

## Predicting Anxiety Among Patients in LPU Clinical Dispensary During Dental Treatment: Towards Student's Clinical Performance Enhancement

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### ABSTRACT

*The study aimed to determine the respondents' profile in terms of age, gender, frequency of dental visit, and type of patient whether dental phobic or not; to determine the dental anxiety of patients in LPU dental dispensary; to identify the causes and severity of anxiety of the patients in LPU dental dispensary; to determine if there is a significant difference between the respondents' demographic profile and their level of anxiety; and lastly, to propose a program that will help the patients cope with dental anxiety and a program that will enhance the students' clinical performance. The study used the descriptive research design with the combination of content analysis of documents and related materials.*

*Results showed that majority of the respondents belonged to age range of 14-18 years old range whereas for gender or sex, majority who avail of the clinic's services are males. This is because women are more afraid than men in terms of dental problems. Further, younger people are more afraid than older ones. The weighted mean distribution of the level of anxiety showed that the level of anxiety of patients varies on moderately to not anxious. Feeling or experiencing pain during dental treatment ranked first followed by the fear or worry of not working the proposed treatment and thirdly, the dentist is in a hurry while treating also made the patients moderately anxious. Overall, the level of anxiety of patients is moderately anxious. Probing to asses gum disease, dislike the numb feeling and injection were the top three causes of dental anxiety.*

*Only type of patient shows significant difference, thus the null hypothesis of no significant difference on the level of anxiety when grouped according to profile variables is rejected. This means that the level of anxiety of both phobic and not phobic differs.*

**Keywords:** Anxiety, Clinical Dispensary, Dental Treatment, Students' Clinical Performance

### I. INTRODUCTION

Dental anxiety is very common in dental procedures. Anxiety can come from many different sources. Most of the time, patients

become anxious during tooth extraction and other dental procedures that need needle injection of anesthetic solution. Patients also differ in degree of anxiety.

Reasons for anxiety are as different as people, but some are more common than others. The most common source is a past bad experience. This is most often from childhood experiences before modern anesthesia and techniques. Another source is phobia of the sights and sounds of the dental office. Many patients do not like the sounds of drills but unfortunately, they are a necessity. Some patients are simply afraid of needles, and this is very understandable.

One of the primary reasons that most people avoid visiting the dentist and seeking dental care is dental anxiety. Whether this stems from a previous bad experience, the media, or friends who have told them horror stories, the result is that they neglect to maintain their dental health by avoiding visits to the dentist, and in turn create more problems (Eddelmen, 2012).

The key factor for good oral hygiene is prevention – stopping problems before they arise. Unfortunately, phobic patients who suffer from severe anxiety do not visit the dentist for regular care. This results to more complex problems ([www.floss.com](http://www.floss.com)).

Like reasons for anxiety, degrees also differ from person to person. Some folks are simply a bit nervous everytime they go to a dental office. They can have slightly elevated blood pressure once they pull into the parking lot which goes down fast as they exit the front door (Eddelmen, 2012).

Other patients get uncomfortable when they see a needle or hear the drill. Many patients are nervous about the anesthetics. Some patients can be so uncomfortable that they have an increased risk for stroke or heart attack due to the spike in blood pressure that anxiety produces. Many of these patients avoid dental work altogether which only worsens their problems later.

Other patients with severe dental fear cannot sit still when the dentist is working, thus they can close to danger due to the instruments in close proximity to their face,

eyes and mouth. This also makes work extremely difficult for the dentist, distracting him from doing a good job.

According to Dr. Neipris, (2010), it's common to feel some anxiety about going to the dentist. A phobia is a much stronger feeling. People with dental phobia are terrified of seeing a dentist. They may never see a dentist, even when they are suffering from bleeding gums or a broken tooth. However, there is no clear boundary between dental anxiety and a phobia.

A person may be having dental anxiety or phobia if: the thought of going to the dentist makes him ill; he has trouble sleeping the night before a dental visit; he feels like crying when he has to see a dentist; and he panics when objects are placed in your mouth during a dental exam.

Bad experiences, usually during childhood, are a major source of dental anxiety. This is despite the fact that dental care has improved dramatically over the last 20 years and pain-free treatments and techniques other than drilling are commonplace today. Sitting in the dental chair - just like being in an airplane - is a situation where one has little control over what is going to happen. It's common to be anxious about that.

If a person hasn't seen a dentist in a while, he may be embarrassed about the appearance of his teeth. He may become self-conscious and insecure and he may avoid smiling. In extreme cases, a person's personal and professional life may suffer (Neipris, 2010).

It is very important to have a dentist who understands the patient's fears, takes them seriously, and works with him to overcome them. If the patient fears pain, he should ask for a *topical anesthetic* to minimize the discomfort of cleanings and minor gum treatments. A *local anesthetic* numbs one's mouth completely for a few hours and blocks out all pain.

If the sound of the dentist's tools bothers him, the patient should bring a music player

with him to the appointment and wear headphones. Music also helps in different relaxation techniques. *Guided imagery* can take one's mind off the things going on around him. He may imagine being a pleasant place with the feel of the gentle breeze on his face and the sound of ocean waves breaking against the shore.

Most importantly, a patient has to have regular checkups. This way, he'll become familiar with the dentist and he'll be able to know problems early, before they become major.

Little is known about the anxiety experience of patients before undergoing dental treatment. Thus the aim of this study is to determine that through dentally phobic patients.

Self-reported dental fear measures are seldom used in clinical practice to assess patients' fears. This study examined how well dental fear measures predicted anxious behaviors displayed during dental treatment.

One of the most prevalent fears is the fear of dentistry. According to the Diagnostic and statistical manual of mental disorders (DSM-IV), severe dental anxiety should be considered a specific phobia. This is defined as a clinically significant anxiety provoked by exposure to a specific feared object or situation, often leading to avoidance behavior and/or significantly interfering with the person's normal routines, occupational functioning, social activities or relationships (DSM-IV, 1994). Thus, dental fear is a widespread problem, which can have significant impact on the individual's health and daily life. It has been suggested that dental anxiety creates its own vicious circle in which the phobic patients' inability to accept dental treatment leads to a real or perceived deterioration of oral health, which in turn can create feelings of shame, guilt and inferiority, subsequently reinforcing fear and anxiety (Berggren, 1994). Moore et al. (1991) proposed that feelings of powerlessness and

embarrassment in the dental situation are important social determinants in the acquisition and maintenance of dental anxiety. The "vicious circle" suggests that with the passing time of avoidance, social conflicts reinforce anxiety and result to further avoidance of dental care. In addition, it has been proposed that the social factors appear to contribute strongly to the maintenance of dental fear, especially in long-term avoiders (Berggren, 1994). Berggren found that majority of dental phobic patients felt that they had to curtail their social relations, and many reported widespread negative social life effects. This included family relations and perceived social support and provides further support to the vicious circle (Berggren, 1993).

With the aforementioned, the researcher believes that dental anxiety causes patients to refuse dental treatments that lead to deterioration of their oral health. Student clinicians had difficulties in handling anxious patients. Thus, the researcher had an idea of conducting this research to investigate the patient's anxiety during dental treatments so that it can help the student clinicians to improve their clinical practice and to render dental services to patients without anxiety.

Furthermore, the researcher believes that this study will have significance to the patients, clinicians and clinical instructors by providing an insight in increasing the emphasis of anxiety management in health education. In addition, student clinicians would have more insights on how to handle anxious patients responsibly. They are also expected to have better understanding of the role of anxiety in enhancing their clinical performance.

## **II. OBJECTIVES OF THE STUDY**

In this study, the researcher had the following objectives: 1) to determine the respondents' profile in terms of age, gender, frequency of dental visit, and type of patient whether dental phobic or not; 2) to determine the dental anxiety of patients in LPU dental

dispensary; 3) to identify the causes and severity of anxiety of the patients in LPU dental dispensary; 4) to determine if there is a significant difference between the respondents' demographic profile and their level of anxiety; and lastly, 5) to propose a program that will help the patients cope with dental anxiety and a program that will enhance the students' clinical performance.

### **III. MATERIALS AND METHOD**

#### **Research Design**

The study used the descriptive research design with the combination of content analysis of documents and related materials. The respondents of the study were the patients in the dental dispensary unit of the LPU-Batangas, College of Dentistry who received dental treatments from dental clinicians.

#### **Subjects**

Patients who received dental treatments in the dental dispensary unit of LPU College of Dentistry in SY 2011-2013 had a total population of 234. Using the Slovin's formula with 7% margin of error, one hundred nine (109) respondents were randomly selected to answer the questionnaires and predicted the level, severity and causes of their anxiety.

#### **Instruments**

The researcher utilized the following instruments and data gathering techniques in conducting the study, particular in collecting the data. Survey data were collected from dental patients in Lyceum of the Philippines University- Batangas, College of Dentistry. Prior to their administration, the questionnaire and research methodology were reviewed and approved by the Research Department of the university.

A modified version of the Dental Anxiety Survey (MDAS) was used in this study. The Cohra's Dental Anxiety Scale (CDAS) was modified by adding a fifth question relating to local anaesthetics as it is a major cause of anxiety for many individuals. The answer options were also modified so that the same options were available for all five questions, and they were rephrased to be in a more clear order of anxiety. The MDAS is now the most frequently used dental anxiety questionnaire in the United Kingdom.

Each item scored as follows:

- 1= Not anxious
- 2= Slightly anxious
- 3= Fairly anxious
- 4= Very anxious
- 5= Extremely anxious

Total score is a sum of all five items, range 5 to 25: Cut off is 19 or above which indicates a highly dentally anxious patient, possibly dentally phobic. ([www.sitalchauhan.pwp.blueyonder.co.uk](http://www.sitalchauhan.pwp.blueyonder.co.uk)).

#### **Data Collection Procedures**

In determining the instrument's validity, the researcher presented the questionnaire she constructed to her colleagues and dean for comments and suggestions. The researcher included all the suggestions in modifying the said questionnaire for further improvement. Dry-run of the questionnaire was conducted and the necessary revisions were made for more clarity and exactness before finally administering the survey.

For the research design of this study, the questions were revised so that they may be applied to the clinical and didactic aspects of dental school training. To accomplish the said task, questions that pertain to dental training were changed to reflect a neutral health care

setting. The essential purpose of the question remained intact.

## Data Analysis

The research questions, methods, and appropriate statistical design for this study are: ANOVA, t-test and, Pearson's correlation. Descriptive statistics was used to answer the research questions. ANOVA and individual t-test were used to determine the differences that exist by gender, by age, by race, and by year in school for perceived levels of stress, sources of stress and for methods of managing stress.

Pearson's r correlation was used to know if there is a relationship between the major sources of stress and the levels of perceived stress among college students. It was also used to know if there is a relationship between the amount of stress perceived by college students

and the amount of time they spend involved in stress reducing or relaxing activities.

Descriptive Statistics includes means, standard deviation, ranges and percentage. These were used to determine the major sources of stress the college students perceive and the methods they actively participate in to reduce stress.

## IV. RESULTS AND DISCUSSION

This presents an analysis of the data collected according to the methods and procedures described in the Method. This analysis includes a reiteration of the purpose of the study and the results of the demographic data collected on the sample of dental patients in the clinical dispensary of Lyceum of the Philippines University who responded to the survey.

TABLE 1  
Percentage Distribution of the Respondents' Profile

<b>Profile Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Age</b>		
14-18 years old	47	43.10
19-25 years old	34	31.20
26-35 years old	9	8.30
36-45 years old	9	8.30
46-60 years old	8	7.30
61-70 years old	2	1.80
<b>Sex</b>		
Male	60	55.00
Female	49	45.00
<b>Frequency of Dental Visit</b>		
Every month	14	12.80
Every 6 months	16	14.70
Once a year	70	64.20
If only needed	9	8.30
Never	-	-
<b>Type of Patient</b>		
Dental Phobic	40	36.70
Not Phobic	69	63.30

As seen from table 1, majority of the respondents belongs to age range of 14-18 years old (43.10%) whereas for gender or sex, majority who avail of the clinic's services are males (55%). This is because women are more afraid than men in terms of dental problems. Further, younger people are more afraid than older ones.

TABLE 2  
Level of Anxiety

Level of Anxiety	Weighted Mean	Verbal Interpretation	Rank
1. The proposed treatment will not work.	1.07	Moderately Anxious	2
2. I will disappoint my dentist because of my teeth.	0.79	Moderately Anxious	6
3. The dentist will not be happy about my teeth	0.71	Moderately Anxious	8
4. I will not have enough time to talk about the proposed treatment.	0.47	Not Anxious	17
5. The dentist does not share my concern about my teeth.	0.70	Moderately Anxious	9
6. The dentist does not care about me as a person.	0.62	Moderately Anxious	12
7. The dentist is in a hurry while treating me.	1.06	Moderately Anxious	3
8. I could feel some pain during the treatment.	1.17	Moderately Anxious	1
9. I think that my face will stay frozen.	0.60	Moderately Anxious	13
10. Comments are made during the procedure.	0.75	Moderately Anxious	7
11. I should have brushed my teeth more regularly.	0.80	Moderately Anxious	5
12. Something will go wrong during the procedure.	1.04	Moderately Anxious	4
13. The dentist/operator is expecting too much from me.	0.65	Moderately Anxious	11
14. I am not convinced that the treatment is really required.	0.54	Moderately Anxious	14
15. I spend too much time in the waiting area.	0.49	Not Anxious	16
16. The dentist is often late in relation to my appointment.	0.17	Not Anxious	20
17. I am afraid or not eased to ask questions.	0.28	Not Anxious	19
18. The dentist always gives me bad news.	0.67	Moderately Anxious	10
19. I can't ask questions because they will know I don't understand.	0.37	Not Anxious	18
20. The dentist doesn't tell me what is happening during treatment.	0.52	Moderately Anxious	15
<b>Composite Mean</b>	<b>0.67</b>	<b>Moderately Anxious</b>	

Legend: 0.01 – 0.49 = Not Anxious; 0.50 – 1.49 = Moderately Anxious; 1.50 – 2.49 = Anxious; 2.50 – 3.00 = Extremely Anxious

Stabholz, et.al. (1999) supports this analysis. Their study mentioned that women report more dental fears than men while younger people tend to be dentally fearful than older individuals.

Marya, CM, et. al (2012) supports the analysis. Their study mentioned that age factor was seen to be significantly related to dental anxiety. The anxiety levels of younger age groups ('less than 20' and 20-30 years) were significantly higher than the older age groups (51-60 and 'above 60' years). The anxiety levels of the 51-60-year age group were significantly lower than the other age groups.

Kanegane, et. al (2009), also stated that older patients have often undergone more dental care in their lifetime, possibly facilitating habituation and enabling favorable reevaluation of the experience.

In a study of Moore, et. al., 2002, women were better regular attenders than men. Specialist treated regular attenders were significantly less anxious and had more positive beliefs. Majority of the respondents only seek dental treatments once a year (64.20%) and they are not dental phobic (63.30%).

This only showed that patients that came in the dental dispensary of LPU College of Dentistry were already educated with regards to proper oral care and they were already familiar with different dental treatments.

As shown in Table 2, the level of anxiety of patients varies on moderately to not anxious. Feeling or experiencing pain during dental treatment ranked first with a weighted mean of 1.17 followed by the fear or worry of not working the proposed treatment with a weighted mean of 1.07. The dentist is in a hurry while treating also made the patients moderately anxious with a weighted mean of 1.06.

These were followed by the thought of something that may go wrong during the procedure (1.04), brushing teeth more regularly (0.80), disappointing the dentist (0.79), comments made during the procedure (0.75), dentist will not be happy about the patients' teeth (0.71), dentist does not share concern on patients' teeth(0.70), and giving bad news by the dentist (0.67).

Other variables like dentist expecting too much from patients with a mean of 0.65, dentist does not care about patients as a person (0.62), thinking that the face will stay frozen (0.60), not being convinced that the treatment is really required (0.54), and dentist does not tell what is happening during treatment (0.52) also made the respondents moderately anxious.

People fear what they do not understand and they also, logically, dislike pain. If someone has had one or more painful past experiences in a dental office then their fear is completely rational and they should be treated supportively (Dental Fear Central, 2004)

Sufferers from fear of pain, in terms of dental health, are unable to visit dentists because of a prior painful memory when these patients were young. Fearful patients remember the visit as a particularly painful one. This memory manifests later in life as an unconscious desire not to visit the dentist resulting in dental appointments being constantly delayed or missed entirely (preemptivehealing.com).

Most people prefer not to suffer pain. For dental phobics, however, just the mere idea of pain is far worse than the actual pain itself. Ironically, because these patients are unable to regularly visit dentists, they suffer almost constant pain from their neglected teeth.

It is important to note that the fear of pain from visits to the dentist is often from memories of long ago. These memories tend to become warped over time. Modern dental practices have reduced the pain involved in dental procedures from what they were even as recently as a decade ago.

People afflicted with this type of phobia often do not receive suitable levels of dental care. By not having any sense of relationship with the dentist, these people are unable to articulate fears or get any kind of professional reassurance. By staying away from dentist, these patients further increase fears since nobody is able to provide information that will counterbalance the imaginations and are stuck

with a mental picture of the dentist based on painful childhood memories ([www.dentalfearcentral.org](http://www.dentalfearcentral.org)).

According to the study of Kanegane, et. al, (2003), fear is a primary emotion that indicates that a dangerous situation was recognized, leading the individual to concentrate all his attention on this event. Anxiety represents a fear which was transferred from a real to an imaginary situation, resulting from similar facts or that recall a previous situation.

Once patient seats on the dental chair, they were already anxious and different thoughts

came to their minds. The level of anxiety increased when these patients feel any discomforts and pain, and will thought that the proposed treatment will not work because of the severity of the case. Phobic patients were also anxious if they feel or see that the dentists were in a hurry in doing the treatment because they were afraid that the said treatment may fail or the dentist may hurt or injured them.

Table 3 presents the causes of dental anxiety with regards to pre-operative procedure.

TABLE 3  
Causes of Dental Anxiety with Regards to Pre-operative Procedure

Pre-Operative Procedure	Weighted Mean	Verbal Interpretation	Rank
1. I think I have a problem with my teeth.	1.15	Slightly Anxious	1
2. I think that I have to go to the dentist	1.08	Slightly Anxious	2
3. I call to make an appointment.	0.64	Slightly Anxious	11.5
4. I arrive at the dental office	0.72	Slightly Anxious	10
5. I am in the waiting room.	0.59	Slightly Anxious	15
6. I smell various odors in the dental office.	0.49	None	18
7. I heard sounds of instruments in the dental office.	0.64	Slightly Anxious	11.5
8. I sit in the dental chair.	0.94	Slightly Anxious	7
9. The dentist examined my teeth.	1.04	Slightly Anxious	4
10. I don't understand what the dentist is explaining a needle is used to freeze me	0.46	None	20
11. I feel numbness in my mouth from freezing.	0.62	Slightly Anxious	13.5
12. I feel the scratching on my teeth by the instrument.	0.95	Slightly Anxious	5.5
13. The drill is making high pitch sound.	0.95	Slightly Anxious	5.5
14. The dental instruments are used in my mouth.	1.07	Slightly Anxious	3
15. I think I could choke during dental instrument.	0.62	Slightly Anxious	13.5
16. The rubber dam is used. (because I am afraid to choke or gag.)	0.48	None	19
17. I realize that I will not see the work being done in my mouth.	0.52	Slightly Anxious	17
18. I feel the vibration of the drill.	0.91	Slightly Anxious	8
19. I hear the staff converse during the procedure	0.56	Slightly Anxious	16
20. During treatment, I am afraid to move because of the precision of the work done by the dentist.	0.77	Slightly Anxious	9
<b>Composite Mean</b>	<b>0.76</b>	<b>Slightly Anxious</b>	

Legend: 0.01 – 0.49 = None; 0.50 – 1.49 = Slightly Anxious; 1.50 – 2.49 = Very Anxious; 2.50 – 3.00 = Extremely Anxious

Table 3 showed that the thought of having problems with their teeth (1.15), going to the dentists (1.08), and the dental instruments that are being used in their mouth (1.07) were the top three causes of dental anxiety with regards to preoperative procedures which obtained a rating of "slightly anxious."

Other causes like examination of teeth by the dentist (1.04), scratching of instruments on teeth (0.95), high pitch sound of drills (0.95), sitting in the dental chair (0.94), feeling of

vibration of drill (0.91), being afraid to move because of the precision of the work done by the dentist during treatment (0.77), and arriving at the dental office (0.72) made also the respondents slightly anxious.

According to Levitt (2012), the thought of going to dentists to have dental treatments make patients already anxious. Thoughts or beliefs that involve catastrophic events can paralyze a dental patient.

**TABLE 4**  
Causes of Dental Anxiety During Dental Treatments

<b>During Dental Treatments</b>	<b>WM</b>	<b>VI</b>	<b>Rank</b>
1. Sound or vibration of the drill	1.06	SA	11.5
2. Not being numb enough	1.02	SA	13
3. Dislike the numb feeling	1.26	SA	2
4. Injection	1.25	SA	3
5. Probing to assess gum disease	1.38	SA	1
6. The sound or feel of scraping during teeth cleaning.	1.08	SA	8.5
7. Gagging, for example during impressions of the mouth	0.85	SA	17
8. X-rays	0.47	N	26
9. Rubber dam	0.76	SA	23
10. Jaw gets tired	1.06	SA	11.5
11. Cold air hurts teeth	0.95	SA	14
12. Not enough information about procedures	0.83	SA	20
13. Root canal treatment	1.24	SA	4
14. Extraction	1.23	SA	5
15. Fear of being injured	1.19	SA	6
16. Panic attacks	1.08	SA	8.5
17. Not being able to stop the dentist	0.83	SA	20
18. Not feeling free to ask questions	0.84	SA	18
19. Not being listened to or taken seriously	0.92	SA	16
20. Being criticized, put down, or lectured to	0.93	SA	15
21. Smells in the dental office	0.52	SA	25
22. I am worried that I may need a lot of dental treatment	1.07	SA	10
23. I am worried about the cost of the dental treatment	1.17	SA	7
24. I am worried about the number of appointments and treatment; time away from work, or the need for child care or transportation	0.83		20
25. I am embarrassed about the condition of my mouth.	0.78	SA	22
26. I don't like feeling confined or not in control	0.69	SA	24
<b>Composite Mean</b>	<b>0.97</b>	<b>SA</b>	

Legend: 0.01 – 0.49 = None (N); 0.50 – 1.49 = Slightly Anxious(SA); 1.50 – 2.49 = Very Anxious(VA); 2.50 – 3.00 = Extremely Anxious (EA)

Sometimes a patient has been inappropriately spoken to by a dentist, hygienist or other member of staff. Remarks about a patient's dental condition or at home dental care or simply a condescending attitude can make a patient feel embarrassed or ashamed.

Some people have had painful encounters with the dental "drill". Thinking of the sound alone will make patients feel very anxious. Many people are scared of the sight of instruments being put into the mouth. Many people find that having a better look at "the drill" aka the handpiece, and having it demonstrated on finger, takes a lot of the fear away. Or else, some people find that simply closing the eyes works while receiving dental care. On the other hand, there are people who like to see exactly what is going on, in which case he can ask his dentist to show him what he is doing with the help of mirrors.

Many people equate the sound of the drill with pain. The logic behind this is simple: if he had a painful dentistry experience in the past which was accompanied by the sound of a dental tool, he has come to associate the sound with pain. Just hearing the sound may evoke a "perception" of pain ([www.dentalfearcentral.org](http://www.dentalfearcentral.org)).

The causes of dental anxiety during dental treatment vary mainly on slightly anxious having a composite mean of 0.97 as shown in Table 4. Among the causes given, probing to assess gum disease (1.38), dislike the numb feeling (1.26) and injection (1.25) were the top three causes of dental anxiety.

Root canal treatment, extraction, fear of being injured, cost of dental treatment, sound or feel of scraping during teeth cleaning, panic attacks, and the need of having lots of dental treatment were also noted as causes of anxiety during dental treatment with a weighted mean of 1.24, 1.23, 1.19, 1.17, 1.08, 1.08, and 1.07 with a verbal interpretation of "slightly anxious".

Levitt (2012), stated that patients were slightly anxious in probing their gums maybe because they had no idea about the procedure and they were afraid that their gums may be injured or bleeds. Needles are often a specific concern for anxious patients. Problems with needles can include the inability to accept a dental injection.

The fear of the needle including fear of pain associated with the injection; fear that the needle will slip or move or break; fear that the needle will not provide sufficient anaesthesia and pain increases the patient's anxiety.

Based from the result in Table 5, only type of patient shows significant difference since the obtained p-value of 0.006 is less than 0.05 level of significance, thus the null hypothesis of no significant difference on the level of anxiety when grouped according to profile variables (type of patient) is rejected. This means that the level of anxiety of both phobic and non-phobic differs.

TABLE 5  
Difference of Responses on the Level of Anxiety When Grouped According to Profile Variables

Profile Variables	F <sub>c</sub>	p-value	Interpretation
Age	1.467	0.207	Not Significant
Sex	0.664	0.417	Not Significant
Frequency of Visit	2.215	0.091	Not Significant
Type of Patient	7.865	0.006	Significant

Legend: Significant at p-value < 0.05

According to Armfield, et.al (2007), phobic dental patients experience significant increase in anxiety, and significant negative quality-of-life effects, before attending to dental treatment. People who are very fearful of dental care often experience a "cycle of avoidance," in which they avoid dental care

due to fear until they experience a dental emergency requiring invasive treatment, which can reinforce their fear of dentistry. However, other variables do not show significant

difference and implies that whatever if the respondents' age, sex and how long they visit the dentist, their level of anxiety do not varies.

**TABLE 6**  
**Proposed Action Plan For Student's Clinical Performance**

<b>Area of Concern</b>	<b>Objectives</b>	<b>Activities</b>	<b>Person/s Involved</b>	<b>Expected Outcome</b>
1. Effective Communication Assessment and Training Program	To measure the student's ability to communicate to other people and to express their ideas and feelings.	Role playing Workshops Open forum/sharing of experiences counselling	Faculty members Deans Department Heads Guidance Counsellor Dentistry Students	Students will be able to express their emotions, employing emotional knowledge and skills.
2. Stress management Course	To know and understand the different stress management and relaxation techniques.	Seminar and Workshops Aerobic exercises meditation	Lecturer/Resource Speaker Faculty Dentistry Students	Student clinicians will be responsible in managing dental procedures properly with relaxed and stress-free environment.
3. Cognitive-Behavioral Skill Training	To help the students modify their knowledge and skills in doing clinical cases.	Workshop Role playing Lecture	Deans Department Heads Guidance Counsellor Dental Students	Students will be able to manage dental procedures properly without causing anxiety to their patients.
4. Time and Life Management Course	1. To provide courses and seminars that will train the students to	Lecture Seminars/workshops	Resource Speaker Faculty Member Paramedical Students	The students will be able to set goals, identify their roles and
	manage time and life not limited to academic setting.			priorities, and be good in decision-making.
5. Comprehensive and Qualifying Examination	To assess student's preparedness in handling clinical cases dental problems.	Written and Practical Examination	Dean, Department Chair Chief of Clinic, Section Heads and Dentistry Students	Dentistry students will be able to apply the knowledge and skills in doing clinical procedures to their patients.

## V. CONCLUSION AND RECOMMENDATION

Sex, age and the frequency of dental visit appeared to be important factors linked to dental anxiety, with males being particularly common within the dentally anxious group in the population. Patients receiving dental treatments in the Clinical Dispensary of the College of Dentistry were slightly anxious of the different dental procedures. Dental anxiety is a multidimensional complex phenomenon, which is influenced by characteristics like fear of pain, past traumatic dental experiences in childhood, and dentally anxious family members or peers. Severe dental anxiety is a major barrier to seeking professional dental care, and the implications of this in terms of dental disease are significant in terms of deterioration of their dentition, and a range of psychosocial problems. Observed anxiety and self-reported anxiety were not related to previous experience with either the patient or the particular treatment.

Dental clinicians, clinical instructors and school administration may continuously provide dental education and extend programs to the community in order for them to be aware of the oral diseases that they may experience because of their anxiety. A continuous study and upliftment of skills and knowledge must be acquired by dental clinicians to be able to share and render the best dental service to their patients. The dental clinicians should establish good rapport with their patients for efficient treatment. Dental clinicians should acquire good communication skills so they can explain well the procedures, treatments, dental materials that will be used in the treatment as well as the cost of the said treatment to their patients. The dental dispensary of LPU College of dentistry should be equipped with Virtual Reality- like glasses that provide both visual and auditory distraction by allowing the patients to view videotapes through these glasses while having dental work done. Clinicians may provide patients with one or two of the following -

walkman, books and magazines while they are waiting in the dental dispensary to relax their minds and lessen their anxiety.

## REFERENCES

- Aartman IHA. (1998). Reliability and validity of the short version of the Dental Anxiety Inventory. *Comm Dent Oral Epidemiology*.
- Al-Harasi S, et al. (2010). Hypnosis for children undergoing dental treatment. *Cochrane Database of Systematic Reviews*.
- Anderson, J.W. (1997). Fear in dental chair. *Oral Health*.
- Armfield, J.M, et.al, (2007). "The vicious cycle of dental fear: exploring the interplay between oral health, service utilization and dental fear".
- Bracha HS, et.al, (2006) "Posttraumatic dental-care anxiety (PTDA): Is "dental phobia" a misnomer?". *Hawaii Dent J*.
- Buchanan H, et. al, (2007). "Accessing dental anxiety online support groups: an exploratory qualitative study of motives and experiences". *Patient Educ Couns*.
- Berggren U. (1992). Assessment of dental fear: a comparison of two psychometric instruments. *Acta Odontol Scand*.
- Cohen, S.M., et al.(2000). The impact of dental anxiety on daily living., *British Dental Journal*.
- Coldwell, S.E. et al.(2007). "Combining alprazolam with systematic desensitization therapy for dental injection phobia". *J Anxiety Disord*.
- Dental Fear Central. (2007). "Tips for Abuse Survivors and Their Dentist.
- Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), 1994.
- Dionne, S., et.al. (2008). Dental Fear and Anxiety as a Barrier to Accessing Oral Health Care Among Patients with Special Health Care Needs.
- Eddleman, L., (2012). DDS. Family Dentistry, Monroe, L.A. www.eddlemandental.com.
- Freeman, R. Queens University Dental School, Belfast, 2012.
- Hannah, et.al. A communication Skill Course for Undergraduate Dental Students, *Journal of dental Education*, 2004.

- Haugejorden O, et.al. Avoidance of dental visits: the predictive validity of three dental anxiety scales. *Acta Odontol Scand*, 2000.
- Jerome, L. "The Art and Science of Distraction, 2004.
- Kaakkko T, MD, et.al. Dental anxiety among new patients attending a dental school emergency clinic. *J Dent Educ* 1999.
- Kanegane, K, et. al. Dental Anxiety and Salivary Cortisol Levels before Urgent Dental Care. *Journal of Oral Science*, 2009.
- Levitt, J., DDS. Dental anxiety Assessment, Fear of Dentist, Ontario, 2012.
- Liddell A, et.al. Gender and Age Differences in Attitudes to Dental Pain and Dental Control. *Community Dent Oral Epidemiology*, 1997.
- Lundgren J, et. al. "Relaxation versus cognitive therapies for dental fear—a psychophysiological approach". *Health Psychol*, 2006.
- Marya, CM., et.al. Dental Anxiety Among Patients Visiting a Dental Institute in Faridabad, India. *West Indian Medical Journal*, 2012.
- Milgrom P, et.al. The prevalence and practice management consequences of dental fear in a major US city. *J Am Dent Assoc* , May, 2006.
- Moore, et. al. A 3-year comparison of dental anxiety treatment outcomes: hypnosis, group therapy and individual desensitization vs. no specialist treatment. *Europe Journal of Oral Science*, 2002.
- Neipris, L., MD., Dealing With Dental Phobia, My Optimum Health, 2010. [www.myoptumhealth.com](http://www.myoptumhealth.com).
- Nicholas, E, et.al. Dental difficulty for adult patients undergoing different dental procedures according to level of dental anxiety. France: 2008.
- Peretz, B., et.al. Dental Anxiety Among Patients Undergoing Endodontic Therapy, Published online: 1 Jun 2007
- Rocha RG, et. Al. Dental Anxiety in an Emergency Dental Service. SP, Brazil, 2000.
- Rosa AL, et. Al. Dental Anxiety in Patients Undergoing a Routine Dental Treatment. SP, Brazil, 1997.
- Sarvela,et al. Evaluation and Measurement: A Practitioner's Perspective, 2<sup>nd</sup> ed., 2010.
- Stabholz, A. et.al. "Dental anxiety among patients prior to different dental treatments". *Int Dent J*, 1999.
- Understanding Anxiety Mind. [www.mind.org.uk](http://www.mind.org.uk), published 2009.