.92		
	AHP6	0.75		
	AHP7	0.86		
	AHP8	0.89		
DN	DM1	0.96	.97	.91
	DM2	0.95		
	DM3	0.95		
	DM4	0.96		
INT	INT10	0.86	.96	.74
	INT11	0.95		

	INT2	0.77		
	INT3	0.95		
	INT4	0.95		
	INT5	0.75		
	INT6	0.95		
	INT7	0.95		
	INT8	0.86		
	INT9	0.54		
LSTM	LSTM1	0.93	.90	.59
	LSTM2	0.96		
	LSTM3	0.95		
	LSTM4	0.93		
	LSTM5	0.52		
	LSTM6	0.43		
	LSTM8	0.42		
QOH	QOH1	0.97	.97	.91
	QOH2	0.95		
	QOH3	0.95		
	QOH4	0.95		
SSU	SSU2	0.89	.93	.73
	SSU3	0.89		
	SSU4	0.88		
	SSU5	0.90		
	SSU6	0.71		
TRP	TRP2	0.70	.93	.68
	TRP3	0.90		
	TRP4	0.88		
	TRP6	0.83		
	TRP7	0.85		
	TRP8	0.73		
	TRP9	0.89		

Note: CR=Composite Reliability;

AVE=Average Variance Extracted

C. Internal Consistency Reliability

The internal consistency reliability is the extent to which the entire items on a particular scale measures the same construct [10]. In the present study, the composite reliability coefficient was selected to determine the internal consistency reliability of the instruments adapted because it offers much fewer biased estimates of reliability than Cronbach's alpha coefficient. Thus, Table 2 indicates the composite reliability coefficients of the latent constructs of the current study are from 0.90 to 0.97, with each value above the minimum standard of 0.70. The values recorded indicated that the measures used in this study have adequate internal consistency reliability, which is in line with the opinions of references [5] and [10].

D. Convergent Validity

Convergent validity is defined as the extent to which items accurately represent intended latent constructs and how they correlate with other measures of the same latent constructs (Hair et al., 2013). In the current study, convergent validity was examined by assessing the average variance extracted (AVE) of each latent construct, as recommended by reference [9]. In order to attain satisfactory convergent validity, reference [6] suggested that AVE of every latent construct should reach 0.50 or above. Adhering to the values indicated by reference [6], the AVE values obtained in the present study (see Table 2) showed loading higher than 0.50 on each construct, signifying adequate convergent validity. Specifically, the least value of AVE in the current study is 0.59, while the highest value is 0.91.

E. Discriminant Validity

Discriminant validity is the degree to which a given latent construct varied from other latent constructs [6]. In the current study, discriminant validity was assessed by comparing the indicator's loadings with cross-loading, as suggested by

reference [6]. Sufficient discriminant validity is achieved if all the indicator's loadings are higher than the cross-loadings [6]. In line with the preceding, Table 3 compares indicator loadings with some other reflective indicators. The entire indicator loadings are higher than cross-loadings, which suggest the presence of sufficient discriminant validity in this study.

Table 3: Measurement Model: Discriminant Validity (Cross Loading)

	AHP	DM	INT	LSTM	QOH	SSU	TRP
AHP2	**0.86**	-0.31	-0.49	-0.37	-0.60	-0.57	-0.59
AHP3	**0.91**	-0.37	-0.53	-0.37	-0.64	-0.59	-0.63
AHP4	**0.92**	-0.35	-0.53	-0.38	-0.66	-0.60	-0.64
AHP6	**0.75**	-0.30	-0.45	-0.39	-0.56	-0.47	-0.54
AHP7	**0.86**	-0.31	-0.51	-0.41	-0.60	-0.58	-0.57
AHP8	**0.89**	-0.32	-0.52	-0.42	-0.63	-0.57	-0.58
DM1	-0.36	**0.96**	0.54	0.26	0.53	0.44	0.46
DM2	-0.36	**0.95**	0.53	0.24	0.51	0.44	0.44
DM3	-0.35	**0.95**	0.53	0.27	0.50	0.41	0.45
DM4	-0.37	**0.96**	0.55	0.24	0.52	0.44	0.46
INT10	-0.35	0.50	**0.86**	0.37	0.55	0.48	0.53
INT11	-0.45	0.51	**0.95**	0.43	0.64	0.59	0.62
INT2	-0.67	0.48	**0.77**	0.44	0.49	0.51	0.48
INT3	-0.46	0.50	**0.95**	0.43	0.65	0.59	0.63
INT4	-0.46	0.50	**0.95**	0.43	0.65	0.59	0.63
INT5	-0.59	0.50	**0.75**	0.48	0.60	0.56	0.57
INT6	-0.46	0.50	**0.95**	0.43	0.65	0.59	0.63
INT7	-0.46	0.50	**0.95**	0.43	0.65	0.59	0.63
INT8	-0.66	0.53	**0.86**	0.57	0.63	0.57	0.45
INT9	-0.25	0.25	**0.54**	0.40	0.42	0.46	0.41
LSTM1	-0.45	0.25	0.52	**0.93**	0.54	0.49	0.54
LSTM2	-0.44	0.27	0.54	**0.96**	0.56	0.49	0.56
LSTM3	-0.42	0.24	0.52	**0.95**	0.55	0.50	0.54
LSTM4	-0.39	0.22	0.52	**0.93**	0.52	0.47	0.53
LSTM5	-0.19	0.10	0.24	**0.52**	0.26	0.23	0.25
LSTM6	-0.23	0.15	0.22	**0.43**	0.21	0.20	0.19
LSTM8	-0.18	0.15	0.22	**0.42**	0.20	0.19	0.23
QOH1	-0.69	0.50	0.78	0.57	**0.97**	0.75	0.83
QOH2	-0.68	0.53	0.76	0.52	**0.95**	0.74	0.80
QOH3	-0.70	0.51	0.78	0.53	**0.95**	0.77	0.82
QOH4	-0.64	0.52	0.74	0.53	**0.95**	0.71	0.78
SSU2	-0.57	0.41	0.65	0.41	0.70	**0.89**	0.78
SSU3	-0.55	0.35	0.65	0.45	0.66	**0.89**	0.77
SSU4	-0.66	0.45	0.65	0.36	0.69	**0.88**	0.77
SSU5	-0.64	0.42	0.67	0.36	0.72	**0.90**	0.80
SSU6	-0.35	0.30	0.57	0.60	0.54	**0.71**	0.66
TRP2	-0.43	0.33	0.50	0.36	0.54	0.57	**0.70**
TRP3	-0.65	0.43	0.75	0.51	0.81	0.83	**0.90**
TRP4	-0.60	0.39	0.75	0.54	0.76	0.82	**0.88**
TRP6	-0.60	0.39	0.60	0.38	0.66	0.72	**0.83**
TRP7	-0.59	0.36	0.62	0.39	0.69	0.74	**0.85**
TRP8	-0.36	0.30	0.54	0.54	0.55	0.56	**0.73**
TRP9	-0.66	0.52	0.78	0.54	0.81	0.82	**0.89**

As shown in Table 3 above, each of the reflective variables of the current study possesses discriminant validity, judging by the cross-loading analysis as the measurement indicator's loadings (shown in shaded loadings) of each construct is higher than their corresponding loadings diagonally. Therefore, all the reflective latent constructs in this study have discriminant validity.

F. The Structural Model

The assessment of the structural model focused on examining the path coefficient of this study. Specifically, the model focused on examining the hypothesized relationships among variables, which was achieved through a standard bootstrapping procedure with 5000 bootstrap samples and 300 study cases. The analysis of the models helps to examine the significance of path coefficients of the direct relationships between the attitude, subjective norms, perceived behavioral control and intention to participate in the cure, which is in line with the recommendation of reference [10]. Thus, these researchers analyzed the two distinct structural models, as shown in Figures 1 and 2.

A. Path Analysis

Figure 1 and 2, showed the models that examined the direct relationships, which was based on the hypotheses developed from the literature. Specifically, H1: Attitude will have a significant positive influence on Intention to participate in cure. H2: Subjective norms will have a significant positive influence on Intention to participate in the cure, and H3: Perceived behavioral control will have a significant positive influence on Intention to participate in cure.

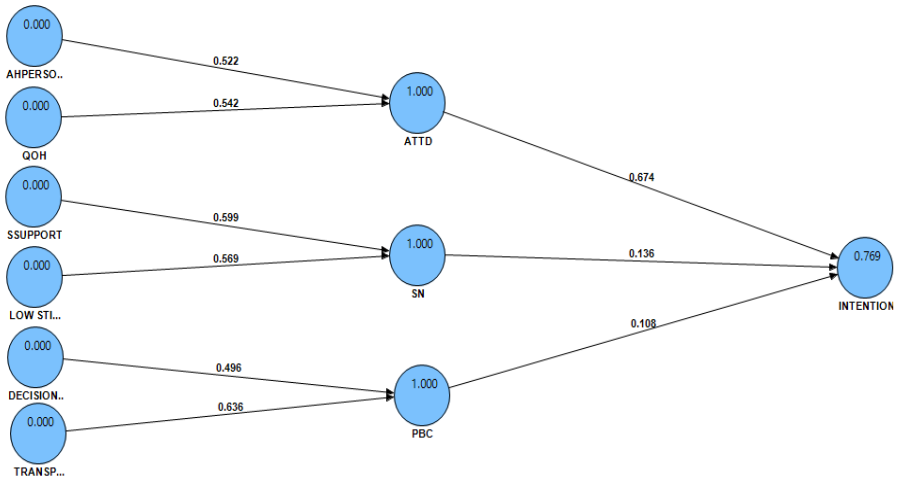

Figure 1: Application of Theory Direct Relationship Algorithms

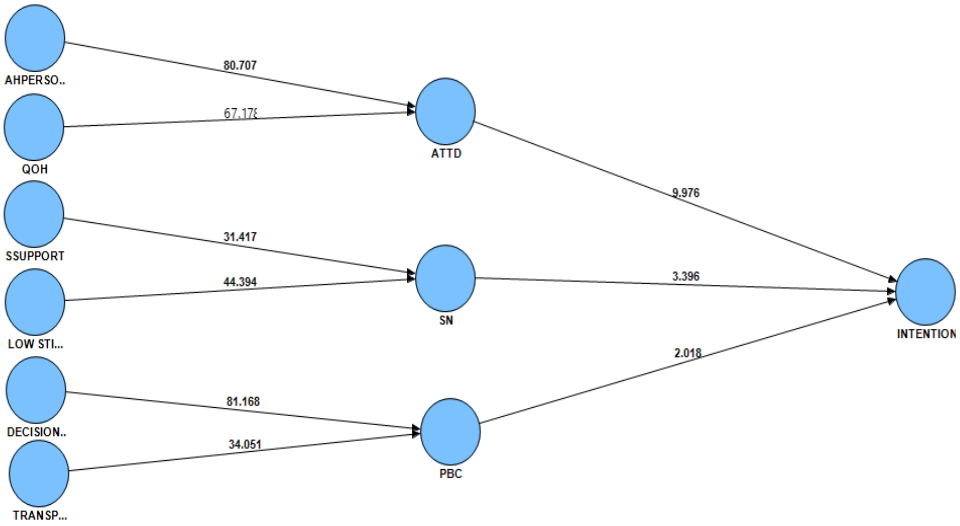

Figure 2: Application of Theory Direct Relationship Bootstrapping

Table 4: Result of Application of Theory Direct Relationships

Hypothesis	Beta	Std. Error	T. Statistics	P. Value	Decision
A-> Intention	0.67	0.07	9.98***	0.00	Supported
SN-> Intention	0.14	0.04	3.40***	0.00	Supported
PBC-> Intention	0.11	0.05	2.02***	0.02	Supported

***p < 0.01 (1 tail); **p < 0.05 (1 tail)

As presented in Table 4, H1 proposed: Attitude is positively related to the intention to participate in a cure. Additionally, H2 proposed that subjective norms have positive influence on the intention to participate in a cure. Moreover, H3 predicts that perceived behavioral control has a positive influence on the intention to participate in a cure among the OF women. The result of the hypotheses tested implied that the theories constructs; attitude, subjective norms and perceived behavioral control are all significantly positive.

A. I: Attitude

As presented in Table 4 and Figure 2, the effect of Attitude on the intention to participate in cure was significant (β=0.67, t=9.98, p<0.01). Thus, H1 was supported. The other result suggested that women would participate actively in cure. To the obstetric fistula women, the degree to which their participation in cure is perceived as beneficial strongly influences their attitude. If the participation to cure is perceived to be beneficial, the disease victims form positive attitudes and robust intentions towards visiting designated OF treatment centers. The victims would find that participating in a cure is very useful as it would improve their chances of livelihood.

A. II: Subjective Norms

External factors had a significant influence on Subjective Norms (β=0.14, t=3.40, p<0.00), as indicated in Table 4 and Figure 2. The result is consistent with hypothesis number 2. The other result suggested that obstetric fistula patients who had support from their family members, friends and neighbors participate in a cure. Thus, Subjective Norms was found to exert a significant positive effect on Intention to visit healthcare centers for a cure.

A. III: Perceived Behavioral Control

As shown in Table 4 and Figure 2, the final hypothesis, H3, is about the relationship between Perceived Behavioral Control and Intention to participate in cure. The preceding hypothesis was supported (β=0.11, t=2.02, p<0.02). In this regard, the OF women are more likely to be influenced by Perceived Behavioral Control. Thus, obstetric fistula women with high intention to participate in cure strangely relied on Perceived Behavioral Control; to them, an increase in the degree of PBC sharply increases future intentions to participate in the cure, sighting that taking part in cure is entirely within their control. The victims of the disease would be able to participate in cure entirely because they have the resources, decision-making autonomy and the transportation network to visit designated OF repairs centers successfully.

V. CONCLUSION, IMPLICATIONS, AND RECOMMENDATIONS

An empirical study was carried out to identify elements that motivate obstetric fistula women in Nigeria to participate in cure. The results indicated that intention to participate in treatment could be explained in terms of attitude, subjective norms and perceived behavioral control. These findings confirm the results of references [7], [15], [11], [3], [12[, [13]. In terms of implication, the findings of this study can provide useful recommendations to policymakers, health practitioners and researchers. Policymakers can use this research to develop and implement new policies and strengthen the existing ones to promote and sustain the quality of health among obstetric fistula patients and positive attitudes among health professionals.

Additionally, the public should be enlightened on the need to provide more support to the victims of the disease as well as to treat the affected women with honor in order to boost subjective norms. In terms of improving perceived behavioral control in participation in the cure, governmental agencies should focus on improving transportation systems to enable maternal services accessibility among women of reproductive age. Similarly, enhancing perceived behavioral control would permit decision-making autonomy for women, and a viable transportation system, which will eliminate possible delays in participating in healthcare services utilization.

REFERENCES

[1] Ajzen, I.The theory of planned behavior. Organizational Behavior and Human Decision Process, 1991 50, pp. 179-211.

[2] Ajzen, I., & Fishbein, M. Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall , 1980.

[3] Akhter, S. Maternal health care-seeking behavior of women from lower and socio-economic groups of Dhaka, Bangladesh-fear or fusion? A Doctoral (PhD) dissertation thesis. 2015.

[4] 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.

[5] Bagozzi, R., & Yi, Y. On the evaluation of structural equation model. Journal of the Academy of Marketing Science, 1988, 16, pp. 74-94.

[6] Chin, W. W. The partial least squares approach to structural equation modeling. In G.A. Macrolides (Ed.), Modern Methods for Business Research, New Jersey: Laurence Erlbaum Associates. 1998, pp. 295-336, Mahwah,

[7] Emmanual, R. T. The application of the theories of reasoned action and planned behaviour to a workplace HIV/AIDS health prevention program, A PhD thesis. 2009

[8] Federal Ministry of Health. National Strategic Framework for the Elimination of Obstetric fistula in Nigeria, 2011-2015, 2012; pp. 7-20.

[9] Fornell, C., & Larcker, D. F. Evaluating Structural Equation Models with unobservable variables and measurement error Journal of Marketing Research, 1981, 18, pp. 39-50

[10] Hair, J. F., Ringle, C. M., & Sarstedt, M. Partial leastsquares structural equation modeling: Rigorous applications, better resu-lts and higher acceptance Long Range Planning, 2013, 46(12), 1-12.

[11] Jeremy, M. Transportation, distance and healthcare utilization for older adults in rural and small urban areas. Small Urban and Rural transit centre Upper Great Plains transportations institute, North Dakota State University, Fargo. 2010.

[12] Kaewasawat, S. HIV/AIDS prevention behaviour among Malaysian male tourists in Thailand. A thesis submitted to the college of arts and sciences in fulfilment of the requirement for the degree of doctorate of philosophy (PhD thesis), Universiti Utara, Malaysia. 2010.

[13] 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,

[14] 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), pp. 1-7.

[15] Tlou, E. R. (2009). The application of theory of reasoned action and planned behaviour to a workplace HIV/AIDS health promotion programme. A PhD thesis, University of South Africa. Retrieved from www.tloupsychologist. co.za/

[16] USAID, Fistulacare & Engenderhealth. Fistula using awareness: Nigeria. 2014.

[17] 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), pp. 1-13.