

# Evaluating the Awareness of Anti-depressants and Stress Level Among the Pharmacy Students of Jinnah University for Women

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## ABSTRACT

The aim of this study is to evaluate the awareness of anti-depressants and the stress level of studies among the pharmacy students of Jinnah University for Women. As we know that depression is a prevalent problem among the students now-a-days that affects the student's ability to perform their daily routine activities. A cross-sectional study was conducted using an electronic questionnaire, which was distributed among the Pharmacy students of Jinnah University for Women, in order to evaluate their stress level of studies and to assess their understanding and practice regarding anti-depressants use. It has been concluded by this study, that the majority of the participants as they were the medical students, they were well aware of anti-depressants, its use, over dosage and side effects. Only few of the participants showed poor awareness regarding anti-depressants. Also stress level had been evaluated among the students. The most common antidepressant used was Citalopram. We recommend to conduct a seminar or session regarding the awareness of anti-depressants in future for the students in order to make them completely aware of its uses, side effects and risk factors.

**Keywords:** Anti-depressants; Stress level; Awareness; Pharmacy students

## INTRODUCTION

When a person starts experiencing depressed mood accompanied by showing lack of interest and concentration in the activities that were once enjoyed over an extended period of time i.e., at least 2 weeks. This state of feeling is called as Depression [1]. It mostly occurs in all ages but particularly, the rate of depression is found higher between 12 to 45 years of age. It has been observed that in between 10% to 25% of women and 5% to 12% of men will experience major depression once in their lifetime [2]. The specific cause of depression varies among people, for e.g. in some people, stressful life events like marital issues, loss of loved one, financial is cause is observed, and onset may occur without warning [3]. Theorist has proposed that the factors like be hues, unemployment has been found to be the major cause for depression while in others no specific avioral, cognitive, social and biological influences together or independently develop and maintain the depressive symptoms. Depression whether for a couple of weeks or several years leads to improper life functioning like lack of interest in household activities, unable to work etc? People also undergo some psychological consequences like fatigue, low self-esteem, demotivated, extreme conditions include self-injury or suicidal

attempts. Impaired nutrition, heart or auto-immune disease, abuse or dependence of substance can be its medical consequences [4]. Individuals that suffer from depression mainly avoid social gatherings, tends to isolate themselves and seek a negative approach that leads to loss of social support, divorce in case of marital issues, educational failure or unemployment [5]. With these possible outcomes, the cause and cure of depression becomes critical. The symptoms for major depression include; a depressed mood that persist at least 2 weeks, increase or decrease in appetite, significant weight gain or weight loss, feeling guilty or worthless, insomnia or oversleep, fatigue, lack of concentration, unable to make decisions, suicidal attempts etc. These symptoms affect day to day functioning of people, making them unable to maintain a normal healthy lifestyle. Moreover, depressed moods cannot be caused by the alcohol, medications or as a result of other drug use [6]. Depression is a prevalent problem among the students that affects the student's ability to perform their daily routine activities [7-9].

Depressants are the medication used to treat the symptoms of SAD (Social Anxiety Disorder), dysthymia, mild and chronic depression, Seasonal Affective Disorder and other conditions

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related to depression [10]. There were no anti-depressants before 1950, only two treatments were there to treat the condition, either amphetamine or electroconvulsive therapy. Firstly, Imipramine was found to have the anti-depressive properties, recognized by Kuhn, the second was an anti-tubular drug (Isoniazid) that consists of mood enhancing properties [11-13]. These early studies still summarize much of our current knowledge regarding the therapeutic effects of anti-depressants. Treatment for the depression illness is given in the Table 1.

## RESEARCH METHODOLOGY

A cross-sectional study was conducted using an electronic questionnaire [14], which was distributed among the Pharmacy students of Jinnah University for Women, in order to evaluate their stress level and to assess their understanding and practice regarding anti-depressants use.

### Questionnaire

We designed the questionnaire based on the studies conducted previously [15]. The questionnaire was then distributed among the small sample of Pharmacy students to assure that they clearly understood the questionnaire. The questionnaire was based on the i. Demographic details i.e., age, gender, residency ii. Participant's awareness, viewpoint and practice regarding anti-depressants and iii. Monitoring the stress level among the pharmacy students.

## Statistical analysis

The statistical data were analyzed by using Microsoft Excel (2007). The descriptive data has been summarized in the form of frequencies and percentages. The data has been presented in the form of table and pie charts for the better understanding.

## RESULTS AND DISCUSSION

The result has been mentioned and discussed under the following outlines: i. Demographic details of participants, ii. Participant's awareness, viewpoint and practice regarding anti-depressants and, iii. Monitoring the stress level among the pharmacy students.

### Demographic details of participants

The total number of students participated in this study were 160. We asked three questions in this section from the participants i.e., i. Age, ii. Gender, iii. Residency. Students of three age groups i.e., 17-19 years, 20-22 years, 23-25 years have participated in this study. Among all the age groups, 20-22 year age group had shown the highest number of participants i.e., 78 (48.75%). All the participants were female gender (100%) as they study in a women's university. Majority of the participants (96.25%) lived in cities whereas, few of the participants (3.75%) lived in villages. The demographic characteristics have been mentioned in the Table 2.

**Table 1:** Anti-depressants classes with examples and trade names.

Drug Classes	Abbreviations	Drug Examples	Trade Names	
Selective Norepinephrine Reuptake Inhibitors	SNRI's	Amoxapine	Asendin	
		Desipramine	Norpramin	
		Maprotiline		
		Nortriptyline	Aventyl, Parmelor	
		Roboxetine	Vestra	
		Atomoxetine	Strattera	
Selective Serotonin Reuptake Inhibitors	SSRI's	Citalopram	Celexa	
		Escitalopram	Lexapro	
		Fluoxetine	Prozac	
		Fluvoxamine	Paxil	
		Paroxetine	Zoloft	
		Sertraline		
Norepinephrine and Serotonin Reuptake Inhibitors	NSRI's	Amytryptaline	Elavil	
		Clomipramine	Anafranol	
		Doxepine	Sinequan	
		Imipramine	Tofranil	
		Milnacipram	Ixel	
		Trimipramine	Surmontil	
		Venlafaxine	Effexor	
		Duloxetine	Cymbalta	
Dopamine and Norepinephrine Reuptake Inhibitors	DNRI's	Bupropion	Wellbutrin, Zyban	
Serotonin-2 Antagonist/Serotonin Reuptake Inhibitors	SARI's	Trazodone	Desyrel	
$\alpha$ 2 - Noradrenergic Antagonists/Serotonin Antagonist	NaSSAs	Mirtazepine	Remeron	
		MAOI's	Meclobemide	
			Phenelzine	
			Nardil	
Monoamine Oxidase Inhibitors		Tranylcypamine	Parnate	

Mood Stabilizers	Lithium	Eskalith, Lithobid
	Valproic Acid	Depacon
	Carbamezepine	Tegretol

**Table 2:** Demographic details of participants (n=160).

Variables	Number	Percent	
Age Groups (Years)	17-19	28	17.50
	20-22	78	48.75
	23-25	54	33.75
Gender	Male	0	0.00
	Female	160	100.00
Residency	City	154	96.25
	Village	06	3.75

**Participants awareness, viewpoint and practice regarding anti-depressants**

The awareness of taking anti-depressants to reduce the stress level related to studies had been evaluated by the participant responses that showed 95% of them never use anti-depressants to reduce the stress of studies while 5% of them had admitted that they sometimes take anti-depressants to reduce their stress level of studies. The usage of anti-depressants by the students has been mentioned in Figure 1.

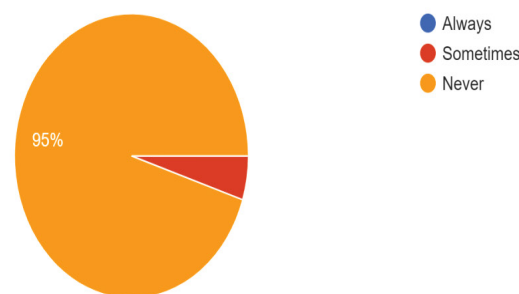
In order to access the awareness, attitude and practice of students regarding anti-depressants, frequent questions were asked that showed majority of the students committed to be safe as they don't use anti-depressants but if needed, they took it in safe dose, as they were the medical students they were much aware of the anti-depressant drugs, its uses, side effects, and it's risk if taken in high doses, Only few of them showed poor knowledge regarding anti-depressants. The most commonly used anti-depressants among the participants was Citalopram (Celexa). It belongs to the class of selective serotonin reuptake inhibitors (SSRI's) anti-depressants; It has shown to be among the well tolerated anti-depressants. It is effective in the treatment of major depression, depressive and panic disorders. It can also be indicated to treat anxiety disorder [16]. The knowledge of stress data seen in students shown in Table 3.

**Monitoring the stress level among the pharmacy students**

The stress level had been monitored in this study by asking frequent questions from the participants, results of which are discussed in detail as under.

**Sadness:** Majority of the students (i.e., 56.3%) showed positive response that they enjoy all their usual daily activities that they were used to enjoy previously, 33.1% of the respondents feel sad much of the time, while the rest (10.6%) showed to be sad all the time due to stress of studies. Sadness is kind of a human emotion that people experienced at certain times in their lives due to some bad situations that cause emotional upset or pain. In normal circumstances, sadness fades away with time and people began to lead their lives normally again but, if the sadness persist for a longer period of time and it starts to affect the person's ability to perform its daily activities than it become a symptom that may be the person is suffering from severe depression [17]. The study showed that majority of the students were not suffering from the depression and were leading their normal lives by enjoying the daily activities, while

Do you take any anti-depressants to reduce the stress of studies?  
160 responses



**Figure 1:** Student using antidepressants.

**Table 3:** Knowledge of awareness in participants about Anti-depressants (n=160).

Variables	Number	Percent
Most commonly used anti-depressants	Citalopram (Celexa)	7 4.37
	Escitalopram (Lexapro)	3 1.87
	Paroxetine (Paxil)	2 1.25
When do you use anti-depressants?	when needed	12 7.50
	Regularly	0 0
	I don't use	148 92.50
If the depression sis not subsidies, What you do?	Ask Physician/ Pharmacist	155 96.80
	Increase dose	5 3.12
When you buy anti-depressant medicine without a prescription, What is your source of information?	Physician/Pharmacist	155 96.80
	I have heard it in radio/TV/social media	2 1.25
	Friend/ Relative advice	3 1.87
Do you think increasing the dose of anti-depressants has side effects?	Yes	155 96.80
	No	5 3.12
	I don't know	0 0

(33.1%) showed mild depression as they were stressed much of the time and they were unable to enjoy those activities that they used to enjoy once, while the rest (10.6%) showed severe depression as they claimed to be sad all the time and. The sadness among students has been evaluated in Table 4.

**Pessimism:** The rate of pessimism was evaluated among the students that showed majority of the participants i.e., 53.1% were

Table 4: Sadness among students (n=160).

Variables	Number	Percent
I don't feel sad	90	56.25
I feel sad much of the time.	53	33.1
I am sad all the time.	17	10.6

not discouraged about their future, 26.9% don't expect things to work out for them, 11.9% felt discouraged about their future whereas, 8.1% felt hopeless about their future. Pessimism is one of the dimensions of the generalized outcome expectancies. In many previous researches, it has shown its importance in predicting depression among various population. This study showed if pessimism had a distinct role in depression among the university students [18]. From the study, it has been observed that majority of the respondents had positive thoughts for their future while some of them showed mild depression and very few showed severe depression (Figure 2).

**Loss of appetite:** This study showed that around 30% of the participants didn't get the proper appetite that they used to have; around 16% of them didn't feel hungry at all whereas, majority (53.1%) had shown the positive response that they get their proper diet that they used to had previously. Appetite is a common but variable diagnostic feature in major depressive disorder. Some of the individuals that suffered through depression manifest increased appetite, while others lose their appetite, loss of appetite in depression is associated with hypoactivation of insular regions that support monitoring the body's physiological state [19]. In this study, we discussed loss of appetite among students as there were no respondents that showed increased in appetite. The above data showed that the stress of studies has affected the appetite of some of the respondents but, the majority of the respondents did not show the symptoms of stress and depression. The effect of depression on student's appetite is summarized in Figure 3.

**Lack of sleep due to depression:** It showed that majority of the participants i.e., 50% get their proper sleep that they used to had whereas, among the other 50% of participants, 39.4% suffered lack of sleep due to stress of studies and 10% suffered from severe depression that can't sleep at all. A good sleep is essential for a person to perform its daily routine, it's quality is interconnected to physical and psychological health and other measures of well-being [20,21]. Individuals who report lack of sleep may be at higher risk for depression through out their lifetime [22,23]. The amount of sleep is correlated with alertness and psychomotor vigilance [24]. The effect of depression on the sleeping pattern of students is described in Figure 4.

**Loss of pleasure:** This study have shown that more than 70% of the students did not suffered from depression and enjoyed everything that they used to, where as some of the students claimed that they had lost the pleasure of enjoying things that they used to enjoy, Also few of the students didn't find pleasure in anything due to depression. Loss of pleasure is among one of the characteristics of depression [25,26]. It is a significant contributor to the global burden of disease and affects people in all countries across the world with a global prevalence of depressive episode of 3.2% [27-31]. The evaluation of loss of pleasure among the students is described in Figure 5.

Pessimism  
160 responses

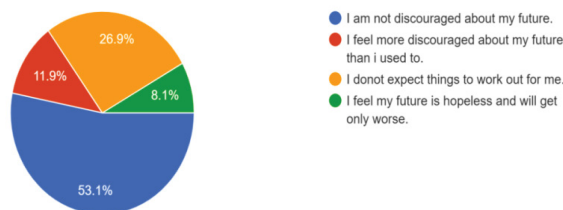


Figure 2: Pessimism among students.

How much depression affects your appetite?  
160 responses

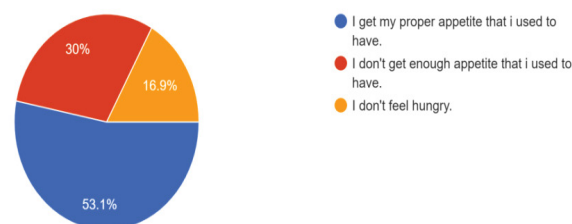


Figure 3: Effect of depression on student's appetite.

How much depression affects your sleeping pattern?  
160 responses

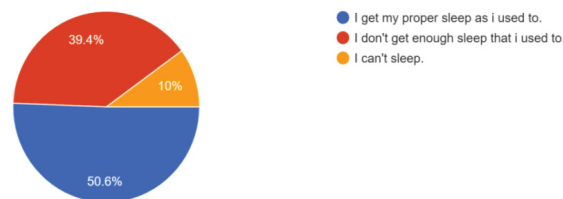


Figure 4: Effect of depression on student's sleep.

Loss of Pleasure  
160 responses

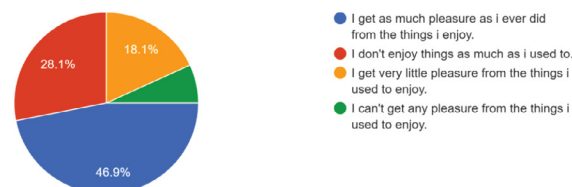


Figure 5: Loss of pleasure among students.

## LIMITATION

The present study dealt only with student's knowledge and awareness about the use of anti-depressants. Future studies should address the same problem with a more diverse sample of multiple populations and more anti-depressant medication. In addition, we conducted this study in one educational facility. Future research should focus on all university education facilities in Pakistan.

## CONCLUSION

This study is conducted to evaluate the stress level and the awareness of use of anti-depressants among the pharmacy students of Jinnah University for women. It concluded that majority of the students (i.e., more than 70%) did not suffer from depression and were leading their normal lives, rest of the 30% suffered from mild depression due to stress related to studies but, study had revealed



that students had shown a little response of anti-depressant's usage to reduce their stress level, majority of the students whether in mild stressed condition, they didn't use anti-depressants. As they were medical students, they had better knowledge regarding anti-depressant's use, its side effects and risk factors so, they didn't prefer to take anti-depressants rather they waited for the symptoms of mild depression to be vanished as time passes. Some of the depressed students had shown the response of using anti-depressants on the advice of medical practitioner and very few students committed self-medication to reduce their stress level. The most common anti-depressant used among the students was citalopram, a selective serotonin reuptake inhibitor. By the study, it concluded that citalopram was used mostly among the students because of its well tolerable activity as an anti-depressant and also because of its effectiveness in anxiety disorders related to depression. We recommend conducting a seminar or session regarding the awareness of anti-depressants in future for the students in order to be completely aware of its uses and risk factors.

## COLLABORATIONS

S.S. Farooqui worked on data collection, questionnaire design and final writing. A. Sadiq worked on data collection and tabulation; A. Kaleem and Q. Pirzada worked on data collection; S. Iqbal and K. Aslam worked on the final writing. S. Naveed guided throughout the study and worked on questionnaire design.

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