

**ASSOCIATION BETWEEN TOBACCO
SMOKING, MENTAL HEALTH PROBLEMS,
SELF-ESTEEM, AND DEMOGRAPHIC
CHARACTERISTICS OF
UNEMPLOYED UNIVERSITY GRADUATES**



by

**Amna Jamshed
BSP191010**

A Research Thesis submitted to the

DEPARTMENT OF PSYCHOLOGY

in partial fulfillment of the requirements for the degree of

BACHELOR OF SCIENCE IN PSYCHOLOGY

Faculty of Management and Social Sciences

Capital University of Science & Technology,

Islamabad

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DEPARTMENT OF PSYCHOLOGY

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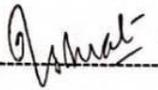
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CERTIFICATE OF APPROVAL

It is certified that the Research Thesis titled "Association between Tobacco Smoking, Mental Health Problems, self-esteem and Demographic Characteristics of Unemployed University Graduates" carried out by Amna Jamshed, Reg. No. BSP191010, under the supervision of Dr. Ishrat Yousuf, Capital University of Science & Technology, Islamabad, is fully adequate, in scope and in quality, as a Research Thesis for the degree of BS Psychology.

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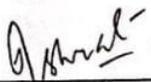
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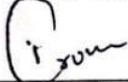
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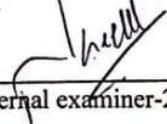
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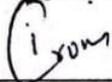
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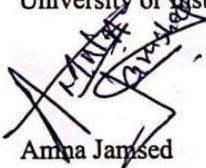
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It is declared that this is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or institution.



Anna James

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ABSTRACT

Unemployment has an adverse effect on health. This study's objective was to look at the educated youth who are unemployed and their predictors with tobacco smoking and mental health problems. Pakistan's unemployment rate in 2020 was 4.65%, an increase of 0.67% compared to 2019. This research will find a link between tobacco smoking, mental health problems (Depression, anxiety, stress, low self-esteem) and demographic variables (Age, gender, marital status, family type) among unemployed university graduates. A cross-sectional research design was used. Purposive sampling was done to recruit 300 participants from different institutions of Mardan, Rawalpindi and Islamabad. After taking consent and debriefing the participants were provided with self-report questionnaire (Depression, Anxiety, Stress Scale, Rosenberg Self-Esteem Scale and Cigarette Dependency Scale). Data was analyzed through frequency, descriptive, correlation and Mann Whitney U test and Kruskal Wallis H test using SPSS. Spearman correlation showed that Depression, Anxiety and Stress has positive significant relationship with Tobacco smoking behavior ($r = .20, p = .000$). Depression, Anxiety and Stress has a negative significant relationship with Self-Esteem ($r = .11, p = .000$). lastly, non-significant mean difference in depression, anxiety, stress, self esteem and tobacco smoking across age, gender, marital status, family structure, duration of unemployment and causes of unemployment.

Keywords Unemployment, tobacco smoking, mental health problems, stress, anxiety, depression, self-esteem.

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CHAPTER 1

INTRODUCTION

In developed and developing nations alike, there are now more people without jobs than ever before. According to international labor organization (1990) Unemployed people are those who have actively searched for employment but are not currently employed but are available to work for pay. However, it can be challenging to quantify how changing jobs affects health because many effects, like chronic disease, take time to manifest. Routine health-associated behaviors can more quickly be affected by employment shocks and can give early information about future medical needs.

Six million people die each year because of smoking, which is regarded as the leading curable cause of death worldwide. (World Health Organization [WHO], 2009). Risks of mortality from smoking increase over time and are correlated with overall tobacco exposure. US Department of Health and Human Services [DHHS], 2004, demonstrates that any shape smoking can have an impact on health. According to a recent national survey, nearly 70% of smokers want to stop, more than half have tried in the past year, but less than 7% have been successful. (Malarcher, 2011).

One of the main risk factors for unemployment is stress, along with anxiety, distress, and negative self. It results in stress, which has long-term physiological effects on health and can have detrimental effects on people's mental health, including depressive episodes, anxiety, and negative self. The physiological or psychological reaction to internal or external stressors is known as stress. (APA, nd). Additionally, anxiety is a feeling characterised by tense sensations, worry-filled thoughts, and physical modifications like elevated blood

pressure.(APA,nd) Depression, according to the American Psychological Association, is an adverse emotional state that can range from disillusionment and dissatisfaction to an extreme sense of sadness, dejection, and despair that interferes with daily life. Depression is a result of feeling like a failure, which is brought on by unemployment. (Mokena et al 2020).

Literature review

According to the survey conducted in 2019 the unemployment rate in Pakistan was 3.98% however in 2020 there was 0.67% increase, leading it to 4.65% (Pakistan Unemployment Rate 1991-2022, n.d). There are several risk factors of unemployment. Stress related to unemployment can have a significant effect on people's mental health and long-term psychological health. Impulsivity is a factor in the connection between smoking and unemployment. (Rezvanfard et al., 2010). Giugni & Lorenzini (2010) demonstrated the detrimental impacts of unemployment on a person's life, including financial stress, anxiety-related health issues, and a decrease in happiness. Nilsen & Reiso (2014) expanded the body of information in the preceding research by looking at the detrimental effects of unemployment on young people with limited experience on the future labor market.

A qualitative investigation by Kidwai and Sarwar (2015) revealed a positive relationship between detrimental psychiatric condition and unemployment. In the long term, unemployment causes poverty and negatively impacts a person's mental health. According to Sharma's (2012) research findings, young individuals who are jobless experience sadness, hopelessness, anxiety, low self-esteem, future uncertainty, emotional failure, and feelings of inadequacy. Acceptable, failure-like deteriorates physical health as stress levels rise. Durkan et al. (2011) claim that unemployment worsens mental health problems by lowering self-esteem, raising anxiety, and increasing stress. Additionally apparent were the negative

correlations between inactivity and psychological well-being and financial stress. People without work are significantly less mentally healthy than those who are.

According to research, smokers with low incomes or those who are under financial strain are less likely to be able quit smoking. According to data from wave 4 of the International Tobacco Control Four-Country Survey, smokers who were under financial stress had a higher likelihood of wanting to stop smoking than those who weren't, but at follow-up, they were less likely to have actually tried to stop. Financial strain was linked to a lower likelihood of remaining smoke-free at the follow-up among smokers who had tried to quit. Another study that focused exclusively on the Australian cohort discovered a link between smoking-induced deprivation and a decreased likelihood of quitting attempts. According to several research, depression among young people without jobs relates to factors such as being male, having been jobless for a long time, having low self-esteem, having little social support, and abusing drugs.

The link between smoking and unemployment has been found in several studies. The scientific question of why this health behaviour is affected by unemployment is still up for debate. Psychosocial factors are promising mediators that might explain how unemployment modifies behaviour. According to the psychosocial hypothesis, lower occupational classes that are disproportionately exposed to negative social and economic stressors (such as financial strain, stigma, and loss of social roles) have an increased risk of smoking because it makes them feel stressed, uncontrollable, and socially isolated. Thomas and his companion demonstrated that changes in subjective financial circumstances during transitions to unemployment are linked to psychological distress. Smoking is viewed as a short-term stress reliever for dealing with difficult and uncontrollable socioeconomic associated matters.

Economical or financial stress, which is frequently brought on by unemployment, can cause feelings of failure, which can ultimately cause depression. Additionally, rising expectations for college or university graduates to obtain employment as well as societal and familial constraints associated to job-seeking activities may serve as potential facilitators of depression in young people who are unemployed.

Freshly graduate female students scored significantly higher in anxiety than male students, while there was no significant gender difference in students' average depression and stress levels was found (Gao et al., 2020). Studies have shown that graduated girls tend to have lower self-esteem and more negative assessments of their physical characteristics and intellectual abilities than boys have which also explain the reason for incidence of suicide attempts, depression, and eating disorders being substantially higher in girls. (Kearney-Cooke, 1991).

Furthermore another study revealed that a significantly larger proportion of female students experienced anxiety above the normal threshold while no significant gender differences were found in stress problems (Gao et al., 2020). In the early twentieth century in western countries, women were much less likely than men to smoke cigarettes, because of social disapproval of women's smoking but later During the mid-twentieth century, growing social acceptance of women's smoking contributed to increased smoking adoption by women (Waldron, 1991).

Multivariate analysis of another study showed that several risk factors were associated with higher smoking prevalence, where there was an increased likelihood of smoking among individuals in nuclear family structure (Griesbach, et al., 2003). Results

from another study showed generalize differences in self-esteem between children in nuclear families than in joint families (Ganong & Coleman, 1993).

Another study found that married people have comparatively low depression rate than single people due to married people being less emotionally damaged by stressful experiences (Kessler & Essex 1982). Moreover, in general married persons have a lower smoking rate whereas studies conducted in Asia have not reported consistent findings (Cho et al., 2008). Such studies couldn't find significant difference in smoking behavior across married and un married people. Most previous research argued that marriage is associated with low rates of depression because it protects an individual from exposure to anxiety and stress (Kessler & Essex 1982).

Theoretical Framework

The economic deprivation model, which is a traditional sociological theory, holds that when people are unemployed, they will have less money, which will deteriorate the conditions necessary for good health either directly or indirectly. The model also makes recommendations for potential remedies, including one that would lessen the worst effects of unemployment by aiding the unemployed for basic needs. (Janlert and Hammarstom, 2009). Unemployment also lead to uptake of tobacco smoking which is harmful for physical and mental health (Dukan et al,2011).

Rationale

The rate of unemployment is increasing worldwide. Pakistan being a developing country is affected the most. Lack of literature on unemployment as a predictor of educated youth mental health and tobacco smoking is a major concern. There is little to no research conducted on this issue in Pakistan. This study aims to find association between Tobacco Smoking, Mental Health Problems and Demographic Characteristics of Unemployed University Graduates. Along with adding literature in existing literature this study will help to develop coping strategies of these problems.

Objectives

1. To explore the association between Tobacco smoking and Stress, Anxiety, Depression, and self-esteem among Unemployed University Graduates.
2. To explore the difference between the levels of Depression, Anxiety and stress and duration of unemployment among university graduates.
3. To explore the relationship between study variables (depression, anxiety, stress, self-esteem, and tobacco smoking) and demographic variables (age, marital status, family type, causes of unemployment).
4. To explore the gender differences in the level of Depression, Anxiety, Stress, self-esteem and tobacco smoking among Unemployed University Graduates.

Hypothesis

1. Tobacco smoking will be positively associated with Stress, Anxiety, and Depression among Unemployed University Graduates.
2. Unemployed University Graduates with high levels of stress, Anxiety and Depression will demonstrate low levels of self-esteem.
3. There will be significant differences in the level of Depression, Anxiety and stress among unemployed university graduates with long duration of unemployment.
4. There will be a significant association between study variables (depression anxiety stress, self-esteem and tobacco smoking) and demographic variables (age, marital status, family type, causes of unemployment).
5. Unemployed female university graduates will demonstrate high levels of depression anxiety, stress, and self-esteem as compare to unemployed male university graduates.

CHAPTER 2**METHOD**

In this chapter details of the methodology used in the thesis are presented including research design, sampling technique, inclusion and exclusion criteria, instruments used and the procedure of the study.

Research design

Cross-sectional research design was used in the study.

Sampling technique

A sample of 300 unemployed men and women was taken from the HR departments of various corporations of Rawalpindi/ Islamabad/ Mardan through purposive sampling technique.

Inclusion criteria

The following inclusion criteria was followed in the study.

1. Both male and female genders were included in the study.
2. Individuals whose age ranges from 25 to 45 years were included in the study.

Exclusion criteria

The following exclusion criteria was followed in the study.

1. Individuals who have not completed bachelor's education were excluded.
2. Individuals who have been employed before were excluded.

Instruments

Following self-report instruments were used in the study.

Demographic Questionnaire

Demographic sheet was provided to the participants. It consists of gender, age, marital status, family type, causes of unemployment and duration of unemployment.

Depression, Anxiety and Stress Scale (DASS)

DASS is developed by Syd Lovebird and Peter Lovebird in 1995. It is 21- items self-report questionnaire. The Cronbach's alpha values for stress is 0.78, for anxiety is 0.89 and for depression is 0.8, which shows the scale is highly reliable. Each item is scored on a four-point scale from 0 to 3, with higher scores indicating Depression, Anxiety and Stress symptoms are more severe.

Rosenberg Self-Esteem Scale (RSES)

RSES is developed by Morris Rosenberg in 1965. It is 10-item self-report instrument, which is intended to assess an individual's overall self-esteem as well as their positive and negative attitudes toward themselves. Each item is scored on 4-point Likert scale (0-3) where 0 means strongly disagree and 3 means strongly agree. It has 0.74 Cronbach alpha value. Items 3,5,8,9, and 10 are scored in reverse. High scores indicate high self-esteem.

The Cigarette Dependence Scale (CDS-12)

The CDS-12 is a 12-item scale that assesses compulsion to smoke, loss of control, withdrawal, neglect of other activities, time allocation, and persistence despite harm. Response choices are on a five-point scale. It has Cronbach alpha value of 0.84. higher scores indicate more dependency.

Procedure

Purposive sampling was done to recruit 300 male and female participants from HR department of different organizations where they applied for interview. Permission from the

author to use the instruments was gained through email conversation. Institutional permission for data collection was obtained from the respective heads of the institutions. Participants were reached out and were given brief introduction of the study, informed consent form and demographic sheet. Then they were provided with self-report questionnaire (DASS, RSES, CDS-12). It took almost everyone 25 to 30 minutes to complete the questionnaires. Participants were provided with email address of researcher, in case participants had any questions regarding the research.

Ethical consideration

This present study was conducted with the permission from Department of Psychology of Capital University of Science and Technology. Respondents were brief about rationale of the study and to make them aware how their information was further utilized. Consent form was taken for the participation in the study. Confidentiality of the participant was ensured by anonymizing the information obtained from data collection. Participants were given right to withdraw from the study anytime. Ethical guidelines provided by American Psychological Association were carried out.

Statistical Analysis

Statistical Package for Social Sciences (SPSS 21) was used for the analysis. Before analyzing, data was entered in SPSS. After that data was cleaned. Then data was further analyzed using this software.

For Distribution of data of categorical variables, descriptive statistics was used where frequency and percentages of demographic variables were found. For continuous variables, descriptive statistics were found where mean, median, mode, standard deviation, skewness,

and kurtosis were computed. To check normality of data the value of skewness, kurtosis, Kolmogorov-Smirnov, and normal curve on histogram were analyzed.

Reverse items were recoded. Scales were computed. Cronbach's Alpha (α) reliability of DASS-21, RSES and CDS-21 was calculated. Pearson Correlation was calculated to find the relationship between the independent variable and the outcome variable.

CHAPTER 3

RESULTS

In this chapter results findings of the study are presented in the form of frequency and percentages of demographic variables, descriptive statistics and alpha reliability of measures, correlation, and regression for testing the hypothesized relationship.

Table 1

Frequencies and percentages of demographic variables of the participants (N=300).

Demographic Variable	<i>f</i>	%
Age		
25 – 30 years	80	25.1
31 – 40 years	133	41.7
41 – 45 years	57	27.3
Gender		
Male	195	25.1
Female	105	45.7
Marital status		
Single	133	40.8
Married	159	48.8
Causes of unemployment		
Increased birth rate	33	10
Illiteracy	60	18
Increasing technology	89	27
Any	111	34
Family structure		
Nuclear family	151	46
Joint family	142	43

Time period of being unemployed			
	0-1 years	9	28.7
	2-4 years	84	25
	5 years or more	200	61

Note: *f* = Frequency, % = Percentage.

Table 1 indicates the demographic variables and their frequencies and percentages. Demographic variables include gender, age, marital status, family type, cause of unemployment and year of unemployed. According to the above table, the result showed that males ($f = 188$, % 57.7) were more than female ($f = 105$, % = 32.2). Table also showed that married ($f = 158$, % 58.8) had high frequency and percentage than single ($f = 133$, % = 40), Nuclear family structure ($f = 141$, % = 56) had higher percentage than joint family system ($f = 142$, % = 43). Table also showed that years of unemployed 5 years and more ($f = 200$, % = 61) had high percentage and frequency.

Table 2*Descriptive statistics and alpha reliability of the measures (N=300)*

Measures	Items	α	<i>M</i>	<i>SD</i>	Skew	Kurt	K-S	<i>p</i>
DASS	21	.79	48.6	6.61	-.38	1.54	.14	.000
RSES	10	.73	16	4.5	-.24	.90	.12	.000
CDS	12	.72	31	7.9	-.23	2.04	.11	.000

NOTE: M = mean, SD = Standard Deviation, α = Alpha Reliability, Kurt = Kurtosis, Skew = Skewness, K-S = Kolmogorov – Smirnov, DASS = Depression Anxiety Stress Scale, RSES = Rosenberg self-esteem Scale, CDS = Cigarettes Dependent Scale.

Table 2 shows the item numbers, Alpha reliabilities, Mean, Standard Deviation, Skewness and Kurtosis of all the scales used in the present study. All three scales are reliable according to Nunnally and Bernstein's (1994) criteria, that is 0.7 and above alpha value means highly reliable which indicates DASS, RSES and CDS to be reliable. Lastly, Kolmogorov-Smirnov was calculated because the sample size was more than 50. Its value is non-significant (<.05) which also shows the data is non-normally distributed.

Table 3

Spearman correlation of Depression, Anxiety and stress scale, Rosenberg self-esteem scale, Cigarette dependence scale(N= 300).

Variables	N	M	SD			
1.DASS	300	48.6	6.61	1	-	-
2.RSES	300	16	4.5	-.11*	1	-
3.CDS	300	31	7.9	.20**	.61	1

***. Correlation is significant at 0.01 level (1- tailed)*

Table 3 shows that Depression, Anxiety and Stress has positive significant relationship with Tobacco smoking behavior ($r = .20, p = .000$). Depression, Anxiety and Stress has a negative significant relationship with Self-Esteem ($r = .11, p = .000$). There is non-significant positive relationship between Tobacco smoking behavior and Self- Esteem ($r = .61, p = .15$).

Table 4

Kruskal Wallis H test showing the difference in depression, anxiety and stress across durations of unemployment (N=300)

Duration	N	Mean ranks	<i>M</i>	<i>SD</i>	X^2	<i>p</i>
Total	300		.18	.75	1.74	.42
0-1 years	129	145.66				
2-4 years	113	158.98				
5 and more years	58	144.74				

Note: M= mean, SD = standard deviation, X^2 = chi-square, p = significance value.

The above table shows mean of ranks, standard deviation, chi-square and significance value of the duration of unemployment i.e., 0-1, 2-4, 5 and more years. Results indicated non-significant mean difference ($p=.418$) across 0-1 years ($M=145.66$), 2-4 years ($M=158.98$) and 5 and above years ($M=144.74$) of being unemployed. Whereas the value of x^2 is 1.74 which shows a small effect size.

Table 5

Mann Whitney U test showing mean differences in Depression anxiety stress, self-esteem and tobacco smoking between male and female.(N=300).

Variable	Gender		U	Z	P
	Male	Female			
DASS	152.5	146.6	9834.00	-.564	.57
RSES	147.6	155.80	9680.50	-.778	.46
CDS	143.9	162.7	8952.00	-1.796	.07

Note: DASS= Depression, anxiety, stress scale, RSES= Rosenberg self-esteem scale, CDS= Cigarette dependence scale, U= mean difference, p= significance value.

Table 5 indicates a non-significant difference in the mean ranks of males (M=152.5) and females (M=146.6) on depression, anxiety, stress ($p = 0.57$). The results also showed a non-significant difference in the mean ranks of males (M=147.6) and females (M=55.80) on self-esteem ($p = .463$). Similarly, male and female unemployed university graduates did not differ on cigarette dependence ($p = .072$) with mean difference of 143.9 and 162.7 respectively.

Table 6

Mann Whitney U test showing mean differences in Depression anxiety stress, self-esteem and tobacco smoking between single and married status. (N=300).

Variable	Marital status		U	z	P
	Single	Married			
DASS	150.02	149.98	11081.5	-.003	.99
RSES	148.43	151.31	10870.0	-.288	.77
CDS	159.09	142.42	9848.0	-1.66	.09

Note: DASS= Depression, anxiety, stress scale, RSES= Rosenberg self-esteem scale, CDS= Cigarette dependence scale, U= mean difference, p= significance value.

Table 6 indicates a non-significant mean difference between single (M= 150.02) and married (M=149.98) across depression, anxiety, stress ($p = .997$), The results also showed a non-significant difference in the mean ranks of single (M=148.43) and females (M=151.31) across self-esteem ($p = .773$). Similarly, single and married unemployed university graduates did not differ on cigarette dependence ($p = .096$) with Mean ranks of 159.09 and 142.42 respectively.

Table 7

Mann Whitney U test showing mean differences in Depression anxiety stress, self-esteem and tobacco smoking between single and married status. (N=300).

Variables	Family type		U	Z	P
	Nuclear	Joint			
DASS	159.05	141.48	9925.0	-1.757	.08
RSES	150.24	150.78	11201.50	-.054	.96
CDS	143.74	157.63	10201.0	-1.388	.17

Note: DASS= Depression, anxiety, stress scale, RSES= Rosenberg self-esteem scale, CDS= Cigarette dependence scale, U= mean difference, p= significance value.

Table 7 indicates a non-significant mean difference between nuclear (M= 159.05) and joint (M=141.48) across depression, anxiety, stress ($p = .08$), The results also showed a non-significant difference in the mean ranks of single (M=150.24) and females (M=150.78) across self-esteem($p = .96$). Similarly, single and married unemployed university graduates did not differ on cigarette dependence ($p = .17$) with Mean ranks of 143.74 and 157.63 respectively.

Table 8

Kruskal Wallis H test showing the difference in depression, anxiety and stress across age (N=300)

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>X²</i>	<i>P</i>
Age			.66	1.23	.54
25-30	80	145.58			
31-40	133	147.86			
41-45	87	159.05			

Note: M= mean, SD = standard deviation, X² = chi-square, P = significance value.

The above table shows mean of ranks, standard deviation, chi-square and significance value of the age of unemployed university graduates i.e., 25-30 years, 31-40, 41-45 Results indicated non-significant mean difference (p=.54) across 25-30 years (M=145.58), 31-40 years (M=147.86) and 41-45 years (M=159.05). Whereas the value of x^2 is 1.230 which shows a small effect size.

Table 9

Kruskal Wallis H test showing the difference in self-esteem across age (N=300)

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	χ^2	<i>p</i>
Age			.70855	1.38	.502
25-30	80	148.31			
31-40	133	156.70			
41-45	87	143.04			

Note: Mean of Ranks, SD = standard deviation, χ^2 = chi-square, P = significance value.

The above table shows mean of ranks, standard deviation, chi-square and significance value of the age of unemployed university graduates i.e., 25-30 years, 31-40, 41-45 Results indicated non-significant mean difference (p=.50) across 25-30 years (M=148.31), 31-40 years (M=156.70) and 41-45 years (M=143.04). Whereas the value of χ^2 is 1.38 which shows a small effect size.

Table 10

Kruskal Wallis H test showing the difference in tobacco smoking across age (N=300)

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>X²</i>	<i>P</i>
Age			.61623	3.267	.19
25-30	80	152.53			
31-40	133	141.30			
41-45	87	162.70			

Note: Mean of Ranks, SD = standard deviation, X² = chi-square, P = significance value.

The above table shows mean of ranks, standard deviation, chi-square and significance value of the age of unemployed university graduates i.e., 25-30 years, 31-40, 41-45 Results indicated non-significant mean difference (p=.19) across 25-30 years (M=152.53), 31-40 years (M=141.30) and 41-45 years (M=162.70). Whereas the value of x^2 is 3.27 which shows a medium effect size.

Table 11

Kruskal Wallis H test showing the difference in Depression, Anxiety, Stress across causes of unemployment (N=300)

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>X²</i>	<i>P</i>
Cause			.66256	2.095	.55
Increased birthrate	33	146.11			
Illiteracy	60	137.23			
Increasing technology	89	156.25			
Any	118	154.14			

Note: Mean of Ranks, SD = standard deviation, X² = chi-square, P = significance value.

The above table shows mean of ranks, standard deviation, chi-square and significance value of the causes of unemployment i.e., increased birth rate, illiteracy, increasing technology, any. Results indicated non-significant mean difference (p=.55) across increased birth rate (M=146.11), illiteracy (M=137.23), increasing technology (M=156.25) and any (M=154.14). Whereas the value of x^2 is 2.09 which shows a small effect size.

Table 12

Kruskal Wallis H test showing the difference in self-esteem across causes of unemployment

(N=300)

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>X²</i>	<i>p</i>
Cause			.70855	1.701	.637
Increased birthrate	33	137.45			
Illiteracy	60	160.60			
Increasing technology	89	152.02			
Any	118	147.86			

Note: Mean of Ranks, SD = standard deviation, X² = chi-square, P = significance value.

The above table shows mean of ranks, standard deviation, chi-square and significance value of the causes of unemployment i.e., increased birth rate, illiteracy, increasing technology, any. Results indicated non-significant mean difference (p=.64) across increased birth rate (M=137.45), illiteracy (M=160.60), increasing technology (M=152.02) and any (M=147.86). Whereas the value of x^2 is 1.70 which shows a small effect size.

Kruskal Wallis H test

Table 13

Kruskal Wallis H test showing the difference in tobacco smoking across causes of unemployment (N=300)

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>X²</i>	<i>p</i>
Cause			.61623	2.484	.478
Increased birthrate	33	148.80			
illiteracy	60	144.53			
Increasing technology	89	162.49			
Any	118	144.97			

Note: Mean of Ranks, SD = standard deviation, X² = chi-square, P = significance value.

The above table shows mean of ranks, standard deviation, chi-square and significance value of the causes of unemployment i.e., increased birth rate, illiteracy, increasing technology, any. Results indicated non-significant mean difference (p=.48) across increased birth rate (M=148.80), illiteracy (M=144.53), increasing technology (M=162.49) and any (M=144.97). Whereas the value of x^2 is 2.48 which shows a small effect size.

CHAPTER 4**DISCUSSION**

Present study aims to find association between tobacco smoking, mental health problems and demographic characteristics of unemployed university graduate. 300 participants were recruited from different households, living in Mardan, Islamabad and Rawalpindi. At first frequency and percentage of categorical variables which includes gender, age, marital status, family type, causes of unemployment and duration of unemployment was found. Then descriptive i.e., Mean, Standard Deviation, Skewness, Kurtosis, Kolmogorov-Smirnov, and alpha reliability analysis of the continuous variables was found.

Individual's age was divided into 3 categories i.e., 25-30 years, 31-40 years and 41-45 years. There were 2 categories (male and female) for gender. The two categories of marital status were married and single. Categories for family structure were joint family structure and nuclear family structure. Causes of unemployment were divided into 4 categories i.e., increased birth rate, illiteracy, increased technology, and any. Lastly, time for being unemployed were divided into 3 categories i.e. 1-2 years, 3-4 years and 5 years and more. The alpha coefficients for all 3 scales were greater than .70, which indicated that the scales are reliable to use. Kolmogorov-Smirnov value is non-significant ($<.05$) which also shows the data is non normally distributed. After that spearman correlation, Mann Whitney U test and Kruskal Wallis H test was found to test the hypotheses of the current study.

Following is the discussion based on research Hypotheses.

Hypothesis one proposed that tobacco smoking is positively associated with stress, anxiety and depression among unemployed university graduates. In Table 3, correlation

analysis of the data revealed a significant positive relationship exist between tobacco smoking and depression anxiety stress. It concludes that high level of depression anxiety stress will increases the uptake of tobacco smoking in unemployed university graduates. So, it can be concluded that the correlation analysis approved hypothesis one which is supported by study conducted by Choi et al., 1997 that smoking status was the single most important predictor of subsequent depressive symptoms in a sample of nearly 7000 U.S. adolescents, aged 12–18.

Hypothesis 2 proposed that Unemployed University Graduates with significant depression, stress, and anxiety levels will demonstrate low levels of self-esteem. In table 3, correlation analysis of the data revealed a negative and significant relationship between depression anxiety stress and level of self-esteem. It concluded that high level of depression, anxiety, stress will demonstrate low level of self-esteem. Hypothesis 2 is approved considering previous research. It was discovered that young individuals without jobs who had poor self-esteem had a greater chance of developing depression and other mental disorders. These results are in line with longitudinal studies previously conducted in USA which suggest that low self, which are essential to low self-esteem, would promote the emergence of depressive illnesses (Mokona et al., 2020).

Hypothesis 3 proposed that there is difference in level of Depression, Anxiety and stress across durations of being unemployed. In table 4 Kruskal Wallis H test showed there is non-significant mean difference across different duration of being unemployed i.e., 1-2 years, 3-4 years, and 5 years and more. Hypothesis 3 has been supported considering previous study that reported that psychological health change was also more often deterioration than improvement (20 and 8 % respectively), with 72 per cent reporting no change in

psychological health with the increase in duration of being unemployed (Warr, P., & Jackson, P., 1984).

Hypothesis 4 proposed that there will be a significant relationship between study variables (depression anxiety stress, self-esteem, and tobacco smoking) and demographic variables (age, marital status, family type, causes of unemployment). Results of Mann Whitney U test and Kruskal Wallis H test indicate that there is non-significant mean difference between age, marital status, family type, causes of unemployment and depression, anxiety, stress, self esteem and tobacco smoking behavior. with small effect size. Previous researches found that no significant difference in stress, anxiety depression, self-esteem and tobacco smoking behavior was found across different age groups, marital status and family type.

Hypothesis 5 proposed that there will be significant mean differences in Depression anxiety stress, self-esteem and tobacco smoking between male and female. Results of Mann Whitney U test indicates there is non-significant mean difference in depression, anxiety stress, self esteem and tobacco smoking across males and females. Results of current study are supported by study conducted previously which found there was no significant gender difference in students' average depression and stress levels (Gao et al., 2020). In previous studies it was observed that males have high self esteem and tobacco smoking behavior than female which contradict to the finding of current study (Kearney-Cooke, A., 1999; Bolego et al., 2002).

CONCLUSION

The results of the study indicated that depression, anxiety and stress are an important mental health problem among unemployed university graduates. Self Esteem and tobacco smoking behaviors are influenced by unemployment. It was found that stress anxiety and depression has positive relationship with tobacco smoking behavior while it has negative relationship with self-esteem. Finding also revealed that there was no impact of demographic characteristics on level of stress, anxiety, depression, self-esteem, and tobacco smoking behavior.

Considering results of our study we conclude that policy makers and program designers should create appropriate measures for the prevention, early detection, and management of depression, anxiety, and stress, as well as tobacco dependence among young adults without jobs. Furthermore, addressing the needs of unemployed people, improving access to care for mental health problems, particularly for depression, anxiety and stress and lowself-esteem is an important initiative.

LIMITATIONS

Following are the limitations of the study.

1. The sample of the study is limited and cannot be generalized to other cities of Pakistan.
2. Self-report questions were used, it might have subjected to desirability bias.

IMPLICATIONS

Current study will help in creating awareness regarding the mental health issues that unemployed graduated students face. The study will help the universities and educational institution on teaching their students how to deal with stress and anxiety in the time of difficulty. This will also help the government in making policies regarding making career counseling and job hunting as compulsory service to be provided by institutions to graduating students.

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APPENDIX A**Informed Consent Form****Project Research Title:**

Association between tobacco smoking, mental health problems and demographic variables among university graduates.

Assalam-u-Alaikum!

I am Amna Jamshed, I am currently undertaking research on the association between unemployment, tobacco smoking and mental health problems among university graduates for my BS thesis in psychology at department of psychology, capital university of science and technology (CUST). The study has the approval of the CUST. The purpose of this study is to find association between unemployment, tobacco smoking and mental health problems among university graduates. For this purpose, you are required to fill the provided questionnaire. I want to reassure you that whatever information you provided to me will be kept private, and your participation will be kept anonymous. Your contribution to this study is very important for the success of this research. Your participation is fully voluntary. Moreover, if you are uncomfortable, you may withdraw from the study at any time. I will be highly grateful for your cooperation.

Participants signature: _____

Date: _____

APPENDIX B**Demographic Questionnaire**

Please respond to the following questions about yourself.

What is your age?

Gender?

a. Male b. Female

Marital status?

a. Single b. Married

Family type?

a. nuclear b. Joint

What cause of unemployment?

a. Increased birth rate b. Illiteracy c. Increasing technology d. Any

From how many years you are unemployed?

a. 0-1 year b. 2-4 year c. 5 or more

APPENDIX C

Depression, Anxiety, Stress Scale (DASS 21)

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers.

0. Did not apply to me at all
1. Applied to me to some degree, or some of the time
2. Applied to me to a considerable degree, or a good part of time
3. Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1		3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3

13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

Appendix D

Rosenberg Self-Esteem Scale (RSES)

Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

2. At times I think I am no good at all.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

3. I feel that I have a number of good qualities.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

4. I am able to do things as well as most other people.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

5. I feel I do not have much to be proud of.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

6. I certainly feel useless at times.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

8. I wish I could have more respect for myself.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

10. I take a positive attitude toward myself.

1. Strongly Agree 2. Agree 3. Disagree 4. Strongly Disagree

APPENDIX E

The Cigarette Dependence Scale (CDS-12)

<p>1. Please rate your addiction to cigarettes on a scale of 0 to 100:</p> <p>- I am NOT addicted to cigarettes at all = 0</p> <p>- I am extremely addicted to cigarettes = 100</p>	<p>0 – 20 = 1</p> <p>21 – 40 = 2</p> <p>41 – 60 = 3</p> <p>61-80 = 4</p> <p>81-100 = 50</p>
<p>2. On average, how many cigarettes do you smoke per day? ___ Cigarettes / day</p>	<p>0-5 = 1</p> <p>6-10 = 2</p> <p>11-20 = 3</p> <p>21-29 = 4</p> <p>30+ = 5</p>
<p>3. Usually, how soon after waking up do you ___ minutes smoke your first cigarette?</p>	<p>0-5 = 5</p> <p>6-15 = 4</p> <p>16-30 = 3</p> <p>31-60 = 2</p> <p>61+ = 1</p>
<p>4. For you, quitting smoking for good would be:</p>	<p>Impossible = 5</p> <p>Very difficult = 4</p> <p>Fairly difficult = 3</p> <p>Fairly easy = 2</p> <p>Very easy = 1</p>
<p>5. After a few hours without smoking, I feel</p>	<p>Totally disagree = 1</p>

an irresistible urge to smoke.	Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4 Fully agree = 5
6. The idea of not having any cigarettes causes me stress.	Totally disagree = 1 Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4 Fully agree = 5
7. Before going out, I always make sure that I have cigarettes with me.	Totally disagree = 1 Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4 Fully agree = 5
8. I am a prisoner of cigarettes.	Totally disagree = 1 Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4 Fully agree = 5
9. I smoke too much.	Totally disagree = 1 Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4

	Fully agree = 5
10. Sometimes I drop everything to go out and buy cigarettes.	Totally disagree = 1 Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4 Fully agree = 5
11. I smoke all the time	Totally disagree = 1 Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4 Fully agree = 5
12. I smoke despite the risks to my health	Totally disagree = 1 Somewhat disagree = 2 Neither agree nor disagree = 3 Somewhat agree = 4 Fully agree = 5

APPENDIX F

Support letter for data collection

	 Capital University of Science & Technology Islamabad	Islamabad Expressway, Kahuta Road, Zone - V, Islamabad, Pakistan Telephone : +92-51-111-555-666 : +92-51-4486700 Fax : +92-51-4486705 Email : info@cust.edu.pk Website : www.cust.edu.pk
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November 11, 2022

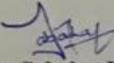
TO WHOM IT MAY CONCERN

Capital University of Science and Technology (CUST) is a federally chartered university. The university is authorized by the Federal Government to award degrees at Bachelor's, Master's and Doctorate level for a wide variety of programs.

Ms. Amna Jamshed, registration number **BSP191010** is a bona fide student in BS Psychology program at this University Spring 2019 till date. In partial fulfillment of the degree, she is conducting research on "Association between unemployment, tobacco smoking and mental health problems among university graduates". She is required to collect data from your institute.

Your cooperation is highly appreciated. Please feel free to contact undersigned, if you have any query in this regard.

Best Wishes,


Dr. Sabahat Haqqani
 Head, Department of Psychology
 Ph no. 111-555-666 Ext: 178
 sabahat.haqqani@cust.edu.pk

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