

A STUDY ON THE IMPACT OF COVID-19 **PANDEMIC ON MENTAL HEALTH OF WOMEN**

*A project report submitted to University of Calicut,
in partial fulfillment of the requirements of the award
of Bachelor of Statistics degree.*



PG AND RESEARCH DEPARTMENT OF STATISTICS
FAROOK COLLEGE (AUTONOMOUS)
FAROOK COLLEGE P.O, KOZHIKODE – 673632
(2019-2022)

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B.Sc. STATISTICS
PROJECT REPORT
CERTIFICATE

This is to certify that the project entitled “A study on impact of COVID-19 pandemic on mental health of women population” is a Bonafide record of project work done by _____, Reg.No. _____ under our supervision and guidance, during the period 2021-2022.

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Submitted for practical verification and vice voce examination held at FAROOK COLLEGE (AUTONOMOUS), Kozhikode on.....and valued.

Place:

Date:

Examiner

A STUDY ON THE IMPACT OF COVID-19 ON MENTAL HEALTH OF WOMEN

A project submitted in partial fulfillment of the requirement for the award of degree of B.Sc.Statistics.

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CONTENTS

1. INTRODUCTION

1.1 Aims and objectives.....	8
------------------------------	---

2. METHODOLOGY

2.1 Statistical Tools.....	9-11
----------------------------	------

2.1.1 Kolmogorov Smirnov test

2.1.2 Kruskal–Wallis test

2.1.3 Mann-Whitney U test

2.1.4 Shapiro Wilcox test.

2.1.5 Chi-square test for independence

2.2 Graphical Tools.....	11
--------------------------	----

2.2.1 Bar graph

2.2.2 Pie chart

2.3 Software used.....	11-12
------------------------	-------

2.3.1 Microsoft excel

2.3.2 Microsoft word

2.3.3 SPSS

2.3.4 Google forms

3. ANALYSIS

3.1 Graphical Representation.....	13-15
-----------------------------------	-------

3.1.1 Mental health services before pandemic period.

3.1.2 Mode of study/work during pandemic period

3.1.3 Comfortness of online work/study

3.1.4 Time spends on digital equipment

3.1.5 Mental health status during pandemic period

3.2 Inferential Statistics

3.2.1 Chi square test for independence of attributes.....16-20

3.2.1.1 Marital status and depression scores.

3.2.1.2 Marital status and anxiety scores

3.2.1.3 Family type and anxiety scores

3.2.2 Test for normality.....21-22

3.2.2.1 Depression score

3.2.2.2 Anxiety score

3.2.3 Mann Whitney22-26

3.2.3.1 The variable depression score across marital status

3.2.3.2 The mean depression score across different family types

3.2.3.3 The mean anxiety score across different marital status

3.2.3.4 The mean anxiety score across different family types

3.2.4 Kruskal wallis test.....27-34

3.2.4.1 Degree of depression and education level.

3.2.4.2 Degree of depression and work status.

3.2.4.3 Degree of depression and mode of study or work.

3.2.4.4 Degree of depression and digital time.

3.2.4.5 Degree of anxiety and education level.

3.2.4.6 Degree of anxiety and work status.

3.2.4.7 Degree of anxiety and mode of study or work.

3.2.4.8 Degree of anxiety and digital time.

4.CONCLUSION.....35

5.REFERENCES.....36

6.QUESTIONNAIRE.....37-41

1.INTRODUCTION

A pandemic is not just a medical phenomenon. It affects the individuals and society and causes destruction, anxiety, stress and stigma. Isolation, social distancing and closure of educational institutes, work places and entertainment venue consigned people to stay in their homes to help break the chain of transmission. However, the restrictive measures undoubtedly have affected the social and mental health of people across the board.

Recent research has shown a higher prevalence of symptoms for stress, anxiety and depression in the female population during the COVID 19 pandemic. Being a young adult, having a history of anxiety and depression, taking medication, reduced or absence of physical activity and unemployed are some of the variables responsible for the impairment of female population's mental health during social isolation.

This project aims to study the impact of COVID-19 on the mental health of women population of Kerala from the district of Calicut and Malappuram during pandemic period. From a population of women in Malabar region of Kerala a random sample of 187 was collected through google forms and further studies based on the data has been conducted as per the research methodologies.

1.1 AIMS AND OBJECTIVES

- To analyze the impact of COVID 19 pandemic period on mental health of women population.
- To know how marital status of female affect their mental health.
- To examine whether there is a relation between family type, educational qualification, work status, mode of study/work and mental health of women population and to understand how these factors contributes to symptom severity .
- To identify symptoms of anxiety and depression in women population.

2.METHODOLOGY

2.1STATISTICAL TOOLS USED

2.1.1 Kolmogorov Smirnov Test

The two sample Kolmogorov Smirnov test is a nonparametric hypothesis test that evaluates the difference between cumulative difference of the distributions of the two sample data vectors over the range of x in each data set.

2.1.2 Kruskal-Wallis Test

The kruskal-wallis is a non-parametric alternative test for ANOVA. It is used to compare 3 or more groups on a dependent variable, measured on ordinal level. It does not assume normal distribution of the variable. It is analogous to Mann-Whitney U test for more than 2 groups. This test was proposed by Kruskal and Wallis in 1952 .

2.1.3 Mann-Whitney U Test

Mann-Whitney U test is non parametric test of the null hypothesis that it is equally likely that a randomly selected value from one sample will be less than or greater than a randomly selected value from a second sample. Unlike the t-test it does not require the assumption of normal distributions. It is nearly as efficient as the t-test on normal distributions.

2.1.4 Shapiro–Wilk Test

The Shapiro–Wilk test tests the null hypothesis that a sample x_1, \dots, x_n came from a normally distributed population. The test statistic is

$$W = \frac{(\sum_{i=1}^n a_i x_{(i)})^2}{\sum_{i=1}^n (x_i - \bar{x})^2},$$

2.1.5 χ^2 -Test for Independence

χ^2 test assesses if there is an association exists between the two variables by comparing the observed pattern of responses. The test consists of four steps.

1. Describe your hypothesis.
2. Create an analysis strategy.
3. Examine a sample of data
4. Analyze the outcomes

Degrees of freedom is equal to:

$$DF : (r-1) (c-1)$$

Expected frequencies:

For each level of one categorical variable, the expected frequencies counts are computed independently at each level of the other categorical variable.

$$E_{r,c} = (n_r \times n_c)/n$$

Test statistic:

The test statistic is a chi-square random variable (χ^2) defined by

$$\chi^2 = \sum \left[\frac{(O_{r,c} - E_{r,c})^2}{E_{r,c}} \right]$$

P Value:

The p-value is the probability of observing a sample statistic as extreme as test statistics. Use the t distribution calculator to calculate the probability associated with the test statistics because it is a t-statistic. Use the degrees of freedom that you calculated before.

2.2 GRAPHICAL TOOLS USED

2.2.1 BAR GRAPH

A bar chart or bar graph is a chart or graph that uses rectangular bars with heights or lengths proportional to the values they represent to convey categorical data. The bars can be plotted either horizontally or vertically. The comparison of discrete categories is shown in a bar graph.

2.2.2 PIE CHART

The data in a circular graph is represented by a pie chart, which is a form of graph. Pie charts are a sort of graphical representation of data in which the pieces represent the relative size of the data. A list of categorical and numerical variables is required for a pie chart. The best method for determining the composition of anything is to use a pie chart. Pie charts frequently replace other graphs such as bar graphs, line plots, histograms, and so on.

2.3 SOFTWARES USED

2.3.1 MICROSOFT EXCEL

Microsoft Excel is a spreadsheet programme for Windows, macOS, Android, and iOS that were created by Microsoft. It includes calculating, graphing tools, pivot tables, and Visual Basic for Applications, a macro programming language. We

prefer to utilize EXCEL for data entry when using SPSS for data analysis. This is due to EXCEL's greater flexibility in terms of generating new variables from existing ones and otherwise altering data once it has been entered. This is due to spreadsheets' capacity to apply mathematical formulas to do calculations on specific spreadsheet data.

2.3.2 MICROSOFT WORD

MS WORD is a popular word processor that is generally used to create documents such as letters, brochures, learning activities, tests, quizzes, and homework assignments for students. MICROSOFT WORD has a number of simple yet important features that make studying and working easier. When it comes to the project, we use Microsoft Word, Excel, and SPSS. The majority of the theory around the subject is developed on its screen. The project's complete basic ideal, including its tools, aims, and much more, is typed and saved for future reference.

2.3.3 SPSS

After being established by Norman Nye and Hedley Hull in 1968, SPSS (originally, statistical package for the social sciences) was released in its first version in 1968. SPSS is one of the most extensively used statistical analysis applications in social science. Market researchers, health researchers, government and education researchers, marketing organizations, and others all use it. The original SPSS manual is often regarded as the most significant book in the field of sociology. Data administration (ease of selection, file reshaping, creating derived data) and data documentation (a metadata dictionary is saved with the data) are characteristics of base software in addition to statistical analysis.

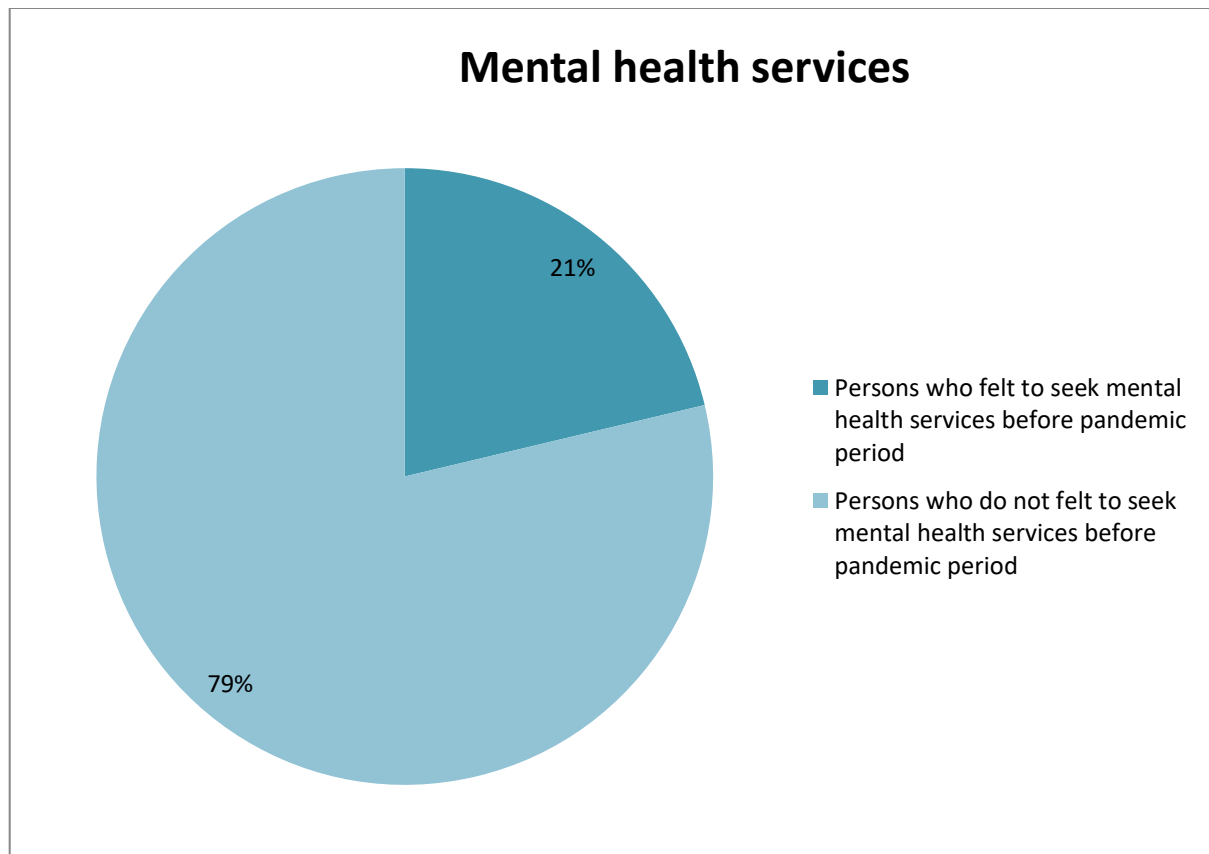
2.3.4 GOOGLE FORMS

One of the tools found within Google Drive is Google Forms. This programme allows you to collect data from a large number of people. After you've completed the survey, you'll be able to review all of your results in one convenient area. To create your own form, go to www.forms.google.com. Your form can be sent via email or a link.

3.ANALYSIS

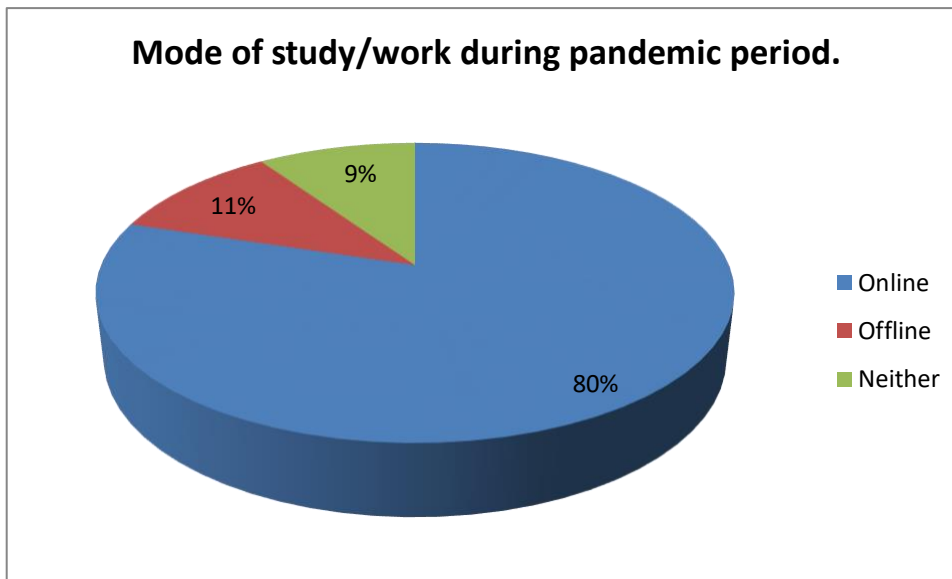
3.1 GRAPHICAL ANALYSIS

3.1.1Mental health services before pandemic period.



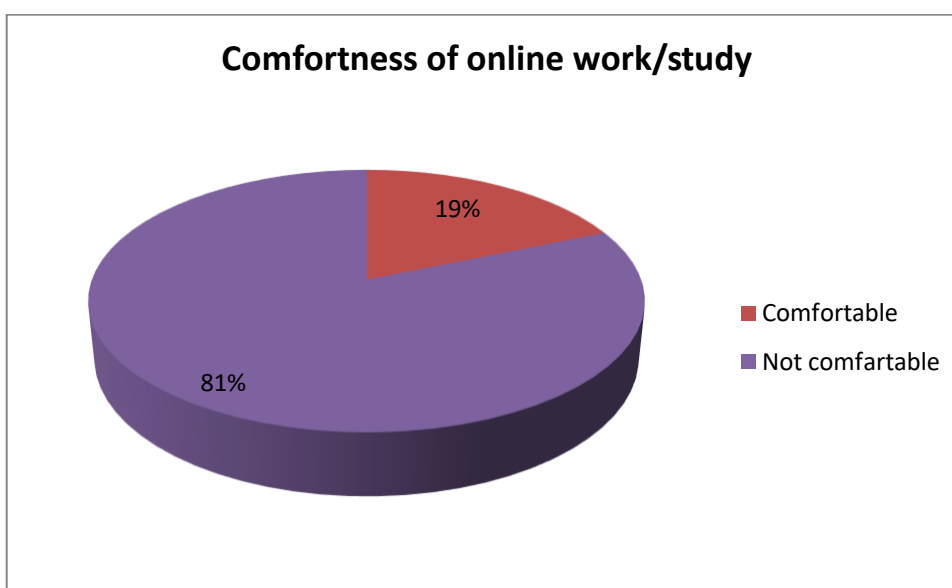
Inference: Majority of the respondents do not feel to seek mental health services before pandemic period

3.1.2 Mode of study or work during pandemic period.



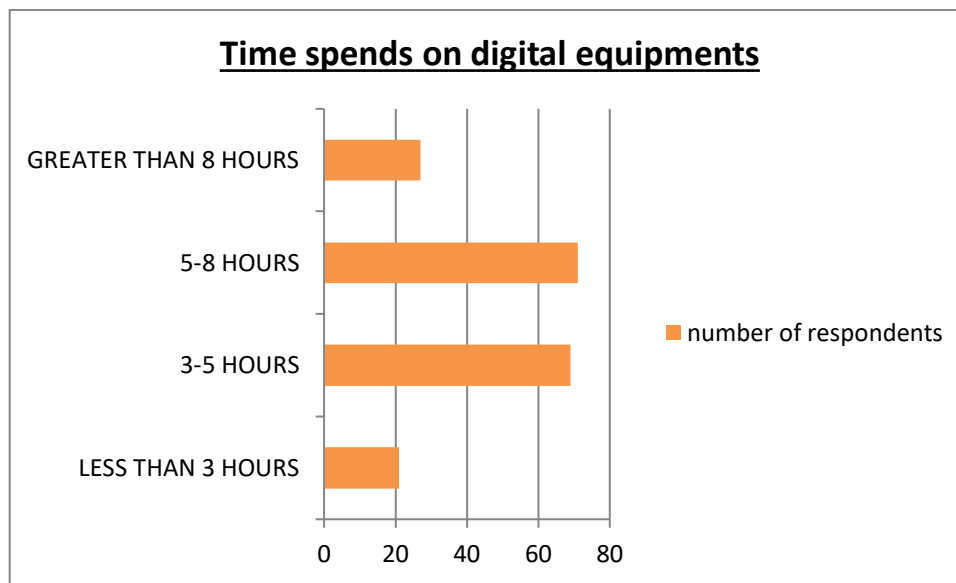
Inference: More number of respondents conducted their study or work in online mode during pandemic period.

3.1.3 Comfort of online study or work



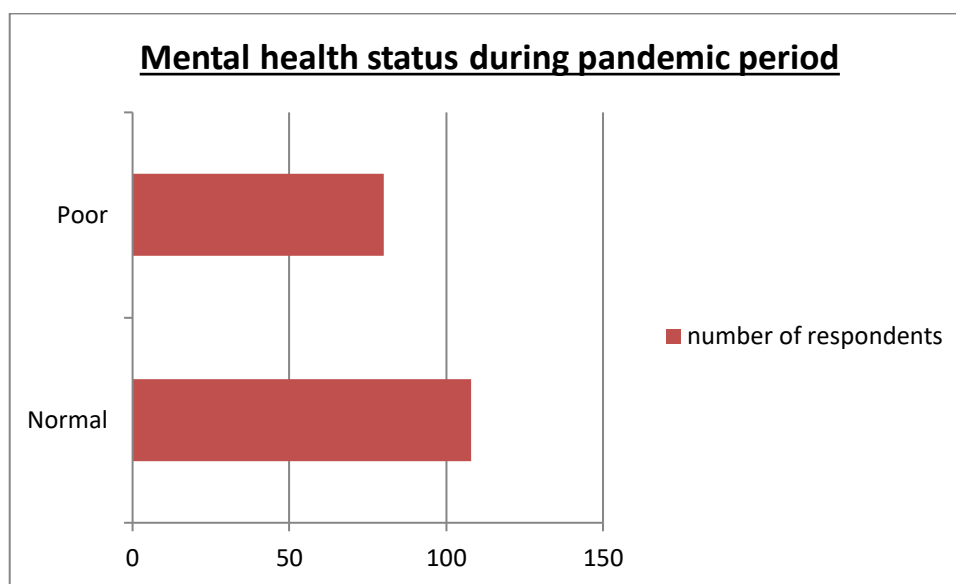
Inference: 81% of the respondents are not comfortable with online study/work.

3.1.4 Time spent on digital equipment



Inference: Majority of the women population spends 5-8 hours on digital screens daily.

3.1.4 Mental health status on pandemic period



Inference: Most of the respondents felt normal on their mental health during pandemic period

3.2 INFERENTIAL STATISTICS

3.2.1 CHI SQUARE TEST FOR INDEPENDENCE OF ATTRIBUTES

3.2.1.1 MARITAL STATUS AND DEPRESSION STATUS

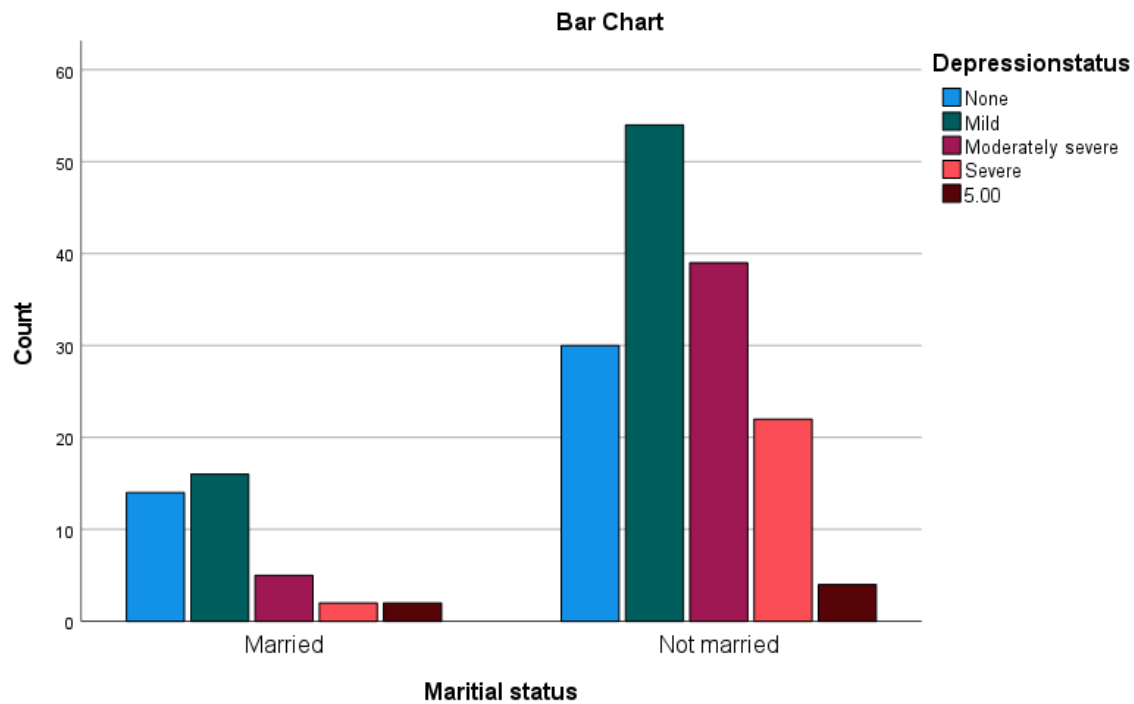
H_0 = There is no association between marital status and depression status of women population.

H_1 = There is an association between marital status and depressionstatus of women population.

CROSS TABLE:

		Depression status					Total
		None	Mild	Moderately severe	Severe	5.00	
Marital status	Married	14	16	5	2	2	39
	Not married	30	54	39	22	4	149
Total		44	70	44	24	6	188

Chi-Square Tests			
	Value	Degrees of freedom	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.654 ^a	4	.070
Likelihood Ratio	9.106	4	.059
Linear-by-Linear Association	4.536	1	.033
N of Valid Cases	188		



Inference: Here $p=0.070$. Since $p > 0.05$ null hypothesis is accepted. There is no association between marital status and depression scores.

3.2.1.2 MARITAL STATUS AND ANXIETY STATUS

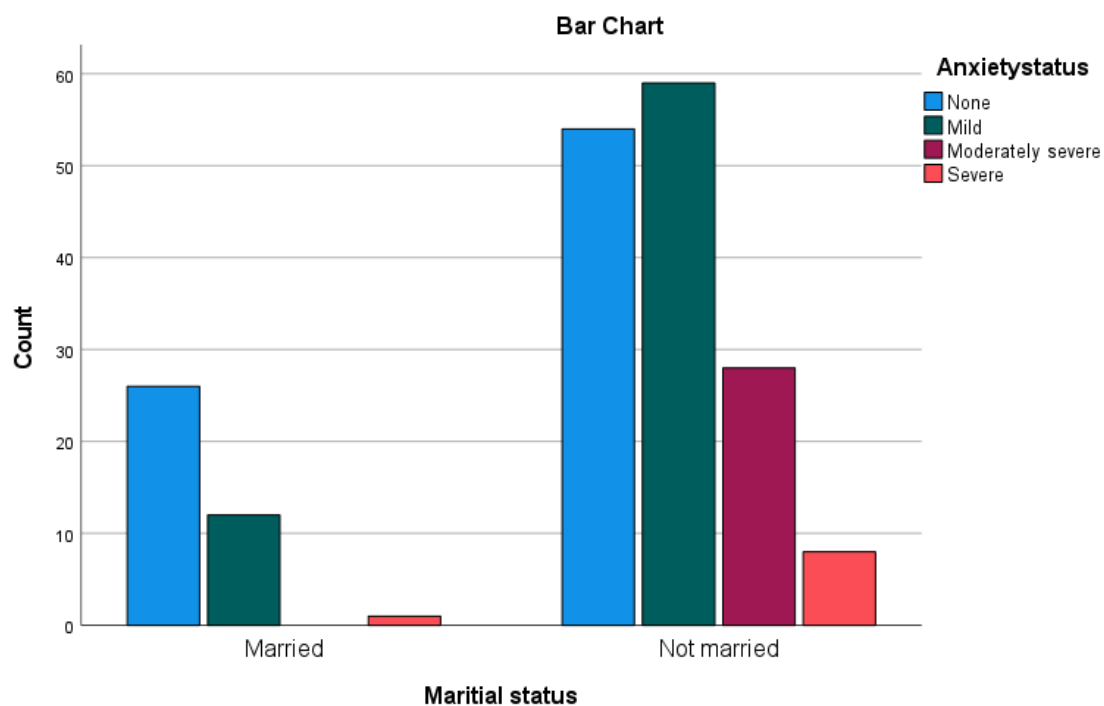
H_0 = There is no association between marital status and anxiety status of women population.

H_1 = There is an association between marital status and anxiety status of women population.

CROSS TABLE:

		Anxiety status				Total
		None	Mild	Moderately severe	Severe	
Marital status	Married	26	12	0	1	39
	Not married	54	59	28	8	149
Total		80	71	28	9	188

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.199 ^a	3	.002
Likelihood Ratio	20.283	3	<.001
Linear-by-Linear Association	12.604	1	<.001
N of Valid Cases	188		
a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.87.			



Inference: Here $p=0.002$. Since $p<0.05$ we reject the null hypothesis. There is a significant association between marital status and anxiety scores.

3.2.1.3 FAMILY TYPE AND ANXIETY STATUS

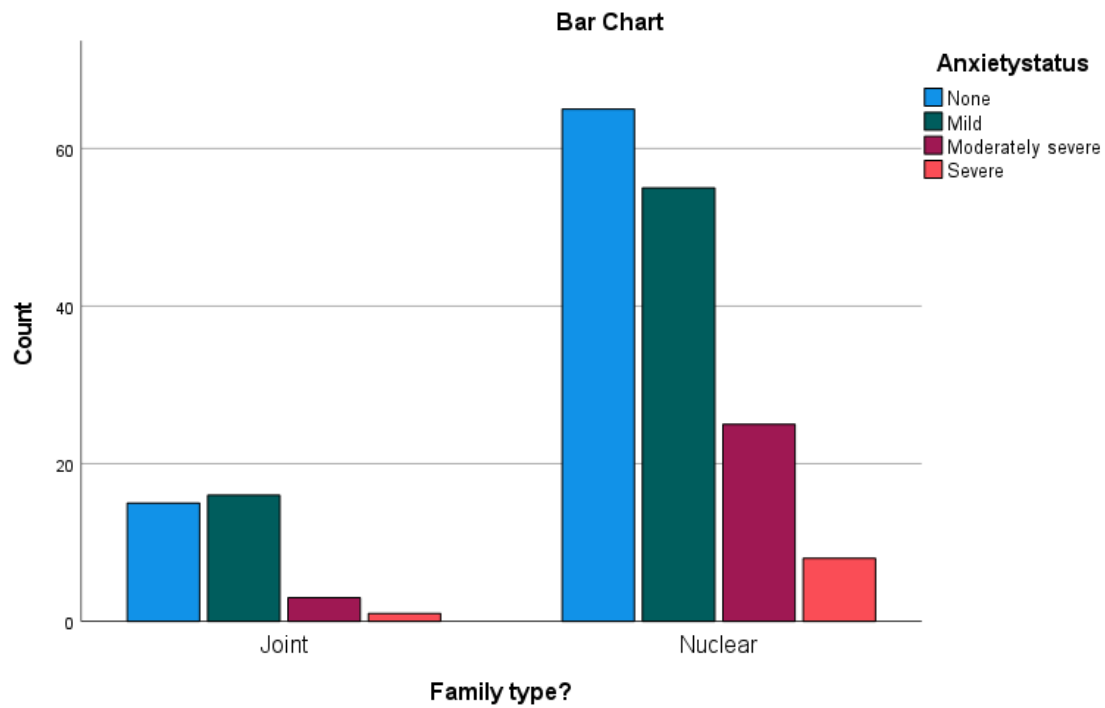
H_0 = There is no association between family type and anxiety status of women population.

H_1 = There is an association between family type and anxiety status of women population.

CROSS TABLE:

		Anxiety status				Total
		None	Mild	Moderately severe	Severe	
Family type?	Joint	15	16	3	1	35
	Nuclear	65	55	25	8	153
Total		80	71	28	9	188

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.209 ^a	3	.530
Likelihood Ratio	2.383	3	.497
Linear-by-Linear Association	.642	1	.423
N of Valid Cases	188		
a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.68.			



Inference: Here $p = 0.530$. Since $p > 0.05$ null hypothesis is accepted. There is no association between family type and anxiety scores.

3.2.2 TEST FOR NORMALITY

The null and alternative hypothesis for normality tests for all the variables given below are as follows:

H_0 : Variables are normally distributed.

H_1 : Variables are not normally distributed

3.2.2.1 DEPRESSION SCORE

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Depression score	188	99.5%	1	0.5%	189	100.0%

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Depression score	.102	188	<.001	.967	188	<.001

Inference: We can't assume normality of the response variable throughout the study since p value is less than 0.05. Hence, we consider Mann –Whitney U Test for further analysis.

3.2.2.2 ANXIETY SCORE

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Anxiety score	188	99.5%	1	0.5%	189	100.0%

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Anxiety score	.097	188	<.001	.940	188	<.001

Inference: We can't assume normality of the response variable throughout the study since p value is less than 0.05. Hence, we consider Mann –Whitney U Test for further analysis.

3.2.3 Mann-Whitney U

3.2.3.1 THE VARIABLE DEPRESSION SCORE ACROSS MARITAL STATUS.

H_0 : There is no significant difference between mean depression score with respect to Marital status.

H_1 : There is a significant difference between mean depression score with respect to Marital status.

Ranks				
	Marital status	N	Mean Rank	Sum of Ranks
Depression score	Married	39	72.85	2841.00
	Not married	149	100.17	14925.00
	Total	188		

Test Statistics	
	Depression score
Mann-Whitney U	2061.000
Wilcoxon W	2841.000
Z	-2.800
Asymp. Sig. (2-tailed)	.005
a. Grouping Variable: Marital status	

Inference: Here $p=0.005$ which is less than 0.05. So, we reject the null hypothesis. Therefore, there is a significant difference between mean depression score with respect to Marital status.

3.2.3.2 THE VARIABLE DEPRESSION SCORE ACROSS FAMILY TYPE.

H_0 : There is no significant difference between mean depression score with respect to Family type.

H_1 : There is a significant difference between mean depression score with respect to Family type.

Ranks				
	Family type	N	Mean Rank	Sum of Ranks
Depression score	Joint	35	82.39	2883.50
	Nuclear	153	97.27	14882.50
	Total	188		

Test Statistics	
	Depression score
Mann-Whitney U	2253.500
Wilcoxon W	2883.500
Z	-1.464
Asymp. Sig. (2-tailed)	.143
a. Grouping Variable: Family type	

Inference: Here $p=0.143$ which is greater than 0.05. So, we accept the null hypothesis. Therefore, there is no significant difference between mean depression score with respect to Family type.

3.2.3.3 THE VARIABLE ANXIETY SCORE ACROSS MARITAL STATUS.

H_0 : There is no significant difference between mean anxiety score with respect to Marital status.

H_1 : There is a significant difference between mean anxiety score with respect to Marital status.

Ranks				
	Marital status	N	Mean Rank	Sum of Ranks
Anxiety score	Married	39	68.37	2666.50
	Not married	149	101.34	15099.50
	Total	188		

Test Statistics	
	Anxiety score
Mann-Whitney U	1886.500
Wilcoxon W	2666.500
Z	-3.383
Asymp. Sig. (2-tailed)	<.001
a. Grouping Variable: Marital status	

Inference: Here $p < 0.001$, which is less than 0.05. So, we reject the null hypothesis. Therefore, there is a significant difference between mean anxiety score with respect to Marital status.

3.2.3.3 THE VARIABLE ANXIETY SCORE ACROSS FAMILY TYPE.

H_0 : There is no significant difference between mean anxiety score with respect to Family type.

H_1 : There is a significant difference between mean anxiety score with respect to Family type.

Ranks				
	Family type?	N	Mean Rank	Sum of Ranks
Anxiety score	Joint	35	87.61	3066.50
	Nuclear	153	96.08	14699.50
	Total	188		

Test Statistics	
	Anxiety score
Mann-Whitney U	2436.500
Wilcoxon W	3066.500
Z	-.833
Asymp. Sig. (2-tailed)	.405
a. Grouping Variable: Family type?	

Inference: Here $p=0.405$, which is greater than 0.05. So, we accept the null hypothesis. Therefore, there is no significant difference between mean anxiety score with respect to Family type.

3.2.4 KRUSKAL WALLIS TEST

3.2.4.1 DEGREE OF DEPRESSION AND EDUCATION LEVEL

H_0 : There is no significant difference between degree of depression with respect to Educational level.

H_1 : There is a significant difference between degree of depression with respect to Educational level.

Test Statistics ^{a,b}							
	Little interest or pleasure in doing things	Overwhelmed	Low self-esteem or lack of control over your life	Concentration difficulties during work and study	Poor appetite	Suicidal thoughts	Overreacting
Kruskal-Wallis H	6.193	11.128	3.260	4.481	3.696	5.705	5.177
Df	3	3	3	3	3	3	3
Asymp. Sig.	.103	.011	.353	.214	.296	.127	.159
a. Kruskal Wallis Test							
b. Grouping Variable: Highest educational qualification							

Inference: From the above p-values of degree of depression it can be seen that the p-value of [overwhelmed] is less than 0.05, hence the mean rank of degree of depression is different throughout education level for the factor [overwhelmed] and remains same for the factors

[Little interest or pleasure in doing things, Low self-esteem or lack of control over your life, Concentration difficulties during work and study , Poor appetite , Suicidal thoughts, Overreacting] of degree of depression.

3.2.4.2 DEGREE OF DEPRESSION AND WORK STATUS

H_0 : There is no significant difference between degree of depression with respect to Work status.

H_1 : There is a significant difference between degree of depression with respect to Work status.

Test Statistics ^{a,b}							
	Little interest or pleasure in doing things	Overwhelmed	Low self-esteem or lack of control over your life	Concentration difficulties during work and study	Poor appetite	Suicidal thoughts	Overreacting
Kruskal-Wallis H	8.507	1.286	2.489	6.574	2.104	2.066	9.389
Df	2	2	2	2	2	2	2
Asymp. Sig.	.014	.526	.288	.037	.349	.356	.009
a. Kruskal Wallis Test							
b. Grouping Variable: Work Status							

Inference: From the above p-values of degree of depression it can be seen that the p-values of [Little interest or pleasure in doing things, Concentration difficulties during work and study] are less than 0.05, hence the mean rank of degree of depression is different throughout Work status for the factors [Little interest or pleasure in doing things, Concentration difficulties during work and study] and remains same for the factors [Overwhelmed, Low self-esteem or lack of control over your life, Poor appetite , Suicidal thoughts, Overreacting] of degree of depression.

3.2.4.3 DEGREE OF DEPRESSION AND MODE OF STUDY OR WORK

H_0 : There is no significant difference between degree of depression with respect to Mode of study or work.

H_1 : There is a significant difference between degree of depression with respect to Mode of study or work.

Test Statistics^{a,b}							
	Little interest or pleasure in doing things	Overwhelmed	Low self-esteem or lack of control over your life	Concentration difficulties during work and study	Poor appetite	Suicidal thoughts	Overreacting
Kruskal-Wallis H	.844	.739	2.866	7.331	5.569	.057	5.665
Df	2	2	2	2	2	2	2
Asymp. Sig.	.656	.691	.239	.026	.062	.972	.059
a. Kruskal Wallis Test							
b. Grouping Variable: Mode of study or work during pandemic period?							

Inference: From the above p-values of degrees of depression it can be seen that the p-value of [Concentration difficulties during work and study] is less than 0.05, hence the mean rank of degree of depression is different throughout mode of study or work for the factors [Concentration difficulties during work and study] and remains same for the factors [Little interest or pleasure in doing things ,Overwhelmed, Low self-esteem or lack of control over your life, Poor appetite , Suicidal thoughts, Overreacting] of degree of depression.

3.2.4.4 DEGREE OF DEPRESSION AND DIGITAL TIME

H_0 : There is no significant difference between degree of depression with respect to Digital time.

H_1 : There is a significant difference between degree of depression with respect to Digital time.

Test Statistics ^{a,b}							
	Little interest or pleasure in doing things	Overwhelmed	Low self-esteem or lack of control over your life	Concentration difficulties during work and study	Poor appetite	Suicidal thoughts	Overreacting
Kruskal-Wallis H	1.441	3.527	.982	7.873	1.369	5.102	5.171
Df	3	3	3	3	3	3	3
Asymp. Sig.	.696	.317	.806	.049	.713	.165	.160
a. Kruskal Wallis Test							
b. Grouping Variable: How much time do you spend in your mobile phone daily?							

Inference: From the above p-values of degrees of depression it can be seen that the p-value of [Concentration difficulties during work and study] is less than 0.05, hence the mean rank of degree of depression is different throughout the different levels of digital time for the factor [Concentration difficulties during work and study] and remains same for the factors [Little interest or pleasure in doing things ,Overwhelmed, Low self-esteem or lack of control over your life, Poor appetite , Suicidal thoughts, Overreacting] of degree of depression.

3.2.4.5 DEGREE OF ANXIETY AND EDUCATION LEVEL

H_0 : There is no significant difference between degree of anxiety with respect to Educational level.

H_1 : There is a significant difference between degree of anxiety with respect to Educational level.

Test Statistics ^{a,b}						
	Afraid as if something awful might happen	Annoyance/irritability	Being so restless	Trouble relaxing	Not being able to control worrying	Nervous or anxious
Kruskal-Wallis H	5.117	9.363	6.598	12.189	2.213	8.522
Df	3	3	3	3	3	3
Asymp. Sig.	.163	.025	.086	.007	.529	.036
a. Kruskal Wallis Test						
b. Grouping Variable: Highest educational qualification						

Inference: From the above p-values of degrees of anxiety it can be seen that the p-values of [Annoyance/irritability, Trouble relaxing, Nervous or anxious] are less than 0.05, hence the mean rank of degree of depression is different throughout the different levels of educational level for the factor [Annoyance/irritability, Trouble relaxing, Nervous or anxious] and remains same for the factors [Afraid as if something awful might happen, Being so restless, Not being able to control worrying] of degree of anxiety.

3.2.4.6 DEGREE OF ANXIETY AND WORK STATUS

H_0 : There is no significant difference between degree of anxiety with respect to Work status.

H_1 : There is a significant difference between degree of anxiety with respect to Work status.

Test Statistics ^{a,b}						
	Afraid as if something awful might happen	Annoyance/irritability	Being so restless	Trouble relaxing	Not being able to control worrying	Nervous or anxious
Kruskal- Wallis H	2.769	9.861	5.290	7.547	5.555	8.329
Df	2	2	2	2	2	2
Asymp. Sig.	.250	.007	.071	.023	.062	.016
a. Kruskal Wallis Test						
b. Grouping Variable: Work Status						

Inference: From the above p-values of degrees of anxiety it can be seen that the p-values of [Annoyance/irritability, Trouble relaxing, Nervous or anxious] are less than 0.05, hence the mean rank of degree of depression is different throughout the different levels of work status for the factor [Annoyance/irritability, Trouble relaxing, Nervous or anxious] and remains same for the factors [Afraid as if something awful might happen, Being so restless, Not being able to control worrying] of degree of anxiety.

3.2.4.7 DEGREE OF ANXIETY AND MODE OF STUDY OR WORK

H_0 : There is no significant difference between degree of anxiety with respect to mode of study or work.

H_1 : There is a significant difference between degree of anxiety with respect to mode of study or work.

Test Statistics ^{a,b}						
	Afraid as if something awful might happen	Annoyance/irritability	Being so restless	Trouble relaxing	Not being able to control worrying	Nervous or anxious
Kruskal-Wallis H	2.610	4.646	2.708	4.204	1.407	3.905
Df	2	2	2	2	2	2
Asymp. Sig.	.271	.098	.258	.122	.495	.142
a. Kruskal Wallis Test						
b. Grouping Variable: Mode of study or work during pandemic period?						

Inference: From the above p-values of degrees of anxiety it can be seen that the p-value of no factor is less than 0.05, Therefore the mean rank of degree of depression remains same for the factors [Afraid as if something awful might happen, Annoyance/irritability, Being so restless, Trouble relaxing ,Not being able to control worrying, Nervous or anxious] of degree of anxiety.

3.2.4.8 DEGREE OF ANXIETY AND DIGITAL TIME

H_0 : There is no significant difference between degree of anxiety with respect to different levels of digital time.

H_1 : There is a significant difference between degree of anxiety with respect to different levels of digital time.

Test Statistics ^{a,b}						
	Afraid as if something awful might happen	Annoyance/irritability	Being so restless	Trouble relaxing	Not being able to control worrying	Nervous or anxious
Kruskal-Wallis H	2.505	11.660	7.674	8.066	.214	11.978
Df	3	3	3	3	3	3
Asymp. Sig.	.474	.009	.053	.045	.975	.007
a. Kruskal Wallis Test						
b. Grouping Variable: How much time do you spend in your mobile phone daily?						

Inference: From the above p-values of degrees of anxiety it can be seen that the p-values of [Annoyance/irritability, Trouble relaxing, Nervous or anxious] are less than 0.05, hence the mean rank of degree of depression is different throughout the different levels of digital time for the factor [Annoyance/irritability, Trouble relaxing, Nervous or anxious] and remains same for the factors [Afraid as if something awful might happen, Being so restless, Not being able to control worrying] of degree of anxiety.

5. CONCLUSIONS

- Majority of the respondents do not feel to seek mental health services before pandemic period.
- Most number of respondents conducted their study or work in online mode during pandemic period.
- 81% of the respondents are not comfortable with online study/work.
- Majority of the women population spends 5-8 hours on digital screens daily.
- Most of the respondents felt normal on their mental health during pandemic period.
- Marital status has played an important role in anxiety status whereas no effect in depression status
- Type of family factor has nothing to do with anxiety and depression status of an individual.
- Degree of depression and anxiety differs in different marital status.
- The depression symptom overwhelming, the anxiety symptoms annoyance, trouble relaxing, nervousness is different in different educational levels.
- The depression symptoms little interest in doing things, concentration difficulties and the anxiety symptoms annoyance, trouble relaxing, nervousness are different in different work status.
- The depression symptom concentration difficulties during work are different in different modes of work.
- The depression symptom concentration difficulties during work and the anxiety symptoms annoyance, trouble relaxing, nervousness is different in people with different phone time.

6. REFERENCES

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3. <https://patient.info/doctor/patient-health-questionnaire-phq-9>
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5. <https://www.SPSS-tutorials.com>
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7. QUESTIONNAIRE

IMPACT OF COVID-19 PANDEMIC ON MENTAL HEALTH OF WOMEN

We are students of Statistics department in Farook College Autonomous Kozhikode. This data collection is part of our final year project. We ensure your data will be safe and will not be misused in any way. Hence, we request your 10 min time to fill in this form.

* Required

1. Age *

2. Marital status *

Mark only one oval.

☐ Married

☐ Not Married

3. Family type? *

Mark only one oval.

☐ Joint

☐ Nuclear

☐ Other: _____

4. educational qualification *

Mark only one oval.

- ☐ SSLC
- ☐ Higher secondary
- ☐ Undergraduate Degree
- ☐ Postgraduate degree

5. Work_Status *

Mark only one oval.

- ☐ Student
- ☐ Employed
- ☐ Unemployed

6. Mode of study or work during pandemic period? *

Mark only one oval.

- ☐ Online
- ☐ Offline
- ☐ Neither

7. Do you find online study/work more comfortable than offline? *

Mark only one oval.

- ☐ Yes
- ☐ No

8. How much time do you spend in your mobile phone daily? *

Mark only one oval.

☐ LESS THAN 3 HOURS

☐ 3-5 HOURS 5-8

☐ HOURS

☐ GREATER THAN 8
HOURS

9. Have you ever felt to seek mental health services before pandemic period? *

Mark only one oval.

☐ Yes

☐ No

10. How do you find your mental health status during pandemic period? *

Mark only one oval.

☐ Poor

☐ Normal

Direction:-

Express your response about the following statements by selecting the most appropriate one using the following scale

1. NOT AT ALL
2. SEVERAL DAYS
3. MORE THAN HALF THE DAYS
4. NEARLY EVERY DAY

11. DO YOU EVER FEEL *

Mark only one oval per row.

Little interest or pleasure in doing things?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overwhelmed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low self--esteem or lack of control over yourlife?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Concentration difficulties during work and study?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor appetite?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suicidal thoughts?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overreacting?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4

Untitled Section

Direction:-

Express your response about the following statements by selecting the most appropriate one using the following scale

1. NOT AT ALL
2. SEVERAL DAYS
3. MORE THAN HALF THE DAYS
4. NEARLY EVERY DAY

12. DO YOU EVER FEEL *

Mark only one oval per row.

Nervous or anxious?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nott being able to control worrying?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trouble relaxing?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being so restless?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Annoyance /irritability?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid as if something awful might happen?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4

Thank you for your response.

