Innovations

Demographic variables as predictors of distress tolerance among clinically depressed patients

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Abstract
For depression, distress tolerance has received relatively less attention than other factors. However, elevated negative affect is a defining feature of depression, so the capacity to endure negative or unpleasant emotional states is likely a relevant factor. The study therefore investigated the demographic variables as predictors distress tolerance among clinically depressed patients. The study was a cross-sectional survey design. A total number of two hundred and thirty (230) clinically depressed patients attending Federal Neuro-psychiatric Hospital Yaba, Lagos were purposively sampled. The results from the study revealed that The study therefore recommends the establishing of therapeutic programmes to enhance the emotional regulation of depressed individuals in order to lessen their level of depression and to improve their functionality socio-demographic variables (age, religion, sex, marital status, socio-economic status and educational qualification) jointly predicted emotional functioning of clinically depressed patient in terms of distress tolerance (R^2 = 0.12, F (3,226). age (β= -.17; t = -2.35, p< 0.01), religion (β= -.19; t = -2.88, p< 0.01), and educational qualification (β= .15; t = 2.33, p< 0.01) were significant independent predictors of distress tolerance. Also, age (β= -.22; t = -3.35, p< 0.01), sex (β= -.14; t = -2.07, p< 0.01) were significantly predicted tolerance. In addition, age (β= -.18; t = -2.51, p< 0.01), religion (β= -.15; t = -2.36, p< 0.01), marital status (β= -.16; t = -2.18, p< 0.01), educational qualification (β= .14; t = 2.22, p< 0.01) significantly predicted appraisal among clinically depressed patients. Also, religion (β= -.21; t = -3.08, p<0.01), is the only independent significant predictor of absorption. Moreso, age (β= -.20; t = -2.92, p< 0.01), marital status (β= -.24; t = -3.47, p< 0.01) educational qualification (β= .22; t = 3.55, p< 0.01) were significant independent prediction of positive regulation among clinically depressed patients. Based on the results of the findings, the study therefore concluded that some demo-graphic variables significantly predicted psychological wellbeing. It is therefore recommending that Patients with depression should first be assessed for emotional functioning and appropriate recommendation should be made before medication especially for patients who are within the mild - moderate classification on the depression scale.

Keywords:1.*Distress tolerance, 2.demographic variables (age, religion, education qualification, marital status) depression*

Introduction

In recent years, depression has become one of the most frequently diagnosed mental health condition in mental institutions, along with its associated complications (1). Depression, a mood disorder, differs from normal mood fluctuations and short-lived emotional responses to daily challenges, especially when recurrent and with moderate or severe intensity [2]. Depression has been found to reduce functioning[3,4 , 5)] , diminish the sufferer's quality of life, and increase the risk of suicide (1, 6). The American Psychiatric Association defines depression

as a highly prevalent, recurrent, and potentially chronic disorder characterized by persistent low mood and anhedonia (6). Depression, which is also called Major Depressive Disorder (MDD) or clinical depression, is marked by severe symptoms that make it hard to feel, think, and do normal things like sleep, eat and work [5].

It has been discovered that the incidence of major depressive disorder (MDD) in women is twice that of men. It may not be entirely clear why this is the case, but it has been suggested that women experience greater psychosocial stress and hormonal fluctuations and are less resilient to stress than men (7).
Despite the observed gender differences in the onset of major depressive disorder (MDD), the incidence between males and females prior to puberty appears to be the same (8).
Literature found that among adolescents and adults, the onset of depression is most prevalent in women between the ages of 22 and 44, and a similar disparity was observed among the elderly (65 years or older). (9). The risk of developing major depressive disorder (MDD) is high from childhood to old age, and it can manifest at any age. The majority of people with MDD are between the ages of 20 and 50. Some studies indicate that the average age of onset is 27 years old, while other studies indicate that the average age of onset is 40 years old (10; 9). In younger than 20-year-olds, the incidence of MDD has increased in recent years with associated alcohol and drug use and equally MDD is more prevalent among divorced or separated individuals (12).
Sims, Hogan, and Carstensen (13) discovered that older adults are better able to control their emotions in daily life, typically by choosing situations that align with their personal goals. Typically, this strategy is not feasible in a laboratory setting.In the elderly, social isolation is a major risk factor for mental disorders (particularly in women).
Distress tolerance has been found to be a risk factor for many different types of psychopathologies (14). Most research on distress tolerance has focused on risky or dangerous behaviors, such as smoking, alcohol/drug use, and not being suicidal, reduced distress tolerance has been associated with a less-than-average capacity to tolerate negative or unpleasant states (15).

According to aging surveys, at least 10% of older adults in England are socially isolated, with rates even higher for those over the age of 75. A review of the research indicates that individuals who are lonely are more likely to experience depressive symptoms, poor mental health and cognition, alcoholism, suicidal thoughts, and death (16).For depression, distress tolerance has received relatively less attention than other factors. However, elevated negative affect is a defining feature of depression, so the capacity to endure negative or unpleasant emotional states is likely a relevant factor. It has been identified that the capacity to tolerate and withstand distress is a significant factor in determining how one copes in the face of distress.

Methods

Design
The study adopted a cross-sectional survey in which ex-post facto designs. A cross-sectional survey is a type of survey that allows the researcher to obtain data at once from a representative sample of different strata of the population.
Participants
The population for this study were patients who had been clinically diagnosed of depression in Federal Neuro Psychiatric Hospital, Yaba Lagos, Nigeria and were attending clinic at the time of the research. Depressed patients are individuals who had met the clinical criteria on the DSM-I. Depressed patient has varying symptoms. They range from lasting feelings of unhappiness and hopelessness, to losing interest in the things you used to enjoy and feeling very tearful. There have physical symptoms too, such as feeling constantly tired, sleeping badly, having no appetite or sex drive, and various aches and pains. The symptoms of depression range from mild to severe. At its mildest, they may simply feel persistently low in spirit, while severe depression can make them feel suicidal, that life is no longer worth living.
Sample and Sampling Technique
A prevalence rate of depressive symptoms was gotten from a study on Epidemiology of depression in primary

care: Findings from the Mental Health in Primary Care (MeHPriC) project, Lagos, Nigeria by Adewuya, et al., (17)

Participants for this study were purposively selected from the outpatient on their clinic day. The patients were identified through their appointment registers with the assistance of the record personnel.

For this study male and female patients who are clinically depressed were purposively selected; this gave all the potential participants equal right to participate in the study. A total of two hundred and thirty (230) clinically depressed patients were selected from the out-patient unit of the Federal Neuro Psychiatric Hospital Yaba, Lagos to cater for attrition rate.

Instruments

Instruments in this study are standardised instrument. Two research instruments were adopted and used to obtain data from the study participants. All were presented on a single research protocol title research questionnaire. The questionnaires were divided into different sections. The research instrument comprised of socio-demographical variables, and outcome variablemeasures of distress tolerance

Socio-demographic variables

Respondents' socio-demographic variables was collected under this section. These included age, gender, marital status, educational qualification, religion and socio-economic status.

Distress Tolerance Scale

The scale was developed by Simons and Gaher's (18) Distress Tolerance Scale, fifteen items were derived from a theoretical literature review. The subscale scores measure the four first-order factors of distress tolerance: tolerance, absorption, appraisal, and regulation. The four subscales are tolerance (the individual's capacity to tolerate distress), absorption (the extent to which an individual is consumed by negative emotions), appraisal (the individual's subjective assessment of the distress as tolerable or intolerable), and regulation (the individual's sense of desperation to do more to ameliorate the negative emotion) (19).Cronbach's alphas were.83 (Tolerance),.89 (Absorption),.84 (Evaluation), and.83 (Appraisal) (Regulation). The correlation coefficients between the four DTS subscales were moderate, ranging from 0.39 to 0.65. Simons and Gaher (19) validated the scale and obtained a Cronbach alpha reliability coefficient of 0.83. Lower scores indicate lower levels of distress tolerance, while higher scores indicate high levels of distress tolerance. Amazue, Onyishi, and Amazue (19) used a sample of people from Nigeria to revalidate this scale. The Cronbach alpha for internal consistency was 0.85.In this study, both face and content validity were evaluated. Cronbach's alpha for test-retest reliability was calculated to be 0.93. The Spearman-Brown coefficient was 0.84 (P.001) and the Guttmann split-half coefficient was 0.81 (P.001). The DTS is a self-report type of measure which was administered to the participants individually. It took an average of 5minutes to complete.The scale is a 15-item scored and designed in Likert 5-point response formats ranging from strongly agree (1) to strongly disagree (5). Participants who scored low were perceived to be low on distress tolerance while high scorer has high level of distress tolerance skill.

Statistical Analysis

The data collected with the questionnaire was analyzed with both descriptive and inferential statistics. The descriptive statistics used to find the mean and standard deviation of the data while inferential statistics of multiple regression analysis was used

Results

Demographic Characteristics of Respondents

The following presents the personal characteristics of respondents using frequency and percentage distribution analysis

Table 1: Descriptive Statistic Showing the Demographic Distribution of study Respondents

Variables	Options	Frequency	Percentage
Age (M=36.39, S.D=10.00)	20-24 years	22	9.6
	25-29 years	61	26.5
	30-34 years	35	15.2

	35-39 years	60	26.1
	40-44 years	29	12.6
	45 and above	23	10.0
	Total	230	100.0
Religion	Christianity	206	89.6
	Islam	24	10.4
	Total	230	100.0
Duration of illness	1-4 years	189	82.2
	5 years and above	41	17.8
	Total	230	100.0
Sex	Male	37	16.1
	Female	193	83.9
	Total	230	100.0
	Single	93	40.4
Marital status	Married	124	53.9
	Separated	12	5.2
	Widowed	1	.4
	Total	230	100.0
Socio-economic status			
	No response	38	16.5
	Middle class	107	46.5
	Low class	85	37.0
	Total	230	100.0
Educational qualification			
	SSCE	28	12.2
	OND	45	19.6
	B.SC	70	30.4
	M.SC	77	33.5
	Ph.D	10	4.3
	Total	230	100.0
Family history of depression			
	No response	34	14.8
	Yes	30	13.0
	No	166	72.2
	Total	230	100.0

The result of the descriptive statistics shows that 22(9.6%) of the respondents fall between age bracket of 20-24 years, majority 61(26.5%) belong to age bracket of 25-29 years, 35(15.2%) fall between the age range of 30-34 years, 60(26.1%) were between the age bracket of 35-39 years, 29(12.6%) belong to age range of 40-44 years and 23(10%) were 45 years and above old. Also, larger percent 206(89.6%) were Christians and 24(10.4%) were Muslims. In addition, majority 189(82.2%) had between 1-4 years duration of illness and 41(17.8%) had 5 years and above duration of illness. Based on gender of the respondents, 37(16.1%) were male, 193(83.9%) were female. As regards marital status, 93(40.4%) were single, majority 124(53.9%) were married, 12(5.2%) were separated and 1(0.4%) were widowed/widower. In respect to socio-economic status, 107 (46.5%) of the

respondents were in middle class and 85(37%) belong to lower class socio-economic status. As regards educational qualification, 28(12.2%) acquired SSCE, 45(19.6%) possessed OND certificate, 70(30.4%) were B.Sc holder, 77(33.5%) acquired M.Sc certificate and 10(4.3%) were Ph.D holder. Finally, in respect to the family history of depression, 30(13%) reported having history of depression in their family and majority reported not having history of depression in the family.

Social demographic variables (age, gender, marital status, educational qualification, religion and socio-economic status) will not significantly predict the level of distress tolerance of clinically depressed patients in Federal Neuro-psychiatric Hospital, Yaba, Lagos State.

Table 2: Multiple regression analysis showing the effect of socio-demographic factors on distress tolerance and dimensions (tolerance, appraisal, absorption, and regulation) among clinically depressed patients.

	Distress tolerance		**Tolerance**		**Appraisal**		**Absorption**		**Regulation**	
Variables	**β**	**t**	**β**	**t**	**β**	**t**	**β**	**t**	**β**	**t**
(Constant)		8.07		7.02		8.27		6.18		6.42
Age	-.17**	-2.35**	-.08	-1.13	-.18**	-2.51**	-.10	-1.35	-.20**	-2.92**
Religion	-.19	-2.88**	-.22**	-3.35**	-.15	-2.36	-.21**	-3.08**	-.11	-1.71
Sex	-.07	-1.08	-.14	-2.07**	-.03	-.44	-.12	-1.71	-.01	-.15
Marital Status	-.10	-1.37	.05	.73	-.16**	-2.18**	.08	1.01	-.24**	-3.47**
Socio-economic status	-.01	-.15	-.04	-.64	.00	.01	-.09	-1.33	.08	1.26
Educational qualification	.15**	2.33**	.03	.47	.14**	2.22**	.12	1.76	.22**	3.55**
R	.360[a]		.270[a]		.377[a]		.288[a]		.466[a]	
R Square	0.13		0.07		0.14		0.08		0.22	
Adj R	0.106		0.05		0.12		0.06		0.20	
SEM	11.48		2.52		4.83		2.73		2.83	
F	5.54**		2.93*		6.17**		3.36*		10.30**	
Sig.	.000[b]		.009[b]		.000[b]		.003[b]		.000[b]	

**** indicates level of significant at 0.01 * indicates level of significant at 0.05**

The display in Table 2 indicates prediction of socio-demographic variables (age, religion, sex, marital status, socio-economic status and educational qualification) jointly predicted emotional functioning of clinically depressed patient in terms of distress tolerance (R^2 = 0.12, F (3,226) = 5.54, p<.01), tolerance (R^2 = 0.07, F (3,226) = 2.93, p<.05), appraisal (R^2 = 0.14, F (3,226) = 6.17, p<.01), absorption (R^2 = 0.14, F (3,226) = 3.36, p<.01), regulation (R^2 = .22, F (3,226) = 10.30, p<.01). This implies that 7 – 22% of the total variance in cognitive functioning factors accounted for by the combination of the socio-demographic factors. By implication, the remaining % unaccounted for by the models was due to other factors (not included in the study) and residuals. The result further reveals that age (β= -.17; t = -2.35, *p*< 0.01), religion (β= -.19; t = -2.88, *p*< 0.01), and educational qualification (β= .15; t = 2.33, *p*< 0.01) were significant independent predictors of distress tolerance. Also, age (β= -.22; t = -3.35, *p*< 0.01), sex (β= -.14; t = -2.07, *p*< 0.01) were significantly predicted tolerance.

In addition, age (β= -.18; t = -2.51, *p*< 0.01), religion (β= -.15; t = -2.36, *p*< 0.01), marital status (β= -.16; t = -2.18, *p*< 0.01), educational qualification (β= .14; t = 2.22, *p*< 0.01) significantly predicted appraisal among clinically depressed patients. Also, religion (β= -.21; t = -3.08, *p*<0.01), is the only independent significant predictor of absorption.

Moreso, age (β= -.20; t = -2.92, *p*< 0.01), marital status (β= -.24; t = -3.47, *p*< 0.01) educational qualification (β= .22; t = 3.55, *p*< 0.01) were significant independent prediction of positive regulation among clinically depressed patients.

Discussion

In the result of the findings, it was revealed that age, sex significantly predicted tolerance which is the one of the dimensions of distress tolerance. In addition, age, religion, marital status, educational qualification, significantly predicted appraisal among clinically depressed patients. Also, religion, is the only independent significant predictor of absorption. In addition, age, marital status, educational qualification were significant independent predictors of positive regulation among clinically depressed patients.The was in line with the previous studies by Daughters, et al.(20)found that distress-intolerant individuals are likely to engage in escape or avoidance behaviors when confronted with emotional discomfort. In the absence of more adaptive coping skills, people with low distress tolerance may be incapable of learning effective ways to acclimate to distress and may engage in maladaptive behaviors to avoid further negative emotions.
Prior research has described the association between gender, distress tolerance levels, it believes that low levels of distress tolerancein women lead to a higher prevalence of internalizing disorders (mood disorder), while low levels of distress tolerance in men lead to a higher prevalence of externalizing disorders (21). Low distress tolerance levels are associated with more affective problems, and different researchers have found that low distress tolerance is associated with more internalizing symptoms in females . However, researchers disagree on the effects of low levels of distress tolerance in males. Some researchers have discovered a non-significant correlation.

The effect of distress tolerance on depressive symptoms may be modified by religiosity. This was correlated with positive mental health and low rates of morbidity and mortality (7). Moreover, religiosity prospectively predicts a lower likelihood of developing depressive symptoms and a more favorable course of recovery from depression (9).
According to the system justification perspective of religious ideology (11), religion provides rules, order, and steadfast prediction that may alleviate the anxiety associated with life's uncertainties, particularly the ultimate uncertainty. Therefore, individuals with high low distress tolerance may find religiosity to be especially significant. Religion not only provides a set of instructions for living, including what to do and when to do it, but it may also increase one's ability to tolerate uncertainty in daily life. So, religious teachings that say suffering in this life doesn't matter much because those who follow the rules will get rewards in the afterlife may also make people more optimistic.

Limitations

This study has its limitations and should therefore be interpreted within its context. Firstly, the study focused on depressed patients in Federal Neuro Psychiatric Hospital Yaba only. There might be a need to replicate this study in other treatment centers to ascertain its efficacy in those places.
More socio demographic variables as well as psychological factor like life stressful events could have been examined.
There might be a need to extended follow up beyond six weeks to allow for more observation on the efficacy of the intervention.

Recommendations

Patients with depression should first be assessed for emotional functioning and appropriate recommendation should be made before medication especially for patients who are within the mild to moderate classification on the depression scale.

Therapist should adopt more of emotional regulation therapeutic techniquesto empower depressed patients with skills that they can maximize outside of the hospital settingand build up their distress tolerance level for better emotional functioning.

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