

Anxiety Disorder And Smoking

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Abstract:

A comparative cross sectional study was conducted to find out an association between anxiety and smoking. This study provides information about impact of smoking and anxiety on smokers and non smokers. Anxiety related information was collected by using an anxiety determinate scale. A total of 20 questions were scored on the scale. Scoring was done according to a set standard system. Among 110 smoker, 85 (77.3%) had no anxiety, 15 (13.6%) had mild anxiety, 6 (5.4%) moderate anxiety and the rest 4 (3.7%) had severe anxiety. Among 110 non smokers 96 (87.3%) had no anxiety, 9 (9%) had mild anxiety, 3 (3%) moderate and the rest 2 (1.8%) had severe anxiety. Among 39 anxiety disorder respondents, 25.6% had anxiety for 2 months, 46.2% had anxiety for 6 months & 28.2% had anxiety which lasted for more than a year. Among 39 anxiety disorder respondents, 43.5% had anxiety disorders in other family members. Anxiety was mostly seen in the smoker groups. Association between smoking habit of the respondents was an important determinant to have anxiety. There were significant correlation between smoking and anxiety.

Introduction :

Anxiety disorders are blanket terms covering several different forms of abnormal and pathological fear and anxiety which only came under the aegis of psychiatry at the very end of the 19th century.¹ Anxiety disorders are classified in two groups: continuous symptoms and episodic symptoms. Current psychiatric diagnostic criteria recognize a wide variety of anxiety disorders. Recent surveys have found that as many as 18% of Americans may be affected by one or more of them.² The term anxiety covers four aspects of experiences an individual may have: mental apprehension, physical tension, physical symptoms and dissocialize anxiety (symptoms associated with hyperventilation).³ Anxiety disorder is divided into generalized anxiety, phobic, and panic disorders; each has its own characteristics and symptoms and they require different treatment. The emotions present in anxiety disorders range from simple nervousness to bouts of terror. Standardized screening clinical questionnaires such as Zung Self-Rating Anxiety Scale can be used to detect anxiety

symptoms, and suggest the need for a formal diagnostic assessment of anxiety disorders.

Generalized anxiety disorder (GAD) is an anxiety disorder that is characterized by excessive, uncontrollable and often irrational worry about everyday things that is disproportionate to the actual source of worry. This excessive worry often interferes with daily functioning as individuals suffering from GAD typically anticipate disaster, and are overly concerned about everyday matters such as health issues, money, death, family problems, friend problems, relationship problems or work difficulties.¹ Individuals often exhibit a variety of physical symptoms, including fatigue, fidgeting, headaches, nausea, numbness in hands and feet, muscle tension, muscle aches, difficulty swallowing, bouts of difficulty breathing, difficulty concentrating, trembling, twitching, irritability, agitation, sweating, restlessness, insomnia, hot flashes, and rashes and inability to fully control the anxiety.² These symptoms must be consistent and on-going, persisting for at least 6 months, for a formal diagnosis of GAD to be

introduced.¹ Generalized anxiety disorder is estimated to occur in 5% of the general population. Women are generally more affected than men.³

Standardized rating scales such as GAD-7 can be used to assess severity of generalized anxiety disorder symptoms.⁴ It is the most common cause of disability in the workplace in the United States.⁵

Prevalence:

The World Health Organization's Global Burden of Disease project did not include generalized anxiety disorders.⁶ Globally the prevalence rates statistics in adults from around the world are Australia 3 %, Canada between 3-5 %, Italy 2.9 %, ⁷ Taiwan 0.4 %, ⁸ United States approx. 3.1 % in a given year (9.5 million)

Methodology:

A comparative cross sectional study was carried out at the Gopibagh area of Dhaka city in ward no 75 area covered K.M. DAS Lane, R k Mission Road, Madrasah road and Gopibagh 1st & 2nd lane. Total population of this area was 39,946 out of which 20,000 were above 18 years. Study was conducted for period of 6 month all male smokers and non smokers. From them those who fulfilled the eligibility criteria, 220 sample size were selected purposively. Data was collected by using semi structured and pretested interview questionnaire. Data was collected by face to face interviewing of the respondent. Data analysis was done by using available version of SPSS soft ware.

Results:

The study was carried out among 220 male aged more than 18 years of age in the Gopibagh area of Dhaka 50% of whom were smokers. The duration of data collection was 1st May to 15th May 2011. There is no missing data and no body refused to participate in this study. Data were presented through tables and figures and were organized under following sections.

Socio-demographic characteristics:

Valuable information regarding socio-demographic characteristics of the respondents such as age, education, occupation, monthly income, marital status, number of family members, was collected, analyzed and the results were presented in the following table.

Table: Distribution of the Respondents by age (n=220)

Age in Years	Smoker (n=110)		Non Smoker (n=110)	
	Frequency	Percentage	Frequency	Percentage
18 -22 years	46	41.8	41	37.3
23-27 years	30	27.3	38	34.5
28-32 years	18	16.4	10	9.1
>33 years	16	14.5	21	19.1
Total	110	100.0	110	100.0

The above table shows among the smokers most of the respondents were between 18-22 years of age 46 (41.8%). Among the non smokers most of the respondents were between 18-22 years of age Mean age of the smokers 24.45 years and SD + 5.632, Mean age of the Non-smokers 25.14 years and SD + 6.899.

Information related to Smoking:

This set of questions asked the respondents for the information of their smoking status.

Table: Distribution of the smokers by reasons behind smoking (n=110)

Reasons behind smoking	Frequency	Percent
Habit from childhood	22	20
To get relieve from tension	77	70
For recreation	7	6.4
To get relieve from constipation	4	3.6
Total	110	100.0

Anxiety and risk factors related to anxiety:

Anxiety related information were collected by using an anxiety determinate scale. Total 20 questions were scored on the scale. After assigning 2 marks for each "Yes" answer, if respondent scored below 12 then there was no anxiety disorder. If it was 12-20 marks then there was Mild anxiety disorder, If it was 22-30 marks then there was Moderate anxiety disorder and if it was over 30 marks then respondent were suffering from Severe anxiety disorder.

The resulting information were analyzed and the results are presented in the following table.

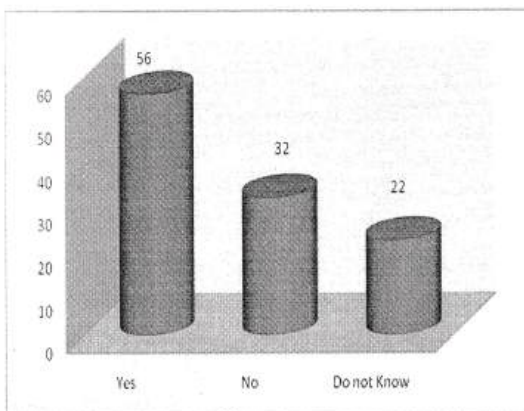
Table: Distribution of the respondents by anxiety among smokers (n=110)

Anxiety among smokers	Frequency	Percent
No	85	77.3
Mild	15	13.6
Moderate	6	5.4
Severe	4	3.7
Total	110	100.0

Table : Distribution of the respondents by having anxiety disorder (both smokers and Non smokers) (n=39)

Anxiety Status	Frequency		Total
	Anxiety among Smokers	Anxiety among Non smokers	
Mild	15	9	24
Moderate	6	3	9
Severe	4	2	6
Total	25	14	39

Figure: Distribution of the respondents knowledge about relation in between smoking & anxiety disorder (n=110)



Knowledge about relation between smoking & anxiety

Figure : shows that among 110 smoker respondents, 56 (50.9%) answered yes, 32 (29.1%) answered no & 22 (20.0%)

answered do not know about knowledge about relation in between smoking & anxiety disorder.

Association between Anxiety and Smoking habit. (Chi-square analysis)

Smoking habit of respondents	Anxiety disorder			Total
	Severe	Moderate	Mild	
Yes	4	6	15	25
No	2	3	9	14
Total	6	9	24	39

$\chi^2 = 11.321, df = 2, p \text{ value} = .000$

Table: shows that total 39 anxiety disorder patient 25 are smoker have anxiety disorder and 14 anxiety disorder have no smoker. There is a significant correlation between smoking habit and anxiety disorder

Association of Anxiety and number of cigarette smoked

Anxiety of Smoker Number of Cigarette smoking	Anxiety disorder			Total
	Mild	Moderate	Severe	
Less than 5 Cigarette	2	1	1	4
05-10	10	3	1	14
More than 10	3	2	2	7
Total	15	6	4	25

$\chi^2 = 37.00, df=2, p \text{ value} = .000$

Table : Shows out of 25 smokers have significant correlation anxiety disorder and number of cigarette smoking. $\chi^2 = 41$ Association of Anxiety and duration of smoking among smokers having anxiety.

Duration of Smoking habit	Anxiety disorder			Total
	Mild	Moderate	Severe	
Less than 2 month	2	1	1	4
6 month	10	3	1	14
More than 1 year	3	2	2	7
Total	15	6	4	25

$$X^2 = 45.509, df = 2, pvalue = 0.004$$

Table : shows the value of Chi-square is significant at 5% level of significance indicating that duration of smoking of the respondents was an important determinant to have anxiety. $\chi^2 = 45.509, df = 2, p value = 0.004$

Discussion :

This cross sectional study was conducted from January to June 2011 on anxiety disorder and smoking at Gopibagh area of Dhaka. The sample size 220 were selected purposively (among them 110 were smokers and 110 were Non-Smokers) to assess the association between anxiety disorder and smoking. The findings were obtained through a semi-structured questionnaire. The outcomes of the study are discussed below:

Among 220 respondents, 36 (16.4%) were 18-22 years of age, 49 (22.3%) were 23-27 years, 75 (34.1%) were 28-32 years, 60 (27.3%) were 60 to highest years. Mean age of the respondents were 28.80 years, minimum 18 years and maximum 35 years. Anxiety is noted mostly in 28+ years of ages, this result is similar with another study.²⁴

Among 220 respondents, 40 (18.2%) were in Higher Secondary, 101 (45.9%) were Graduate & 79 (35.9%) were in Post graduate level of Education. Anxiety is noted mostly in respondent who were in post graduate level of education. Among 220 respondents, 70 (31.8%) were student, 45 (20.5%) were in service, 32 (14.5%) were in Business, 30 (13.6%) were unemployed & 43 (19.5%) had others occupation. Among 220 respondents, 192 (87.3%) were Muslim, 24 (10.9%) were Hindu, 1 (.5%) were Buddha & 3 (1.4%) were Christian in religious belief.

Among 220 respondents, 36 (16.4%) had 1-2 family members, 72 (32.7%) 3-4 family members, 82 (37.3%) had 5-6 family

members & 30 (13.6%) had 7+ family members. Among 220 respondents, 87 (39.5%) had monthly income about 3000-10000 Taka, 78 (35.5%) 3-4 had monthly income about 10001-20000 Taka, 44 (20.0%) had monthly income about 20001-30000 Taka & 11 (5.0%) had monthly income about 30001-50000 Taka. Anxiety is mostly seen in 3000-10000 Taka monthly income group.

To find out the smoking habit among 220 respondents, 110 (50.0%) had habit of smoking & 110 (50.0%) said no about habit of smoking, among 110 smokers, 22 (20%) smokes due to habit from childhood, 77 (70%) smokes due to get relieve from tension, 7 (6.4%) smokes due to get recreation, 4 (3.6%) smokes due to get relieve from constipation.

among 110 smoker respondents, 91 (82.7%) had habit of smoking Cigarette, 17 (15.5%) had habit of smoking Biri & only 2 (1.8%) had habit of smoking Hukka, among 110 smoker respondents, 21 (18.6%) had habit of smoking for < 1 year, 251 (22.7%) had habit of smoking for > 1 year & 64 (58.6%) had habit of smoking for > 5 years.

Among 2 Hukka smokers, 1 (50.0%) had habit of smoking Hukka for < 5 times a day & 1 (50.0%) had habit of smoking Hukka for > 5 times a day. Among 17 Biri smokers, 5, (29.4%) had habit of smoking Biri for < 5 Biri a day, 7 (41.2%) had habit of smoking Biri for 5-10 Biri a day, & 5 (29.4%) had habit of smoking Biri for >10 Biri a day. Among 91 Cigarette smokers, 26 (28.6%) had habit of smoking for < 5 Cigarette a day, 45 (49.5%) had habit of smoking for 5-10 Cigarette a day, & 20 (22.0%) had habit of smoking for >10 Cigarette a day. Anxiety is mostly seen in Cigarette smokers.²⁶ Anxiety related information's was collected by using an anxiety determinate scale.

Among 110 smokers, 77.3% had no anxiety, 19.0% had mild anxiety & 3.7% had severe anxiety. Among 110 non-smokers, 87.3% had no anxiety, 10.9% had mild anxiety & 1.8% had severe anxiety, this study is similar with another study.²⁴

Among 39 anxiety disorder respondents, 25.6% had anxiety for 2 months, (46.2% had anxiety for 6 months & 28.2% had anxiety for about 1 year. Among 39 anxiety disorder respondents, 43.5% had anxiety in other family members & 56.5% had not. Anxiety is mostly seen in the smoker groups, this result also similar with another study.²⁵

Finally association between anxiety and smoking habit were investigated through Chi-square analysis. The value of Chi-square is significant at 5% level of significance indicating that

smoking habit, number of cigarette and duration of smoking of the respondents was an important determinant to have anxiety.

Conclusion:

A comparative cross sectional study was conducted to find out association between anxiety and smoking. This study provides information about impact of smoking and anxiety on both smokers and non-smokers. A proportion of anxiety was associated with smoking. Some of the socio-demographic variables had shown influence on anxiety. Middle age respondents 23-27 years were more prone to suffer from anxiety and students were suffering more. Respondents with higher socio-economic condition had high percentage of anxiety. Association between anxiety and smoking habit were investigated. Result indicates that smoking habit of the respondents was an important determinant to have anxiety. Smoking is relatively associated with anxiety disorder.

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