



ATTITUDE, BEHAVIOURAL IMPROVEMENT AND PREFERENCES; IN MEDICAL STUDENTS AS THEY MOVE UP TO THE NEXT HIGHER CLASS

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ABSTRACT... Objective: Present study endeavoured to assess medical student's ethical behaviour, preferences and improvements one year later. **Design of study:** Cross-sectional, questionnaire-based. **Setting:** Liaquat University of Medical & Health Sciences Jamshoro, Sindh, Pakistan. **Period:** October 2013 - Jan 2014. **Materials and methods:** First year (FY) and second year (SY) MBBS students (n = 122 each year) of both genders, were randomly selected and a questionnaire administered. **Results:** Fifty six percent male and 40% female students of FY marked proxy attendance; 72% males and 65% female would mark proxy attendance if given a chance. Percentages increased in SY. Significant co-relation existed between gender and proxy attendance (p = 0.01); self-financed or hostlers showed no association with marking proxy attendance. Sense of responsibility in females and courteous behavior in both genders improved in SY. Teacher's behaviour affected student's conduct; and improvement in understanding English was noted in both genders in both years, however, the small % of students finding English as a barrier were prone to mark proxy attendance (p = 0.05). Males preferred physiology whereas female preferred anatomy in both years. In FY, subject of choice was anatomy, substituted for Physiology in SY. Majority students preferred chalk and black board vs. multimedia based teaching. **Conclusions:** Cheating behaviour and sense of responsibility, but civilised behaviour, did not improve after one year education.

Key words: Academic Medical Centres, Ethics, Education Medical, Medical Student

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INTRODUCTION

Cheating behaviour¹ and unethical practices² are a common phenomenon prevalent internationally among medical students and interns. Evidence suggests that academic advancement and grooming may positively influence the medical professionals in terms of increase in knowledge but did little to modify attitudes and behaviour^{3,4}. It has been reported that practise of unethical behaviour is more common among the privileged class as compared to the less privileged; most commonly demonstrated attitudes were breaking traffic rules, lying in negotiations and cheating to win a prize.⁽⁵⁾ Students in an academic institution may be very well aware of the ethics and ethical behaviour and may consider other professional's unethical behaviour as unacceptable but themselves employ unfair means to achieve goals⁶. An association of use of drugs by young adults living in a hostel has also been reported^{7,8}. The present study was conducted at the Liaquat University

of Medical and Health Sciences (LUMHS), located at Jamshoro in southern Pakistan. It was hypothesized that the new entrants in the medical school may not follow ethical behaviour especially students who belonged to the privileged class or resided in the university hostel. It is generally acknowledged that inculcating ethical attitude and behavior should be an aim of medical education⁹. Therefore, present study endeavoured to assess cheating behaviour, any change after one year education, and to identify factors associated with it, as upright and ethical behaviour practised by a medical professional is of vital importance¹⁰ ensuring integrity of medical practise and fair patient dealing. In addition, determination of student preferences and sense of responsibility in them was also made.

MATERIALS AND METHODS

Study design

Cross-sectional, questionnaire-based.

Place & duration of study:

Liaquat University of Medical & Health Sciences;
October 2013 - Jan 2014

Sample size

One hundred twenty two Pakistani students each from first year (FY) and second year (SY) MBBS, of both genders; $n = 122$ (FY) / 122 (SY).

Protocol

Present study was conducted by the department of Physiology, LUMHS and was approved by the University's Research Ethics Committee. One hundred twenty two Pakistani students each from first year (FY) and second year (SY) MBBS, of both genders, were randomly selected and a questionnaire containing 15 questions was administered. Volunteers were explained the purpose of the study and they willingly and enthusiastically participated and filled in the questionnaire ahead of a lecture or practical demonstration class, in a quiet and relaxed environment. Questions used in the questionnaire were in simple English written with clarity. Participants were asked to tick the relevant response checkbox (Yes/No) honestly. Volunteers were assured that the provided demographic information will remain anonymous and no attempt to identify them from the questionnaire will be made. All data related with responses will also remain anonymous.

The study questionnaire asked two questions to determine upright behaviour, seven questions to assess ethical behaviour and sense of responsibility and one question to see whether teacher behaviour affected the student's conduct. One question was asked to see whether English language acted as a barrier that distracted them so as they behaved in an un-ethical or undisciplined manner. This study also determined student preference for the Basic Medical Sciences (BMS) subjects (physiology, anatomy & biochemistry) and for teaching methodology in addition to collecting information on their resident status. Participants were asked whether they were admitted to the institute on self-financed basis or held a merit, i.e., government-funded seat (Table

1).

DATA ANALYSIS

Filled in questionnaires were scrutinized; the ones with incomplete demographic information and or duplicate responses were discarded. Data were transferred on the SPSS version 16.0 data sheets. Analysis was done by computing frequencies of all the variables. Pearson correlation test of significance was applied to see association between variables. Level of significance was set as $P < 0.05$.

RESULTS

It was found that 17% students of both genders were self-financed students in the FY whereas 21% males and 27% females in the SY were financing their studies. Fifty-three and 42% students (males and female) in FY were hostel residents; in the SY 41%, males and 50% females were residing in the University hostel. It was established that 56% male and 40% female students of FY marked a proxy attendance. This percentage increased to 62 and to 44 % in males and females respectively in the SY. 72% males and 65% female in FY said they would mark proxy attendance if given a chance compared to 76 males and 83% female in the SY (Table 2). Assessment of ethical behaviour and sense of responsibility results showed that 54% males and 41% female students of FY admitted that they got distracted during lectures; this number increased by 4% and about 10% in SY male and female students respectively; 31% males and 26% female of FY said that they chat during lectures, the percentage increased to 40% in males of SY but decreased by 15% i.e., to 11% in female students of SY. Twenty-four percent male and 14% female students of FY befriended those chatting during lectures, however, in female students of SY the percentage dropped by 8%, i.e., to 6% whereas no improvement was noted in the males. Seventy-eight and 93% males and female students of FY said that they would come to class if left to choice that dropped to 73 and 91% in males and female of SY. Ninety-two percent students of both genders of FY and 98% female students and 83% males in SY said that they were good listeners. Eighty-one and 90%

males and female respectively, in FY said that they were courteous; an improvement in behavior in both genders was recorded in the SY when 91% males and 94% female felt that they were courteous. When asked about their relationship

with teachers and fellows, 89% of FY students of both genders said yes, whereas in the SY a 1% improvement was recorded in the males with no change in female response (Table III).

Purpose	Question	No. of questions
Determination of honest behaviour	Do you mark a proxy attendance? Will you mark a proxy attendance if given a chance?	2
To assess ethical behaviour and sense of responsibility	Do you get distracted during lectures? Do you chat during lectures? Do you befriend those chatting during lectures? Will you come to class if left to your choice? Are you a good listener? Are you courteous? Do you enjoy good relationship with teachers and fellows?	7
To assess whether teacher's behaviour affected the student's conduct	Does teacher behavior affected above actions?	1
To see whether English language acted as a barrier in effective communication	Do you find English as a hurdle in effective communication?	1
Determination of student preference for BMS subject taught (physiology, anatomy & biochemistry) / for teaching methodology.	Which subject do you prefer? Do you prefer chalk / black board vs. multimedia based teaching?	2
Resident & financial status.	Are you a hostler? Are you self-financed?	2

Table-I. Show the purpose, number and the questions asked.

	Proxy attendance		Proxy attendance if given a chance	
	FY	SY	FY	SY
Male	56	62	72	76
Female	40	44	65	83

Table-II. Gender and year wise responses (in %) showing an increase in cheating behaviour in the SY.

When evaluation was done to see whether teacher's behaviour affected the student's conduct, 88% males and 83% female students of FY said that teacher's behaviour affected the student's conduct, however, the percentage dropped for the males to 83% in the SY but more girls (85%) believed that teacher's behaviour affected their conduct.

Thirty eight percent male and 18% female students of FY admitted that English language acted as a barrier for effective communication, however, the numbers went down to 30% and 17% in males and females respectively in the SY.

Determination of student preference for BMS subject taught (physiology, anatomy &

biochemistry) and preference for teaching methodology results revealed that males preferred Physiology (56%), Anatomy (34%) and Biochemistry (10%) whereas 36%, 61% and 3% female preferences were noted for Physiology, Anatomy and Biochemistry respectively in the FY. In the SY male students Physiology ranked at 67%, Anatomy 28% and Biochemistry 5%; female student preferences remained almost the same for Physiology but Biochemistry went up by 4% at the cost of Anatomy that came down to about 58%. Overall, student's subject preference was 42% (Physiology) followed by 54% (anatomy) and 4% (biochemistry) in the FY, whereas in the SY Physiology was the first choice (57%), followed by Anatomy at (37%) and biochemistry 6% (Figure 1 & 2).

Questions	FY(males)	SY(males)	FY(females)	SY(females)
Do you get distracted during lectures?	54	58	41	51
Do you chat during lectures?	31	40	26	11
Do you befriend those chatting during lectures?	24	24	14	6
Will you come to class if left to your choice?	78	73	93	91
Are you a good listener?	92	83	92	98
Are you courteous?	81	91	90	94
Good relations with teachers and fellows?	89	90	89	89

Table-III. Assessment of ethical behaviour and sense of responsibility in FY and SY students of both genders. All numbers are percentages.

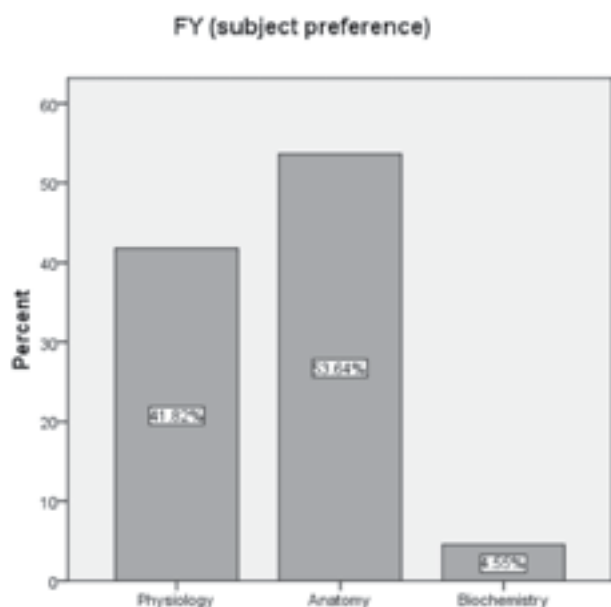


Figure-1. Subject preference in the FY MBBS class, with anatomy noted the most preferred subject

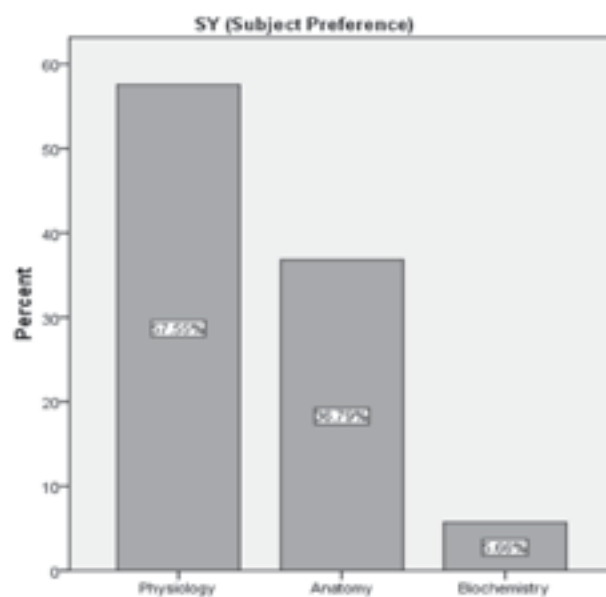


Figure-2. Subject preference in the SY MBBS class, with Physiology the most preferred subject

As regards to the teaching methodology, it was found that 63% males and 76% female students, in the FY, preferred chalk and black board method of teaching; this number increased to 71 (males) and 89% (female) in the SY.

Pearson correlation test of significance was applied to see association between variables. It was found that a significant co-relation existed between gender and proxy attendance ($p = 0.01$) i.e., students of both genders were prone to mark proxy attendance. It was also found that majority of students irrespective of gender or year of study do not find English as a barrier in effective communication, however, on further analysis it was revealed that the small % of students who

found English as a barrier were prone to mark proxy attendance ($p = 0.05$).

No association was found between marking of proxy attendance and the self-financed students or with the hostlers.

DISCUSSION

The present study, a cross-sectional, questionnaire-based survey attempted to determine various behavioral attributes and preferences of students of both genders, of first professional M.B.B.S. (1st & 2nd year) at LUMHS, Jamshoro. The present study surveyed 122 students of FY and compared responses with same number of students of the SY to determine any change in attitude after one

year of medical education. As discipline, civility, good working relationship, devotion to work, and sense of responsibility relate to ethical behavior, therefore, such dimensions or areas were covered and cross checking done in order to relate a particular behavioral output with a specific set of students, e.g. hostlers and self-financed students. The hostlers, as the evidence suggests, may be prone to fall in using illicit drugs⁷ while the latter category may belong to affluent class, may be rather less competent students compared with the students selected on merit and may be carrying a feeling of exhilaration of 'buying' education and may carry a perception that they may break rules.

Student's attendance at LUMHS is recorded in several ways, e.g. student's card scanning, manual by the teacher and circulation of the attendance sheet among attending students; any of the method may be employed. By asking questions about proxy attendance authors' sought to obliquely determine the ethical or cheating behavior. It was determined that proxy attendance substantially increased in SY, while, percentage of female students prone to mark a proxy, if given a chance, increased in SY, as compared to males. This trend may reflect an increased predisposition of female students for cheating, if given a chance (Table II) and a possible lack of initiative under unfavorable circumstances but that may come to fore under suitable conditions. Evidence suggest that smoking behaviour may improve because of knowledge and anticipation of the health hazard⁴ whereas in the present study no threat of penalty was perceived as the maximum penalty that marking of proxy attendance carried was striking off of the attendance for that particular class / session only. It may also be the case that proxy attendance may be done to help or befriend a person¹¹ or it may be for mere fun or possibly due to a feeling of independence of adulthood¹² as percentage of students of both genders declined when asked of their option about whether or not they will attend a class if left to their choice. Another important finding of the present study was that the number of students who got distracted during lectures rose in the SY compared to FY and more female students admitted distraction. A

possible reason behind greater female distraction could be the males chatting on nearby seats as the number of chatting male students rose in the SY, while number of females chatting declined in the same year. However, 98% females of the SY said that were good listeners, compared to 83% males whose response in the FY was at 92%. Behavioural refinement / more civilized behaviour in SY was noted in terms of interpersonal relationship in both genders (Table III). A positive and encouraging finding was that no association was found between marking of proxy attendance and the self-financed students or the hostlers. Students on self-financed seats do not necessarily belong to a class of low competence, but may have been not admitted on the merit seat due to a very tough competition for admission to the MBBS course and most of them may be at par with the other students of the class hence, may not necessarily conform to the results suggested by Piff et al⁵.

It was also determined that the attitude of teacher, affected student's behavior as majority of students in the FY and SY believed so. These results are in conformity with earlier research.^(13, 14) It may also be argued that the increased number of students chatting may have been due to the lecturer not being either captivating, behaving offensively or the students becoming more irresponsible; the former possibility seems to be remote as the percentage of girls chatting decreased in the same year (Table-III).

Males (38%) and 18% female students of FY admitted that English language acted as a barrier for effective communication, indicating that greater number of male students felt difficulty in comprehending English, however; the numbers went down to 30% and 17% in males and females respectively in the SY indicating that the students picked up the language, but the percentage for the boys still remained disappointing. Medium of instruction at LUMHS is English.

Overall, male's subject preference was Physiology, followed by anatomy and biochemistry; interestingly, female students, in

both years, preferred anatomy as compared to their male counterparts. It is generally believed that preference for anatomy is linked with an interest for future selection of surgical and allied subjects as a career option whereas preference for physiology may be taken as an inclination for medicine and allied subjects. Sound understanding of human anatomy is mandatory for safe practice of surgery;¹⁵ preference for anatomy by female students may be taken as their interest in choosing surgical and allied as their career path which is in contrast to available evidence¹⁶.

This study also determined student preference for teaching methodology. It was found that the majority of students in the FY, of both genders, preferred conventional way of teaching, i.e., using chalk and black board vs. multi-media projected Power Point slides. This number increased by 8% (males) and by 13% (females) in the SY. Such a trend may reflect non-acceptance of modern teaching tools or may have been due to blackboard mediated teaching facilitate understanding complex topics, more attention capturing and induced attention in learning as reported by S N Baxi, et al. who found blackboard and multimedia based teaching preferred equally by the students¹⁷.

Universities are not only responsible to impart education and develop professionals in respective fields but also are obliged for character building of the students so as they go forth as responsible and honest citizens of the state. Unethical and dishonest behavioural traits may go a long way along the professional path as they may manifest in a medical professional becoming prone to plagiarism, falsifying results and patient records² and unethical behaviour so getting ingrained in them that they see no wrong in it¹⁸.

CONCLUSIONS

Cheating behaviour in both genders and sense of responsibility in males, but civilised behaviour, did not improve after one year education at LUMHS. It is recommended that attitudes and preferences may be re-investigated at the completion of the

course.

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Never forget three types of people in your life.

- Who helped you in your difficult times.
- Who left you in your difficult times.
- Who put you in your difficult times.

Unknown

