

ORIGINAL ARTICLE

PERCEPTIONS OF MEDICAL TEACHERS ABOUT INTEGRATED CURRICULUM: A QUALITATIVE STUDY

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Background: Curriculum is a plan of educational experiences and activities offered to a learner. Curricular reform is a dynamic process. To make a curricular change impactful the curriculum needs to be accepted and followed by all stakeholders otherwise it will be unsuccessful. Change is not readily accepted as evidence suggests that there have been frequent curricular reforms but with little change in medical education. Evidence suggests that teachers agree for upgrading themselves towards recent trends in the field of medical education. In light of these facts perceptions of medical teachers of AJK Medical College were evaluated for the purpose of identification of issues and continuation of this process.

Methods: Qualitative study design was used. Study setting was AJK Medical College; duration of study was six months from February 1 to July 31 2014. The interviews conducted with the help of a semi structured guide were recorded, and all the recordings were then fully transcribed. Transcripts were read several times by investigators separately to select units of significance and identifying themes. **Results:** Four themes namely curricular design, integrated curricular implementation, teacher's issues and student's issues were identified. Regarding integrated curriculum teachers think that it should be continued in the institution. Teachers believe that proper training is mandatory for the integrated curriculum to be successfully implemented. **Conclusion:** It is concluded that teachers should be aware of universal practices in medical education, and the curriculum of their university. Teacher's training is mandatory for implementation and continuation of this curricular reform.

Keywords: Integration, Curriculum; Perceptions; Curriculum development; Organ-system-based; Medical; Teachers; AJK Medical College; Thematic analysis; Mix-methods research

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INTRODUCTION

Curriculum is a plan of educational experiences and activities offered to a learner.¹ In the earliest medical schools apprenticeship-based curricular model was followed.² In this model there were two semesters each having four months duration. Lectures were the Teaching methodology with memorization of the subject matter being primary learning strategy. The critical component of medical training was one to three years apprenticeship with a private practitioner, and each day the student will follow his mentor to acquire knowledge and skills.

The disadvantages of apprenticeship-based curricular model were little attention to basic sciences and inconsistency across training institutions. These facts gave way to discipline-based curricular model in which exclusive basic science knowledge base of two years came into practice. Strengths of this curricular design were a strong basic sciences knowledge base.³ Major disadvantage of this curricular model (structure of discipline) was that students were not allowed to see real patients for the first two years, another

important issue was sequencing of teaching in basic disciplines thus resting all the responsibility of integrating information on the students.

These disadvantages as appreciated and perceived by teachers and curricular experts led to integrated curricula, the organ-system-based model during 1950's which has integration of basic and clinical sciences with control of content given to the topic committees rather than individual subject specialists.² Integrated system is followed in many institutions worldwide since then.³ Integrated curriculum (IC) is also followed in the regional countries such as India and Nepal. Studies about perceptions of Medical Teachers in the regional countries have concluded that teachers agree with implementation of this curricular reforms.⁴

Integrated modular curriculum is a relatively new concept, new trend of integrated curriculum; community oriented medical education was started as a pilot project with the help of WHO in 2001 in four medical colleges of Pakistan.⁵ Unfortunately this reform was unsuccessful. During implementation in four colleges certain areas of concern as perceived by medical teachers

and other stake holders were identified. They included lack of infrastructure, financial assistance and political support.⁵ There seems no disagreement on integration but best integration models and practical challenges in integrated curricula are difficult areas requiring further research and elaboration.⁶

To make a curricular change impactful the curriculum needs to be accepted and followed by all stakeholders otherwise it will be unsuccessful. Change is not readily accepted as evidence suggests that there have been frequent curricular reforms but with little change in medical education.⁷

The Azad Jammu and Kashmir (AJK) Medical College Muzaffarabad is a new medical college that is following integrated modular curriculum right from its inception. It is a relatively new concept for teachers to teach in integrated curriculum and they need training for the purpose. Evidence suggests that teachers agree for upgrading themselves towards recent trends in the field of medical education.³ In light of these facts perceptions of medical teachers of AJK Medical College were evaluated for the purpose of identification of issues and continuation of this process.

MATERIAL AND METHODS

Qualitative researcher tries to explore the phenomenon by getting an in-depth understanding of a problem, and to get a more holistic picture of issues and situations.⁸

Qualitative study design was utilized and Descriptive survey conducted in Azad Jammu and Kashmir Medical College Muzaffarabad from February 1 to July 31, 2014 (Six months).

Medical teachers having at least one-year experience of teaching in institutions following conventional curriculum and in institutions following integrated curriculum were included in the study while teachers having qualification in Medical education were excluded (to maintain homogeneity of the group)

Sample Size was twelve; non-probability purposive sampling was used for selection of study population: a list of teachers was taken from Department of Human Resource, and teachers selected according to the inclusion exclusion criteria. Out of eighty-two teachers (sampling frame) twelve teachers fulfilled the criteria all included in the study.

Ethical approval of this project was taken from Ethical review board of Khyber Medical

University in the 6th meeting of the ethical review board held on January 24, 2014.

A validated semi structured study guide was utilized for interviews. The questionnaire was taken from study conducted in university of Maharashtra⁴ and additions were made after identification of gaps during literature review. This guide was approved by panel of experts.

Data was collected through interviews utilizing a semi structured interview guide (Appendix I). Same interviewer conducted all the interviews to maintain continuity and uniformity. Along with socio-demographic data medical teachers were asked about their experience in conventional and integrated curricula, their awareness about latest undergraduate medical education curricula, universal practices, early clinical exposure of medical students, their problem-solving skills, students behaviour and the difficulties faced by the teachers.

The interviews conducted were recorded, and all the recordings were then fully transcribed. Two sets of transcripts were made for principal investigator and co-investigators (researcher triangulation).

Transcripts were read several times by investigators separately to select units of significance and identifying themes.^{9, 5} Themes thus reached individually were matched. Disagreement was sorted out by analysis of interview transcripts again. Member checking was done by asking the participant medical teachers to read the transcripts of their interviews. It was done to ensure the credibility of research.¹⁰

RESULTS

Collected data from twelve medical teachers showed that 9 (75%) participants were male and 3 (25%) were female. Majority of the participants, 5 (41.7%) were in the age group of 41–50 years as shown in table-1. After transcription of interviews, analysis of the data revealed some common sentences used by medical teachers during the interviews. These participant's views and opinions were converted into codes.

Two researchers separately did the qualitative analysis, and later matched. There was thorough discussion till an agreement was reached (Researcher triangulation). Thirty-two codes were identified. These codes belonged to different aspects / issues in the curriculum so they led to themes and sub themes. Themes and sub themes are shown in table-2.

Table-1: Socio demographic characteristics of participant medical teachers in the study

Demographic Characteristics	Frequency	Percentage
Gender of participant medical teachers in the study		
Males	9	75
Females	3	25
Age of participant medical teachers in the study		
20–30 Years	1	8.3
31–40 Years	2	16.7
41–50 Years	5	41.7
51–60 Years	3	25
Above 60 Years	1	8.3
Qualification of participant medical teachers in the study		
MBBS	1	8.3
MBBS+ Minor post graduate qualification	1	8.3
MBBS+ Major post graduate qualification	10	83.3
Teaching Experience in conventional curriculum of participant medical teachers in the study		
1–5 Years	4	33.3
6–10 Years	2	16.7
11–15 Years	4	33.3
More than 15 Years	2	16.7
Teaching Experience in integrated curriculum of participant medical teachers in the study		
1–5 Years	8	66.7
6–10 Years	3	25
11–15 Years	1	8.3

Table-2: Themes and sub themes of qualitative data analysis

S.No	Theme	Sub theme
1.	Curricular Design	Awareness level Institutional requirement
2.	Integrated curricular Implementation	Planning and Resources Instructional strategies Research Exposure to patients
3.	Teacher’s issues	Knowledge about learning resources Difficulties faced Training of teachers
4.	Student’s issues	Knowledge about learning resources Students’ attitudes Difficulties faced by students

Theme 1 Curricular Design:

All (100%) of teachers think that teachers must be aware about the latest curriculum and the universal trends in curriculum.

“Medical teacher must be aware of contents of latest under-graduate curriculum of his university”

“He must be fully aware of latest contents”

Regarding integrated curriculum 11 (91.6%) teachers think that it should be there and continued in the institution.

“We need designing of curriculum on the basis of relevant education in the specific community (locally oriented and globally compatible)”.

Conflicting opinion was

“Started without any planning and needs a lot of modifications to make it acceptable for both our faculty and students”

Theme 2 Integrated curricular Implementation

11 out of 12 (91.6%) think that intensive Planning is required in integrated curriculum are more than that for conventional subject based curriculum.

“Teachers need to put a lot of effort in this regard”.

“Without proper planning and better resources, we cannot achieve our goals in this system of teaching”.

Opposing remark was

“Same effort is required if teaching is in true spirit”

10 (83.3%) teachers think that integrated curriculum stimulates research among students.

“It creates curiosity and thirst to gain more knowledge that leads them for research”

“As I look in past decades it is true that integrated curriculum stimulates research”

“It does not motivate the student for research. True research and its motivation are only possible with clear understanding of basic subjects in correlation with clinical aspects”

Theme 3 Teachers Issues

Eight (66.6%) teachers feel that there are more difficulties for teachers in integrated system like they did not get enough time.

“Most of the teachers are not versed with integrated system, initially difficult to adapt”.

“To me the only difficulty is motivation”.

“Teachers do not put proper effort while designing the curriculum, hence are not facing difficulties”

Twelve (100%) of medical teachers believe that proper training is mandatory for the integrated curriculum to be successfully implemented.

“Every new member of faculty and demonstrators must be trained and given refresher courses”

“The system can only be effective if there is proper training of teachers first”.

Theme 4 Student’s issues

Eleven (91.6%) of the teachers believe that the attitude of student is better in Integrated curriculum as compared to conventional curriculum.

“Affective domain is enhanced in integrated curriculum”

“Attitude of students in integrated curriculum is much better for learning”

Only opposing opinion

“Their understanding and approach towards the topic is very superficial”

Ten (83.3%) of the teachers think that students are actually more comfortable in Integrated curriculum.

“I personally think students feel comfortable in Integrated System”

“Students are more comfortable it’s the teachers who have more difficulties in this system”.

“As they move to advanced years, they find it very difficult to correlate with basic subject knowledge”.

DISCUSSION

Individual teacher’s characteristics and prior experiences with change initiatives lead certain teachers to take action and persist in the efforts required for successful curricular changes implementation initiatives.¹¹ Teachers attitude have been emphasized as crucial in determining the success or failure of an innovation^{12,13} like integrated curriculum in this case.

Knowing the fact that teachers face challenges in dealing with curricular changes it is important to understand their perceptions for successful implementation of reforms.¹⁴

An initial finding of the study was that all the participants agreed that teachers should be aware of their universities’ undergraduate curriculum and the universal practices in medical education. This means that understanding recent practices in medical education, integrated curriculum being one of them, lies at the heart of any successful reform in the curriculum as is evident from other studies.¹⁴

Teachers face challenges during curricular reform. Knowledge and understanding of curriculum and the reform process is the key.¹⁴

Teacher’s knowledge about the latest trends and universal practices lead to the next finding, which was that teachers wanted integrated curriculum to be continued in the institution. They were convinced that due to ever changing dynamics in medical education they need this reform to be continued. Teachers expressed that in integrated curriculum they have to put more effort and work more compared to conventional curriculum. These findings compliment the findings of a research done in India.⁴ In that research teachers agree with implementation of curricular reforms. Basic science and clinical teachers alike identify the need for greater integration in the curriculum.⁴

In the theme of integrated curricular implementation, it was found that it requires more resources and planning. This was also found in another study about curricular reforms in Pakistan.⁵ As compared to the conventional subject based teaching, integrated system is more demanding in terms of planning; developing learning objectives, aligning the mode of instruction and then assessment.

Most of the study participants believe that integrated curriculum stimulates research in the students. *“Integrated curriculum creates curiosity and thirst to gain more knowledge that leads them for research”.* This perception of medical teachers in this study was contradictory to the perceptions of teaches in another regional study where they found teachers concerned about research being stimulated by curriculum.⁴

Significant finding of this study was about training of teachers. All (100%) teachers believe that teachers’ training is a must before starting integrated curriculum. Finding is complimented by similar findings in another study.⁵

It is very difficult to proceed with a curricular reform without trained staff and faculty. Basic training in the integrated curriculum is mandatory for faculty development and then to proceed with the change otherwise it may backfire if teachers continue to perceive integrated curriculum as difficult. This fact is well supported by other studies that development of faculty provides teachers the capacity to implement and support the efforts of curricular reforms.⁵

CONCLUSION

The medical teachers in this research have positive perceptions about integrated modular curriculum. Different aspects were highlighted in this study under four themes; curricular design, integrated curricular implementation, teachers issue and students issues.

All study participants agreed that teachers should be aware of universal practices in medical education, and the curriculum of their university. Implementation issues included planning and resources, instructional strategies and early exposure of students to real patients.

For full understanding of the subject perceptions of students also need to be studied as teachers have given certain perceptions about students' issues and the matter would have been better clarified with students' views about the same issues.

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AUTHORS' CONTRIBUTION

ZAK: Conceptualization, literature search, data collection, analysis, interpretation, write-up and proof reading. UM & IG: Conceptualization of study design, data analysis, data interpretation and proof reading.

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