PERCEPTIONS OF THE UNDERGRADUATE MEDICAL STUDENTS ABOUT THEIR ENGAGEMENT IN CURRICULUM DEVELOPMENT.

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ABSTRACT: The student's engagement in curriculum development is necessary and important, as this has direct effect on their academic performance. The positive feedback and criticism given by the students when engaged contributes to the development and changes in the curriculum. **Objectives:** To explore the perceptions of the under-graduate medical students about their engagement in the curriculum development. **Study Design:** A qualitative study. **Setting:** Two public and two private medical colleges in Peshawar, Khyber Pakhtunkhwa. **Period:** From 1st January 2018 to 30th June 2018. **Material and Methods:** Seven open ended questions were developed after literature search and were authenticated by three faculty members. After pilot testing, necessary changes were made in guiding questions. Four Focus Group Discussions (FGDs) were conducted with final year students, two from public and two from private medical colleges of Peshawar. The FGDs were audio recorded and transcribed verbatim. All transcripts were reviewed after each session and triangulation of data was done. Data was analyzed and themes were identified. **Results:** A total of 36 participants were included in FGDs. Four themes that emerged were "Increased interest of students in studies" indicating that the curriculum should be planned according to their priorities and co-curricular activities should be encouraged; "educational reforms" indicating that there is a need for improvement in the teaching style of the faculty,; "improved communication" indicating effective communication between the faculty and students; "favorable academic environment" indicating self-confidence of the students and good working relationship between students and faculty for producing conducive environment. **Conclusion:** The concept of engaging the students in planning the curriculum and extracurricular activities needs to be further structured. Academic workload and time constraints may be reduced when students are engaged in curriculum development.

Key words: Curriculum Development, Engagement, Perceptions, Public, Private Medical Institutes, Students, Undergraduate

INTRODUCTION

A curriculum is all about the teaching program, about the teachers' intention and how they proceed with it.[1] Medical curriculum can only be effective means of learning for the students when it is written with the knowledge of their priorities, needs and abilities.[2] The studies suggested that students must be made part of the committee who are designing, implementing, resourcing and evaluating the curriculum.[3] Focusing on the student centered approaches the student involvement in curriculum development is now necessary and important, as awareness regarding the curriculum has direct effect on their academic performance. The positive feedback and criticism of the students will contribute to the development and changes in the curriculum.[4,5,6]

The surveys conducted were based on areas addressing the student's academics, faculty and student interaction and active collaborative learning.[7] The areas identified from the literature for engagement of students in the curriculum can either be behavioral engagement in which the students will act in accordance to their wish like their punctuality and positive behavior. It can be emotional engagement where the students will show sense of belongings, development of interest and will enjoy their experience. Thirdly cognitive engagement when the students take

interest in their learning, in this way they do more than their capacity and accept and enjoy the challenges.[8]

Engagement of students in curriculum development increases their interest and devotion to the studies giving good results in assessments and also contributes to the good reputation of the institute.[9]

Student engagement is important both in academic and co-curricular activities[10], when engaged they will take interest in the studies and their perspectives can generate good ideas regarding course contents and structure of the program.[11,12,13]

The purpose of this study is to explore the perceptions of the under graduate medical students about their engagement in curriculum development. Currently in our traditional curriculum there is no or very less engagement of students in curriculum. In Pakistan there are studies conducted on perceptions of medical students regarding the research ethics and clinical teachers as role model but there is limited literature on perceptions of their engagement in curriculum development and this area needed to be explored in both public and private sector colleges

METHODOLOGY

Study Design
It was a qualitative study. The study comprised four Focus Group Discussions conducted with final year undergraduate medical students of two public and two private medical colleges in Peshawar, Khyber Pakhtunkhwa. One FGD was carried out in each medical college forming a total of 04 FGD's with 09 students in each FGD; a total of 36 students. Purposive sampling technique was used because specific target were to be selected for the desired information. There was variation in participants based on their academic performance ranging from A grade to C grade and both genders included. Undergraduate medical students from final year MBBS, who were willing to participate and were present at the time of

FGD were included in the study.

The permission was taken from the Principals of medical colleges. The students were also apprised of the purpose of the study and informed consent was obtained from all participants and was ensured about the confidentiality of the responses. The FGDs were moderated and conducted by the principal investigator who was a qualified medical educationist and researcher. Each of FGD lasted 45 min to 1 hour. The assistant moderator helped in logistics and writing the key points as memos.

The gaps from the literature were identified and tried to develop the questions based on these gaps. Pilot testing showed that some questions were irrelevant or doubtful and were not contributing to the study results, some of the questions when asked were given the same responses by the participants so to avoid repetition some questions were removed. At the end only 07 questions were finalized.

Discussion points were transcribed from dicta phone. Moderator and assistant moderator reviewed all the transcripts after each session and coded the data under various headings. An analysis of text was done (word repetitions, key-indigenous terms, and key-words-in contexts) using an open coding technique. These codes were then shared with all authors of the study and any differences were sorted out and agreed upon by consensus. Any point that needed clarification was used as a guide for the next session. At the end of all sessions, four themes were emerged from this process, which were then reviewed by all authors till a consensus reached on themes. Data collection and data analysis was done simultaneously at the same time.

The final report was written and circulated to the participants for confirmation.

RESULTS
In first cycle of coding initial analysis was done by open coding, second cycle of coding was done to find out relationship by axial coding. Thematic analysis was performed through the process

of coding in six phases to create meaningful patterns. These phases were: familiarization with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report.

Public Sector Medical Colleges	Girls	Boys	Age
College 1	7	2	22-24
College 2	9	………	22-24
Private Sector Medical colleges			
College 1	6	3	22-24
College 2	4	5	22-24
Table-I. Gender and age of participants from public and private colleges			

A total of 30 open codes based on the important words used by the interviewees were identified. Words with similar meanings and implications were grouped together for the sake of conciseness.14 selective codes were identified,

13 sub themes and 04 themes.

A total of 36 participants in four FGD's discussed several issues which include improvement in the teaching style of the faculty, organized co-curricular activities, proper management of time, positive attitude of the faculty and the students, behavioral change, better attitude of faculty with students, effective interactions between the students and faculty, self-improvement through knowledge and skills, motivation to achieve goals, encouragement of the students, positive attitude of both the students and faculty, favoritism by the faculty, extra burden on students, faculty may feel threatened.

Four themes emerged as a result of this study were:
1. Increased interest of students in studies
2. Educational reforms
3. Improved communication
4. Favorable academic environment

Abbreviation	Codes from the first coding cycle	Abbreviation	Codes from the first coding cycle	Abbreviation	Codes from the first coding cycle
CT	Course taught	CS	Clinical subjects	P	Punctuality
TP	Time period	AS	Assessment of students	IT	Improvement in teaching
EA	Extracurricular activities	FV	Field visits	FF	Favoritism by the faculty
BS	Basic subjects	RP	Research projects	NAP	Not allowed by the parents
KE	Knowledge and education.	OS	Own by the students	LC	Lack of confidence
IIS	Increased interest in studies	CA	Curriculum awareness	IS	Improvement in studies
EL	Enhance learning	ETW	Encouraged for team work	DOF	Difference of opinion with the faculty
MC	More confident	GR	Good results	DCS	Develop communication skills
BF	Give better feed beck	IEA	Interest in extracurricular activities	IC	Increase in confidence
SS	Syllabus section	BS	Burden on students	MS	Time management skills
Table-II. List of codes given to the words used by interviewees, the codes from the initial or 1st coding cycle					

| S #	Representative quotes from the interview	Words used by the interviewees / categories identified	Codes Used	Number of times the codes used by all interviewees
1	I perceived curriculum as a document with chapters on basic subjects only.(Participant 3 in FGD 1) Curriculum is a document with clinical subjects only.(Participant 6 in FGD 1) Curriculum is something which is related to field visits and research projects.(Participant 2 in FGD 2) Curriculum includes all academic activities in college. (Participant 2 in FGD 2)	Academic activities	BS CS FV RP AA	48
2	Extracurricular activities should be made part of the curriculum and the students should be engaged in extracurricular activities. (Participant 5 in FGD) Making extracurricular activities part of the curriculum will increase their interest in extracurricular activities. (Participant 3 in FGD 2) By engaging students in curriculum development will also give them an opportunity to streamline the extracurricular activities as part of the curriculum, which is currently missing or totally ignored. (Participant 6 in FGD 3)	Extracurricular activities (ECA)	ECA	35
4	Students should be engaged in the development of the courses taught. (Participant 3 in FGD 4)	Educational reforms	CT	32
5	Students should be engaged in the development of syllabus section of the curriculum, as syllabus is directly related to their studies, and will help them in improving their understanding of the syllabus and learning capacity. (Participant 4 in FGD 2)		SS	30
6	By engaging students in curriculum development will enhance their interest towards the studies as they will have better understanding of the subjects taught which will lead to increasing their interest in studies. (Participant 4 in FGD 4)		IIS	26
7	By engaging students in curriculum development will provide them with an opportunity to interact with their teachers and peer. (Participant 2 in FGD 2) It will improve communication and working relationship of students with their teachers and peers. (Participant 3 in FGD 4) Engagement of students in curriculum development will encourage team work and team building. (Participant 6 in FGD 4)	Communication and working skills	IPT WR	25
8	Engaging the students in curriculum development will not only build their understanding of the subjects but will also help in managing the time for each subject according to their priority of learning and understanding, such as giving more time to that part of the curriculum which is difficult as compared to the one which is easy to understand. This will also help them in improving their time management skills. (Participant 5 in FGD 1)	Time management	TMS	20
9	By engaging students in such activities will put more burden on students as they will find difficult to manage time for both the activities, that is curriculum development and doing their studies. (Participant 3 in FGD 1) By engaging students in curriculum development along with their studies, there is chance of missing out their regular classes and clinical work in the hospital, resulting in negative effects on their studies. (Participant 4 in FGD 2)	Negative effects	BS MRC	20

10	By coming into contact with the faculty will improve coordination between students and the faculty, students will get more time to discuss different matters, or issues related to curriculum and will also help the students in building their self-confidence. (Participant 2 in FGD 3)	Motivation	MC	16
11	This participatory approach will develop interest of the students in learning and understanding of the subjects, decreases the fear of studies and making them more punctual in their studies. (Participant 3 in FGD 4)	Punctuality	P	15
12	Interest in studies and punctuality will lead to better outcome in form of good grades. (Participant 4 in FGD 4)	Good results	GR	14
13	By engaging the students in curriculum development will not only improve their level of understanding of the curriculum but will give them the sense of ownership for the curriculum with its deficiencies if any. (Participant 5 in FGD 2)	Ownership	OS	13
14	If the students are fully engaged in the development of the curriculum, then they can also comment or provide their feedback/suggestions on the teaching methodologies in the curriculum. (Participant 5 in FGD 1) The feedback/suggestions given by the students on teaching methodologies can bring Improvement in teaching methodologies. (Participant 1 in FGD 3)	Change in attitude	FTM IT	08
15	The students' interaction with faculty in curriculum development may develop some friction due to difference of opinion on some point. (Participant 6 in FGD 1) Due to the friction caused by the difference of opinion between the student and the faculty may damage the relationship between the student and the faculty and confidence level of the students. (Participant 3 in FGD 3) The faculty may become biased in the selection of the students and chooses their favorite students only, this favoritism by the faculty can sabotage the entire process and concept of curriculum development. (Participant 1 in FGD 4)	Student teacher relationship	DOF CL FF	07
16	The parents of the students may not allow their children to become part of this activity, as they may perceive the fear of extra burden of work on them, missing out of their regular classes and getting engaged into a situation developed due to difference of opinion etc. (Participant 6 in FGD 4)	Interpersonal relationship/ Social issues	EB	03

Table-III. Representative quotes from the participants, categories identified, and codes given to them in descending order of frequency

Sr. No	Themes	Frequency of Occurrence	Representative Quotes
	Increased interest of students in studies	32	"Students will take more interest in studies if they are engaged in curriculum development from very beginning." "Students will be manage all curricular and co-curricular activities more enthusiastically if they are involved in each step of curriculum development."
	Educational reforms	27	"Educational reform is the need of the day. There is need of Improvement in the teaching style of the faculty as well."
	Improved communication	22	"There will be effective communication between the faculty and students if they are engaged in curriculum development." "By engaging students in curriculum. There will be Improved coordination and interpersonal relationship between faculty and students."
	Favorable academic environment	19	"Self-confidence of the students will be increased if they are involved in curriculum. There will be good working relationship between students and faculty." "There will be Improved learning and understanding of the curriculum if students are engaged in curriculum development."

Table-IV. Representative Quote's for Themes identified by participants

All the participants were of the opinion that in the present scenario there is no engagement of the students in curricular and co-curricular activities so far as the planning is concerned. Most of the participants agreed that if engaged in such activities their interest will increase in studies which will enhance learning, bring improvement in the results and betterment in their attendance. They pointed out that proper time may be allocated to extracurricular activities on academic calendar. The students' perception was that they should also be engaged in assessment sections and given the opportunity to plan the assessment of the students. All the participants were of the opinion that by engaging in curriculum development their managerial and communication skills will improve. They will be able to communicate better with their faculty as well with their peers whether inside the college or outside in other medical colleges.
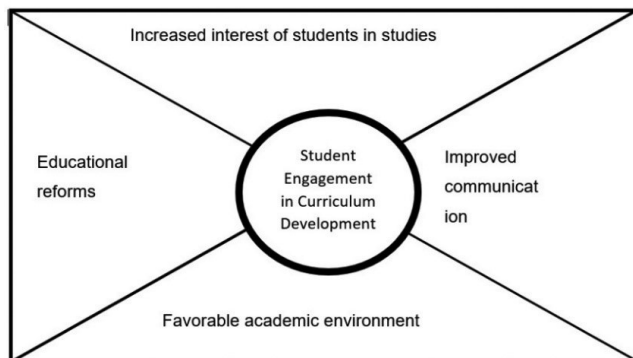
Figure-1. Thematic presentation of student's perception regarding their engagement in curriculum development

DISCUSSION

The results of this study are compared with different studies and researches of similar nature, the comparison revealed that the results evolved from this study are not very different from other studies and researches. The participants of this study were of the opinion that if given the opportunity to contribute to curriculum development, it would help them in building their interest in understanding and learning of the subjects, improve coordination with the faculty, develop ownership for the curriculum, improve self-confidence, improve grades in studies, thus improving overall academic performance and participation in the co-curricular activities.

DISCUSSION ON THE THEMES IDENTIFIED

Increased Interest of Students in Studies

Several qualitative studies and reviews from different corners of the world have reported similar concerns that engagement of students in curriculum development is of great importance in the sense that it will increase their interest in studies.[14,15,16,17,18] Our study results also reveals that by engaging the students in curriculum development would increase their interest in studies, the international studies also suggested that in order to enhance learning, engagement of students in the process of curriculum development is must.[19,20] The students become more active and can get good results.[21]

Other studies in comparison also suggest that the students who are more actively involved in studies & learning are more focused.[22] Some of the literature pointed that the curriculum so far developed and delivered to the students is only limited to the faculty with no contribution or engagement of the students curriculum development.[23]

Educational Reforms

In other places of the world the student's engagement in the curriculum development is encouraged because the researchers believe that students are always interested and ready to experience new things and are open to suggestions. They can give better insight to their faculty and also how it can benefit the future students,[2,5] The results of my study highlighted that students are career-oriented and are always interested and ready to take part in activities which can benefit them academically, socially and personally in developing their career.[22] The review of previous research also support and acknowledge the findings of this study.[23]

Some of the participants of this study has intelligently pointed out that by engaging in such activities there may be extra burden on the students specially the representatives as they

have to concentrate and manage their ongoing studies and also attending meetings related to curriculum development.

The students' commented that interaction with the faculty can help them improve their self-confidence and coordination with their faculty and they are responsive to suggestions[24], however there are chances of developing some friction between them and the faculty, in case if there is any debate or discussion on the difference of opinion.

Better Communication
In addition this study results also provide some additional information which include improvement in working relationship and coordination with the faculty and their peers, help them in improving their communication skills and learn to work as a team.[2,5]

Students can learn better if they participate in their own learning process.[20] This is also in support of this study that the student can bring improvement in their knowledge and skills through participation into the process of curriculum development.

Favorable Academic Environment
A study regarding students' states that according to students' perceptions, problem based learning is not enough for adequate learning. To increase the understanding of the subject, spiral curriculum should be encouraged.[20] this study participants also indicate towards innovative teaching methodologies, improved coordination and accommodative learning attitude of the faculty and the students.

Few of the studies highlighted the fact that students would love to take part in academic activities because they are career-oriented and they also know that such experience will benefit them not only at the personal level but also in building their academic career.[24] My study also show similar results, that if the students are engaged in curriculum development they can contribute by providing feedback such inputs on academic discussion and interaction between the students' and faculty, establishes an environment

of learning for both teachers and the students.[22,23]

LIMITATIONS
It was carried out in the public and private medical colleges of Khyber Pakhtunkhwa province only, therefore the results of the study cannot be generalized to medical colleges in other provinces of the country.

Another limitation of the study was that the information gathered was only from the students and the faculty perspective was not explored, therefore reflecting the perceptions of the students only. The information gathered from the faculty and their opinion on students' engagement in curriculum development could have enhanced the applicability of the research. Further research is needed to support the results of this study and to suggest effective interventions.

CONCLUSION
In this study a considerable number of students perceived that extracurricular activities if made part of the curriculum will not only help them in reducing their mental stress but will also help in increasing their interest in studies, they were also of the opinion that their engagement in curriculum development will help them in improving their interaction and coordination with the faculty, can provide feedback on teaching methodologies, improve their self-confidence and learn effective communication and time management skills, all leading to development of an enabling academic and learning environment.

There is a need for further research regarding perceptions of the students and their engagement in curriculum as there is limited research in Pakistan.
**Copyright© 21 March, 2019.**

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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Alia Qazi	AQ collected and analyzed the data, and edited all drafts of the paper.	
2	Naheed Mahsood	NM helped in generation of the idea, and edited all drafts of the paper.	
3	Usman Mahboob	UM developed the methodology for data collection and analysis and edited the final draft of paper.	