

A Cross Sectional Study on Professional Stress, Depression, Alcohol Use & Quality of Life Among IT/ITES Professionals in Selected Companies in NCR- National Capital Region[#]

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Abstract

This study is an attempt towards identifying the existence of professional stress among the employees of IT & ITes companies located in national capital region of New Delhi. Whether the prevalence of the stress among these employees leads to any kind of depressive symptoms among them and whether they subsequently seek any kind of refuge in alcohol use for some kind of relief from it. The study also makes an attempt towards understanding the quality of life of these employees. The study has adopted a cross-sectional study design. Five different scales were used to collect the primary data on Professional Life stress, Anxiety, Depression, Alcohol use disorder, and Quality Of Life. The primary data was collected based on the questionnaires along with the proper consents and basic personal characteristics of the respondents. A total of 134 employees, consisting of 74.6% males and 25.4% females, from the selected IT / ITes companies from the national capital region of New Delhi participated in this study. The average age of the sample was 29.72 years. The selected samples working either as

technicians, executives or managers and were qualified either as Post Graduates / Professional, Graduates or Others.

In terms of quality of life, the study sample has found that, there is a positive association between professional stress and quality of life-all four domains Viz., Physical health, Psychological, Social relationship and Environment domains. We have found inverse relationship between them. Whenever professional life stress increases among the employees, their quality of life under all the four domains decreases. Therefore, organisations should design suitable intervention programs for the betterment of their employee to achieve better productivity.

In terms of the association between stress, risk of developing depression and the harmful effects of use of alcohol, we found that there exist a Positive Association between, Professional Stress and Anxiety, Depression and Quality of Life 04 Domains, viz., Physical health, Psychological, Social Relationship and Environment. While we found that there is no significant association between Professional Stress and Alcohol Use among the study sample.

In terms of the effect of general characteristic and job profile on Professional stress and other variable like depression and anxiety, we found that, Age and sex of the study sample did not affect professional stress significantly and there is no significant relationship between professional stress and the educational levels and job categories of the study sample.

Multi Variable analysis reveals that, Professional stress and Anxiety had significantly greater likely hood for being depression. The results of the present study indicates that those participants with professional stress were five times as likely to be depressive as compared with those who had no professional stress. While those who with anxiety symptoms has about twice as likely to be depressive as compared with those who had no anxiety.

Keywords: Professional Stress, Anxiety, Depression, Alcohol use, Quality of life, Work place, Organisation, IT/ITes Companies.

Introduction

Occupational stress, also known as Professional stress, is defined as negative environmental factors associated with a particular job which leads to frustration, worry, anxiety and depression. [1, 2]

Srivastava et.al [3] identified twelve sources of occupational stress like: strenuous work, role ambiguity, role overload, role conflict, group pressures, low profitability, under participation, low status, responsibility for poor people, intrinsic impoverishment, poor peer –relations and powerlessness.

There is no doubt about the existence & prevalence of stress among the corporate employees around the world. Stress, Depression, Alcohol use has been emerging as a silent killer and taken its toll on the Indian corporate employees. Professional Stress, depression, alcohol use is affecting the quality of life among the IT/ITES professionals in the Indian Corporate sector. Individually they are very common, but it is the interactions between them that are particularly challenging for any corporate organisation to effectively counter & effectively manage them.

Stress contributes to psychological problems like susceptibility to depressions [4]; harmful use of alcohol [5] and thereby affecting the quality of life. In frequent instances, corporate professional use alcohol to get relief from anxiety, stress & depressive symptoms. Most subjects feel unprepared to manage stress, and many of them feel unprepared to handle them. They lack the basic coping skills & therefore are unable to manage uneven situations in their daily life. Thus, the overall quality of their life is often found to be miserable. There are frequent signs of early burnouts among the young professionals & at times their career comes to a standstill.

It has been observed that the most stressful type of work situation is that in which the job demands and pressures are mismatched with the employees' capabilities, competencies and domain knowledge. Similarly, the employee does not have adequate opportunity to exercise any choice or control over the job demands and there is little or no support from others to execute the job. Employees are likely to experience low stress when the demands and pressures of their job are matching with their domain

knowledge and competencies. They can exercise better control over their jobs and execute it properly with the team support from their colleagues and supervisors. [3].

Depression is a common mental disorder, often characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. Depression can be long-lasting as well as recurrent. It not only substantially affects the individual's ability to function at work, but also affects his daily life. [4]

Anxiety is a feeling of worry, nervousness, or unease about something with an uncertain outcome. People working in IT / ITes companies generally go through a lot of anxiety, depression and loneliness because of their work environment and often display feelings of inadequacy, lowered self-esteem and dissatisfaction. [4]

Quality of life (QOL) is the general well-being of individuals and societies. Quality of Life is defined as individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns. It is a broad ranging concept, incorporating in a complex way individual's physical health, psychological state, level of independence,

social relationships, personal beliefs, and their relationships to salient features of the environment.[6,7,8]

This definition highlights the view that quality of life is subjective, includes both positive and negative facets of life and is multidimensional. Thus, QOL includes the conditions of life resulting from the combination of the effect of complete range of the factors such as those determining health, happiness and a satisfying occupation, education, social and intellectual attainments, freedom of actions and freedom of expression

Research problem/ hypothesis/ objectives

The aims & objectives of this research were to critically study, explore & understand the followings.

1. To study prevalence of Professional stress, risk for developing depression, harmful alcoholic effects & the quality of life among the IT/ITES Professional in selected companies located in National Capital Region of New Delhi.
2. To Study the association between Stress, Risk of developing depression & harmful effects of use of alcohol & the quality of life.
3. To study the effect of general characteristics & job profile on

professional stress & other variable like depression & Anxiety.

Methodology- Techniques/ Sampling/ Tools/ Materials

The entire geographical region of the research was national capital Region of New Delhi. The **Inclusive criteria** for the research study were “Cross Sectional” in nature. Screening questionnaires were used to identify the IT/ITES professionals & the Study was conducted on the selected professionals working at technicians, executive, and managerial levels in the given organisation. Similarly, the **Exclusion criteria** for the research study was adopted by exclusion of those IT/ITES professionals who are not willing to participate in the said research study, employees who were said to be prone to violent behavioural tendencies & those employees who were on any kind of psychiatric treatments were excluded.

The final sample size was 134 respondents after the applying inclusion and exclusion criteria. SPSS version 16 software is used for statistical analysis and interpretation of the data. Following five major instruments were used for the data collection,

1. Professional Life stress scale:

2. Becks Anxiety Inventory:
3. Becks Depression Inventory Scale:
4. Audit-Alcohol use disorder Scale:
5. WHO QOL-World Health Organisation Quality Of Life Scale:

Result Analysis

Socio demographic profile of participants

Age: The mean age of the participants was 29.72 (+/- 6.46) years.

Sex: Out of the total 134 respondents, 74.6 % were male and 25.4 % are females.

Education: Under this head, three categories were formed for the purpose of this research work. 65.4% of the respondents were found to be in 1st category of “Graduates”, while 32.3 % were found to be in 2nd category of “Post Graduates / Professionals” and 2.3 % were found to be in the 3rd category of “Others”.

Job Profiles: Under this heading, three categories were formed. Among the 1st category of “Managers” 27.6% respondents were found. In the 2nd category of “Executives” 23.1% respondents were found and under the 3rd category of “Technicians” 49.3 % were found during the research work.

Table 1.Socio-demographic characteristics of the participants (n=134)

Characteristics	N (%) / Mean (SD)
AGE:	29.72 (6.46) years
Less than 30 years	
30 years and above	
SEX:	
Male	100 (74.6%)
Female	34 (25.4%)
EDUCATION:	
Post Graduate / Professional	88 (65.4%)
Graduate	43 (32.3%)
Others	03 (02.3%)
JOB PROFILES:	
Manager	37 (27.6%)
Executive	31 (23.1%)
Technician	66 (49.3%)

Clinical Characteristics of the Participants

Professional Life Stress Scale

Out of the 134 respondents, 63.4% are found to be in the 1st category, signifying a stage wherein “stress isn’t problem in their life”. 34.3% are found to be in 2nd category, signifying that they have “moderate range of stress”. 2.2% are found to in 3rd category, signifying that “stress is clearly a problem” and the need of remedial action is required. We did not find any respondent in 4th category which signifies that “stress is a major problem and something must be done without delay”.

Becks Anxiety Inventory Scale

Out of the 134 respondents, 48.5% are found to be in the 1st category, where there is “No Anxiety”. 35.1% are found to be in 2nd category, with “Mild Anxiety”. 13.4% are found to be in 3rd category of “Moderate Anxiety” and 3% of the respondents are found to be in 4th category of “severe Anxiety”.

Becks Depression Inventory Scale

Out of the 134 respondents, 68.6% are found to be in the 1st category, where it is considered to be “Normal”. 12.7% are found to be in 2nd category, with “Mild Mood

Disturbance". 6.7% are found to be in 3rd category of "Borderline Clinical Depression". 9.7% of the respondents are found to be in 4th category of "Moderate Depression". 2.2% are found to be in 5th category of "Severe Depression" and none were found to be in the 5th category of "Extreme Depression".

Audit-Alcohol Use Disorder Scale

Out of the 134 respondents, 93.3% are found to be in the 1st category, where it is considered to be "Normal". 5.2% are found to be in 2nd category wherein "simple advice focused on reduction of hazardous drinking in required" to be given to the respondents. We did not find any respondents falling under the 3rd category wherein, "brief counselling and continued monitoring required". 1.5% of the respondents are found to be in 4th category which "clearly warrants further diagnostic evaluation for alcoholic dependence".

WHO QOL-World Health Organisation Quality of Life Scale

The study sample has found that, there is a positive association between professional stress and quality of life-all four domains Viz., Under the Physical health domain, the mean was found to be 54.70 and the SD was 11.08. Under the Psychological, the mean was found to be 60.79 and the SD was 11.89. Under the Social relationship the mean was found to be 73.06 and the SD was 17.53 and Under the Environment domains the mean was found to be 61.60 and the SD was 16.53. We have found inverse relationship between them. Whenever professional life stress increases among the employees, their quality of life under all the four domains decreases. Similarly, whenever professional life stress decreases among the employees, their quality of life under all the four domains increases.

Table 2.Clinical Characteristics of Participants (n=134)

Measurement Scales	Characteristics	N (%) / Mean (SD)
Professional Life Stress Scale:	Stress isn't a Problem	85 (63.4%)
	Moderate Stress	46 (34.3%)
	Stress is a Problem	03 (02.2%)
	Stress is a Major Problem	00 (00.0%)
Back's Anxiety Inventory:	No Anxiety	65 (48.5%)
	Mild Anxiety	47 (35.1%)

	Moderate Anxiety	18 (13.4%)
	Severe Anxiety	04 (03.0%)
Beck's Depression Inventory Scale:	Normal	92 (68.6%)
	Mild Mood Disturbance	17 (12.7%)
	Borderline Clinical Depression	09 (06.7%)
	Moderate Depression	13 (09.7%)
	Severe Depression	03 (02.2%)
	Extreme Depression	00 (00.0%)
AUDIT Score:	Zero Level	97 (72.00%)
Alcohol Use Disorder Identification Test Score.	01 - 07	17 (12.69%)
	08 - 15	10 (7.46%)
	16 - 19	07 (5.22%)
	20 and above	03 (2.34%)
WHOQOL: World Health Organisation Quality Of Life Scale:	Domains	Transformed Score mean (SD)
	Physical Health	54.70 (11.08)
	Psychological	60.79 (11.89)
	Social Relationship	73.06 (17.53)
	Environment	61.60 (16.17)

Association between Professional Stress with Anxiety, Depression, AUDIT and WHOQOL

Pearson's co-relation coefficient measures the strength of the association between continuous variables. It ranges from -1/+1.

Pearson's Co-relation between Professional Stress and Anxiety

Pearson's r value = .288, P Value = .001

There is a positive association between professional stress and Anxiety. If the professional stress increases then anxiety shall also increase accordingly.

Pearson's Co-relation between- Professional Stress and Depression

Pearson's r value = .417, P Value = .000

There is a positive association between professional stress and depression. If the professional stress increases then depression shall also increase accordingly.

Pearson's Co-relation between- Professional Stress and Alcohol use

Pearson's r value = .028, P Value = .748

There is a no significant association between professional stress and alcohol use.

Pearson's Co-relation between- Professional Stress and Quality of life- Physical Health Domain

Pearson's r value = -.294, P Value = .001

There is a Negative association between professional stress and quality of life - physical health domain. If the professional stress increases then the quality of life-physical health domain shall decrease. Similarly, if the professional stress decreases, then the quality of life-physical health domain shall increase accordingly.

Pearson's Co-relation between- Professional Stress and Quality of life- Psychological Domain.

Pearson's r value = -.296, P Value = .001

There is a Negative association between professional stress and quality of life - psychological domain. If the professional stress increases then the quality of life-

psychological health domain shall decrease. Similarly, if the professional stress decreases, then the quality of life-psychological domain shall increase accordingly.

Pearson's Co-relation between- Professional Stress and Quality of life- Social Relationship Domain.

Pearson's r value = -.336, P Value = .000

There is a negative association between professional stress and quality of life-social relationship domain. If the professional stress increases then the quality of life-social relationship domain shall deteriorate. Similarly, if the professional stress decreases, then the quality of life-social relationship domain shall improve accordingly.

Pearson's Co-relation between- Professional Stress and Quality of life- Environment Domain

Pearson's r value = -.300, P Value = .000

There is a negative association between professional stress and quality of life-Environment domain. If the professional stress increases then the quality of life-environment shall deteriorate. Similarly, if the professional stress decreases, then the quality of life-environment domain shall improve accordingly.

Association between Socio Demographic Variables and Professional Stress

- Chi square method of Categorical Variable

- Education is regrouped into 2 groups viz., Graduates as 1 & Post Graduates as 2.
- Age is categories as Category 1: age less than 30 & Category 2: age 31years and above.

Table 3.Age and Professional Stress

Age Categories	Stress is Present	Stress is Absent
Age Less than 30 Years	25 (18.52%)	53 (39.55%)
Age 31 Years and Above	24 (17.91%)	32 (23.88%)

Stress is Present as per the scale score of more than 16.

Stress is Absent as per the scale score of less than 16.

Chi square = 1.64, df-1, P value = .200

Age of the participants did not affect stress significantly.

Table 4.Sex and Professional Stress

Sex	Stress is Present	Stress is Absent
Male	39 (29.10%)	61(45.52%)
Female	10 (07.46%)	24 (17.91%)

Stress is Present or Absent as per the scale score.

Chi square = 1.006, df-1, P value = .316

Sex of the participants did not affect stress significantly.

Table 5.Education and Professional Stress

Educational Levels	Stress is Present	Stress is Absent
Graduate	39 (29.10%)	56 (41.79%)
Post Graduate	14 (10.45%)	29 (21.64%)

Stress is Present as per the scale score.

Chi square = 0.439, df-1, P value = .508

There is no significant relationship between the educational level and professional stress.

Table 6.Job Categories and Professional Stress

Job Categories	Stress is Present	Stress is Absent
Technicians	14 (10.45%)	23 (17.16%)

Executives	13 (09.70%)	18 (13.43%)
Managers	22 (16.42%)	44 (32.84%)

Chi square = 0.708, df-2, P value = 0.703

There was no significant relationship between the job categories and professional stress.

Results of Binary Logistic Regression, by considering the dependent variable as Depressive Symptoms and Independent variables as Age, Sex, Education, Jobs, Anxiety and Professional stress.

- Multi Variable analysis reveals that, Professional stress and Anxiety had significantly greater likelihood for being depression.
- The results of the present study indicates that those participants with professional stress were five times as likely to be depressive as compared with those who had no professional stress.
- Those who had anxiety symptoms had about twice as likely to be depressive as compared with those who had no anxiety.

Table 7.Binary Logistic Regression

Characteristics	Categories	Adjusted Risk Ratio.		
		Estimate	95% CI	P Value
Age	Less than 30 years	1.33	0.506, 3.511	.561
	More than 30 years	1.00		
Education	Graduation	.280	.106, .738	.010
	Post Graduation	1.00		
Anxiety	Present	2.61	1.08, 6.30	0.033
	Absent	1.00		
Stress	Present	5.46	2.25, 13.23	.000
	Absent	1.00		

6. Conclusions & Future Directions

This innovation project has helped the research students to understand the concepts of professional stress, depression, anxiety and quality of life. The prevalence of professional stress, depression, anxiety and

the quality of life of IT/ITes professional in selected companies located in national capital region of New Delhi. It highlighted the association between professional stress,

risk of developing depression, harmful effects of use of alcohol & the quality of life of the IT/ITes professionals. The effect of general characteristics & job profile on professional stress & other variable like anxiety, depression and quality of life were critically analysed. This project has facilitated the students to understand relevant and pertinent things about doing the actual research work and also helped in developing their research acumen.

This study has assessed the prevalence of professional stress, depressive symptoms and alcohol use and the association between professional stress anxiety, depression, alcohol use and quality of life among IT/ITes Professionals working in New Delhi NCR.

Professional life Stress Scale [9]: among the sample study was at moderate level only and majority of the sample (63.4%) were in a category where in “stress isn’t a problem”, while only (34.3%) were facing “Moderate stress”. There was no case of “Stress is a Major Problem” in the sample study. Efforts should be made through appropriate intervention programs to move employees falling under moderate stress levels to the categories where stress isn’t a problem.

Beck’s Anxiety Inventory Scale [10]: Only 3% of the sample study was facing “severe anxiety”, 13.4% were facing “moderate

anxiety” and 35.1% were facing “mild anxiety” among the sample study. While Majority of the sample study (48.5%) were having “No Anxiety”. Organisations needs to chalk out a program for facilitating employees to first move from severe anxiety to mild anxiety level and then to no anxiety level.

Beck’s Depression Inventory Scale [11]: Majority of 68.6% of the sample study were found to be at “normal Level” and there was no case of “extreme depression” in the sample study. Efforts must be made through appropriate training and intervention programs to bring the employees falling in other groups towards normal level.

AUDIT-Alcohol Use Disorder Identification Test [12] revealed that, majority of the sample study (72%) were at Zero level and 2.34% of the sample study were at highest level, signifying that alcohol use is not a major issue in the sample study.

WHO-QOL-World Health Organisation-Quality of Life [13]: the study sample has found that, there is a positive association between professional stress and quality of life-all four domains Viz., Physical health, Psychological, Social relationship and Environment domains. We have found inverse relationship between them. Whenever professional life stress increases among the employees, their quality of life

under all the four domains decreases. Therefore, organisations should design suitable intervention programs for the betterment of their employee to achieve better productivity.

The findings of this study are that, professional stress is positively associated with anxiety and depression. When professional stress increases the anxiety and depression also increases. Professional stress is significantly associated with quality of life. i.e., if the professional stress is more the quality of life would be poor and vice versa. These findings are also consistent with the previous studies [6, 7].

The Multi Variable Binary Logistic Regression analysis reveals that, Professional stress and Anxiety had significantly greater likely hood for being depression. The results of the present study show that those participants with professional stress were five times as likely to be depressive as compared with those who had no professional stress. Similarly, those participants who had anxiety symptoms had about twice as likely to be depressive as compared with those who had no anxiety.

The previous study had reported contrary results that, Professional Stress is associated with harmful alcohol use. However, this study did not find any significant

association between professional stress and alcohol use. [9]

We found that, Age, sex, educational levels and job categories of the study sample did not affect professional stress significantly.

Conclusions in terms of the association between stress, risk of developing depression and the harmful effects of use of alcohol, we found that there exist a Positive Association between, Professional Stress and Anxiety, Depression and Negative association with Quality of Life four Domains, viz., Physical health, Psychological, Social Relationship and Environment. However, we did not find significance association between Professional Stress and Alcohol Use in this study.

Multi Variable Binary distribution analysis reveals that, Professional stress and Anxiety had significantly greater likely hood for being depression. The results of the present study indicates that those participants with professional stress were five times as likely to be depressive as compared with those who had no professional stress. While those who with anxiety symptoms has about twice as likely to be depressive as compared with those who had no anxiety.

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Questionnaires: Annexure-2

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