

MEDICAL STUDENTS' PERSPECTIVE ON ABSENTEEISM AND ITS REMEDIES

Moeed Iqbal Qureshi, Amina Ahmad*

Shaikh Zayed Post Graduate Medical Institute (SZPGMI) Lahore Pakistan, *Fatima Memorial College of Medicine and Dentistry Lahore Pakistan

ABSTRACT

Objective: To identify reasons for absenteeism of medical students in lectures and ward rotations during the clinical years and to find out various remedies as suggested by the students.

Study Design: Mixed method study.

Place and Duration of Study: Shaikh Khalifa Bin Zayed Medical College Lahore, from Jan 2014 to Dec 2016.

Material and Methods: It was a single center sequential mixed method study conducted from 2014 to 2016. The first phase was a survey using a questionnaire to find out reasons for absenteeism. Analysis of responses helped in the identification of grey areas which were clarified and recommendations were sought to improve attendance through focused group discussion (FGD). The quantitative data was analyzed using SPSS version 20.0, and content analysis technique was combined with thematic analysis for qualitative data analysis.

Results: The questionnaire was distributed to 300 students. The response rate was 77%. The reasons for not attending lectures, morning and evening wards were significantly associated with year of study of students (p -value 0.019, 0.022 and 0.001 respectively). The main reasons identified for not attending lectures and wards in all clinical years were inappropriate educational environment, lack of inherent interest and personal reasons

Conclusions: The study indicated that absenteeism among medical students was mainly due to in-effective teaching, ill-defined curriculum, non-conducive learning environment, and inflexible time tables hampering quality learning. Suggested rectification measures included learner-centered teaching approaches and reverent environment to motivate future doctors for meaningful learning.

Keywords: Absenteeism, Medical students, Perspective, Remedies.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

In medical colleges, students remain absent from the lectures and wards. This results in failure in the examinations and in the long-term doctor's inability to manage patients safely¹. Absenteeism refers to the frequent absence from classes without any good reason².

Undergraduate medical education aims to produce a physician with adequate knowledge of health and disease, reasonable medical skills and a healthy attitude towards patients and their families³.

Student absenteeism may contribute to low achievement or vice versa. Low achievement assumes critical importance for medical care providers who are involved in decision making

in life and death situations⁴.

Possible reasons for absenteeism could be linked to the theory of adult learning, which explains physiological and psychological needs of an adult learner. For example, meaningful participation of an adult learner in educational activities is only possible if he or she is sufficiently motivated to learn. Motivation for learning is associated with understanding the relevance of learning something. If that learning enables a learner to solve real life problems, the interest enhances manifold. Finally, adult learners also desire safety while expressing themselves in the educational environment⁵. If institutions fail to address these needs, absenteeism is bound to transpire.

The interaction between faculty members and the students, in the lectures and in one-on-one clinical discussions, is crucial as it is part of the professional socialization process in which

Correspondence: Dr Moeed Iqbal Qureshi, 45-PCSIR Housing Society Phase-I, New Campus Road, Lahore Pakistan

Email: qureshimi@yahoo.com

Received: 28 Mar 2018; revised received: 29 Mar 2018; accepted: 29 Mar 2018

students observe faculty members and recognize them as role models^{6,7}. This process is important in learning professional attitudes and values among pharmacy student and is equally important for medical students, as missing opportunities for interaction due to excessive absenteeism may hinder the development of professionalism in medical graduates^{7,8}.

In our country, medical education is still following the traditional lecture format of teaching for transfer of both knowledge, and skills. Lectures, classroom, and bedside discussion represent the primary means of teaching for undergraduate medical students. Students who miss a lot of classes and wards perform poorly on examinations because they were not present when the topics were being covered. Similarly, students with high levels of absenteeism are less committed to academics in general which may result in a poor outcome in terms of quality doctors⁷.

On one hand, the implications of absenteeism are clearly delineated in the literature but on the other hand, literature in medical education doesn't explicitly highlight reasons contributing towards absenteeism for lectures and specially ward rotations, and neither does it sufficiently provide contextual solutions to combat the issue of absenteeism. This study was designed to identify reasons for absenteeism of medical students, in lectures and ward rotations at Shaikh Khalifa Bin Zayed Medical College during the clinical years and suggest ways to improve it based on students' suggestions.

MATERIAL AND METHODS

It was a single center sequential mixed method study conducted from January 2014 to December 2016 at Shaikh Khalifa Bin Zayed Medical College after approval from the institutional review board.

The first phase of the inquiry was a survey with the help of a questionnaire to find reasons for absenteeism, distributed among 300 students from 3rd, 4th, and final year MBBS, after informed consent, using non-probability convenience

sampling technique. Students were ensured about confidentiality and anonymity. The questionnaire was distributed after the lecture and was collected by the principal researcher after completion. The questionnaire had both open and closed ended questions for generating both qualitative and quantitative responses. Analysis of responses from questionnaires helped in the identification of gray areas on reasons for absenteeism. Recommendations, for identified areas were found out through focused group discussion (FGD).

For FGD, 2 or 3 students from each class (3rd to final year) were selected on the basis of non-probability purposeful sampling technique. Hence those students were identified who were vocal and willing to provide suggestions to handle the issue of absenteeism. Four sessions of FGDs were conducted, each lasting from one to two hours. Sessions were moderated by year 4 residents in the department, to counter possible power dynamics and to ensure unrestrained flow of ideas from students. The FGD moderators were accordingly trained by the principal researcher. Students participating in the FGDs were given pseudonyms to ensure anonymity. FGDs were audio-recorded and field notes were taken.

Data generated through questionnaires was entered into SPSS version 20.0 to calculate frequencies and percentages. Chi-square (likelihood ratio) test was used to determine the association between reasons for absenteeism from lectures and wards, and academic year i.e. third, fourth, and final year. A *p*-value less than or equal to 0.05 was regarded as significant. The qualitative data generated in the context of reasons for absenteeism from lectures and morning, and evening wards were categorized into themes representing gist of the idea using content analysis technique based on grouping words conveying similar meaning and by calculating their frequencies (table-II) to vindicate plausibility of interpretations. The content analysis identified gaps in the data for further in-depth exploration through FGD.

The audio recorded data generated through FGDs was transcribed verbatim by adding information from the field notes for enrichment of evidence. Transcriptions were matched with both FGD and research questions and were then given to students for further verification, as one of the dimensions of trustworthiness. Text in the finalized transcripts was categorized under the

RESULTS

Out of 300 students, 231 filled the administered questionnaire (77%). There were 104 males and 127 females; M:F ratio being 1:1.2 (table-I). The mean age was 22.5 ± 1.2 years.

The reasons for not attending lectures were found significantly associated with the year of study of students (p -value=0.019). The reasons for

Table-I: Male female ratio in the total responses obtained from third to final year MBBS.

Year of study	Male	Female	Total
Third	24 (45%)	29 (55%)	53
Fourth	26 (51%)	25 (49%)	51
Final	54 (43%)	73 (57%)	127
Total	104 (45%)	127 (55%)	231

Table-II: Reasons for Absenteeism from Lectures and Wards: Third to Final Year MBBS.

Reasons		Year					
		Third year (n=53)		Fourth year (n=51)		Fifth year (n=127)	
		No.	%	No.	%	No.	%
Not Attending Lectures	No Inherent Interest	11	20.8	13	25.5	34	26.8
	Different Priorities	7	13.2	9	17.6	5	3.9
	Peer Pressure	1	1.9	0	0.0	0	0.0
	Educational Environment	16	30.2	15	29.4	27	21.3
	Personal Reasons	16	30.2	13	25.5	44	34.6
	Lack Of Ethical Values	0	0.0	0	0.0	2	1.6
	No Reason	2	3.8	1	2.0	15	11.8
p -value = 0.019							
Not attending wards (morning)	No Inherent Interest	4	7.5	7	13.7	13	10.2
	Different Priorities	6	11.3	5	9.8	4	3.1
	Peer Pressure	0	0.0	2	3.9	1	0.8
	Lack of Ethical Values	0	0.0	0	0.0	1	0.8
	Educational Environment	19	35.8	21	41.2	34	26.8
	Personal Reasons	16	30.2	12	23.5	37	29.1
	No Reason	8	15.1	4	7.8	37	29.1
p -value = 0.022							
Not Attending Wards (Evening)	No Inherent Interest	4	7.5	8	15.7	13	10.2
	Different Priorities	4	7.5	1	2.0	2	1.6
	Educational Environment	6	11.3	20	39.2	21	16.5
	Personal Reasons	10	18.9	5	9.8	56	44.1
	No Reason	29	54.7	17	33.3	35	27.6
p -value <0.001							

themes that emerged from the content analysis of qualitative data obtained from the survey (tables-II, III, IV & V), confirming the gist of ideas. Word frequency count was done in each category to identify words representative of the themes and comments verbatim were selected, demonstrating triangulation, rigor, and confirmability of findings.

not attending the morning and evening wards were also significantly associated with the year of study of students (p -value 0.022 and <0.001 respectively) (table-II).

DISCUSSION

Educational research reports a variety of reasons for missing classes among medical students^{9,10}. This study identified the main factors

for absenteeism as no inherent interest in the subject and various personal reasons. FGDs revealed that students find lectures very boring

social activities (table-III; comments 1 to 6, 10 and 11). These findings are consistent with other studies as well^{11,12}.

Table-III: In-depth exploration of reasons for absenteeism from lectures.

Theme	Subtheme	Word Frequency (Count)	Comments Verbatim
No Inherent Interest	Boring	Boring (25) No interest (19) Unimportant (4) Already know (1)	1. "We do not attend lectures because they are boring and not interactive." 2. "Majority of the lectures are useless."
	Attendance	Attendance required fulfilled (4)	
Different Priority		Another test (37) Self-study (9) Other study (2) Other commitments (2)	3. "At times, we have to prepare for a test and therefore, we stay back and don't attend lectures."
Peer Pressure		Friends not attending (4)	4. "One has to give-in because of peer pressure. At times, we do not attend lectures because of our friends."
Educational environment	Faculty not good	Not good (59) Not interactive(45) No knowledge imparted (4) Teachers not available (2) Don't understand (2)	5. "Some of the teachers don't inspire us" 6. "Some teachers do not connect with us on a human level so we don't feel like attending their lectures."
	Biased teacher	Prejudice (1)	
	Non-conducive environment	Environment not good (2) Lack of discipline (2) Big class size (2) Strikes (1)	7. "I cannot forget one of the teachers' comments who said that we were left overs, and couldn't get admission on merit; now faculty will make us doctors."
Personal reasons	Emotional and physical burn out	Sick (72) Laziness (15) Hectic (14) Absent (13) Poor health (4) Tired (4) Fever (4) Difficult (2)	8. "You are absent when you are sick."
	Feasibility	Getting Late (65) Emergency (26) Transport (11) Family issues (5) Hostel issues (4) Problem at home (1)	9. "If there is a death in the family, obviouslyI cannot attend."
	Other interests	Go home (8) Extracurricular (4) Got better things to do (1)	10. "When you have more interesting things to do (e.g. cricket, movie, lunch with friends) who would stay back for a boring lecture?"
Ethical values	Proxy	Proxy (7) Bunk (2)	11. "We bunk classes because "proxy" is possible and the main objective is attendance, which is fulfilled" 12. "There is no formal education regarding ethical principles neither in schools nor at home. So, we don't consider it unethical and casually miss our classes."

and of low value because of lack of interaction, condescending attitude of teachers, inappropriate learning environment and more interest in other

Educational environment was found as another major reason for absenteeism from lectures across all three years in this study. The

factors influencing educational environment were; faculty not good, no interactive teaching”,

researchers have also reported that adult learners are particularly very sensitive to learning

Table-IV: Reasons for not attending morning wards.

Theme	Sub theme	Word Frequency (Count)	Comments Verbatim
No inherent Interest	Neither helpful nor important	No interest (37) No learning (17) Repetition (10) Too much knowledge imparted (4) Wastage of time (4) Overcrowded batch (4) Not helpful (1) Not my choice (1)	13. “No one told us about the relevance of attending wards, so we did not know why it was important to attend wards.” 14. “We did not pay attention as the subject addressed in the clinical rotation was not to be assessed.” 15. No explicit expectations are shared with us about learning in wards.”
Educational Environment	Biased Teacher	Insult (3) Unfair (1) Don't let us stay longer (1)	16. “They judge us and make us feel uncomfortable, hence we avoid going.”
	Faculty Absenteeism	Absent teacher (19) Not punctual (1) Busy teacher (1)	17. “Never saw any teacher, so we don't go either”
	Bad Teaching	Unclear teaching schedule (15) No personal attention (11) No interaction (8) No good (2) Waiting (1) No ward test (1) No practice opportunity (1) Not exam oriented (1) Clinical method teaching not good (1)	18. “Junior residents are given the task of teaching us, who are exceptionally busy. As a result, there is hardly any teaching.” 19. “Everything (e.g. cases and clinical examination, history taking) is available on the YouTube, so why attend wards?”
	Hospital Management	Strike (9) Poor management (1) AC not working (6)	20. “There is no place to sit and wait for teachers”. 21. “At times, the weather is very harsh. Besides, we feel unwanted trespassers, as everyone is busy running around, doing their chores, except for us, who don't know why they are there?”
	Ward Management	No discipline (9) Lengthy rounds (1)	22. “Most of the times, doctors are busy in rounds and we are endlessly waiting for them”.
Different Priorities	Preparing for another test	Preparing another test (37) Going for lunch (2)	23. “When we have a test, we skip wards”.
Peer Pressure		Friends forcing to skip (12) Only female in batch (1)	24. “Peer pressure is through word of mouth, you find out in no time that a particular ward is useless, so you don't go.”
Ethical values		No respect for females (1) Proxy's (3) Bunking for fun (3)	25. “I think, there is very little respect for females at a workplace because of misogynistic tendencies in the opposite gender. They make sure that females feel belittled and useless in the clinical environment.”
Personal Reasons	Emotional and physical burn out	Sick (41) Emergency (26) Tired and Fatigue (17) Absent (12) Long hours (9) Lazy (5) Sleep (3) Hectic routine (1) Patient critically ill (1) Standing all time (1) Ramadan (1)	26. “We have three back to back lectures before the wards. You get tired and have no energy left to attend wards.” 27. “In Ramadan energy levels are low. The weather is hot, so students avoid coming to the wards”
	Personal Preferences	Self-study (4) Extracurricular activity (4) Go home (5) Transport issues (5) Holiday (2) Specific ward (3) Batch not good (1) Not confident (1)	28. “At times, you have to leave because no one can pick you up later.”
	Lack of confidence	Lack of determination (1) Frustration of not performing (1)	29. “We are clueless about our roles and responsibilities in the ward, which shatters our confidence hence leading to an avoidant behavior.”

“poor cooling system during summers” (table-III; comments 6 and 7, table-IV; comment 21). Other

environment, as it can very easily both motivate or demotivate them. Such learners are typically

known for casting vote through their feet, which infers that they walk out of the environment if it

In this study, various reasons for missing morning and evening wards were non-existent

Table-V: Reasons for not attending evening wards.

Theme	Sub Theme	Word Frequency (Count)	Comments Verbatim	
Failure to Understand Relevance	Lack of guidance	Once a day is enough (17) No need (11) No interest (8) Wastage of time (5) No time for wards (3) Already know (2) No use (2) No one asked (1)	30. "Why do we need to attend wards in the evening when there is no learning".	
		Friends not going (8) Alone (2)	31. "At times, your friends can convince you that evening are waste of time."	
Peer Pressure		Proxy (1)	32. "We bunk wards because "proxy" is possible."	
Lack of Ethical values		Studying other subjects (22) Test preparation (10)	33. "One has to prepare for a test and therefore, you stay back".	
Educational Environment	Neither helpful nor important	Not in timetable (32) Teacher not helpful (28) No teacher available (21) No learning (4) Not yet ready (2) Patient not cooperative (1) Not interesting (1) Repetition (1) No facilitation (1) OPD in morning more helpful (1)	34. "No explicit timetable is shared, so we don't know why we have to go in the evening."	
		Physical burn out	Long hours (3) Difficult schedule (1)	35. "It is very exhausting to attend morning classes and wards and then come again for the evening wards".
		Poor hospital management	Air conditioning not working (1)	36. "You don't feel like coming to a place which is too hot!"
		Ward management	Poor attendance marking (3) No bed allotment (1) Discipline (1)	37. "We are never allotted any beds. No responsibilities and no interest!"
Personal Reasons	Feasibility	Transport issues (52) Personal commitment (19) Day scholar (3) Go home early (3) Geographical placement (1) Timing not suitable (1) Come home late (1) No permission (1) No company (1) Poor time management (1) Inconvenient (1)	38. "It is not easy to commute in the evening."	
		Self-study	Studying (4)	39. "Everything is available on the internet. It is better to engage in self-study rather than wasting your time."
		Emotional and physical burn out	Tired (12) Sick (8) Lack of determination (2) Lot of burden (2) Lack of enthusiasm (1) Whole day work disturbed (1)	40. "It is not easy to see disease and bereavement day in day out." 41. "It is exhausting to attend evening wards."
			Gender issues	Too late (3) Security issues (1) Personal inhibitions (1)
		Personal Preferences		Other interests (1) Busy schedule (1)

is not conducive to learning¹²⁻¹⁴.

clinical curriculum, absent and unhelpful teachers, personal reasons such as sickness,

getting late, personal emergencies, fatigue and transport, and non-engaging educational environment (table-III; comments 4,5 and 8, table-IV; comments 20 and 21, table-V; comments 37, 38 and 41). These findings are consistent with other

important reasons for absenteeism (table-III; comments 4 and 8).

The study identified a statistically significant association between three main reasons for absenteeism (no inherent interest, educational

Table-VI: Remedies suggested by students to counter absenteeism in classes and wards.

Students' Recommendations to Improve Attendance (Suggested Remedies)	<p>LECTURES</p> <p>Introduce a test week for all departments to take test.</p> <p>Teaching style needs to be improved e.g. bring a patient to the lecture hall.</p> <p>Improve communication skills of faculty members.</p> <p>Make lecture more interactive and interesting by adding videos, pictures, diagrams and questioning.</p> <p>There should be a break between lectures and before going to the wards.</p> <p>Possibility of multiple lectures on the same topic, so that students have the flexibility to attend according to their preference.</p> <p>Start evening classes.</p> <p>Improve educational environment e.g. better air-conditioning and seating arrangement.</p> <p>Introduce modular system for better understanding.</p> <p>Introduce biometric system for attendance to reduce "proxy".</p> <p>Start lectures at 9 am instead of 8 am.</p> <p>Tea or coffee should be allowed in the class.</p> <p>Allow those students to miss lectures who are appearing in supplementary examination and arrange for their additional lectures afterwards.</p> <p>Arrange motivational talks for students.</p> <p>WARDS (Morning)</p> <p>Competency based list of tasks to be shared with students.</p> <p>Ward teaching should match with topics taught in the lectures for clear understanding of the pathology.</p> <p>Allow friends to be in the same batch.</p> <p>Teachers to have yearly sessions on medical ethics and gender studies.</p> <p>Appreciation of student performance.</p> <p>Allow multiple attempts for ward test.</p> <p>For students appearing in supplementary exam, ward timings should be flexible.</p> <p>WARDS (Evening)</p> <p>Start from 4th year and allow students to leave early as day scholars especially females have transport issues at night. There should be provision to stay at night for students.</p> <p>Teaching schedule with task for every day.</p> <p>Attendance should be compulsory.</p> <p>Students should be allowed to leave by 9pm.</p> <p>Teachers should ensure, there is no gender discrimination.</p> <p>Flexible evening rotation according to student convenience.</p>
---	---

studies on this subject¹⁰⁻¹⁶. Peer pressure has also been identified as an important cause, because it is known to be a very strong factor in shaping young adult's behaviors and plays a strong role as a cause of absenteeism^{10,17}. Students in this study shared peer pressure, physical and emotional burn outs, and illness as other

environment, personal reasons) and third to final academic years of MBBS. However, there is no available evidence supporting this observation in the published indexed literature. The present study also found out preparing for another test, self-study and other miscellaneous commitments as "different priorities" for being absent. (table-

III; comment 3, table-IV; comment 23). This concurs well with other studies^{9,15}.

This study highlighted two important reasons causing absenteeism specific to female students; "Misogynistic tendencies" and security issues (table-IV; comment 25, table-V; comments 42, 43 and 44). It has been reported that mistreatment of medical students is widespread (98.9%), most frequent being psychological maltreatment by residents and interns (shouting, bullying and humiliation) and sexual harassment¹⁸.

Various measures suggested by the students in this study to counter absenteeism include; interactive teaching, schedule flexibility, problem oriented learning, and task-based teaching. The need to establish a conducive environment for meaningful learning was also regarded as a key factor to improve student's motivation (comments on remedies - table-VI). Similar suggestions have been reported by other authors^{11,15}.

CONCLUSION

The study indicated that absenteeism among medical students was mainly due to in-effective teaching, ill-defined curriculum, non-conducive learning environment, and inflexible time tables hampering quality learning. Suggested rectification measures included learner-centered teaching approaches and reverent environment to motivate future doctors for meaningful learning.

ACKNOWLEDGEMENT

The authors are thankful to Muhammad Aasim from National Health Research Complex (NHRC) Shaikh Zayed Post Graduate Medical Institute for statistical support. Special thanks to Dr. Ahmad and Dr Usama for holding focused group discussions and all the participants of the study. Valuable input and support of Miss Ameera Fatima Qureshi, student of Central Park Medical College, in preparing this manuscript is acknowledged.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

REFERENCES

1. Khan HU, Khattak AM, Mahsud IU, Munir A, Ali S, Khan MH, Saleem M, et al. Impact of class attendance upon examination results of students in basic medical sciences. *J Ayub Med Coll Abbottabad* 2003; 15(2): 56-8.
2. Sharmin T, Azim E, Choudhury S, Kamrun S. Reasons of Absenteeism among Undergraduate Medical Students: A Review. *Anwer Khan Modern Med Coll J* 2017; 8(1): 60-6.
3. Trice AD, Holland SA, Gagne PE. Voluntary class absences and other behaviors in college students: An exploratory analysis. *Psychol Rep* 2009; 87(1): 179-82.
4. BinSaeed AA, Al-Otaibi MS, Al-Ziyadi HG, Babsail AA, Shaik SA. Association between student absenteeism at a medical college and their Academic Grades. *IAMSE* 2000; 19(4):155-9.
5. Knowles M, Holton III, EF, Swanson RA. The adult learner: The definitive classic in adult education and human resource development. 7th ed. New York: Routledge; 2015.
6. Fjortoft N. Students' Motivations for Class Attendance. *Am J Pharm Education* 2005; 69(1): Article 15.
7. Hammer DP, Berger BA, Beardsley RS, Easton MR. Student Professionalism. *Am J Pharm Educ* 2003; 67(3): Article 96.
8. Purkerson HD. Professional attitudes and behaviors: The "As and Bs" of professionalism. *Am J Pharm Educ* 2000; 64: 455-64.
9. Desalegn AA, Berhan A, Berhan Y. Absenteeism among medical and health science undergraduate students at Hawassa University, Ethiopia. *BMC Med Educ* 2014; 14: 14-81.
10. Gul R, Khan HM, Alam SR, Luqman F, Shahab A, Sohail H. Absenteeism among medical undergraduate students. *J Med Sci (Peshawar, Print)* 2016; 24(1): 16-8.
11. Persky AM, Kirwin JL, Marasco CJ. Classroom attendance: Factors and perceptions of students and faculty in US schools of pharmacy. *Curr Pharm Teach Learn* 2014; 6(1): 1-9.
12. Kottasz R. Reasons for Student Non-Attendance at Lectures and Tutorials: an analysis. *InvestigUniv Teach Learn* 2005; 2(2):5-16.
13. Sogunro OA. Motivating factors for Adult learners in higher education. *Int J Higher Educ* 2015; 4(1): 22-37.
14. Dashputra A, Meenal Kulkarni M, Chari S, Date A. Medical students' absenteeism in class: reasons and remedies. *J Educ Research Studies* 2015; 3(1): 24-9.
15. Tripura K, Das R, Saha N. Attitude of medical students towards the reasons of absenteeism in a medical college of Tripura. *IOSR J Dental Med Sci (IOSR-JDMS)* 2015; 14(11): 110-12.
16. Fayombo GA, Ogunkola BJ. Cross Institutional Study of the Causes of Absenteeism among University Students in Barbados and Nigeria. *J Educ Develop Psychol* 2012; 2(1): 122-36.
17. Haritha T. Undergraduate Medical Students absenteeism during dermatology, Venereology and Leprosy Clinical Postings. *Int J Contemporary Med Research* 2016; 3(11): 77-83.
18. Wolf TM, Randall HM, von Almen K. Perceived mistreatment and attitude change by graduating medical students: A retrospective study. *Med Educ* 1991; 25(3): 182-90.