

# Marital Adjustment and Bio-Social Factors as Predictors of Depression Among Perceived Highly Stressed Couples in Ondo State, Nigeria

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**Abstract:** A continuous threat to the efficiency of human functioning, interaction and relationship due to depression serves as a rationale for this study, and it shows the need to gauge the influence of selected bio-social factors and marital adjustment on depression among perceived highly stressed couples in Ondo State, Nigeria. Adopting a correlational design, 175 highly stressed couples were selected using a multi-stage sampling technique (stratified, proportionate, purposive and random sampling techniques) and responded to standardised measures. Frequency and percentage were adopted to describe the bio-social factors of the respondents. Pearson Product Moment Correlation was used to test the inter-relationship among the variables, while a two-step hierarchical regression analysis was used to test the hypotheses. The result revealed that gender, religion and educational qualification predicted depression among highly stressed couples. It was also indicated that depression decreases among highly stressed couples along with a significant increase in their marital adjustment. It was concluded that bio-social factors, such as gender, religion,

educational qualification, and marital adjustment, were significant predictors of depression. And factors such as age, family type, and nature of employment had no significant relationship with depression among perceived highly stressed couples.

**Keywords:** Depression, biological factors, social factors, marital adjustment, stressed couples.

## 1. Introduction

Depression is a psychological disorder that has negative implications for the well-being of an individual. Projections by the World Health Organisation envisaged an increase in human disability worldwide due to depression (Oladeji & Olaolorun, 2018). There is a likelihood that depression will be ranked as the leading cause of disability by 2030 if not evaluated for possible control. Depression frequently develops as a reaction to loss or grief brought on by death, the separation from loved ones, the loss of a job, the decline in one's physical health, or relocation. In the same vein, physical and mental stress contributes to depression in no small measure (Hashmi et al., 2007). Myriad societal challenges such as family demands and partner's burdens have also been considered as part of the factors influencing depression, particularly among married individuals (Hashmi et al., 2007; Pal, 2017; Rao, 2017).

The increasing trend in depression, especially among married couples, cannot be isolated from the constant stress that people are exposed to due to global changes and economic instability (Fawole & Isiaq, 2017; Hammond et al., 2017; Peimanpak et al., 2013; Wu et al., 2011). The nexus between stress and depression is well-established in the literature (Bartolomucci & Leopardi, 2009). Research has proven that increased stress level is highly associated with an individual's tendency to be depressed (Kurebayashi et al., 2012; Papazisis et al., 2008; Ratanasiripong, 2012; Williams, 2003). Nigeria is not left out of this global menace as most socio-cultural values of people are gradually eroding, paving

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the way for hardship in a country with less social support and an increased negative perception towards life. As common among married persons, the implications of societal demands for survival, marital obligations and family (extended family-inclusive) demands increase their risk of being more affected by stress (Parveen, 2009). The effect of these is rising rates of broken homes, divorce, increasing murder cases with spouses, increase in mental health issues and challenges, suicidal ideation and even suicide (Manpreet & Maheshwari, 2015).

A person suffering from depression becomes unproductive in his or her surroundings, including the workplace and household (Pal, 2017; Rao, 2017). In addition, depression is linked to feelings of worthlessness or inadequacy, helplessness, hopelessness, melancholy, loss of interest or pleasure, lack of energy, retreat from social contact, and a lack of interest in previously enjoyed activities. Other symptoms of depression include trouble concentrating, changes in appetite, probable weight loss, difficulty sleeping, and poor sleep quality. Others are a sense of low self-esteem, substantial impairment in the ability to take care of ones' everyday responsibilities, and at the extreme, suicidal ideation (Hashmi et al., Khurshid & Hassan, 2007). Despite the existence of a catalogue of psychosocial factors responsible for depression in humans in the literature, most recent studies have highlighted medical complications such as infertility among couples as a cause of depression (Ndubuisi et al., 2021; Obajimi et al., 2019; Obuna & Igwe, 2023; Ojo et al., 2017). At the same time, less emphasis is given to depression occasioned by environmental changes such as the impact of urbanisation, globalisation, population density, economic instability and competitive organisational system imbued with inadequate social facilities needed to sustain businesses.

Indeed, there is a dearth of research work on other external factors, such as stresses associated with global economic changes. These (stresses) are conditions over which individuals have no control, but which nonetheless impact people's lives negatively. Against the backdrop of claim in the literature on the rarity of scientific studies on stress-related depression, this study, therefore, subjects' depression among highly stressed couples in Ondo State to empirical scrutiny.

As rife in most multi-ethnic societies of the world, where physical and material attachment to members of one's extended family is sacrosanct; many Nigerians, in line with the dictates and expectations of their cultural norms, care for members of their immediate and extended families. In effect, people (particularly married ones) who do not have the necessary economic and social capital to sustain various demands associated with such arrangements may likely experience depression. In light of this, this study also intends to comprehend how marital adjustment affects depression, especially in stressed-out couples.

Marital adjustment is the tendency of an individual to manage their own personality and display compatible traits that suit that of the spouse with the sole aim of attaining a harmonious marital experience (Burgess & Cottrell, as cited in Aktas et al., 2018). As indicated in the literature, the marital adjustment of couples provides a buffer for their depressive state and indirectly enhances their coping strategies to manage or avert the stressful situation that could lead to depression (Pietromonaco et al., 2021; Rao, 2017).

Despite the steady growth of empirical studies on marital life and stress-related factors in many countries in Europe and North America, the evidence cited later in this study demonstrates that there is a dearth of studies on marital adjustment and bio-social factors of couples in the country. This gap, however, highlights the crucial need to reaffirm such results for Nigerian society to gauge the extent to which cultural, political, and economic factors determine marital adjustment. To this end, factors such as age, gender, education, religion, family type and other related factors were examined to understand how people would adjust to marital life and the implications of this on depression.

## **2. Literature Review**

Literature has ascertained the associations between stress and depression within the social context. However, few studies have been carried out on the role of proper marital adjustment in managing depression among couples exposed to a stressful life. This study reviewed related empirical studies on stress and depression. Also, theoretical explanations and a possible association between marital adjustment and bio socio factors on depression will be given.

### **2.1 Stress and depression**

Researchers investigated the relationship between depression and stress among some samples and society as a whole. One such study was conducted by Rathnayake and Ekanayaka (2016) with 95 pupils. Researchers at a public university looked at stress, anxiety, and depression among first-year nursing students. Their research's conclusions suggested a link between stress and depression, showing that college students who experience more stress also tend to have more depression. This outcome supports several other findings (Hammen, 2015; Hankin, 2015; Kurebayashi et al., 2012; Manpreet & Maheshwari, 2015; Papazisis et al., 2014; Ratanasiripong, 2012).

Related to the above, Apostolo et al. (2011) examined the relationship between depression, anxiety and stress among primary health users in Portugal. They sampled 343 Portuguese, and their observations revealed that stress had a positive association with depression and anxiety. Indeed, the relationship between depression and anxiety among the samples was positive.

In a more recent study, Khan and Khan (2017) did a literature review and examined the impact of chronic stress on anxiety and depression. Based on the findings of their studies, they concluded that most people had neglected the role of stress in their daily activities, thus compounding the problems associated with stress-related activities. Previous research has looked at the connection between stress and depression, but not in marriage and family-oriented couples. A favourable correlation between stress and depression was confirmed by Abbas et al.'s (2019) research on the moderating effects of social support on marital adjustment, depression, anxiety, and stress among women.

### **2.2 Marital adjustment and depression**

Using various participant classifications, a number of academics and researchers have investigated the connections between marital adjustment and depression in diverse societies. Notably, Yuksel and Dag (2015) tested the mediating effects of submissive and helpless approaches while considering the impact of marital adjustment on psychological symptoms. Their study found a direct and negative relationship between marital adjustment and psychological symptoms, opening the door for the designation of depression as a particular type of psychological disturbance. With this, depression is seen as a specific form of psychological disturbance.

More specifically, Hashmi et al. (2007) studied marital adjustment, stress, and depression among working and non-working married women. They made use of 150 married women through convenient sampling methods. The result revealed significant relationships among the variables (marital adjustment, stress and depression) such that lower adjustment was associated with a higher level of stress and depression. Similarly, Dandona (2013) examined the influence of marital adjustment on depression among working and non-working women in India. The findings from sampled 200 women indicated a strong negative relationship between marital adjustment and depression.

In a comparable study, Whisman et al. (2011) used 113 samples of pregnant married or cohabiting women to evaluate the relationship between relationship adjustment, symptoms of depression, and anxiety. The findings showed that women's relationship adjustment negatively influenced both depression symptoms and anxiety symptoms. This suggested that when women's relationship adjustment was lower than usual, depressed and anxious symptoms increased. However, only

concurrent anxiety symptoms – not concurrent depression symptoms – predicted by relationship adjustment.

A study was conducted on marital adjustment among 60 patients with depression in Raipur, Chhattisgarh, by Srivastava (2015). The research outcome showed that the majority of the sampled participants (78.3%) were categorised under very unsatisfactory marital adjustment 16.7% were unsatisfied, and only 3.3% had an excellent marital adjustment, while 1.7% had an average marital adjustment. This demonstrates the link between depression and marital adjustment and demonstrates the severity of marital issues among depressive patients.

With similar outcomes, Abbas et al. (2019) conducted a study on the moderating role of social support on marital adjustment, depression, anxiety, and stress among 500 sampled Pakistani working and non-working women. The findings revealed that among the working women, a negative relationship existed between marital adjustment and depression such that depression level tends to decrease, with an increase in marital adjustment. In this same vein, the depression level of non-working women tends to decrease with an increase in their marital adjustment. It was further observed among both samples that as depression increases with rising stress level, marital adjustment was also negatively associated with stress level. This implies that there is a higher tendency of depression among those highly exposed to stress, thus indicating the need to evaluate the implication of proper marital adjustment in the experience of depression.

Most of the reviewed literature had coherent outcomes; however, most of these studies were from western cultures and concentrated solely on women. This indicates the need to replicate the study using indigenous samples and consider the implication of marital adjustment on depression among males.

### **2.3 Bio-social factors and depression**

A test on the difference in employment status by Dandona (2013), showed that among sampled 200 working and non-working married women, employment status did not significantly influence marital adjustment, while it did influence depression. In another study, Nema (2010) tested the effect of marital adjustment on middle-aged adults using 124 respondents. He found that males had better adjustment compared to their female counterparts.

Sinha (2016) concentrated on age and job status as they relate to the adjustment of married women using 150 samples of married working women in the teaching and medical profession. It was found out that age was negatively associated with marital adjustment, which means that age could influence depressive state. However, the job status was not related to marital adjustment. Possible reasons for the significant age factor were that older women would experience an increase in responsibilities, an inability to manage a household and professional work and a lack of time with family members.

According to Apostolo et al.'s (2011) study, of the 343 Portuguese participants who use the primary healthcare system, women reported higher levels of stress and sadness. It was claimed that the outcomes of the study carried out by Apostolo et al. (2011) were compatible with already-known national and international findings. Srivastava (2015) had a different result that indicates that males had severe cases of depression compared to females. However, the difference in his study was not significant. The slightly observed variance was attributed to a decrease in work function as a result of financial problems, sexual problems, etc., those are perceived as the responsibilities of males & could also lead to marital dissatisfaction. The study's findings showed that depressive individuals have major marital issues, with men reporting these issues at a higher rate than women.

When Hashmi et al. (2007) examined the impact of several socio-demographic characteristics on depression, they discovered that married women who work have a higher chance of developing the

illness than married women who do not work. A comparison of married women with higher education levels (above a bachelor's degree) and those with lower education levels (first-year graduates) showed that the latter group had a higher propensity to suffer from depression. Expectedly, the highly educated ones had better marital adjustment compared to the educated ones. These results were similar for the samples of working married women and those of non-working married women.

As shown variously by the authors highlighted in this study, marital adjustment and various bio-social characteristics measured in the aforementioned studies have shown varying outcomes. This, however, calls for an indigenous study that would examine the influence of marital adjustment and bio-social factors on depression in Nigeria, particularly in Ondo State. Regardless of the varying outcomes of Western studies, the cultural diversity, belief system and ideologies in Nigeria with her multilingual settings calls for indigenous studies in the understanding of the association among such factors. In line with the foregoing, the present study will consider factors such as age, gender, religion, family type, education qualification, employment status and nature of employment.

It was therefore hypothesised that:

- Bio-social factors will independently and jointly predict depression among highly stressed couples in Ondo State.
- Increase in marital adjustment will lead to a significant decrease in the state of depression among highly stressed couples in Ondo State.

### **3. Methods**

This section creates a structure for the study. This was necessary to align with the scientific nature of the research and enhance the generalisation and replication of the research outcome. These include the design, data collection techniques, ethical considerations and data analysis were considered in phases.

#### **3.1 Research design**

The study adopts a correlational study using a survey design. The independent factors are bio-social factors and marital adjustment, while the dependent variable is depression, with a concentration on highly stressed couples.

#### **3.2 Setting**

The study was conducted in Ondo State, Nigeria. Ondo State covers an area of 15,500km, with 18 local government areas grouped into 3 Senatorial Districts for ease of political administration. The three major towns in terms of population and government presence within Ondo State were utilised for the study. Each of the towns was purposively picked from each of the three Senatorial Districts in the state. These towns are Owo, Ondo and Akure, which is the administrative capital where the seat of the government is located. While Owo is located in Ondo North Senatorial District, Ondo town is located in Ondo South Senatorial District, and Akure is located in Ondo Central Senatorial District of the state.

#### **3.3 Sample and sampling techniques**

Three hundred (300) married individuals were sampled across the study area, with 100 from each Senatorial District. The multi-stage sampling technique was adopted. Stratified sampling was utilised to distribute the population into three categories via the senatorial districts. Within the senatorial districts, the major cities were purposively selected. These are the regions where there are many industrial and economic activities, and invariably, these are areas where people are prone to a high-stress level and possible cases of depression. A random sampling technique was finally used to select respondents within each town/city.

Based on the valid responses, the study had 290 participants, giving a response rate of 96.67%. The sampled respondents include 136 (46.9%) males and 154 (53.1%) females, with their ages ranging between 25 and 65 years ( $M=36.33$ ;  $SD=8.07$ ). Their affiliation with religious groups showed that 233 (80.3%) were Christian, while 57 (19.7%) were Muslims. Those that were from monogamous homes were 264 (91%), while 26 (9%) were from polygamous homes. Their educational status was such that 21 (7.2%) had secondary school education as their highest attained (O' level), 119 (41%) attained either Nigeria Certificate of Education (NCE) or National Diploma (ND), 134 (46.2%) had either First Degree or Higher National Diploma, while 16 (5.5%) had Master Degree. The respondents' employment type information showed that 159 (54.8%) were working with private firms, while 131 (45.2%) were engaged with government organisations. The last criterion was the nature of their employment which showed that 248 (85.5%) were full-time employees, while just 42 (14.5%) were part-time workers.

### **3.4 Instrument**

Questionnaires were used to source the research data. The questionnaire contained four sections. The first section included items that elicited responses relating to the bio-social factors of the respondents. These were age, gender, religion, family type, education qualification, employment type and nature of employment. Three validated scales were adopted, and they constituted the three sections that followed.

**Perceived Stress Scale:** stress was measured using the 10-item perceived stress scale by Cohen (Cohen, Kamarck & Mermelstein, 1983). The scale was rated on a 5-point Likert rating of 0- never to 4- very often. Sample items include "In the last month, how often have you felt that you were on top of things" and "In the last month, how often have you felt that things were going your way". The measure was rated such that higher scores from the mean and above indicated a high level of stress. A reliability value with the internal consistency of Cronbach Alpha .84 was found for the scale (Perera, 2017). The present research found an alpha value of .75 for the scale.

**Beck Depression Inventory:** It is a 12-item self-reported scale rated on 4-points and developed to measure characteristics, attitudes and symptoms of depression (Beck et al., 1961). Scores from the mean and above implied a high level of depression, while scores below the mean indicated a low experience of depression. Internal consistency for the scale ranges from .73 to .92, with a mean of .86 (Beck et al., 1988). A Cronbach's alpha value of .88 was obtained in the present research.

**Dyadic Adjustment Scale:** The 32-item dyadic adjustment scale developed by Spanier (1976) was used to gauge marital adjustment. The scale comprises four subsections, and each section is rated separately. Greater marital satisfaction is indicated by higher scores on the scale. The overall scale's Cronbach's alpha was .92; however, the subscales measuring dyadic pleasure, cohesiveness, and consensus were each .83; and the subscale measuring affection expression was .61. In the present research, and overall reliability coefficient of Cronbach's alpha .89 was obtained.

### **3.5 Procedure**

In order to collect research data inside the study locations, the researchers used trained research assistants. Targeting 300 respondents, 290 of their responses were determined to be valid. After developing a rapport with each respondent and explaining the goal of the study, they were given the assurance of confidentiality. After completion, the questionnaires were instantly retrieved. And the duration of the data collection process was only four weeks. First, the stress measurement was taken into account. Based on the mean score ( $M=23.63$ ;  $SD=0.26$ ;  $N=290$ ), it was determined that 39.7% ( $N=115$ ) of the sampled respondents had low perceived stress levels, while 60.3% ( $N=175$ ) had high levels. The data collected from the 175 respondents who reported significant levels of stress were further examined and used for the research project. Due observations were taken to ensure that the research processes were in line with the research ethics of the study setting, population and

immediate academic and research expectations (considering the interest of the participants, academics and research community). The researcher further subjected the proposed research structure to the ethical committee of the Redeemer's University, Ede Nigeria, where it was certified to be in line with ethical requirements.

### 3.6 Data analysis

Descriptive statistics, such as frequency and percentage, were adopted to test and describe the bio-social factors of the respondents. Pearson Product Moment Correlation (PPMC) analysis was used to test the inter-relationship among the study variables. This ascertained the extent and direction of the relationship existing among the variables and gave insight for further analysis. A two-step hierarchical regression analysis was conducted to test the formulated hypotheses. This was such that hypothesis one was tested in the first step, while hypothesis 2 was tested in step two.

## 4. Results

*Table 1: Frequency and Percentage Summary of the Bio-social Factors*

<b>Factors</b>	<b>Options</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Male	67	38.3
	Female	108	61.7
	Total	175	100.0
<b>Religion</b>	Christianity	141	80.6
	Islam	34	19.4
	Total	175	100.0
<b>Family Type</b>	Monogamy	163	93.1
	Polygamy	12	6.9
	Total	175	100.0
<b>Educational Qualification</b>	O' Level	17	9.7
	NCE/ ND	68	38.9
	First Degree/ HND	86	49.1
	Master Degree	4	2.3
	Total	175	100.0
<b>Nature of Employment</b>	Full-time	150	85.7
	Part-time	25	14.3
	Total	175	100.0
<b>Employment Type</b>	Private Employed	100	57.1
	Government	75	42.9
	Employed		
	Total	175	100.0

Table 1 showed the bio-social distributions of the respondents. The gender distribution was such that 67 (38.3%) were males, while 108 (61.7%) were females. On the basis of religion, 141 (80.6%) were Christians, while 34 (19.4%) were Muslims. For the family type, 163 (93.1%) were from monogamy homes, while 12 (6.9%) were from polygamy homes. The highest educational attainment was such that 17 (9.7%) had secondary school leaving certification, 68 (38.9%) had either NCE or ND, 86 (49.1%) had either first degree or HND, while 4 (2.3%) had master degree. The participants' nature of employment was such that 150 (85.7%) were full-time employees, while 25 (14.3%) were part-time employees. Lastly observed was the participants' type of employment, and it was noted that 100 (57.1%) were working with private organisations, while 75 (42.9%) were engaged with government jobs.

**Table 2: Correlation Matrix showing Association among Study Variables**

Variables	1	2	3	4	5	6	7	8	9
1. Age	1	-.23**	-.07	.10	-.04	.08	-.31**	.02	-.07
2. Gender		1	-.06	.12	-.01	-.15*	.19*	-.18*	.23**
3. Religion			1	.10	.10	-.13	-.08	.04	-.22**
4. Family Type				1	-.11	-.05	.02	-.22**	.02
5. Educational Qualification					1	-.17*	.02	.16*	-.18*
6. Employment Type						1	.14	-.13	.05
7. Nature of Employment							1	-.10	.08
8. Marital Adjustment								1	-.28**
9. Depression									1
<b>Mean</b>	36.11	-	-	-	-	-	-	154.01	5.89
<b>SD</b>	7.66	-	-	-	-	-	-	18.07	7.01

**Note:**\*\*  $p < .01$ , \*  $p < .05$ ,  $N=175$ . Gender was coded such that Male=1, Female=2; Religion was coded such that Christianity=1, Islam=2; Family type was coded such that Monogamy=1, Polygamy=2; Educational qualification was coded such that O' level=1, NCE/ND=2, First degree/HND=3, Master degree=4; Employment type was coded Private employed=1, Government employed=2; Nature of employment was coded Full time=1, Part-time=2.

It was noted in Table 2 that age had no significant relationship with depression [ $r(173) = -.07, p > .05$ ]. These implied that the age of couples do not relate to their tendencies to experience depression among highly stressed couples. However, the correlation between gender and depression was significant [ $r(173) = .23, p < .01$ ]. Based on the coding, the finding means that females are more associated with higher levels of depression among highly stressed couples, while males are more associated with lower level of depression among highly stressed couples. It was also observed that religion had significant relationship with depression [ $r(173) = -.22, p < .01$ ]. Based on the coding, this implied that higher levels of depression were more associated with Christians, while a low level of depression seems to be associated more with Muslims couples that were highly stressed. The relationship between family type and depression was not significant [ $r(173) = .02, p > .05$ ]. Similarly, type of employment [ $r(173) = .05, p > .05$ ] and nature of employment [ $r(173) = .08, p > .05$ ] had no significant relationship with depression among highly stressed couples. Findings also revealed that educational qualification had a significant negative relationship with depression [ $r(173) = -.18, p < .05$ ] and it implied that higher level of education among highly stressed couples tends to relate more with low level of depression, while less educated ones tends to be associated with higher level of depression. The relationship between marital adjustment and depression was significant [ $r(173) = -.28, p < .01$ ]. This implied that when highly stressed couples experience better adjustment with their marriages, they tend to perceive a lower level of depression.

**Table 3: Summary of Multiple Hierarchical Regression Analysis showing the Predictions on Depression**

Variables	B	T	R	R <sup>2</sup>	ΔR <sup>2</sup>	df	F	ΔF
Step 1			.36	.13	-	7, 167	3.40**	-
Age	-.04	-.52						
Gender	.21	2.74**						
Religion	-.19	-2.59*						
Educational Qualification	-.15	-2.06*						
Family Type	.00	-.01						



Employment Type	.03	.43						
Nature of Employment	.01	.16						
Step 2			.42	.17	.04	8, 166	4.24**	9.02**
Age	-.04	-.50						
Gender	.17	2.29*						
Religion	-.19	-2.59*						
Educational Qualification	-.13	-1.75						
Family Type	-.05	-.62						
Employment Type	.00	.02						
Nature of Employment	.00	.05						
Marital Adjustment	-.23	-3.00**						

**Note:**\*\* p < .01, \* p < .05, N=175. Gender was coded such that Male=1, Female=2; Religion was coded such that Christianity=1, Islam=2; Family type was coded such that Monogamy=1, Polygamy=2; Educational qualification was coded such that O' level=1, NCE/ND=2, First degree/HND=3, Master degree=4; Employment type was coded Private employed=1, Government employed=2; Nature of employment was coded Full time=1, Part-time=2.

In the first step of the regression model, depression was regressed on the bio socio factors. It was observed that the bio socio factors predicted depression in such a way that they contributed 23% variance to the total changes observed in depression among highly stressed couples [R= .36, R<sup>2</sup>= .13, F(7, 167)= 3.40, p < .01]. Independently, it was observed that age did not predict depression among highly stressed couple ( $\beta = -.04$ ,  $t = -.52$ ,  $p > .05$ ). Gender significantly predicted depression in such a way that highly stressed married females experienced high level of depression, compared to highly stressed married males who experienced lower level of depression ( $\beta = .21$ ,  $t = 2.74$ ,  $p < .01$ ). The prediction of depression by religion was significant ( $\beta = -.19$ ,  $t = -2.59$ ,  $p < .05$ ) with Christians experiencing a higher level of depression, while Muslims experienced a lower level of depression. Education qualification significantly predicted depression among perceived highly stressed couples ( $\beta = -.15$ ,  $t = -2.06$ ,  $p < .05$ ). Based on the coding, it implied that the higher the educational attainment of an individual, the lower their tendencies of experiencing depression. Family type ( $\beta = .00$ ,  $t = -.01$ ,  $p > .05$ ), employment type ( $\beta = .03$ ,  $t = .43$ ,  $p > .05$ ), and nature of employment ( $\beta = .01$ ,  $t = .16$ ,  $p > .05$ ) were not significant predictors of depression among highly stressed couples. Based on the outcome of the analysis in step one, hypothesis 1 was partially confirmed.

Marital adjustment was added to the model in step 2 and it was observed that the variables (bio-social factors and marital adjustment) jointly predicted depression among perceived highly stressed couples [F(8, 166)= 4.24,  $p < .01$ ]. These variables contributed a significant variance of 17% to the total variance observed in depression, while the marital adjustment alone had an impact of 4% in the observed changes in depression (R<sup>2</sup>=.17,  $\Delta R^2 = .04$ ). In accordance with the formulated hypothesis 2, marital adjustment significantly predicted depression in such a way that depression decreases with an increase in marital adjustment among couples that are highly stressed ( $\beta = -.23$ ,  $t = -3.00$ ,  $p < .01$ ).

## 5. Discussion

Against the backdrop of findings from most recent studies carried out in Europe, North America and some other countries in Asia, which assert that couples that are well adjusted in their marriage have lower rates of depression and higher level of wellbeing and satisfaction, this study examined how marital adjustment and bio-social variables predict depression among perceived highly stressed couples in Ondo State, Nigeria. However, the results from hypothesis one that stipulates that bio-social factors (age, gender, religion, educational level, marital adjustment family type, and nature of employment) will independently and jointly predict depression among highly stressed couples in Ondo State, showed that gender, religion and educational level of the participants were significant

predictors of depression, while age, family type, employment type, and nature of employment (either individual or jointly) had no significant relationships with depression. To this end, the hypothesis was partially confirmed.

Considering these factors independently, the significant gender influence was consistent with the outcome of Apostolo et al. (2011) and Hashmi et al. (2007) that observed women experiencing higher level of depression and stress compared to men. Possible reason for this finding which is also replicated in the cultural context of Nigeria (the present study) could be the nature and societal attributed gender roles for women. Females are perceived as the one that dwell more on circumstances and their attachment to other home or family related activities makes them more vulnerable to depression compared to their male counterpart.

Another factor that had significant prediction on depression was religion. More recently, most research had been silent on this aspect because of possible unethical and conflict arousing stimulus that could emanate from such findings. However, the present research considered Christianity and Islamic. The result showed that Christians experienced higher depression compared to females. The obtained data were self-responded and in the research environment, a lot of less-spirituality attached individuals associate themselves to the Christian faith than the Islamic. Since the study did not consider the extent of spirituality attached to each of the observed forms of religion, there is little or no germane reason for the differences observed in depression based on religion.

Educational qualification was another bio-social factor that determined depression among highly stressed individuals and this align with earlier researches that found highly educated individuals having lower tendencies to experience depression compared to the educated ones (Hashmi et al., 2007). Probably, the educational skills and knowledge serves as an advantage for the management of situations that could aggravate the experience of depression among highly stressed couples.

Contrary to what was insinuated based on Sinha (2016) result that since age was related with marital adjustment, it may also relate with depression, it was noted that age was not a significant predictor of depression among couples. This means that the chances of experiencing depression are similar for both young and old couples. Even if the older married women would experience an increase in responsibilities, inability to manage household and professional work and lack of time with family members as insinuated by Sinha (2016), this same set of individuals would be more conscious of their health-related factors and avoid those things that could trigger depression or hearth pressures compare to how the younger ones would react. The lack of association with depression was also observed for the type of family, type of employment and the nature of employment. Although, Dandona (2013) found employment status predicting depression, there were not basically among highly stressed couples. The high level of stress indicated some resulting effect of been engaged, which was what the job roles of the employed couple would contribute towards depression.

The result from hypothesis two that states that increase in marital adjustment will lead to significant increase in the state of depression among highly stressed couples showed marital adjustment to be a significant determinant of depression among the sampled highly stressed couples in Ondo State. In line with this finding, the study has shown that a significant decrease in marital adjustment will lead to an increase in depression among highly stressed couples. This finding appears to be consistent with previous works (Abbas et al., 2019; Hashmi et al., 2007; Srivastava, 2015; Whisman, Davila & Goodman, 2011), however, there was dearth of literatures that tested the association among highly stressed couples, mention less of such in an indigenous study in Nigeria.

## **6. Conclusion**

Depression is known to be a common psychiatric disorder that ranked high among the top ten diseases that produce the most Disability Adjusted Life Years (DALYs). It is a great concern for the generality of people, particularly the highly stressed individuals and mental health professionals.

With this background, the rationale for this study stemmed from the need to gauge the influence of marital adjustment and selected bio-social factors on depression among perceived highly stressed couples in Ondo State, Nigeria. Therefore, the study adopts a correlational study design to ascertain the extent to which such bio-social factors will independently and jointly predict depression among the sampled participants. Additionally, the study was set up to measure whether an increase in marital adjustment will significantly elicit a decrease in the state of depression of sampled highly stressed couples in Ondo State or not. Bio-social factors such as gender, religion, educational qualification, as well as marital adjustment, were significant predictors of depression. Other bio-social factors such as age, family type, and nature of employment had no significant relationship with depression among the sampled perceived highly stressed couples.

The findings of this study have contributed extensively to the growing literature on the intricate connection that exists between marital adjustment, bio-social factors, and depression as it affects highly stressed couples. The female participants were associated with higher levels of depression; a significant proportion of male participants displayed lower levels of depression symptoms. While this is consistent with previous studies, the study has shown that females, Christians and the less educated, more than any other subgroups require the services of mental health practitioners the most. This psycho-social investigation has equally predicted increase in depression of highly stressed couples with decrease in marital adjustment. Consequently, intervention should be targeted more at highly stressed couples with low marital adjustment. To this end, mental health practitioners should create awareness of the need for couples that are low on marital adjustment to seek interventions. At the time, a strategy should be reinforced in the clinical settings to screen patients suffering from depression for marital adjustment.

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