

IDENTIFICATION OF FACULTY PERCEPTIONS ABOUT THEIR LEARNING ENVIRONMENT AND COMPARISON BASED ON CURRICULA AND GENDER

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ABSTRACT

Objective: To identify faculty perceptions about their learning environment and compare these based on curricula and gender.

Study Design: A non interventional, cross sectional study.

Place and Duration of Study: Islamabad Medical and Dental College and Islamic International Medical College, from Mar to Jun 2016.

Material and Methods: A non interventional, cross sectional study was done in Islamabad Medical and Dental College and Islamic International Medical College, from March to June 2016. Convenient sampling was done. Data was collected from faculty of two medical colleges with different curricula using AMEET inventory. Independent sample t-test was applied to find the difference between two groups based on gender and curricula.

Results: Statistically significant difference was observed regarding their teaching and learning activities whereas their perceptions about students, learning atmosphere, collaborative atmosphere, self-perceptions were found to be statistically insignificant. There was a statistically significant difference between male and female faculty perceptions.

Conclusion: Although, curricular type does not affect teachers' notion about their students, institutional ethnography and their academic self-concept, but faculty of traditional curriculum, believed their teaching to be mainly didactic, whereas those of integrated curriculum, deduced that teaching activities revolve around students. This research results can be generalized by increasing sample size and recording faculty sentiments of different gender and working in different curricular type.

Keywords: Curricula, Faculty perceptions, Gender difference, Workplace environment.

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INTRODUCTION

During last few years great stress has been placed on identifying impact of educational environment on learning of students and work output of educators. This has been achieved by measuring students' as well as teachers' perspectives on the said area¹. All factors that affect teaching and learning activities contribute towards educational environment², namely; organizational structure of the institute, physiological needs, safety, belonging, self-actualization and self-esteem³.

An affective learning environment greatly contributes towards quick adjustment of faculty and learners in institutional ethnography, leading

to enhancement in quality of learning in medical education^{5,6}. A healthy, non-threatening environment drives close association among educators and students thus their boasting drive to increase their input in routine tasks^{3,7}. Educational strategies adapted by educators, their motivation and attitudes are directly proportional to positive perceptions of students about their educational environment^{5,6}. Students perceive that their learning is greatly facilitated in this kind of environment which stimulates critical thinking and analytical processes. Therefore, an environment that opens the door for these cognitive processes, ultimately ease the achievement of learning goals^{1,5,6}. Therefore, positive association exists between teaching via a well-prepared, helpful and committed teacher to academic excellence of students as it promotes deep learning⁵. This relationship has arisen a need to develop and

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implement instruments which can measure the learning environment, effectively⁶. Though a lot of work has been done on students' perceptions on learning environment, but much less attention has been paid to faculty perspectives⁷. As discussed earlier, a healthy learning environment motivates teachers by reducing their stress, increasing job satisfaction and enhancing their job commitment¹⁰. Thus, In order to reform the educationists' workplace environment, it is the need of hour to make certain policies which can improve their education, work output and lessen their stress. All these measures will automatically make their learning environment better¹¹.

Both educators and learners must be aware of their curriculum. They must be aware of all crests and troughs in system which influence their institutional ethnography¹². As their perceptions can give directions to the policy makers, knowing about their perspective on dynamics being played on learning environment, will help institution to take vital steps to modify their policies to produce better outcome in future¹³.

Literature search has not helped us, greatly, to compare the learning environment of institutions that have integrated or traditional curricula, from faculty point of view. To fill this gap in literature, with the aim of improving educational environment in institutes having either of the curricula, and to bypass all hurdles that may hinder the curricular shift from traditional to integrated one, we conducted this research to give us detailed insight into the problem. Our research questions were, "what are the educators' perceptions on the learning environment prevailing in their institute? Is there any difference in perceptions of faculty members working in traditional and integrated curricular type? Is there any difference in perceptions of male and female faculty members? Hypotheses generated were that there will be a significant difference in perceptions of faculty members working in institutes with a different curriculum and there will be no gender difference in perceptions about learning environment.

MATERIAL AND METHODS

A non-interventional, cross-sectional survey was conducted on faculty members of two private Medical Colleges of twin cities of Rawalpindi/Islamabad, Pakistan; one having the traditional curriculum (group A) and other with the integrated curriculum (group B). Inventory for Assessment of Medical Education Environment by Teachers (AMEET) was used to measure the teachers' perceptions on their educational environment². It is a reliable and valid tool for the measurement of educational environment (Cronbach's $\alpha=0.94$), consisting of 6 domains encompassing 50 statements as shown in table-I.

Permission to carry out this research was taken from the institutional Review Boards (IRB)/Ethical Review Committee (IRC) of both colleges; authorization was taken from the author via e-mail for use of AMEET inventory and written consent was taken from all participants. All faculty members that were actively involved in the teaching and learning process of undergraduate MBBS students were included. All those having teaching experience less than six months in their present institutes or who were only actively involved in post-graduate training programs, were excluded from the study. Convenient sampling was done. Sample size was 183; 92 participants were from group A and 91 faculty members were from group B. Sample size was calculated by using sample size calculator.

Data collection spanned over a period of 4 months; from March 2016 till June 2016. Photocopies of AMEET inventory were made and color coding was done. Peach color represented traditional curriculum whereas blue color was for integrated one. The main threats, which can affect the internal validity of this research anticipated were that participants may not understand the statements of the inventory completely and randomly fill it and we may receive incompletely filled inventories, some may not sign the consent form, may not return the inventory or may forget about it. To overcome these threats, the inventories were personally distributed, properly

explained and collected after paying multiple visits to the medical colleges and their attached hospitals. Participants were made to fill inventories which we still found incomplete, under guidance.

The data was analyzed by using SPSS version 21. Descriptive statistics were used to calculate the means and standard deviations. Percent mean scores were calculated for AMEET inventory and its 6 domains. Independent sample t-test was used to compare the percent mean scores (statistically significant p -value <0.05) and to identify statistically significant differences between mean percent scores of perceptions on educational environment of both institutes. Difference in responses among female and male faculty members in each group were also noted.

RESULTS

The mean scores of each domain and total score of inventory were calculated and compared

rization of facts is emphasized. On the contrary, participants of group B, working in an integrated curriculum deduced their teaching sessions to be actively engaging for students, making them life-long learners, building their self-confidence and developing their competencies. They observed that their students actively participate in class and try to convert their knowledge into practice. Hence, difference between the two groups, automatically, became statistically significant (p -value <0.05).

When perceptions regarding students' behavior, motivation, learning responsibilities and relationship with their peers were taken, the difference between the two groups was statistically insignificant (p -value >0.05). But it was evident that faculty members in an integrated curriculum grade their students higher in these characteristics (58.99 ± 14.169) as compared to those following traditional curriculum (56.15 ± 13.609).

Table-I: Different domains of AMEET inventory showing number of statements under each domain.

Sr No.	Domains of AMEET Inventory	Number of statements
1.	Teachers' perceptions of teaching	7
2.	Teachers' perceptions of learning activities	7
3.	Teachers' perceptions of students	6
4.	Teachers' perceptions of learning atmosphere	10
5.	Teachers' perceptions of collaborative atmosphere	9
6.	Teachers' professional self-perceptions	11
7.	Maximum score of total AMEET Inventory	50

between groups A and B, having traditional and integrated curriculum respectively (table-II).

When mean scores of faculty perceptions about their teaching was compared, group A scored higher than group B (p -value <0.05). Though, educators in both groups surmised about their sound preparation of session, interest gain of students, respectful attitude towards learners' notions. They believed that they enjoy their work and conjectured that they give affective feedback which does improve students' learning. In contrast, faculty members who belong to traditional curriculum, speculated about their sessions being exclusively teacher-centered, where mere memo-

When their views were taken on educational environment to be conducive for their students' learning, participants of both groups believed to have ample time for various learning activities and more opportunities of interactive learning sessions to enhance communication skills in students. They stated that their students enjoy their studies and feel comfortable to ask questions from them. Group B graded their learning atmosphere slightly more than group A, however, the difference between the two groups was statistically insignificant (p -value >0.05).

A statistically insignificant difference was calculated between the two groups, regarding the

perceptions of collaborative atmosphere (p -value >0.05). Faculty members believed a healthy educational environment gives them space to work in a team and appreciate mutual contributions from different disciplines, thereby, social bonding with their peers is improved. Most of them assumed to bore greater flexibility during conflicts and appreciate varying advices by others. In our research, teachers belonging to both groups reckoned to be knowledgeable, have required teaching and communication skills and have adequate fairness to discuss their issues with peers. They figured that they do have sufficient opportunities for their professional growth. There are enough faculty development programs running

between gender and mean score of total AMEET inventory, statistically significant difference (p -value <0.05) was found between the perceptions of faculty members of different gender. It was inferred that female teachers positively rate their educational environment as compared to their male counterparts.

DISCUSSION

This study shows that our educators believe them to be successful and committed educationists. They believe themselves to be well prepared in class, gain students' interest of their, and respectful towards learners. This is in accordance with few international studies stating that medical teachers usually respect and appreciate

Table-II: Comparison between groups A and B in each domain of AMEET Inventory based on mean scores.

S. No.	Domains of AMEET inventory	Group A (Traditional Curriculum, n=92)		Group B (Integrated Curriculum, n=91)		p -value
		Mean Score	Standard Deviation	Mean Score	Standard Deviation	
1.	Teachers' perceptions of teaching	71.75	8.098	68.47	11.945	0.031*
2.	Teachers' perceptions of learning activities	66.82	16.624	73.10	13.562	0.006*
3.	Teachers' perceptions of students	56.15	13.609	58.99	14.169	0.169
4.	Teachers' perceptions of learning atmosphere	59.17	9.956	60.11	10.831	0.54
5.	Teachers' perceptions of collaborative atmosphere	63.70	13.157	62.23	11.663	0.427
6.	Teachers' professional self-perceptions	66.99	14.170	70.44	12.167	0.079
Total AMEET inventory		64.688	9.244	65.65	8.591	0.466

*Statistically significant

on research methodology, communication and educational administration skills and on making educational resources which are adequate to meet their requirements (statistically insignificant difference between both groups with p -value >0.05).

Our study does not show any statistically significant difference in total AMEET inventory score of groups A and B. Percentage of male and female faculty members was 50% of each in group A whereas it was 44% and 56% for group B, respectively. On calculating relationship bet-

their profession, grade high on their efficacy of teaching strategies, and have affirmative beliefs about their teaching¹⁴. Enthusiasm in teachers shows commitment and dedication, so this characteristic is now a part of teaching rather than a personal trait¹⁵. A good teacher have to do multi-tasking, like he has to inspire, support, communicate and actively engage his students¹⁶. As mentioned in Hardens' twelve roles of a teacher, a teacher should not be a mere information provider but be a role model, resource developer, facilitator, planner and assessor of learning activities¹⁷.

Our results also show more positive self-concept of teachers working in an integrated curriculum, as compared to other group (p -value <0.05). This finding is in congruence with another study, in which medical faculty perceived that they are making life-long learners and their regular feedback to students is a key stone in the process of academic improvement⁷. Another study indicate that a social environment that acknowledges individual standing of each student, provide meaningful choices to students and nurtures their internal motivation lead to students' maximum engagement in the class, this in turn, shapes their behavior such that they develop autonomy and freedom of choice required to become lifelong learners¹⁸.

Studies have shown that frequent and meaningful availability of teachers to their students has positive impact on their satisfaction level and internal motivation¹⁹ and a positive mentor-apprentice relationship provides a zone of comfort to both²⁰. To improve learning, the physical characteristics of surroundings, learner's perceptions and their beliefs in different sociocultural context are keystone¹¹. So it is the teachers' liability to supervise students to achieve the organizational goals²¹.

Our study infers that most of our faculty members show optimism about educational environment. They consider it healthy and progressive which gives them opportunities to form close bonding with faculty from other departments by working in integration. Contrary to our findings, few studies reveal that medical educators do not receive adequate peer support at workplace^{22,23}. Though, the tasks done in collaboration, lead to conjoined ownership, results of another study deduced that such an environment may have negative impact on peer interaction and, contrarily, they feel isolated²⁴.

Similar to our research, few studies indicate that teachers surmised about their firm grip on their subject, their proficient andragogical and communication skills²⁵. Faculty perceptions about their teaching philosophy is reflected in learners'

attitude and place a cumbersome impact on the academic achievement of the learners. Hence, disclosing teachers' perceptions make them reflect on their work, removes self-deception and they can judge themselves fairly. This increase in level of faculty job satisfaction lead to positive perceptions about their profession and environment at workplace²⁵.

Our research data comprised of 1:1 ratio of males and females in group A and 1: 1.3 in group B. Statistically significant difference (p -value <0.05) was present in perceptions of male and female faculty members about their learning environment. Interestingly, female staff grade their educational environment as more satisfactory as compared to their male counterparts. A study conducted in 2015 show results similar to our finding of female faculty members rating high on their learning environment¹⁰. Contrary to our findings, it is gathered from many other study results, with an inflation of female educators in medical profession, there is a paradoxical decrease in their rating of job satisfaction level, academic achievements, teaching efficacy and productivity in their career²⁵. Hence, need arises to figure out barriers hindering professional growth of female faculty members, by respecting their views about educational environment and modifying various environmental factors forming institutional ethnography.

CONCLUSION

Regardless of curricular type practiced in institution, our study results showed increased faculty satisfaction, their high academic self-concept and good relationship with their students in both institutions. Though mean score of faculty members who work in a traditional curriculum on teaching activity was 77.1 and on learning activities was 66.82 which contrasted with mean score of those working in an integrated curriculum 68 and 73 on teaching and learning activities, respectively. This gives statistically significant difference of 0.03 and 0.006 in similar order. So we can assume that those who work in an integrated curriculum, grade their learning activities

higher as compared to traditional curriculum. But we could not determine the effects of curricular type on teachers' perceptions of students, learning atmosphere, collaborative atmosphere and their professional self-perceptions. We also observed a different viewpoint of male and female faculty members about their learning environment. Our female faculty members were more satisfied with educational environment of their institute as compared to males. This nullifies our hypotheses about believing in no gender difference existing between faculty perceptions about their learning environment and about differences in their perception because of differences in curricula.

CONFLICT OF INTEREST

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

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