

Challenges in Implementation of Integrated Curriculum-Insights from Faculty's Perspectives

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ABSTRACT:

Objective: The purpose of this study was to explore the barriers regarding implementing integrated undergraduate curriculum perceived by medical faculty.

Methodology: From October - November 2023, a qualitative exploratory study was carried out at undergraduate medical college that successfully implemented integrated curriculum. We recorded and transcribed a total of twelve semi-structured interviews. Faculty perspectives of the issues preventing a smooth transition to an integrated curriculum were investigated both before and after it was implemented, using a thematic content analysis approach.

Results: Faculty who had seen the programme firsthand determined that four initial barriers were genuine: faculty reluctance, a lack of rewards, inadequate resources, and a lack of preparation. Following the event, four more barriers were found, including a lack of administration, a disregard for the concerns of the faculty, a communication breakdown, and challenges in determining suitable assessment.

Conclusions: Curriculum integration at undergraduate medical institutions may fail for a number of reasons if they are overlooked. The regulatory agency should establish relevant and adequate policies to guarantee the control over the obstacles.

KEYWORDS: Curriculum, Undergraduate, Faculty, Medical, Medical institution

INTRODUCTION

The purpose of the medical curriculum is to produce physicians who are qualified to provide services that are suitable to the context. Medical colleges are tasked with this responsibility, which is based on the curriculum they are teaching.¹ As such, the curriculum is always altering. The Flexner study led to the continuation of the old curriculum, which is said to have encouraged students to become demotivated by disconnecting

theory from practice.² The current demands of inter-disciplinary inquiry and the inadequacies of previous models call for a solution, which is commonly recognized as the widely accepted integrated curriculum, which is now required to meet the registration requirements of many accrediting agencies.³

There have been numerous attempts over the past few decades to transition to an integrated curriculum, but the only real progress made has been in small, incremental ways. This has led to an exhausting cycle of "a shift without variation," and more research is needed to find a way to break the pattern of "promoting but not effecting integration."⁴ Faculty, the means used to build and deliver curricula, must be taken into consideration while developing proposals for curricular reforms because their participation and exchange of ideas enhances the quality of instruction and promotes accountability.⁵ Since such a curriculum is thought to be the most appropriate, Pakistan's current

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medical curriculum needs to be adjusted to the context of the country.⁶ A greater amount of research has been done on how students view the integrated curriculum than on how faculty members feel about it. A recent study from our Pakistani context has examined faculty members' opinions of the integrated curriculum prior to its implementation and has identified supportive and hindering elements.⁶

The purpose of this study was to investigate how faculty members saw the practical barriers to the shift from a conventional to an integrated medical curriculum, both during the first stages of the change and some years later.

METHODOLOGY

The purpose of this qualitative exploratory study, which took place at University College of Medicine & Dentistry Lahore between August - October 2023, after taking ethical approval from the institute (ERC/15/23/06) was to find out what the faculty thought were the main obstacles to the shift from conventional to integrated medical curricula. The transition to integrated curriculum was at the outset, started by University of Health Sciences (UHS) and implemented all over the Punjab. Other universities which are following their own curriculum are also shifted to integrated curriculum. Purposive sampling ensured maximal diversity in the selection of participants from both basics and clinical faculty. A diverse pool of faculty members from Professors to assistant professors and from basic and clinical sciences departments was assembled after consultation with medical education department, with no regard to gender. Faculty members from the pool of maximal variation were contacted for semi-structured interviews following informed consent. Twelve semi-structured interviews; six from each side (basic sciences + clinical sciences) were conducted in order to obtain theoretical saturation. The interviews were fictitiously designated B1 through B6 for basic sciences faculty and C1 through C6 for clinical sciences faculty. The principal researcher

conducted each interview one-on-one. The following two questions, each with eight subquestions, were selected and verified by five experienced medical educators in accordance with the objectives. What do you think are the main barriers that prevent a successful transition from traditional to integrated curriculum? and in your experience, what are the primary barriers to the effective introduction and ongoing use of integrated curriculum? The gathering and processing of data were done concurrently. The interviews were transcribed, and using Braun and Clarke's framework,⁷ a thematic content analysis was done.

The outlined process was used: reading the transcripts out several times to become familiar with the data; using the open code technique to generate initial codes; classifying basic codes into categories and axial codes; and, following evaluation, identifying final themes. The primary researcher and the assistant researcher discussed codes and themes along the process, addressing any discrepancies until a mutually agreeable solution was reached through an iterative approach. Quality assurance measures include protecting the audio files and transcripts, adopting triangulation across data sources (involving a variety of respondents), across study participants (principal and assistant), and across areas (basics and clinical faculty), sharing transcripts with participants for member verification, recoding dense and comprehensive descriptions, and maintaining an audit trail in collaboration with an outside medical educationist. By "Bracketing" and maintaining reflecting memoranda, the researcher applied reflexivity.⁷

RESULTS

Information was gathered from basic and clinical faculty members. Twelve semi-structured interviews were done in all, six of which were semi-structured. A transcript analysis was done. The following method was used to analyze the transcripts' thematic content. Axial codes were

created from the initial codes. Five final themes — faculty resistance, lack of incentives, insecurity of faculty members, lack of training and sensitization, and inadequate resources — were identified as barriers based on axial codes. (as shown in Table 1).

Table-1 additionally includes a few exact phrases that correspond to the beginning codes.

Initial coding	Axial coding	Final themes	Quotes
Inadequate infrastructure	Inadequate logistic support	Shortage of logistics	One of the hurdles was inadequate logistics. We lacked the necessary resources; in order to use modern teaching techniques, we required more IT assistance, more physical space, and more faculty members. I believe that greater funding was needed. (B-2)
Minimal technical support	Insufficient IT support		
Need of change	Resistance of faculty	Faculty's reservations	"Why make a change? Is it necessary? (C-4)
No sense of making a change			"While conventional curriculum is the comfort zone of faculty, integrated curriculum is not. That is why hesitate to move out of it. (C-6)
The mindset of senior faculty members	Attitude of senior faculty	Faculty's reservations	"There was resistance at first; for us it was difficult to register." (B-3)
More resistance from senior faculty members			"Those among the senior faculty members are hardly concerned"
Aversion to change	Insecurity of faculty	Limited Subject identity /Faculty's apprehensions	"It's vital that I hold control over my subject." (C-5)
Threatened faculty			"Time has been given to subjects at the expense of those who are not included in assessments." (C-2)
Subject Control/authority	No authority on subject	Faculty's apprehensions	"The fear of an uncertain future was present." (B-3)
Insufficient guidance	Little or no training	Inadequate training and experience	"There will be difficulty in transition if faculty members are not properly trained." (C-4)
Less knowledge	Comprehension with regard to the integrated curriculum		
Value of integration	Very less incentives	Lack of incentives/little incentives	"If faculty members had some incentives, they would work harder." (C-6)
Lack of incentives	Lack of human resources	Shortage of resources	"It's referred to an integrated system, but we don't know much about it." (B-5)
Less faculty members			
Low staff			

They were questioned regarding the authenticity of the previously noted barriers as well as any new

ones they might have discovered after the event. The participants considered the five identified themes — faculty resistance, lack of training, lack of incentive, and insufficient resources—to be authentic; however, they believed that insecurity of faculty and lack of sensitization diminished over time as a result of repeated evaluation and curriculum modifications.

Regarding the misaligned curriculum, perspectives were divided; while most people thought it was bogus, one senior faculty member disagreed. Following their experience, the clinical sciences faculty noted four more barriers: a deficiency in leadership, a failure to address issues raised by faculty, incomplete communication, and challenges in determining suitable evaluation protocols.

DISCUSSION

There were three types of obstacles found: those found initially, those determined to be real following experience, and those found afterwards. While the last category will certainly impact programme sustainability, the first two are likely to impact a seamless transition. In any context, but especially in academic contexts, change is a challenging issue.

The attitude and resistance to change of faculty have been identified as challenges in this study. In a study by Younger JM (2022), same findings were discussed that they could be attributed to variants like age and conflicting items, the administrations inability to set a suitable example, the lack of appropriate competencies brought on by a lack of time, incentive, or relevant training, or even the faculty members' fear of losing their identity as professionals. Every educational programme has to be changed if the underlying issues are to be explored and addressed.⁸

According to the results of this study, aversion of faculty is a real problem that, if not managed effectively, might have a negative impact on curricular reform. It has even been linked to the study by Winarno in 2020, that faculty resistance is serious inability to implement the intended

curriculum.⁹ The idea of faculty unease was predicated solely on codes taken from clinical faculty. Which had as its primary cause the faculty's worry about the loss of subject matter. Similar worries were discovered previously when integrating the physiology curriculum, but we determined that they weren't real because, as is advised for any effective academic programme, these feelings disappear as soon as the necessary adjustments are implemented following frequent reevaluations.^{2,10}

Clinical faculty saw lack of training as a real barrier after their experiences, but when explored in a study by Iqbal S in 2024 about the lack of sensitization they had previously experienced, the participants felt that it goes away with slow transition and the right training.¹¹ The faculty requires familiarisation help in order to initiate curricular reform. Ignoring faculty members continual training could impede development concluded by Zaidi SH.¹² Faculty opposition is also a result of inadequate training similar findings were highlighted in a study by Nemati.¹³ As a result, as reported in the literature and by the clinical faculty members, properly designed training can address the larger obstacle of resistance. Majeed M in 2023 explored the factors and found that creating and maintaining a curriculum is an extremely time-consuming task and Faculty finds it difficult to maintain their enthusiasm for the curriculum when they are already overburdened with assignments.¹⁴ Faculty involvement is stimulated by research on career growth, while resistance is increased when faculty members are less motivated to devote time to curriculum development. Lack of incentive has also been mentioned as a barrier in the study by Shahid R¹⁵, which is consistent with our findings. Since handling the integrated curriculum requires a lot of resources, it should come as no surprise that both clinical and basic faculty members cited a resource shortage as a barrier. clinical faculty were more concerned about funding and lack of technical help than basic science faculty were about inadequate documentation. It was also regarded as

a legitimate barrier after the experience, thus the seamless and long-lasting shift to integrated curriculum may be impacted by the lack of sufficient resources. This is consistent with previously published data showing that the range and quantity of attainable goals are constrained by scarce resources.¹⁶ The concept of a misaligned curriculum arose from codes dictating inconsistent course lengths and time slots, an unsuitable curricular structure, and excessive subject reduction. Similar issues were noted throughout the curriculum integration process for physiology.^{2,16,17} Only few faculty members acknowledged that the obstacle was real—that is, that they were unhappy with the curriculum, when asked about its authenticity; all other responses were negative. That faculty member's disappointment may have been caused by their reluctance to change. But the majority said that, as a result of frequent input, assessments, and adjustments, their topic is now receiving the proper focus and amount of time. This is not surprising given the importance of regular assessments and necessary adjustments for the sustainable operation of integrated curricula. It is reasonable to suppose that four more obstacles discovered by clinical faculty members following nine years of transitioning will have an impact on the program's sustainability. Same results were discussed in a study by Kasalaei A, who emphasized the importance of regular assessments.¹⁸ A comprehensive leadership is essential for any curriculum reform. Even in an institution that is conducive, competent leadership may accomplish a successful curriculum transition. It is the responsibility of leaders to anticipate, recognise, and remove barriers in the way of intended curriculum adjustments. It is not new that lack of leadership is perceived as a hindrance for smooth transition to integrated curriculum by faculty. They have seen firsthand the significant roles that leadership can play, as other obstacles may be overcome with willing and capable leadership. In 2019 a study by Winkelmann also evaluated the role of leadership in curriculum, this study

concluded that goals and techniques used in evaluation are often inadequately communicated, understood, and applied. This restricts integrated curriculum's potential to continue growing and being sustainable.¹⁹

Since faculty members have a significant role in the creation and implementation of curricula, every effort to change a curriculum should start with enlisting their support and keeping them at the forefront. When people ignore people's feelings about the change process and place too much emphasis on structural, external, and technological aspects, the complexity of educational reform is often overestimated. The same perceptions of faculty member were highlighted in the study by Rheingans (2019) that Ignoring or giving emotional factors limited significance might lead to failure in achieving the desired goals because it incorporates a lot of human elements.²⁰

As one of our participants put it, "higherups make the rules and changes and we just implement them," these evidences support the barrier that they highlighted. Therefore, I believe it is important to understand our side of the story and the issues we are facing before making any changes to your regulations. Similar findings were published in 2019 that Isolated instruction of the standard curriculum hardens the divisions between disciplines. Faculty resistance is encouraged and contact across disciplines is rendered unnecessary by the turf tainted by old curricula.²¹ Conversely, the main focuses of an integrated curriculum include curriculum sequencing, inter-disciplinary teaching, and creating links across courses. All of these rely on communication between disciplines. The issue of barrier in communication recognized as a main problem in successful integration of basic and clinical knowledge demands the interdisciplinary borders to fade, and a proper interdepartmental collaboration by establishing different committees.²² Clinical faculty discussed the necessity for a better array of evaluation methods because without them, students would likely choose to focus on specific subjects. In

addition to producing learning, assessment also acts as a catalyst for it. Choosing the right evaluation techniques is a crucial first step in curriculum integration. Only when integrated assessment is used, which is appropriate for verifying the required level of knowledge in line with teaching and learning strategies and objectives, can an integrated curriculum be successful.

The subject of why medical curriculum integration fails to produce the expected results is one that is often asked. Misaligned assessment may conceal one of the issues, since research indicates that faculty members are often ill-prepared when it comes to providing constructive criticism and evaluation across a range of competences. This obstacle's significance was discovered along the route, even if it was not initially understood.²³ In order to create assessments that are aligned across disciplines and competences, faculty members require training. Ignoring this and failing to put up an integrated assessment are two surefire ways that an integrated curriculum will fail.²⁴

Limitations: Time constraints hindered the study from being prospective, which would have allowed the faculty to express their opinions both before and after the experience. This would have allowed for a realistic picture of change all over duration. Instead, the study was limited to the senior faculty members. Moreover, future triangulation with students' perspectives can increase the accuracy of the findings.

CONCLUSION

The present investigation has discerned numerous barriers that may impede the seamless and enduring shift towards an integrated medical curriculum. In order to facilitate a smooth transition, regulations that guarantee the removal of these obstacles and, as a result, guarantee faculty participation in the curriculum reform should be established.

Conflict of interest: None

Funding source: None

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Author contribution:

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Date of Submission: 17-01-2024 Revised Date: 11-03-2024 Accepted Date: 15-05-2024
