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**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1248861>Available online at: <http://www.iajps.com>**Research Article****AN ASSESSMENT OF DENTAL STUDENTS SATISFACTION  
WITH THE TEACHING METHODOLOGIES EMPLOYED AT  
DENTAL COLLEGES**<sup>1</sup>Syeda Fatima Zahra, <sup>2</sup>Aleena Ali, <sup>3</sup>Syed Basat Raza Naqvi, <sup>4</sup>Syeda Nighat Fatima,  
<sup>5</sup>Maria Safdar<sup>1</sup>Islamic International Dental College Islamabad, Pakistan<sup>2</sup>Punjab Medical College Faisalabad, Pakistan<sup>3</sup>Islamabad Medical and Dental College, Pakistan<sup>4</sup>Army Medical College Rawalpindi, Pakistan<sup>5</sup>Islamic International Dental College**Abstract:**

**Introduction:** In the today's competitive world there is a great need of quality assurance among each and every field especially education. Despite their extraordinary infrastructure many institutes fail to provide quality education to the students. In such circumstances purpose of our study was mainly focused toward having an insight of the quality of education in the field of dentistry. And also with the advent of modern educational methodologies, the learner has the major role in deciding his learning styles, so this study also focuses on what and how students want in their curriculum.

**Methods:** This research was cross sectional and it used a questionnaire based survey to evaluate the degree of student satisfaction regarding teaching methodologies followed at their dental colleges. The data was analyzed using SPSS v 17.0.

**Results:** The results obtained by our research showed a high degree of satisfaction among the dental students regarding their teaching methodology. The result obtained was that none of the student showed signs of high dissatisfaction but there were 16/127 i.e. 12.6% of the students who were Dissatisfied and remaining 87.4% i.e. 111/127 of the students were satisfied in which 23/127 18.1% were greatly satisfied with their teachers' way of educating them. **Conclusion:** This research provided a proposal to all the dental colleges of Pakistan that they should keep a record of what the students want. This provides the student an encouragement to express their views and also enable the students to take a central role in the system of education.

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**INTRODUCTION:**

In a rapidly changing educational world with a paradigm shift towards student centered education, students' opinions have an important role in education. With this modernization of education in the 19Th century, and the influence of psychologists, some educators have greatly reinstated the old, conservative and traditional curriculum approaches with "hands-on" activities and "group work", in which the student determines on their own what they would want to do in class. Therefore, Student-centered learning means capsizing the "traditional" teacher-centered perceptive of the learning process and putting students at the center of the learning process. The most striking feature amongst these changes is the basis that students actively build up their own learning.

If we look in our history we will find out that theorists like *John Dewey*, *Jean Piaget* and *Lev Vygotsky* were the pioneers and great supporters of "learner-based education". *Carl Ransom Rogers* a well-known and influential American psychologist was one of the founders of the **humanistic approach** (*Or client-centered approach*).<sup>(1)</sup>

He applied this approach to education as well and gave a "New Learner Model" in which he gave five hypothesis regarding student centered learning, which were: -

1. "A person cannot teach another person directly; a person can only facilitate another's learning.
  2. "A person learns significantly only those things that are perceived as being involved in the maintenance of or enhancement of the structure of self"
  3. "Experience which, if assimilated, would involve a change in the organization of self, tends to be resisted through denial or distortion of symbolism"
  4. "The structure and organization of self appears to become more rigid under threats and to relax its boundaries when completely free from threat"
  5. "The educational situation which most effectively promotes significant learning is one in which
    - (b) Differentiated perception of the field is facilitated"
- (Roger 1951)

*Maria Montessori* an Italian Physician and educator laid the practical example of Student centered learning by introducing the "*Montessori Method*";<sup>(2)</sup>"A method of educating young children that stresses development of a child's own initiative and natural abilities, especially through practical play".

Although this method included children of age below 12 years but still it prompted educationists to let the children deal with abstract concepts based on their build in powers of reasoning their acts, visualizing their problems, imagining and creating the solutions to their queries. In this way of learning the students are allowed to polish their own skills of educating themselves?

**Student Satisfaction an Important factor in Student Centered Learning**

History reveals that student centered learning has many advantages and among them the most productive benefit is the accomplishment of the satisfaction of each and every student present in the class, which is also known as "Self Determination".<sup>(3)</sup> This can be explained by *Self-determination theory* which focuses on "The extent to which an individual's performance is self-motivated and 'self-determined'".<sup>3</sup>

Student Satisfaction itself is defined by *Oliver & DeSarbo, 1989* as "The favorability of a student's subjective evaluation of the various outcomes and experiences associated with education"<sup>(4-6)</sup> which means the fulfillment of the students' requirements and expectations regarding the education provided to them.

Therefore, when students are given the chance to gauge their learning, learning becomes an incentive. Therefore, in term of curriculum practice this type of learning focuses on finding out the contentment level of the students in respective classes and allows the students to make the addition in the curriculum that he think would help him and deducting things he think are not beneficial and are wasting his time, on the basis of their new found knowledge.

So to start with changing our education system we must begin with assessing the level of student satisfaction to his existing learning style and educational setup. According to the hypothesis given by Roger it is evident that the learner should be able to express his self in an environment in which the "threat is minimum" i.e. the student is allowed to freely utter his desires. This also provides a quality assurance system in which the people keeping the check and balance of the education system are the one being educated himself. This will make the student an active participant of the learning system rather than the passive receptive one.

In Pakistan there is a great need to bring such a system in which students' opinions are brought to light. This technique is followed in other countries like Australia, America, turkey and Bosnia to assess the degree of satisfaction in general students related to the field of business and school going children

For example, In Australia a study was done on postgraduate students of two universities, in order to find out what steps government should take in student's view to improve their education quality<sup>(6)</sup> Similarly, a research was done on 492 university students The aim of this study was to determine the relationships among styles of coping with stress, decision self-esteem, decision-making styles and life satisfaction.<sup>(7)</sup>

The research was also carried out for the medical students of final year in Sarajevo University in December 2011. Questionnaire has 24 process and outcome variables for the purpose of quality assessment of the education at the Medical faculty.<sup>(8)</sup> The research was also done on dental students in other country while the most important being Malaysia<sup>(9)</sup> and Saudi Arabia. In Saudi Arabia a research was done in King Saud University Dental School in which satisfaction was check among senior students and interns.<sup>(10)</sup> So there was great need for country like us to promote our learning style to a high level.

### Aims and Objectives

As mentioned earlier student satisfaction plays an important role in the maintenance of educational systems, so it was necessary to evaluate it in order for the development of educational system in Pakistan. On a short term, this research was to determine the level of satisfaction of student's

### Short Term Objectives

- To find out the level of contentment of student to the methods of teaching followed to educate them in dental schools.
- The presence of portion of dissatisfied population was confirmed for future research and statistical values.
- To provide a platform to the students to express their views and opinions.
- Making the student realize his/her importance in building up an educational system.
- The needs of student regarding their curriculum were brought to light and so these are no longer ignored.
- This study helped to determine the preferences of most students as in which manner and method they preferred to be taught according to.

### Long term Objectives

- To provide a simple educational method to all the dental colleges.
- This research if carried out in all the dental colleges of Pakistan can provide a quality assurance system for the educational system.

- This will help to improve the level of dental education in colleges of Rawalpindi and Islamabad.
- To promote Learner Based Education in the dental colleges among Pakistan.
- This Research provided us with an overall insight of student satisfaction level and may aid in future researches

### MATERIALS AND METHODS:

For evaluating the level of student satisfaction we can adopt three methods

1. Observational Study
2. Administrative Recording
3. Survey Method

But for our study methods of measurement by observation, administrative records, and interviews would have been inconclusive.

**Observational studies** are designed to observe a group of people from a particular point in time and report on what happened to them, and this method is incapable of reading an individual's satisfaction accurately and may miss it all together, unless the person is a trained psychiatrist which adds an additional component to the study. Colleges usually don't have any administrative record in which they can keep the record of student suggestions and complaints, and even if they're present they are not considered seriously.

### Study Design

Based on our study type the method chosen for this research is Survey Method in this Cross Sectional Questionnaire was designed distributed to the dental students that compromise of three sections i.e. Section A, Section B and Section C.

#### Section A

Section A was used to assess the Student satisfaction category by evaluating nine items each having options from strongly disagree to Strongly agree. Therefore, the range of the scores on this likert scale can vary from 9 (lowest satisfaction level) to 36 (Highest Satisfaction Level). The response score was calculated by adding up the score of all 9 items. Therefore, the minimum score was *Highly Dissatisfied student* nine (9) points whereas the highest score thirty-six (36) points represented the *Highly Satisfied Student*. Whereas they progressed 0-4 through options of *Don't Know, Strongly Disagree, Disagree, Agree and Strongly Agree*.

#### Section B

Section B on the other hand comprised of 10 items which were simple, direct, and independent

questions. All the questions were evaluated on individual bases. Each question had its own statistical significance.

### Section C

Section C comprises of the demographic data.

### Sample Size:

The sample size on which the research was conducted was of 127 Subjects. These subjects were the dental students from 1<sup>st</sup> year to 4<sup>th</sup> year of Dental colleges present in Islamabad and Rawalpindi.

15 Students were selected from each class among which 13 were randomly selected and 2 were distributed as follow

1 to the boys' representative

1 to the girls' representative

### Data Collection:

To collect the data from the subjects, a questionnaire was handed out to Dental Students of Private Colleges in Islamabad which were Islamic

International College (I IDC), Rawal Institutes of Health Sciences (RIHS), and Islamabad Medical and dental Hospital (IMDH) and they were assured that their responses will be kept anonymous and were only for the sake of scientific research with no intention of public display or commercial advertising.

### Descriptive statistics were described for the following variables:

- Gender,
- Schooling,
- Year of Schooling
- Dental Colleges,
- Student Satisfaction Score and
- Student Satisfaction category.

### RESULTS:

The following table shows the frequencies and percentages of different variables of demographic data:

**Table 1** – Frequencies and percentages of dental students present at different dental colleges

Dental College	Frequency	Percentage
I IDC	60	47.2
IMDC	45	35.4
RIHS	22	17.3

Table 1: - shows that the frequencies of dental colleges are less in IMDC and RIHS as compared to I IDC this is because unlike I IDC, IMDC and RIHS did not have complete four

**Table 2- Frequency distribution of Gender**

Gender	Frequency	Percentage
Females	98	76.6
Males	29	22.7

**Table 3- Frequencies and Percentages of Previous Student present per year in Dental colleges**

Year Of Study	Frequency	Percentage
1 <sup>st</sup> year	45	35.4
2 <sup>nd</sup> year	37	29.1
3 <sup>rd</sup> year	30	23.6
4 <sup>th</sup> year	15	11.8

**Table 4- Frequencies of Previous Schooling of dental Students**

Schooling	Frequency	Percentage
Metric's/FSC	71	55.9
O/A levels	56	44.1

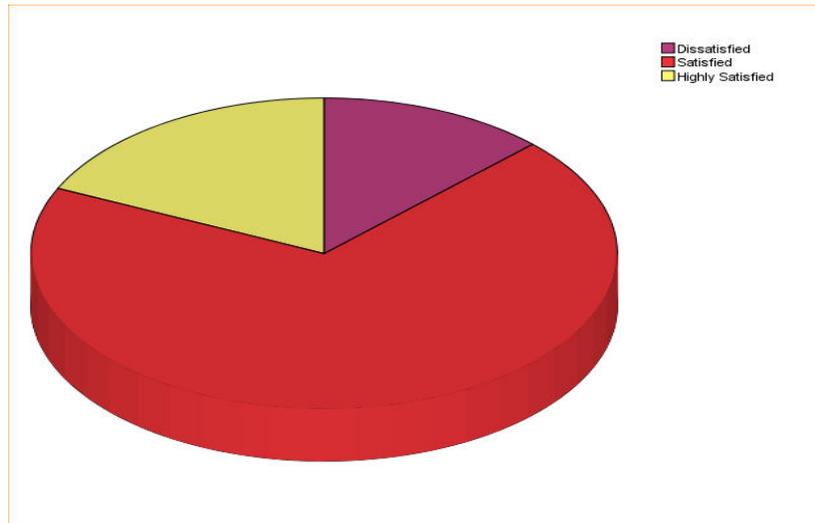
As there were only 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> year of BDS in IMDC and 1<sup>st</sup> and 2<sup>nd</sup> year of BDS in RIHS so the frequency in these colleges automatically decreased as compared to that of 4 years of BDS in IIDC. Similarly, as the number of years were less in RIHS and IMDC the no of student per year also decreases. Contributing to this decrease was also the student who did not pass their professional BDS exams. After the final evaluation of all the filled 127 forms following result was obtained for the Level of Student Satisfaction Regarding the Teaching Methodologies Followed at their dental colleges: -

**Student Satisfaction Category**

		Frequency	Percent
Valid	Dissatisfied	16	12.6
	Satisfied	88	69.3
	Highly Satisfied	23	18.1
	Total	127	100.0

This Results showed that the students were highly satisfied to the teaching methodologies followed at their dental schools. None of the student showed signs of high dissatisfaction but there were 16 out of 127 **12.6%** of the students who were Dissatisfied and remaining **87.4%** of the students were satisfied in which 23 out of 127 **18.1%** were greatly satisfied with their teachers' way of educating them. This all is shown in this graph: -

Chart 1- Student Satisfaction Category

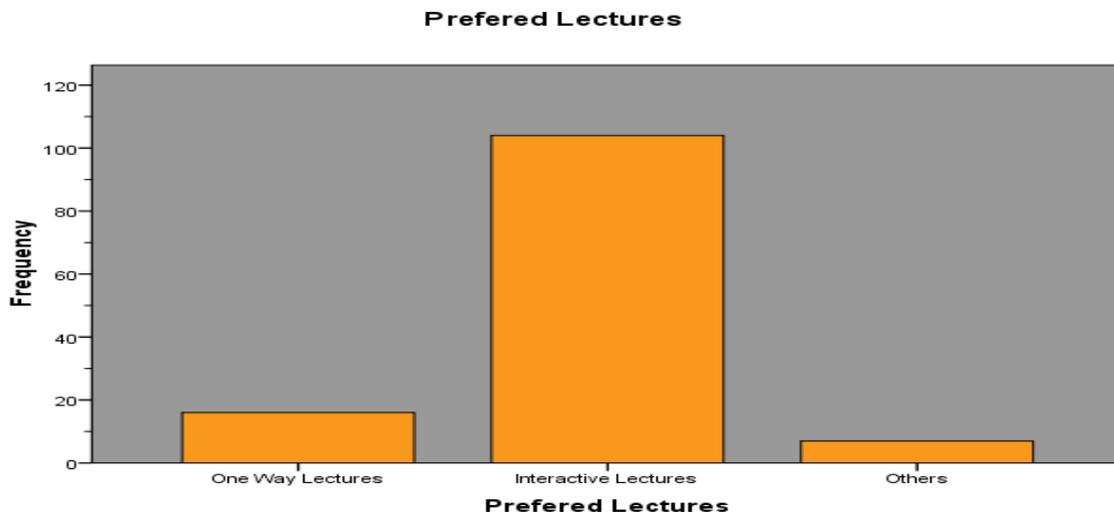
**Evaluation of Section B:**

Section B had 10 questions. Each item of section B was evaluated on a separate basis the results obtained were very significantly conclusive. The result for each question is presented below

In Section B Question No 1 the students were asked how should the lectures be conveyed and the answer given by the students as represented in graph had the following percentages

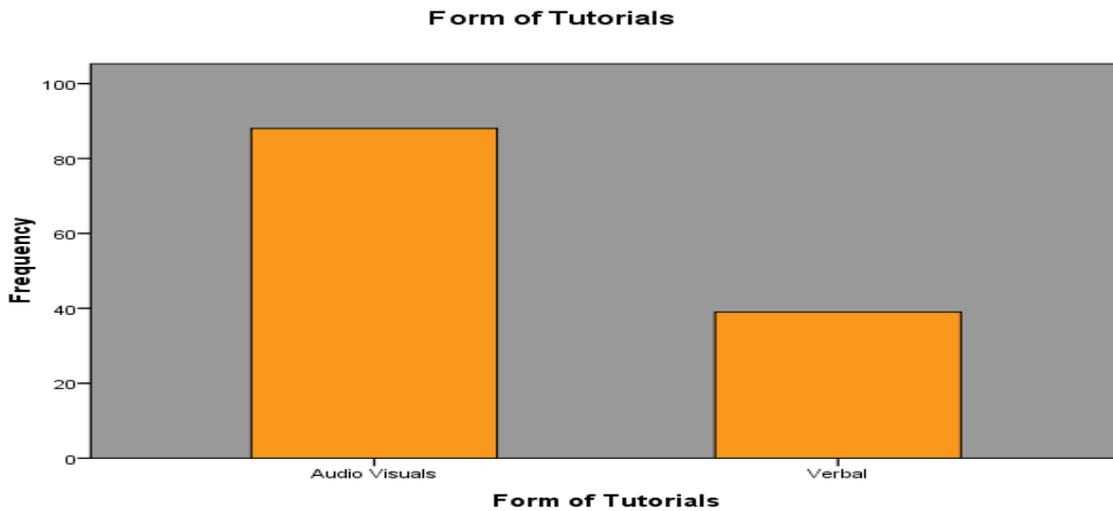
- 16/127 i.e. **12.6%** of the students wanted one way lectures in which teachers deliver information to the student and there is no interactive session between the teacher and the student
- 104/127 i.e. **81.9%** of the students wanted their teachers to interact with them during their lectures i.e. asking questions and solving queries of the students
- While the remaining 7/127 **5.5%** chose the third option “others” in which they specified this other as Lectures on multimedia and lectures in the clinics/hospitals

Graph 1



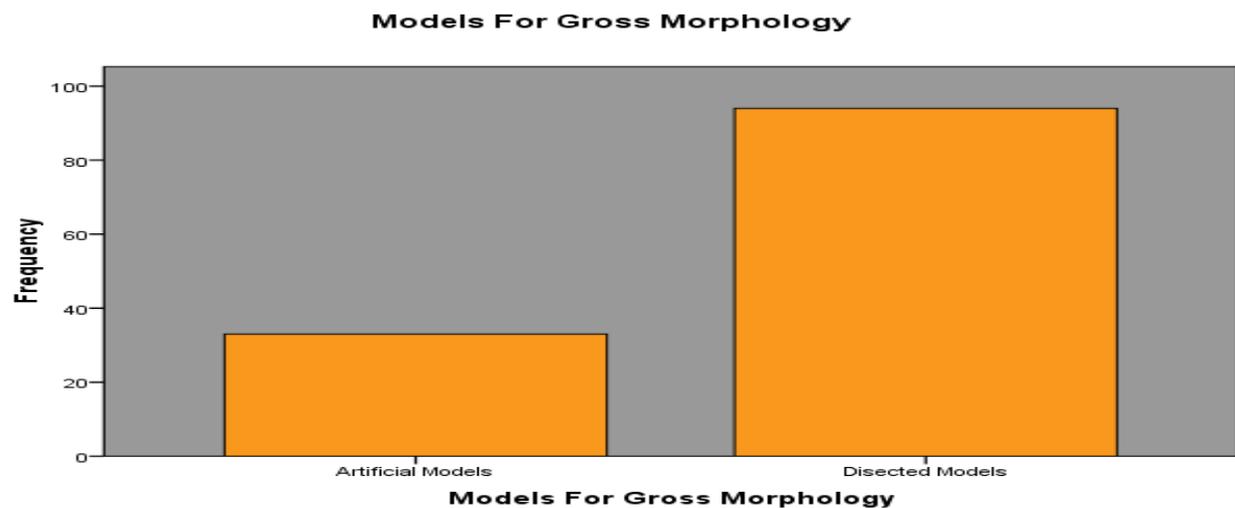
In the Question No 2 Students were asked the form of “tutorials” they’ll prefer and the answers came to be that out of 127 students 88 i.e. **69.3%** of the students wanted to have Audio visual tutorials in which there was a proper presentation of the topic on multimedia while the remaining while the remaining 39 i.e. **30.7%** of the students were satisfied with verbal deliverance of the tutorials. This is represented in the graph no 2

Graph 2 Forms of tutorial



In the question 3 when the students were asked that on what type of models the gross morphology should be taught then most of them 94/127 i.e. 74% of the total students preferred Dissected models over the artificial models

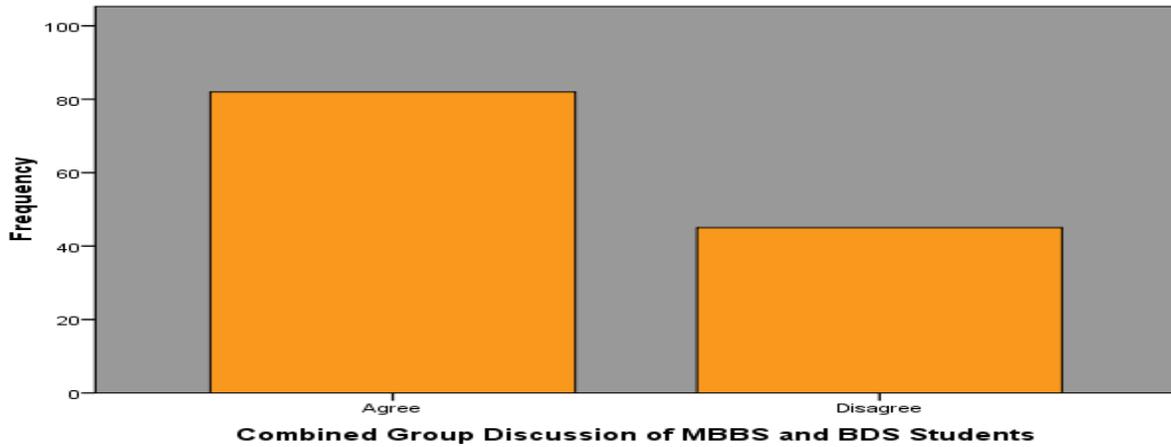
Graph 3



When the students were asked in Question no 4 that should there be combined classes of MBBS and BDS students then almost out of 127,82 i.e. 64.6% of them said yes and the remaining 45 i.e. 35.4% disagreed with this statement (graph 4)

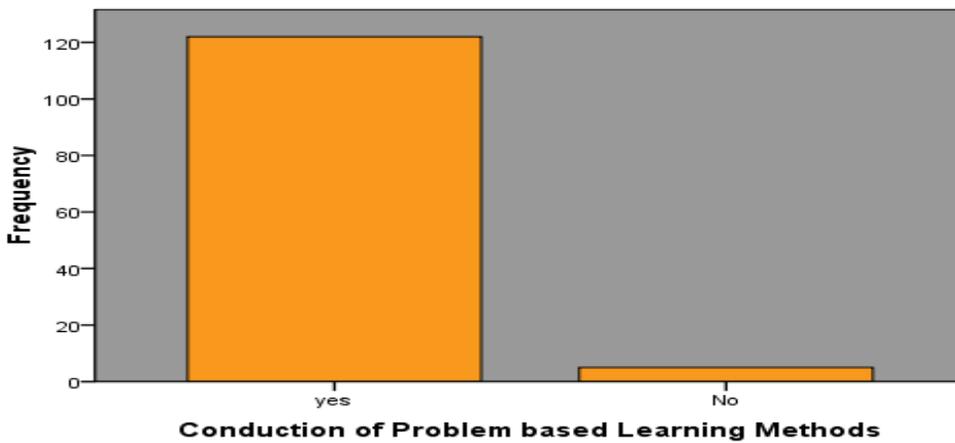
Graph 4

**Combined Group Discussion of MBBS and BDS Students**

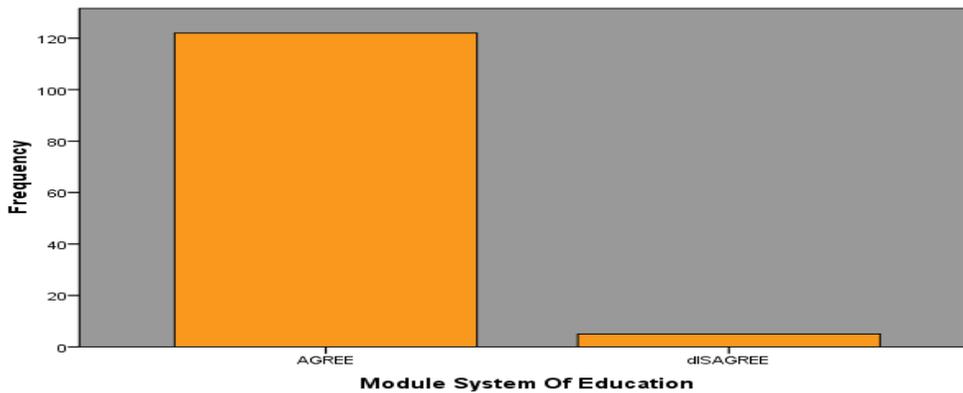


To the question no 5 i.e. the conduction of PBLs most of the students **96.1%** i.e **122/127** answered yes while the remaining **5/12** i.e **3.9%** disagreed with this idea. Strikingly similar result was shown for question no 6 as well. This is represented in the

**Conduction of Problem based Learning Methods**

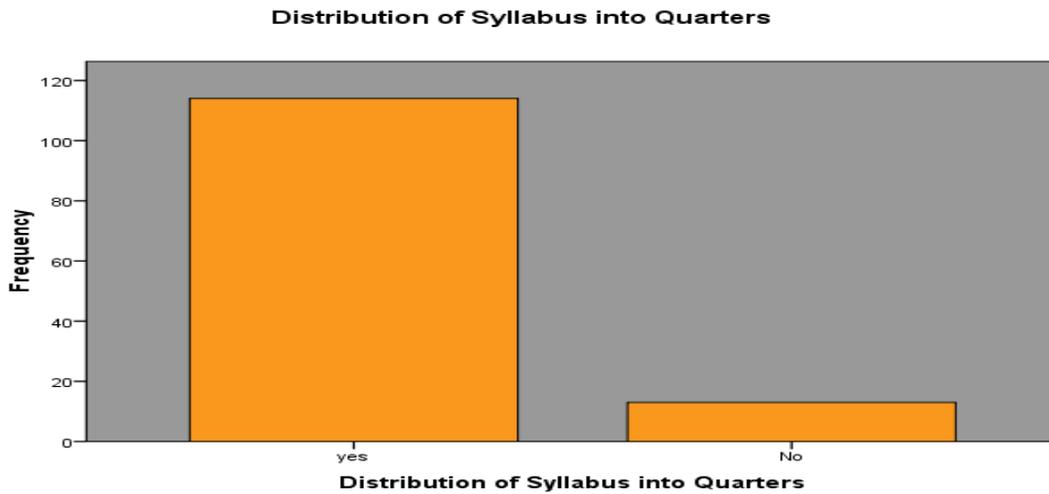


**Module System Of Education**



**Graph 6**

As shown in graph 6 **89.8%** of the students wanted the distribution of syllabus of each subject into quarters while the remaining **10.2%** didn't want so.



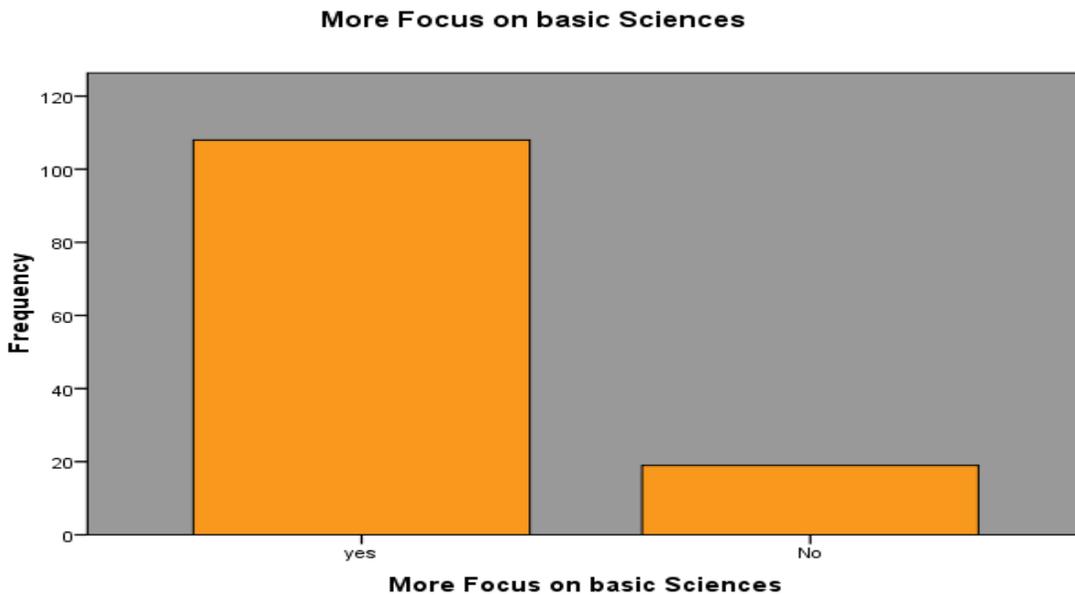
In the question 8 the students were asked that from which years the clinical practice begin they answered this question as following

- **49.6%** selected First year
- **33.1%** of the students selected 2<sup>nd</sup> year
- **16.5%** selected 3<sup>rd</sup> year and
- **Only 1 student** selected it to begin in final year

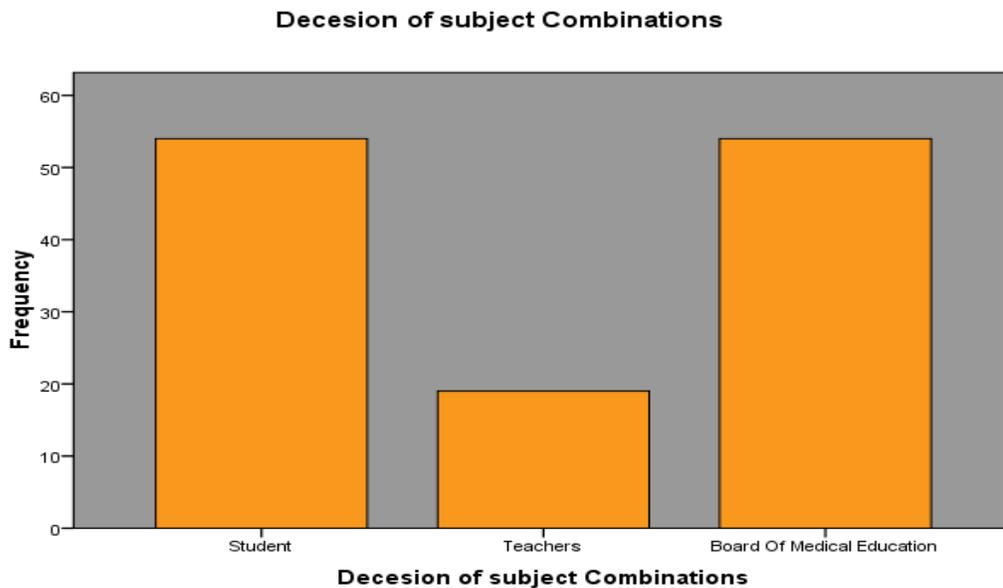
This is shown in the graph below



For question no 9 the following results were obtained:



The answers to last question that who should decide the combination almost the same results were obtained for “By students” and “By Board of Medical Education” i.e. **41.7%** and **42.5%** respectively. While who selected teachers to be selection the subject combination was **15.7%**



**DISCUSSIONS:**

The purpose of this survey that to value the level of student satisfaction was very much brought to light and it was revealed that most of the dental students were satisfied to the curriculum followed at their dental colleges. Most of them were satisfied while

some of them were highly satisfied. The portion of students who were not satisfied was less but not discountable

The Questionnaire distribution was not however according to a devised scale, as we had not much of

time so we were not able to distribute these questionnaires to all the dental colleges of Pakistan or on a lower scale to all the dental colleges in Rawalpindi and Islamabad. A Larger sample according to *Law of Large theorem* would have provided a better result that would have been statistically more significant. REF?

Some of the students did not show much interest to our research topic and there is a possibility of this questionnaire being filled improperly. Students on a busy routine had little time to fill out questionnaires and some rushed through the process, leaving the possibility open that some scores were not put on paper correctly due to the lack of concentration on the subjects' part.

### CONCLUSION:

The results of our study showed that major population of the dental students present in Rawalpindi and Islamabad were satisfied to the teaching methods employed at their dental colleges, still as highlighted in section B few improvements are needed to be made

The results obtained in this research are only an initiative to a vast research on student Satisfaction. Researches like this if carried out in underdeveloped countries like Pakistan will provide an opportunity to improve the standards of education. So In turn the students will be more fulfilled and their academic records will flourish. This on other hand will also encourage the teachers and administration to have an insight of what students' needs are and try to get the best out of them.

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