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Research Article

Marital Satisfaction, Quality of Life and Psychiatric Morbidity Among Workers in Two Tertiary Institutions in the Niger Delta Region of Nigeria

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Abstract

Objective: The study was designed to study marital satisfaction, quality of life and psychiatric morbidity among workers in two tertiary institutions in the Niger Delta Region of Nigeria.

Materials and Methods: One hundred and ten subjects were randomly selected from among the staff of Madonna University and Madonna University Teaching Hospital, both at Elele; from February 13 to March 17, 2019. Socio-demographic, GHQ, CSI and WHOBREF questionnaires were administered to all consenting subjects.

Results: The psychiatric morbidity found was 30% while 26.4% where martially unsatisfied with male preponderance. Statistically significant differences were found between the various income groups for the four domains of quality of life ($F1 = 8.873$, $p = 0.000$, $F2 = 5.887$, $p = 0.004$; $F3 = 3.784$, $p = 0.027$, $F4 = 8.451$, $p = 0.000$). There was no statistically significant difference in the mean scores of the couples satisfaction index (CSI) between the various economic categories. A negative correlation was found between Domain 4 (environment) of the quality of life schedule and GHQ scores.

Conclusion: The significant proportion of workers with psychiatric morbidity and with marital dissatisfaction underscores the need for regular health screening of staff of all public institutions.

Keywords: *Marital Satisfaction; Quality of Life; Psychiatric Morbidity*

Introduction

Marital satisfaction is mental state that portrays the person's perceived benefits and cost in one's marital relationship. Social stressors that occur inside the home as well as those experienced outside have negative consequences for the psychological well-being and overall quality of life of the individual. The association between marital dissatisfaction, negative spouse responses, poor family functioning and diverse psychopathological variables are well documented [1-5].

Significantly impaired psychological functioning has a negative effect on social and occupational functioning including reduced output at work.

In a fast paced world such as ours, where all industrial establishments' emphasis on enhanced technological productivity as the basis for success is on the increase, the psychological health of the workers is often barely considered or out rightly neglected. This unmet challenge is the reason for this work. It is hoped that this effort will help elucidate the relationship between marital satisfaction and psychiatric morbidity. Data from this study will enable policy makers to identify area to focus on and address in the quest for a well motivated and maximally productive work force. It will serve as an eye opener and give impetus for further medical research on the subject of workers' welfare.

Methodology

This prospective cross-sectional study was conducted at the Madonna University Teaching Hospital, Elele, in Rivers State, Nigeria over a one-month period (February 13 to March 17, 2019).

Instruments

For this study, the instruments that were used comprised:

1. Socio-demographic questionnaire
2. General Health Questionnaire (GHQ-12)
3. The Couples Satisfaction Index
4. The WHO quality of life - Bref (WHOQOL-BREF).

A Socio-demographic questionnaire designed by the author contains socio-demographic variables.

The General Health Questionnaire (GHQ-12) was developed by Goldberg for the screening of psychiatric morbidity in clinical studies [6]. It has been validated for use in Nigeria [6].

A cut off point for the dichotomous 0-0-1-1 scoring procedure is 2/3 where positive psychiatric morbidity is indicated by a 'score of at least 3' [7]. A score of 2 or less indicates no psychological distress [7].

The Couples Satisfaction Index (CSI) of Funk and Rogge is a 32 item scale designed to measure one's satisfaction in a relationship [8]. The scale has a variety of items with different response scales and formats. The authors have also specified that the scale safely be shrunk to either a 16 - item format or even a 4 - item format depending on a researcher's needs [8], for this study, the 16 item format was used. CSI is a valid instrument for assessing marital satisfaction and have higher precision of measurements and corresponding greater power for detecting differences in levels of satisfaction than some other contemporary scales such as the Marital Adjustment Test (MAT) and the Dyadic Adjustment Scale (DAS) [8]. The possible total maximum score possible is 81 and the least possible score is 0. For this study, a total score of 0-32 corresponds to being martially dissatisfied, 33 - 49 (neither satisfied nor dissatisfied) and 50 - 81 (marital satisfaction).

The WHO quality of life (WHOQOL) questionnaire is a 26 item self-administered instrument that comprehensively assesses and produces scores for the quality of life of the respondent in four domains (1) Physical health (2) Psychological, (3) Social relationships and (4) environment [9].

The raw scores obtained by administering the instrument are converted to transformed scores as prescribed by the scoring guidelines in the instrument. Those transformed scores reflect the quality of life of the respondents in the four domains under examination [9].

Before the commencement of the study, informed consent was obtained from the subjects, as well ethical approval from the institutions involved. All workers employed by the management of Madonna University (Elele Campus and Madonna University Teaching Hospital, Elele were included in the study. The two institutions are domiciled adjacent to each other in the same geographical location in Rivers State in the Niger Delta Region of Nigeria. A lot of collaboration exist between the two sister institutions with respect to teaching and training medical and paramedical students as well as research and welfare of their staff.

One hundred and ten subjects were randomly selected from among the workers and studied.

Ten selected 500 level medical students assisted in distributing and retrieving the questionnaires upon their completion by the respondents. These assistants were trained by the researcher on how to administer the questionnaires.

That data was analyzed using the statistical package for social science (SPPS) version 16 at 5% level of significance and 95% confidence interval. Frequency tables were used to display the distribution of the various variables. Chi-square test was used to test for

association between socio-demographic variables and couples satisfaction. One way ANOVA was used to test for statistically significant difference between the means of the CSI and Quality of life scores of different categories of income earners.

The Turkey post hoc test was used to determine which group was specifically significantly different from the other. Pearson's correlation test was used to test for the relationship between the various clinical scores.

Results

The means age of the 110 subject studied was 35.2 ± 9.9 yrs. The minimum age was 21 yrs while the maximum was 63 yrs.

Table 1 depicts the frequencies of the socio-demographic and clinical variables. The largest categories of the subjects were male (56.4%), Christian (96.4%), those with tertiary education (51.8%), married (60.0%) and those earning a monthly income of N50,000 - N150,000. Thirty percent (30%) of the subjects met the criteria for psychiatric morbidity (with a GHQ score of more than 3), and those who were martially dissatisfied judging by the CSI score was 26.4%.

		N = 110
Variables	**Frequency (n)**	**Prevalence (%)**
Gender		
Male	68	56.4
Female	42	43.6
Religion		
Christian	106	96.4
Others	4	3.6
Education		
Primary	13	11.8
Secondary	40	36.4
Tertiary	57	51.8
Marital status		
Married	66	60.0
Cohabiting	19	17.3
Divorced/Separated	15	13.6
Widowed	10	9.1
Average Monthly Income (N)		
< 50,000	37	33.6
50,000 - 150,000	56	50.9
> 150,000	17	15.5
GHQ Score		
0 - 3	77	70.0
Above 3	33	30.0
CSI Score		
Dissatisfied	29	26.4
Neither satisfied nor dissatisfied	31	28.2
Satisfied	50	45.5

Table 1: *Frequency of sociodemographic and clinical variables of the subjects.*

Table 2 shows the association between socio-demographic variables and couples satisfaction. Males (58.3%) were comparatively more satisfied martially than the females (35.5%) and the difference between the two was statistically significant. For the other socio-demographic variables, there was no association found between them and couples' satisfaction.

							N = 110
Variable	**Dissatisfied n (%)**	**Neither D nor S n (%)**	**Satisfied n (%)**	**Total**	**X^2**	**df**	**P value**
Gender							
Male	8 (16.7)	12 (25.0)	28 (58.3)	48	6.781	2	0.034
Female	22 (35.5)	18 (29.0)	22 (35.5)	62			
Religion							
Christian	29 (27.4)	29 (27.4)	48 (45.3)	106	0.035	2	0.983
Others	1 (25.0)	1 (25.0)	2 (50.0)	4			
Education							
Primary	5 (38.5)	5 (38.5)	3 (23.0	13	11.742	4	0.019
Secondary	5 (12.5)	9 (22.5)	26 (65.0)	40			
Tertiary	20 (35.1)	16 (28.1)	21 (36.8)	57			
Marital Status							
Married	14 (21.2)	20 (30.3)	32 (48.5)	66	8.892	6	0.180
Cohabiting	8 (42.1)	1 (5.3)	10 (52.6)	19			
Divorced/Separated	4 (26.7)	6 (40.0)	5 (33.3)	15			
Widowed	4 (40.0)	3 (30.0)	3 (30.0)	10			

Table 2: *Association between sociodemographic variables and couples satisfaction.*

Significant at P < 0.05; D:Dissatisfied; S: Satisfied.

Table 3 displays the result of the ANOVA test. There were statistically significant differences between the various income groups for the four domains of quality of life ((1) physical health, (2) psychological (3) social relationships, (4) Environment), as determined by one way ANOVA (F_1 = 8.873, P = 0.000/ F_2 = 5.887, P = 0.0004, F_3 = 3.734, P = 0.027, F_4 = 8.451, P = 0.000 respectively).

	Sum of squares	**Df**	**Mean square**	**F**	**Sig**
CSI Score Between Groups	3.790	2	1.895	2.794	.066
Within Group	72.574	107	.678		
Total	76.364	109			
Domain 1 score Between Groups	3165.290	2	1582.645	8.873	0.000*
Within Group	19086.028	107	178.374		
Total	22251.318	109			
Domain 2 score Between Groups	2063.888	2	1031.944	5.887	0.004*
Within Group	18757.576	107	175.304		
Total	20821.464	109			
Domain 3 score Between Groups	2083.251	2	1041.625	3.734	.027*
Within Group	29851.513	107	278.986		
Total	31934.764	109			
Domain 4 score Between Groups	3881.030	2	1940.515	8.451	.000*
Within Group	24567.843	107	229.606		
Total	28448.873	109			

Table 3: *Table of ANOVA values.*

**Significant at p < 0.05.*

Table 4 shows the means of the CSI and quality of life domain scores. Those earning more than N150,000 monthly scored highest on domain 1 (physical health: 65.0588 ± 14.83859), Domain 3 (Social relationship: 61.4118 ± 16.44331) and Domain 4 (Environment: 56.0588 ± 19.52073) measures of the quality of life assessment; while those earning between N50,000 – N150,000 had the highest mean score on Domain 2 (Psychological: 63.8571 ± 12.32792).

Income (N)	N	Mean	Std Deviation
CSI Score < 50,000	37	2.1892	.87679
50,000 - 150,000	56	2.3036	.78438
> 150,000	17	1.7647	.83137
Total	110	2.1818	.83701
Domain 1 Score < 50,000	37	52.2973	11.53224
50,000 - 150,000	56	63.1071	13.99698
> 100,000	17	65.0588	14.83859
Total	110	59.7727	14.28778
Domain 2 Score < 50,000	37	54.4595	12.63254
50,000 - 150,000	56	63.8571	12.32799
> 150,000	17	62.7059	17.05420
Total	110	60.5182	13.82109
Domain 3 Score < 50,000	37	48.7838	13.34819
500,000 - 150,000	56	55.6250	18.64068
> 100,000	17	61.4118	16.44331
Total	110	54.2182	17.11664
Domain 4 Score < 50,000	37	41.9730	12.29383
50,000 - 150,000	56	53.9643	15.39181
> 100,000	17	56.0588	19.52073
Total	110	50.2545	16.15546

Table 4: *Means of the CSI and quality of life domain scores.*

A turkey post hoc test (See table 5) revealed that the physical health domain of the quality of life measure was statistically significantly lower for those earning less than N50,000 monthly (52.2973 ± 11.53224) compared to those earning between N50,000 and N150,000 monthly (63.1071 ± 13.99698; P = 0.001) and those earning more than N150,000 monthly (65.0588 ± 14.83859; P = 0.004) (See tables 4 and 5).

Similarly, the psychological component (domain 2) of the quality of life was statistically significantly higher for those earning between N50,000 - N150,000, compared to those earning lower than N50,000 monthly (63.8571 ± 12.32799; P = 0.003) and (54.4595 ± 12.63284) respectively (See tables 4 and 5).

Dependent Variable	(I) Average Monthly Income (N)	(J) Average Monthly Income (N)	Mean Difference (I - J)	STD. Error	Sig.
CSI Scores	< 50,000	50,000 - 150,000	-.11438	.17448	.790
		> 150,000	.42448	.24131	.188
	50,000 - 150,000	< 50,000	.11438	.17448	.790
		> 150,000	.53887	.22806	.052
	> 150,000	< 50,000	-.42448	.24131	.188
		50,000 - 150,000	-.53887	.22806	.052
Domain 1 Score	< 50,000	50,000 - 150,000	-10.80985*	2.82952	.001
		> 150,000	-12.76153*	3.91325	.004
	50,000 - 150,000	< 50,000	10.80985*	2.82952	.001
		> 150,000	-1.95168	3.69836	.858
	> 150,000	< 50,000	12.76153*	3.91325	.001
		50,000 - 150,000	1.95168	3.69836	.858
Domain 2 Score	< 50,000	50,000 - 150,000	-9.39768*	2.80507	.003
		> 150,000	-8.26442	3.87943	.089
	50,000 - 150,000	< 50,000	9.39768*	2.80507	.003
		> 150,000	1.15126	3.66640	.947
	> 150,000	< 50,000	8.24642	3.8794	.089
		50,000 - 150,000	-1.15126	3.66640	.947
Domain 3 Score	< 50,000	50,000 - 150,000	-6.84122	3.53865	.134
		> 150,000	-12.62798*	4.89399	.030
	50,000 - 150,000	< 50,000	6.84122	3.53865	.134
		> 150,000	-5.78676	4.62524	.426
	> 150,000	< 50,000	12.62798*	4.89399	.030
		50,000 - 150,000	5.78676	4.62524	.426
Domain 4 Score	< 50,000	50,000 - 150,000	-11.99131*	3.21025	.001
		> 150,000	-14.08585*	4.19599	.006
	50,000 - 150,000	< 50,000	11.99131*	3.21025	.001
		> 150,000	-2.09454	4.19599	.872
	> 150,000	< 50,000	14.08585*	4.43980	.006
		50,000 - 150,000	2.09454	4.19599	.872

Table 5: *POST HOC Tests (Multiple Comparisons) Turkey HSD.*

Significant at P < 0.05 level.

Furthermore, the social relationship measure (domain 3) was statistically significantly higher for those earning more than N150,000 monthly than those earning less than N50,000 monthly. (56.0588 ± 19.52073; P = 0.030) and (41.9730 ± 12.29383) respectively (See tables 4 and 5).

The environment domain (domain 4) of the quality of life was statistically significantly higher for those earning between N50,000 - N100,000 monthly (53.9643 ± 15.39181; P = 0.001) and those earning more than N150,000 monthly (56.0588 19.5203; P = 0.006) compared to those earning less than N50,00 monthly (41.9730 ± 12.29383) (See tables 4 and 5).

There is no statistically significant difference in the means scores of the couples satisfaction index (CSI) between the various economics categories (See tables 4 and 5).

Table 6 shows the Pearson's correlation of various clinical variable. There was significantly positive correlation between the domains scores, one with another. Conversely, there was a negative correlation between Domain 4 scores and GHQ score (-0.215; P = 0.024).

		CS1 Score	Domain 1 Score	Domain 2 Score	Domain 3 Score	Domain 4 Score	GHQ Scores
CS1 Score	Pearson Correlation	1	.148	.113	.103	-.007	-.167
	Sig. (2 – tailed)		.124	.239	.285	.943	.082
Domain 1 Score	Pearson Correlation	.148	1	.624*	.516*	.467*	-.068
	Sig. (2 – tailed)	.124		.000	.000	.000	.483
Domain 2 Score	Pearson Correlation	.113	.624*	1	.593*	.641*	-081
	Sig. (2 – tailed)	.239	.000		.000	.000	.401
Domain 3 Score	Pearson Correlation	.103	.516*	.593*	1	.642*	-.010
	Sig. (2 – tailed)	.285	.000	.000		.000	.921
Domain 4 Score	Pearson Correlation	-.007	.467*	.641*	.642*	1	-.215*
	Sig. (2 – tailed)	.943	.000	.000	.000		.024
GHQ Score	Pearson Correlation	-.167	-.068	-.081	-.010	.215*	1
	Sig. (2 – tailed)	.082	.483	.401	.921	.024	

Table 6*: Pearson's correlations of the various clinical variables.*

**Correlation is significant at the 0.05 level.*

Discussion

Social stressors that occur inside the home e.g. financial strain as well as those experienced outside the home such as unfair treatment have negative consequences for marital quality and are established precipitants of psychological distress [10]. The combination of experiencing unfair treatment and financial strain has particularly deleterious mental health consequences for married African Americans [10].

About one third of the subjects were not martially satisfied. The males were found to be more martially satisfied than the females and the difference between the two groups was statistically significant. This finding is at variance with the report by some other researchers who stated that marital satisfaction had no significant relationship with gender [11,12]. Methodological differences of the various studies, as well as cultural differences with respect to perceived marital roles and expectations between the cohorts studied could be contributory to the difference in results.

Similarly, while Bayle., *et al.* [12] reported a significant difference in marital satisfaction between those that had tertiary education and other educational categories, the converse was found in this study. Methodological difference could also account for these variations in results. The psychiatric morbidity of the study cohort was 30%. This is within the range reported by other researchers [13,14]. Several researchers have reported the negative correlation between the presence of psychopathology and marital satisfaction [5,15,16]. Prominent among these psychiatric symptoms/ disorders are depression and anxiety [5,15,16]. Ahmad., *et al*. captured this sentiment succinctly when he noted that several independent variables were significant factors for odds of having problematic marriage. These factors include age group, spouse's salary, anxiety, depression, male satisfaction and female sexual dysfunction [15]. This underscores the need for regular mental health screening of staff of public institutions.

This study shows that there were statistically significant differences between the various income groups for all the domains of quality of life, based on the results from the one way ANOVA test. Furthermore, those earning highest among the cohort recorded the highest means scores in three of the four domains (1, 3 and 4) of the quality of life schedule.

This is quite significant when are considers that these domains translate to faring better that the rest of the cohort in the activities of daily living which is represented by the physical health domain, personal relationships (captured by the social relationship domain) and financial resources (which is represented by the 'environment' domain.

However, the physical health domain was found to be statistically significantly lower for the least income earners compared with the middle and high income earners. This is unlike the psychological domain which was found to be statistically significantly higher only for middle income earners alone, compared to low income earners. Hence it appears that the extra income by the high earners doesn't confer any significant extra psychological advantage over the middle income earners.

Similarly, the social relationship measure was statistically significantly higher for higher income earners than low income ones. Extra income for the former doesn't confer any added advantage over the latter. These findings demonstrate that even though a high standard of living exemplified by higher earning power can provide a buffer against factors which cause poor quality of life such as poor physical and mental health, it doesn't confer all the advantage for the highest quality of life possible [17]. As was pointed out by Graham, the relationship between standard of living and quality of life is mediated by many variables including health related ones [17].

The relationship of one's financial status with his quality of life was further elucidated by Lubric., *et al.* when they opined that although it sounds paradoxical, money causes people financial worries, whether they have it or not and so can significantly influence their quality of life [18]. Nevertheless, inspite of the central role money plays in quality of life, Rebello et la opined that jealously, partnership and love were found to be the most relevant factors for marital satisfaction thereby reaffirming the evolutionary psychology hypothesis about love and jealousy as elements of cohesion in humans [19].

Furthermore, even though financial status has definite effect on quality of life measures, no correlation was found between couples satisfaction and quality of life measures. This is at variance with the finding by Garibi., *et al.* in a study on the relationship between quality of life with marital satisfaction in nurses in Social Security Hospital in Zahedan [20]. In that study, significant positive correlation between marital satisfaction and quality of life was established. The difference in result of that study compared to this may be due to differences in the questionnaires used to assess couples' satisfaction in the respective cohorts.

Nevertheless, there was significant positive correlative between the different domains scores. A negative correlation was discovered between availability for financial resources and GHQ scores. This is not surprising when one considers that financial constraints can lead to anxiety and precipitate other psychopathologies when legitimate needs and desires are not net [10].

Conclusion

The psychiatric morbidity found was 30% and about the same proportion were martially unsatisfied, with female preponderance. Statistically significant differences existed between the various income groups for the four domains of quality of life. There was no statistically significant difference in the mean scores of the couples satisfaction index (CSI) between the various economic categories. A negative correlation was found between domain 4 (environment) of the quality of life schedule and GHQ scores.

Despite the importance of a higher earning power on quality of life, it does not necessarily translate to the highest possible quality of life. The need for regular health screening of staff of public institution is advised.

Limitation

This is a cross-sectional study. Therefore, its application to the general population should be done with caution. Secondly, other variables of marital satisfaction e.g. sexual satisfaction were not fully explored.

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