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THE TREATMENT-SEEKING BEHAVIOUR AMONG OBSTETRIC FISTULA PATIENTS: DATA SCREENING AND PRELIMINARY ANALYSIS IN MEDICAL AND SOCIAL RESEARCH

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ABSTRACT

The objective of this study was to present data screening and preliminary analysis concerning the influence of psychosocial rudiments on the treatment-seeking behavior among obstetric fistula patients in Nigeria. Precisely, this study focused on the data screening and the preliminary analysis procedure that are imperative for conducting multivariate data analysis. This study employed a stratified random sampling method to select 321 respondents, of which 313 questionnaires were established to be suitable for the final data analysis, utilizing statistical package for social science (SPSS) version 22. The data was screened and cleaned to satisfy the assumptions of multivariate analysis through assessing the response rate, descriptive statistics, missing value, univariate and the multivariate outliers, normality, multicollinearity, and non-response bias. Generally, the result of the analysis indicated that the data of this study was established to be pure and receptive for further multivariate analysis.

Keywords: Data screening, preliminary analysis, treatment-seeking behavior, psychosocial rudiments, obstetric fistula, Nigeria

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1. INTRODUCTION

The importance of data screening procedures in conducting multivariate data analysis need not be overemphasized (Hair, Hult, Ringle & Sarstedt, 2013). Thescreening of data is a significant phase for consideration among researchers in both the social sciences and applied sciences (Abdulwahab, Zulkhairi & Galadima 2011 & Hair et al. 2013). The investigative reputation of data screening procedure and the preliminary analysis of data have been fundamentally articulated by numerous studies (Abdulkadir, Zabedah, & Aidi 2017, Badara & Zabedah 2014; & Maiyaki & Mouktar, 2011). Therefore, it is essential to identify potential errors in the data record and other possible faults in order to resolve such mistakes (Pallant, 2001). Besides, although the data screening procedure is a meticulous exercise; nonetheless, the stress in ensuring that data is adequately screened is worth the thoroughness (Abdulkadir et al. 2017). Thus, it is noted that the strength of studies to make meaningful inferences primarily lies in the researchers' ability to conduct a thorough and meaningful data screening and preliminary analysis (Shehu & Mahmood 2014).

While we are on this subject, several researchers from diverse fields of study are too reluctant to undertake data screening and preliminary analysis due to the burdensome and enormous phases involved in the procedure (Daniel, 2007; Hair et al. 2013, & Abdulkadir et al. 2017). Nonetheless, despite the preceding perceived issues related to data screening and preliminary analysis procedure, the process makes research findings more significant and valid (Hair et al. 2013 & Abdulkadir et al. 2017).

In addition, data screening and preliminary analysis show the path and appropriateness of the kind of data analysis that is required and the well fitted one at a given point (Hair et al., 2013). Moreover, significant importance of the procedure is that, while carrying outthe preliminary analysis on a large volume of data, some errors, which ordinarily could elude the researcher, might be recognized and mended (Badara & Zabedah, 2014 & Abdulkadir et al. 2017). Also, it is observed that data screening and preliminary analysis procedures permit the investigators to discover and have a firsthand indication of the relationships among variables (Tabachnick &Fidell, 2007& Hair et al., 2013). Additionally, through conducting data screening and preliminary analysis, the underlying assumptions essential for the conduct of multivariate analysis are clarified

and noted (Pallant, 2001), thus, while carrying out further in-depth analysis, the data that have been screened will be suitable for further analysis (Hair et al. 2013). The data screening and preliminary analysis could be conducted by utilizing statistical software, including the statistical package for social sciences (SPSS).

Therefore, it is against this background that this research set out to explore the stages involved in conducting the data screening to discover the association between a few selected social and psychological constructs and treatment-seeking behavior among obstetric fistula patients in Nigeria. This study has five (5) main sections. Section one introduces the subject matter, followed by section two that discussed the literature review. Additionally, section three focused on the methodology, and section four presented results and discussion. Finally, section five presented a conclusion.

2. Literature Review

Treatment-seeking behavior (TSB) refers to activities that individuals or groups with definite health challenges engaged themselves in to prevent illness, promote health, or remedy illnesses (Akhter, 2015). Also, the preceding construct entails action that involves commitments from the individuals who are facing apparent challenges, in that, the individuals ought to be ready to accept the fact that they desire to progress or receive treatment due to the illness affecting them through accepting instructions from competent health professionals to improve health or treatment (Behrami, Afashbahar, Shakahifa & Montazeral, 2014).

The importance of the TSB was additionally explored by Woldeammanuel (2012), who argue that it is essential for health experts to understand various social and psychological factors which affect peoples' decision to seek treatment. The appreciation of the preceding concept becomes imperative to ensure that health care providers are adequately prepared to make a recommendation for treatment measures that are suitable for the recipients, as well as to encourage treatment-seeking behavior in conformity with values or social norms.

Generally, people affected by diseases need immediate and effective health care services where they can seek treatment to guard against the worsening of health conditions (Akhter, 2015). Besides, the success of treatment lies in the behavior of victims towards

treatment-seeking (Odoemelan, 2015). For instance, the FMOH (2012) argues that though treatment for various diseases is available in most countries of the world, the services are not adequately utilized due to several psychosocial factors (decision-making, attitude of health personnel, low-stigma, social support, transportation, quality of health and intervention programs)-defined as the events or characteristics of the individuals or the system that affect who seeks for healthcare services.

Decision-making (DM) is an essential component of treatment-seeking behavior, which is defined as the ability of individuals to wheel freedom to behave independently in a manner that such persons are not required to seek the permission of others in the exercise of their actions (Siddle, Mwambingu, Malinga,&Fiander2013). When individuals can freely visit family members, healthcare facilities, or spend money on health care purposes, among others without undue interference, they are regarded as autonomous (Rahman et al. 2014). In addition, the concept of decision-making implies the capacity of a person to acquire information and use such data to make a judgment for the personal or collective benefits with minimum external interference (Kimiya, 2011). Several studies (Kimiya, 2011, Namasivayam, Osuvra, Syed, & Antai, 2012; Siddle et al. 2013, & Rahman 2014) have examined the association between decision-making and treatment-seeking behavior. So for example, in their work, Rahman et al. (2014) found a positive relationship betweendecision-making autonomy and health-seeking among women who use contraceptive medications in Bangladesh. Also, Kimiya (2011) found a positive relationship between decision-making powers and improved treatment-seeking behavior in Tajikistan. Conversely, Namasivayam et al. (2012) found a negative relationship between decision-making and treatment-seeking among women with reproductive health problems. Thus, the preceding relationships need to be empirically tested by other studies due to the inconsistencies found in the previous empirical studies, which is in line with the recommendations of Barron and Kenny (1986) and Frazier, Barron, and Tix (2004).

Furthermore, the attitude of healthcare personnel (AHP) is another critical component for achieving comprehensive treatment among sick individuals. Several studies have examined the relationship between the attitude of healthcare providers and treatment-seeking behavior, and the results indicated mixed findings (Mannava, Durran, Fisher,

Chersich & Luchters 2015, & Devkota, Murray, Kett& Nora 2017). So, for example, in their work in rural Nepal, Devkotaet et al. (2017) indicated that health care providers' showed a negative attitude, which prevents women from seeking maternal healthcare services. On the other hand, in their study in Zambian hospital, Mannava et al. (2015) observed that due to the positive attitude of healthcare providers, several women visit the centers for delivery, antenatal care services, and abortion. Thus, based on the previously mixed findings in the relationship between the attitude of health personnel and treatment-seeking behavior, it is essential to undertake further studies by introducing a moderator to examine associations among the constructs, which is in line with the suggestion of Frazier et al. (2004).

Also, stigma (LSTM) is one of the constructs that was perceived to influence treatment-seeking among numerous individuals. Several studies have examined the relationship between stigma and health-seeking behavior (Gharoro, & Agholor, 2009; Roush, 2009; & Mizck & Russinova 2015). So, for example, in the work of Gharoro et al. (2009) and Mizck et al. (2015), they have found negative relationships between low-stigma and health-seeking behavior among patients with mental illnesses. Conversely, Roush (2009) found a positive relationship between low-stigma and health-seeking behavior among people with vesicovaginal fistula. Consequently, the contradictory findings in the previous studies justified further studies to ascertain the nature of the relationship in a new social context such as Nigeria.

Equally important in influencing health-seeking behavior is the construct of social support. Social support (SSU) is an essential factor for the well-being of individuals, particularly the sick ones (Borgman& Akin, 2012). Social support involves living in harmony with one's immediate environment, specifically, family and friends (Borgman et al. 2012). The support of the loved ones could improve the physical, economic, and psychosocial well-being of an individual, particularly that of a woman with reproductive problems (Borgman et al. 2012). Several studies have examined the concept of social support (Borgman et al. 2012 & Dunne, Frazier, & Gardner 2014) and have established inconsistent findings. So, for example, in their work, Borgman et al. (2012) found a significant positive relationship between social support through the company of significant others and treatment-seeking intention. Conversely, Dunne et al. (2014)

found a negative relationship between social support through multiple companies of people and treatment-seeking intention. So, the past results call for action to conduct further studies to test the associations among the constructs by utilizing the sample of obstetric fistula patients.

Furthermore, the construct of transportation (TRP) was perceived to be one of the significant contributors to health seeking-behavior. A viable transportation network is an essential factor in accessing education, social services, recreational services, work, and, more importantly, access to medical care (Jeremy, 2010). An excellent transportation network provides ease of access to healthcare services to rural dwellers because it enables them to move from the less accessible areas that they live to the cities where they can access expert health personnel (Jeremy, 2010). Several studies have examined the construct of transportation concerning health-seeking behavior (Strauss, Maclean, Troy, & Litternburg, 2006. Ridder, 2009, Jeremy, 2010 & Rodriguez, Comtois, & Slack 2013) and have established inconsistencies in their results. So for example, in their work on transportation access, Ridder (2009) and Jeremy (2010) found a positive relationship between the public transportation system and utilization of healthcare facilities. Conversely, in a study of driving distance and diabetes treatment, Strauss et al. (2006) found a negative relationship between transportation and subsequent utilization of health services. As a result of the mixed findings in the previous studies, there is a need to test the relationship between transportation and health-seeking behavior among obstetric fistula patients.

The quality of health is another vital construct perceived to have a bearing on health-seeking behavior. According to the World Health Organization (WHO), quality of health (QOH) is an essential aspect of the wellbeing of individuals in society (Lo & Lee, 2012). The concept encompasses complete mental, physical, and psychological well-being and not the absence of disease or medical condition (FMOH, 2012). Studies concerning the quality of health (Lo & Lee 2012, & Morphy, Dunn, Lewis, Boardman, and Craft 2007) have reported some inconsistent results. So, for example, Lo et al. (2012) have found negative relationships between sleep deprivation and quality of health. Conversely, Morphy et al. (2007) found a positive relationship between inadequate sleep and quality of health as well as improvement in subsequent treatment-seeking

behavior. Thus, it is of paramount importance to test the relationships among the preceding constructs by introducing an appropriate moderator, which is in line with the views of Frazier et al. (2004).

Again, the intervention program (IVP) is another critical construct perceived to have enormous influence over treatment-seeking behavior. Intervention program refers to the combination of activities (social, health, and so forth), which produces changes in the behavior of people (Hazelden, 2015). To strengthen treatment-seeking among obstetric fistula patients, the federal government of Nigeria through the federal ministry of health, designed the National strategic framework for the eradication of VVF 2005-2010 (FMOH, 2012). The plan includes the implementation of various intervention programs to encourage the participation of more women to treatment at the designated health centers (FMOH, 2012). The programs implemented at various fistula health centers include community sensitization, surgical repairs, awareness campaign through the use of educational brochures, and training of health professionals, among others (FMOH, 2012 & Bellows et al. 2014). Nonetheless, despite the progress recorded following the implementation of the programs, the plan has faced challenges, which weakens its effectiveness (Waaldijk, 2010 & Wall, 2012). Thus, according to Frazier et al. (2004), when previous intervention programs are ineffective in strengthening the relationship between the independent and dependent variables, such ineffectual relationship has justified introducing appropriate moderators in future studies to strengthen the relationships between the predictors and outcome.

3. Methodology

This study gathered data by using researchers-administered survey questionnaires on the obstetric fistula patients' in Nigeria. The stratified random sampling method was utilized to obtain the sample size of this study. Consequently, the six geo-political regions of Nigeria were employed as strata. Precisely, out of the 321 survey questionnaires that were applied, a total of 313 were productive, and eight were removed because the questionnaires were not properly filled. Finally, 313 questionnaires were established to be suitable for data analysis, which were keyed into the statistical package for social sciences (SPSS) version 22 for the main analysis. Additionally, negative worded questions that were reversed coded included DM 04, AHP

04 & 05, LSTM 01-08, SSU 01 & 05, TRP 01, 02, 03, 04, 05, 08 & 09, TSB 05-011 and QOH01 & 03.

4. Results and Discussions

4.1 Response Rate

As earlier emphasized, 321 researcher-administered questionnaires were applied, and 313 were productive. The response translated into a 97.5% response rate. The preceding result suggests that eight questionnaires were improperly filled; so, they were finally excluded for further data analysis. Thus, the valid response rate of this study is still 97.5%. Therefore, this response rate is sufficient based on the opinion of Hair et al. (2013), who suggested that a 30% response rate is satisfactory for further analysis.

4.2 Descriptive Statistics

The descriptive statistics of this study indicated that concerning the age of respondents, the highest number in this study is 223, whose ages range from 12-20 years, who accounted for 74.0% of the sample. The least respondents are 18 participants, whose ages range from 28-40 years. The preceding result implies that most of the patients with obstetric fistulain Nigeria are girls and young women.

Also, regarding the educational status of the respondents, the results showed that 199 do not have formal education, representing 65.8% of the sample, which is the highest number of respondents in the sample. The least number of respondents concerning educational status is 15, who attended secondary school only, which represents 5.0% of the sample. The preceding result shows that the majority of patients affected by obstetric fistula disease are those with a low level of literacy. Also, concerning the religion of the respondents, the highest number is 281 patients who practice Islam, representing 93.0% of the sample. The lowest number is three respondents that practice traditional religion, representing 1.0% of the sample.

Furthermore, about the marital status of the respondents, the highest number is 219 respondents who are divorced, representing 72.5% of the sample, while the least number of respondents is one who is single, representing 0.3% of the sample. The other

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result implies that most of the patients with obstetric fistula disease were rejected and sent packing after contracting the disease.

Again, concerning the occupation of the respondents, the highest numbers in the sample are 288 unemployed participants, representing 95.4% of the sample. The lowest sample is one respondent who retired, representing 0.3% of the sample. The previous result indicated that most obstetric fistula women are not getting paid jobs.

Also, regarding the income the respondents earn monthly, the result showed that a higher proportion of the respondents (239) generated an income below N6000 (below $17USD) per month, representing 79.1% of the sample. The least respondents are three who generated an income of N11000-14000 (USD 31-40) per month, representing 1.0% of the sampled population. The preliminary result showed that the majority of the patients' lived below USD 1 per day.

4.3 Missing Value

In survey research, missing value or missing data is experienced when respondents did not answer some questions (Hair et al. 2013). Missing values and blank responses create problems in data analysis. Therefore, the researcher is always expected to determine and replace them where necessary. In the dataset coded and entered into SPSS by this researcher, from the 22,536 data points, 40 were missed randomly, which explains 0.17 percent missing values. Precisely, the constructs of decision-making had one missing value, the attitude of health personnel had nine missing values, low stigma had six missing values, social support had 0 missing values, transportation had four missing values, the treatment-seeking behavior had 15 missing values, intervention programs had five missing values, and quality of health had 0 missing values.

Although there is not a specific percentage of missing values that are acceptable in a data set for making valid statistical conclusions, however, researchers are agreed that in a dataset, missing values that reach the rate of 5% or less requires to be replaced (Tabachnick &Fidell, 2007). Furthermore, researchers have suggested that mean substitution is the easiest way of replacing missing values. Hair et al. (2013), for example, suggested that a researcher should replace the missing entries through the

mean replacement if the values are less than 5% missing values for each item. Therefore, these researchers replaced 40 missing values through mean replacement.

4.4 Analysis of Outliers

Outliers refer to the observations, which vary or that are inconsistent with the remaining data (Hair et al. 2013). In data analysis, the existence of outliers can hugely lead to the distortions of estimates, consequently producing a result that is not reliable (Hair et al. 2013). To detect observations, which might be outside the SPSS value labels due to wrong data entry, firstly, this researcher presented frequency tables for all the variables through a minimum and maximum statistics. Thus, based on the preliminary analysis of frequency statistics, no value was outside of the expected range.

Besides, data were assessed for the presence of univariate outliers through the standardized value criterion with a cutoff point of ±3.29 (p <.0.01), in line with the views of Tabachnick et al. (2007). Using the above criterion, therefore, 11 cases of univariate outliers (267, 8, 3, 10, 4, 284, 266, 84, 252, 87, & 155) were deleted from the dataset. Having removed univariate outliers, the final data sets in this study was 302. Apart from removing univariate outliers through standardized values, this study also checked for multivariate outliers, using Mahalanobis distance (D2). According to Tabachnick et al. (2007), Mahalanobis distance (D2) refers to the distance of an item from the centroid of the remaining items, in which the centroid is the point created by the intersection of means of all the variables on the date set. From the 72-1=71 observed variables of this study, the suggested threshold of chi-square is 92.81 (p=0.05). Consequently, in this study, no Mahalanobis value exceeds the threshold of 92.81 because the highest is 38.69. Based on the preliminary result of Mahalanobis D2, no outlier was detected from the dataset. Hence, the final data used for further analysis was 302.

4.5 Normality

Normality is defined as the distribution of the study data towards a specific variable and its conformity to a normal distribution (Hair et al., 2013). Lately, Hair et al. (2013) recommended that scholars undertaking research have to carry out a normality assessment of data this is because the data that is hugely skewed or becomes kurtosis

can influence bootstrapping by causing it to inflate bootstrapped standard error estimate, and by implication, this undervalues the significance of path coefficients (Ringle, Sarstedt, & Straub, 2012).

There is fundamentally two techniques for assessing normality, namely: graphical and numerical techniques. Precisely, to establish normality in this study, the graphical technique was utilized, which involves assessing the histogram and normal probability, in line with the assumption of Tabachnick et al. (2007). According to Field (2009), in a sample that is as large as 200 or above, it is better to visualize the shape of the distribution using a graph instead of using the values of kurtosis and skewness. Moreover, a large sample tends to decreases standard errors, which invariably inflate the values of the kurtosis and skewness (Field 2009). Therefore, this explains the justification for using graphical techniques of normality in this study rather than utilizing statistical methods.

Employing Field's (2009) recommendation, this study examined a histogram to make sure that the postulation of normality is fulfilled. As a result, Figure 1 indicated that the data for the present study adhere to a standard pattern; since the whole bars in the histogram are closer to the standard bell-shape, signifying that the assumptions of normality were not violated.
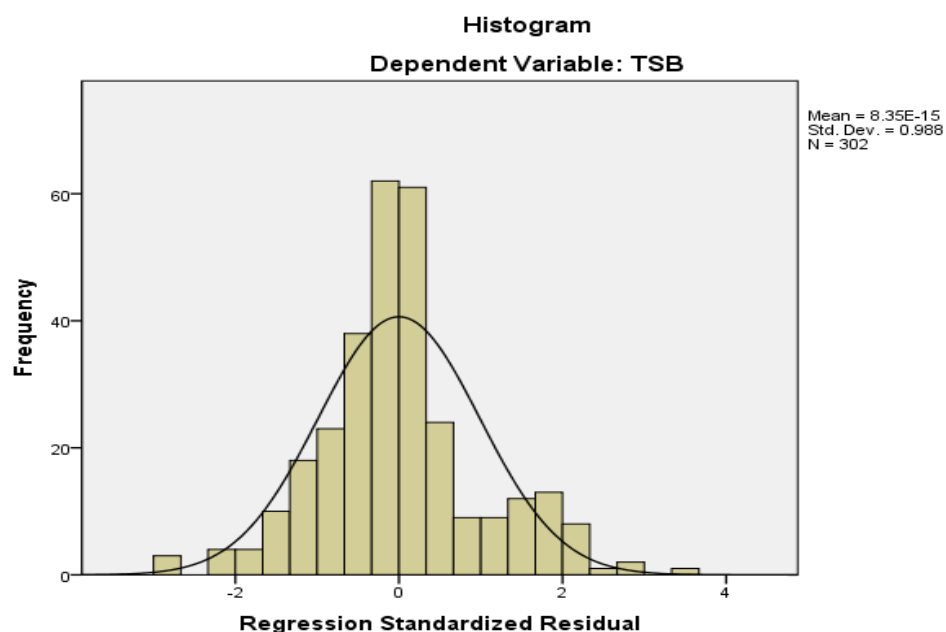

Figure 1: Histogram

4.6 Multicollinearity

Multicollinearity is defined as a condition whereby one or more independent latent constructs are highly correlated (Hair et al. 2013). The nonexistence of multicollinearity is a necessary assumption of multiple regressions. Examination of multicollinearity is one of the preliminary analyses believed to be piloted in regression analysis. Nonetheless, in statistical analysis, independent variables are expected to be correlated with their corresponding dependent variable (Hair et al., 2013). However, when one independent variable is highly correlated with one or numerous other independent variables, then multicollinearity occurs (Field, 2009).

The presences of multicollinearity among exogenous latent constructs can significantly distort the result of regression coefficients as well as their significance test (Hair et al. 2013). Precisely, multicollinearity elevates standard errors of the coefficient, invariably; bring about the coefficients to come to be statistically insignificant (Tabachnick et al. 2007). In order to identify multicollinearity, this study employed two methods. In the first method, the correlation matrix of exogenous latent constructs was assessed. Based on the opinion of Hair *et al. (*2013), if correlation coefficients reach 0.90 and above, it shows multicollinearity between the constructs. Table 1 indicated the result of the correlation matrix of the exogenous latent constructs employed in the current study.

Table 1 Correlation Matrix of the Exogenous Latent Constructs

No.	Construct	DM	AHP	LSTM	SSU	TRP	QOH
1	DM	1					
2	AHP	.40**	1				
3	LSTM	.15**	.47**	1			
4	SSU	.52**	.57**	.46**	1		
5	TRP	.41**	.80**	.50**	.61**	1	
6	QOH	.52**	.69**	.53**	.72**	.76**	1

As shown in Table 1, the correlation among the exogenous latent constructs was sufficiently below the threshold values of 0.90, which implies that the entire constructs are independent and not very correlated.

In the second method of analysis of multicollinearity, variance inflated factor (VIF) and tolerance value were additionally taken into consideration. Hair et al. (2013) opined that multicollinearity is problematic should the value of VIF be greater than five, while tolerance values become less than 0.20. However, Pallant (2010) suggested that tolerance values less than 0.10 and VIF values above ten show high collinearity. The Table 2 below indicated VIF and tolerance values of the exogenous latent constructs.

Table 2 Tolerance and Variance Inflation Factor (VIF)

Constructs	Collinearity statistics	
	Tolerance	**VIF**
DM	.652	1.533
AHP	.334	2.994
LSTM	.648	1.544
SSU	.422	2.368
TRP	.271	3.688
QOH	.280	3.575

Therefore, the result of Table 2 showed that there is no multicollinearity among the exogenous latent construct because the findings of the tolerance and VIF test showed that all the values range between 0.271 to 0.652; considerably greater than 0.1 (for tolerance), and the VIF ranges from 1.533 to 3.688 considerably less than 10.

4.7 Non-Response Bias

Non-response bias means the differences obtained in answers between non-respondents and respondents (Sekaran & Bougie, 2013). In order to assess the probability of non-response bias, a time-trend estimation approach is needed that requires comparing the early and the late respondents, i.e. non-respondents (Sekaran et al. 2013). Considerably, late respondents have the same characteristics as non-respondents (Sekaran et al. 2013). As such, to lessen the problem of non-response bias, a minimum response rate of 50% must be achieved (Lindner & Wingenbach, 2002).

Based on the suggestions of Sekaran & Bougie (2013), this study divided the respondents into two groups, namely: those that responded within the first four weeks period (early respondents) and those that responded after four weeks (late respondents). Table 3 showed that 43 respondents (14%) who are the least in the sample responded to the researchers administered questionnaire within four weeks, while 259 respondents (86%) who are the majority responded after four weeks.

Specifically, this study conducted an independent sample t-test to ascertain the possibilities of non-response bias. In particular, an independent samples t-test was conducted to detect the possibility of the existence of non-response bias in the primary constructs of interest, namely, decision making, the attitude of health personnel, low-stigma, social support, transportation, treatment-seeking behavior, intervention programs, and quality of health. Table 3 presented the results of the independent-samples t-test obtained in the current study.

Table 3 Results of Independent-Samples T-test for Non-Response Bias

Variables	Group	N	Mean	SD	Levine's Test for Equality of Variance	
					F	Sig
Decision-making	Early Response	43	2.65	1.13	.657	.643
	Late Response	259	2.57	1.01		
Attitude of Health Personnel	Early Response	43	3.18	.750	.741	.541
	Late Response	259	3.10	.776		
Low Stigma	Early Response	43	2.72	.825	1.94	.165
	Late Response	259	2.97	.850		
Social Support	Early Response	43	2.89	1.17	.290	.440
	Late Response	259	3.03	1.10		
Transportation	Early Response	43	3.17	.757	3.07	.987
	Late Response	259	3.18	.858		
Treatment-seeking Behaviour	Early Response	43	3.05	.891	5.61	.815
	Late Response	259	3.08	.992		
Intervention Programs	Early Response	43	2.98	1.08	5.19	.192
	Late Response	259	3.19	.941		
Quality of Health	Early Response	43	2.67	1.45	1.46	.461
	Late Response	259	2.85	1.48		

Table 3 above indicated that non-response bias is absent since the assumed equal variance level of significance of the study variables is greater than 0.05 recommended level of significance in Levene's test of equality of variance (Pallant, 2010). Additionally, based on Lindner et al. (2002) recommendation, that the minimum response rate should be at least 50%, and since this study attained a valid response rate of 94.0%, it can be added that non-response bias is not a significant concern in this study.

5. Conclusion and Recommendations

From the result of the above preliminary analysis, it was established that 40 missing values identified in the data set were accordingly replaced by mean substitution. Precisely, it is important to note that mean substitution is appropriate for a replacement if the missing values in the data set are 5% or less, which is in line with the views of Tabachnick et al. (2007). Equally, utilizing Z-scores and Mahalanobis Distance (D2)

significant the univariate and multivariate outliers were examined respectively, 11 univariate outliers were identified and removed from the data set. However, multivariate outliers were not found in the data set.

Furthermore, the normality test was piloted to establish the shape of the data relative to the standard curve distribution. Precisely, the data showed that the assumptions of normality had been satisfied; therefore, the data is not skewed or kurtosis, which could have resulted in the misrepresentation of the standard curve distribution, in line with the understandings of Tabachnick et al. (2007). Concerning multicollinearity, Pearson's correlation indicated that the association between the exogenous variables does not surpass the endorsed threshold. The preceding result means that multicollinearity is non-existent among the exogenous constructs. Moreover, with regards to the non-response bias, the result indicated that there is not a significant difference between the early and late responses in the study. Thus, non-response bias is not present in the current survey.

Consequently, the preceding results established that the data for this research is appropriate and enthusiastically fitted for future stages of the multivariate analysis such as hierarchical and multiple regressions. From the data screening procedure and preliminary analysis performed in the preceding discussion, entirely, the expectations of the respective stages are seemingly and justifiably achieved.

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