Identifying the challenges to good clinical rounds: A focus-group study of medical teachers

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Introduction: The use of clinical rounds, as an integral part of clinical teaching to help medical students acquire essential skills of practicing medicine, is critically important. An understanding of medical teachers' perceptions concerning the challenges of clinical rounds can help identify the key areas of focus to better foster professional development of medical students. This study explored the opinions of medical teachers of Kerman University of Medical Sciences about the challenges embedded in clinical rounds. There is a paucity of studies regarding the topic under investigation in our context.

Methods: This qualitative study was conducted using a conventional content analysis method. We held a focus group discussion with eight skilled bedside teachers, chosen using purposive sampling, from Kerman University of Medical Sciences in February 2018. The focus group lasted for approximately 2 hours. The session was audio-taped. We analyzed data by considering the verbatim transcribed document of the audio-recorded discussions using conventional content analysis method for theme development. Informed consent was obtained from the participants.

Results: Medical teachers described many primary challenges to clinical rounds. Some of them were multiple students on rounding practices, time constraints, priority of research and patient care to teaching, and lack of participation and enthusiasm. We categorized these varied challenges into 5 specific areas related to (1) system; (2) teachers; (3) learners; (4) patients; and (5) evaluation issues. Focus group participants expressed some suggestions to mitigate barriers such as having fewer students on the rounds, addressing time constraints through planning and flexibility, and the provision of medical education award.

Conclusion: Clinical round practices are valuable but replete with a spectrum of problems. Many challenges affect the quality of teaching in clinical rounds that should be taken into account by bedside teachers in order to improve the quality of rounding practices. The identified challenges can be used in redressing bedside teaching to have more efficient rounding practices.

Keywords: Clinical, Focus group, Medical teachers

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Introduction

Clinical teaching is the fundamental component of medical education. It is in this setting where most of tangible and intangible skills of medical students are formed (1). One of the most important settings where these skills can be acquired is by the patient's bedside where medical students with the presence of the medical teacher learn many aspects of medical knowledge as well as history taking and physical examination skills. These skills are the cornerstones of clinical medicine. Evidence indicates that physicians can collect 60% to 80% of the information relevant for a diagnosis just by taking a medical history, leading to a final diagnosis in more than 70% of cases (2). This information indicates that a large part of diagnoses can be predicted by only these skills. By the same token, learning medicine at the bedside through interactions among the healthcare team with patients not only fosters the medical students' ability to perform physical examination skills, but also helps medical students to gain more experience when it comes to clinical data gathering and clinical decision making. It is in this run that better patient management can be obtained (3). Moreover, evidence shows that a spectrum of essential skills is needed within the clinical context to provide the best plan of care to patients. These skills are best attained when conducting clinical rounds with medical students. Teaching in this setting provides the opportunity to acquire proficiency in medical knowledge, communication skills, technical skills, patient management skills and team-work skills expected of a physician towards his/her professional development (4). The significance of teaching medical students at the bedside was also formerly accentuated by Sir William Osler, the father of modern medicine, which introduced bedside teaching to modern medicine. His statement on bedside teaching is highly acknowledged: "To study the phenomena of disease without books is to sail an uncharted sea, while to study without patients is not to go to sea at all" (5).

Different studies show that clinical rounds have an educational value in relation to knowledge acquisition, history taking and physical examination skills, to name a few. In a study on 134 learners investigating their perceptions regarding internal medicine ward rounds in Pakistan, the authors found that knowledge acquisition was fairly covered through teaching during the ward rounds (6). In a similar line, in a study on house officers, senior house officers and registrars investigating the educational value of post-take ward rounds in Chichester, findings showed that skills of history taking and physical examination were covered through teaching during the rounds (7). In another study on fourth-year medical students concerning their opinions on bedside teaching (BST) in Iran, results revealed that BST was an effective way for learning principles of history taking, physical examination, communicating skills, evidence-based medicine, and interpretation of para-clinical findings (8). Although bedside clinical rounds are considered to be valuable in clinical medicine, several studies in our context indicate that our clinical teaching is replete with challenges. Research findings suggest that bedside rounds are viewed as inefficient (9), unfavorable in its current practices (10, 11), lack of discipline in its conduct, and multilevel learners' presence in rounds (12).

We postulate that in our setting, clinical rounds continue to be the major method of teaching medical students in the absence of advanced clinical skills laboratories and simulation-based medical education. Therefore, due to the importance and the educational value of round teaching for the professional development of medical students and due to the embedded barriers pervading the clinical teaching, there is a need to identify the challenges that medical teachers are faced with during teaching medical students on the rounds. In this regard, obstacles are identified and decisive actions towards improvement can be taken into account to better foster professional development of medical students in the clinical setting (12). Therefore, we conducted this study to explore the perceptions and experiences of medical teachers of Kerman University of Medical Sciences concerning the challenges of clinical rounds.

Methods

Taking into account the "qualitative research" in the field of medical education as a well-established method, focus group discussion (FGD) is a very popular data collection technique in qualitative research (13). We used focus group to explore and identify the challenges to clinical rounds by involving the clinical teachers of Kerman University of Medical Sciences. In this regard, we focused on capitalizing group discussions and communication among our research participants in order to answer our research question and generate data. Evidence shows that focus groups are often used early in a research project, and even employed as a starting point, to lay the foundation for subsequent research. Focus group is a principal method

of investigation to be used as an explanatory or exploratory data collection technique (14). In this case, our study is a basis for a broader action research to be conducted by the authors of this paper to improve clinical education on rounding practices in Kerman University of Medical Sciences. Moreover, the authors of this paper have conducted a comprehensive review concerning the challenges of clinical education in Iran and a systematic review concerning the challenges of clinical rounds which are under review in other journals. Our systematic review has revealed that there is a paucity of studies on the barriers of bedside teaching in an Iranian context; thus, more research and investigation are needed accordingly. As a result, we carried out this study to identify the challenges of rounding practices in our context to find the key areas and focus on the most important factor/factors affecting teaching in clinical rounds.

This descriptive exploratory qualitative study using a conventional content analysis method was performed in Kerman University of Medical Sciences, Kerman, Iran. As our main focus in this study was on clinical rounds and its challenges, herein, we describe our context as "the inpatient clinical rounds". The clinical rounds in our teaching hospitals consist of third year medical students, interns (doctors in the fifth year of education), residents and a medical teacher attending the bedside. Before the initiation of each rotation, students are involved in history taking and physical examination activities. At the time of bedside round with the presence of the medical teacher, the main findings regarding history and physical examination as well as clinical data are put forward and discussions among the members of the healthcare team begin. Medical teachers help students to come up with differential diagnoses and a management plan accordingly. The main goals are education and training of students as well as patient care.

We conducted a FGD with medical bedside teachers on the fifth of February 2018. We used purposive sampling technique to employ the participants in our study. In this technique, participants are selected on the premise of a purpose in the mind of the researcher and the sample is then selected to encompass the interested participants and excludes those who do not suit the purpose (15). In this regard in order to gather rich data, a heterogeneous group of participants (ten skilled bedside teachers) from diverse backgrounds with bedside experience and familiar with the clinical context of rounding practices were invited to provide new insights into the topic area. We chose this sample to reflect diversity within the population in our study, obtain varied perspectives and to delve deeply into the issue. It should be noted that the number of participants in a focus group depends on the amount of information that needs to be gathered (14). Focus-group literature recommends an ideal group size of four to eight people (16). Our group stayed within this range. The letter of invitation containing the purpose of the study was sent by the manager of the Educational Development Center (EDC) to participants. We only recruited the medical teachers 1) who were responsible for a significant amount of internship and residency program as well as coordination and planning of teaching rounds, 2) with at least five years of clinical work experience, teaching medical students on rounds, 3) employed as geographical full-time faculty members, and 4) willingness to participate in the study. Apart from the focus group technique to gather data, we had an additional data source, a small questionnaire, to collect demographic data of the participants.

We conducted a FGD with skilled clinical teachers to obtain their perspectives on the research question. At the beginning of the focus group, clear explanations of the purpose of the session were expressed to the participants and in the case of any questions concerning the focus group and the topic under discussion, more explanation was provided by the researchers. During the focus group intervention, group discussions were led by one of the members of the research team as moderator to stimulate active engagement of participants in the discussions. By the same token, another member of the research team played the role of an observer in the running of the focus group. He took heed in picking up non-verbal nuances/interactions by participants, the interaction between participants, jotting down notes, and taking into account the information being shared among the participants. This was done to provide an additional dimension to the data transcription and interpretation. In the case of any concerns about the issues put forward, the moderator of the focus group clarified and elaborated the point, as needed. We tried to make participants at ease, and facilitate interaction between group members. We asked the participants not to be concerned about agreement with other people in the group. We encouraged them to freely express their opinions regardless of what other attendees had expressed. The focus group discussions lasted for approximately 2 hours.

In order to get rich and in-depth data, we used the questioning route or a discussion guide to increase the likelihood of open, interactive dialogue. To develop the questioning route, we

first generated some questions based on the experiences of the research team concerning the rounding practices, and then the compiled list of open-ended questions was shared by the experts in the field of medical education before the outset of the focus group. Feedback was received on the structure of the questions and identified areas that needed clarification. At the time of focus group discussions, we avoided questioning the participants and letting them answer the questions one by one. We made our participants at ease to disagree with each other (if any) and express their opinions by group discussions. Our goal was to make interactions among the participants.

The final questioning route consisted of the following questions:

● What are your experiences related to bedside teaching during your training days?

● What are the obstacles embedded in clinical education when teaching students on rounds?

● Are there any ways to overcome these challenges?

A qualitative content analysis was performed according to Graneheim and Lundman (17). The session was audio-recorded and deciphered by one of the members of the research team. Analytical process started by using verbatim transcription and identifying the participants' views. In this regard, the transcript was read thoroughly several times to gain a general idea of what was discussed during the discussions and highlight the same phrases or words connected with the study objective (identifying units of data). The unit of analysis, which is highly important in a content analysis, is a "segment of text that is comprehensible by itself and contains one idea or piece of information" (18). Thereafter, each data unit was condensed and assigned a code. Similar and different codes were identified and integrated, if feasible. Then, categories were emerged by grouping the codes (meaningful units) expressing similar or different concepts. At last, we applied a general theme for the emerged categories. All transcripts were independently coded by two researchers, applying as many codes as possible for each data segment. All coding and categories identified were negotiated with research members to ensure inter-rater reliability. Any ambiguities or disagreements concerning the coding were resolved by discussion between two coding researchers and in the case of not reaching a consensus, a third member of the research team was negotiated. Observational data or field notes which were gathered by one of the members of the research team who attended the focus group as an observer were taken into analysis as well. In this regard, the moderator and observer after

the focus group arranged a time to debrief and share their experiences and add an additional layer of data on the spoken words produced by the participants.

We reached saturation or informational redundancy as no new challenges were emerged from our group discussions. Strauss and Corbin state that saturation is met when what is explored and discovered does not necessarily add anything to the overall findings of focus groups (19). We believe that, with the sample size chosen and purposive discussions, saturation was obtained. Literature indicates that in a focus group, diversity of participants and depth of information are important for data saturation, not for a large number of participants or focus groups (14).

As every qualitative research, our study underpins and adheres to quality criteria of credibility, transferability, dependability, and confirmability. In order to meet credibility, researchers had varied field experience and prolonged engagement in all processes of the study. In addition, the processes of data collection and analysis were checked and discussed by the research team. Concerning transferability, researchers tried to provide full descriptions of the context of the study. We also tried to have enough discussions regarding the findings with previously published works. It should be noted that considering various perspectives and the use of direct quotations during the description of findings all helped with transferability of the study. For dependability, we adopted the code-recode strategy. In this regard, we coded our data twice by two members of the research team. We then compared data to see if any differences were identified. With regard to confirmability, a qualitative research expert was invited to check the coding and analyzing processes.

Participants were aware of the session being recorded, and verbal informed consent to the audiotaping was obtained from all participants. They were fully autonomous and had the freedom to leave the study as they desired. The objectives of the focus group were clarified at the beginning of the session. Participants were assured that the obtained information would not be used for any purpose except the research and their identity would remain confidential. This study was approved by the ethics committee of Esfahan University of Medical Sciences with the code number of IR.MU.REC.1396.3.165.

Results

Of the ten invited bedside teachers, only eight participants took part in the research. Among this batch, 5 were males and 3 were females. The

invited batch included 6 internists, 2 pediatricians, 1 surgeon, and 1 obstetrician. The mean age of participants was 46.6. In terms of academic rank, 4 were assistant professors, 3 were associate professors and 1 was professor. The content analysis of the transcripts revealed an extensive list of challenges and they were classified and subcategorized into specific challenges for clinical rounds. Our content analysis yielded five major categories related to the system, teachers, learners, patients, and evaluation issues. The list is shown in Table 1.

Discussion

Teaching at the bedside has an invaluable educational merit for medical students in relation to knowledge acquisition as well as history taking and physical examination techniques. This is the time when most of clinical encounters and training between a medical teacher and medical students

occur. To augment the efficacy of bedside teaching, there must be systematic investigations upon the current practices from the perspective of all stakeholders, especially teachers and students in the clinical setting. As we had obtained the opinions of medical students in another study regarding the challenges of clinical rounds, we designed another study in the format of group discussions with medical teachers to identify the problems embedded in our bedside teaching context from their perspective. Our content analysis identified five major categories of challenges. Each category of challenges and some suggestions formulated by our medical teachers are explained in more details and some sample quotes of focus group discussions are also discussed.

System related factors

After analyzing the findings, we found that our participants considered varied challenges

Table 1: Challenges to good clinical rounds based on responses from the focus group discussions, elicited from the medical teachers of Kerman University of Medical Sciences, February 2018

Category	Main category	Sub-category
Challenges to clinical rounds	System-specific	- A large number of medical students at the bedside - Having fewer rounds with residents - Low quality of interns' clinical rounds - Inadequate students' training hours - Insufficient time allocated to bedside teaching - Uncertainty about the concept of a standard clinical round - Wrong implementation of clinical round - Wrong routines embedded in clinical education - The priority of research to bedside teaching - The priority of patient care to bedside teaching - Being incognizant of responsibilities at the beginning of the career - Lack of facilities and budget - Lack of educational aids for rounding practices
	Teacher-specific	- Lack of expertise in clinical teaching - One-sided discussions on clinical rounds - Specialized discussions on rounds not appropriate for students and interns - Theory-based medical education on rounds - Medical teachers' lack of enthusiasm - Simultaneous teaching of a heterogeneous group of learners - Lack of teachers' time dedicated to teaching - Lack of teachers' attention to affective domain of learning
	Learner-specific	- Multiple tasks and responsibilities of residents - Not giving responsibility to students and interns - Lack of students' participation on rounds - Passive recipients of medical knowledge - Students' lack of enthusiasm - Immaturity of medical students to commence a career in medicine - Students' lack of justification for their roles and responsibilities
	Patient-specific	- Lack of priority given to patients - Distrust of patients towards medical students - Patients are not justified concerning medical students - Lack of enough good patients in clinical rounds
	Evaluation-specific	- Lack of attention to teaching quality in teachers' evaluation - Lack of feedback to teachers upon performance assessment - Lack of appropriate criteria for teacher evaluation and teacher promotion - Improper evaluation of teachers' performance by medical students - Inappropriate student assessment methods - Lack of a standard for evaluating students' clinical performance - Evaluations are theory-based - Fallacious students' evaluation by clinical teachers

to clinical rounds. They felt that there were fundamental problems and these problems impeded teaching during the clinical rounds. The main problems in the participants' discussions were the large number of medical students attending bedside rounds which has a direct effect on the quality of bedside teaching. The large number of students attending the rounds has been a matter of attention in studies in Iran (11, 12) and other countries (20, 21). This major problem hinders the effectiveness of bedside teaching and was repeatedly mentioned during FGD by our medical teachers. Many studies have suggested a decline in the number of students in clinical education (10, 11, 22) which underpins what our focus group participants proposed. There was a unanimous agreement among medical teachers concerning the large crowd of students around a patient in rounds causing low quality and fewer rounds with interns and residents. Participants number 4 and 7 stated: "*The large number of students is a huge problem especially in our ward that at times we feel redundant, too*". "*Our teaching round with students is too crowded. This causes others not to hear me at the bedside as they are standing far away from me*".

Another important problem declared was the wrong implementation of the clinical round surrounded by a lack of standard concept for round practices and wrong routines in the clinical setting. In other studies in Iran, it was stated that the current practices of rounding were unfavorable (10, 11) which corroborate our finding.

Coming back to the former challenges mentioned earlier, the timing of the rounds and routines of daily activities in the hospital were barriers to effective bedside teaching. Participant number 4 stated: "*Work hours, entrance and exit time, our meeting times, and our teaching time at the bedside are all wrong*". There were suggestions, such as modifications to mundane routines of the hospital and having bedside rounds in the afternoon instead of morning rounds, put forward by our participants. In a study by Claridge in 2011 on the educational value of the rounds, it was concluded that morning rounds were more effective than afternoon ones (23). This finding is incompatible with our result. We believe that morning rounds can be allocated to patients, the time when work round can occur with senior students such as residents and fellows. On the other hand, afternoon rounds can be specifically designed for teaching rounds with students and interns that need more systematic training provided by their medical teachers.

In a similar line, due to the health system reform plan in Iran in 2015, as one of the priorities of the ministry of health and medical education, there has been an increase in the number of patients visiting the educational hospitals to receive the clinical care (24). This has had a direct effect on the training of medical students due to the priority of patient care to bedside teaching and also in terms of allocating insufficient time for bedside teaching and inadequate students' training hours. Participant number 7 acknowledged: "*I am willing to stay at the hospital in the afternoon, but I have to finish everything until 11:00 a.m. because all the things for the patients such as discharges, radiology, and lab data must be finalized at that time. This leads to not having an efficient clinical round*". This indicates that our medical teachers have to manage a large number of patients, balancing service provision with the educational needs of medical students, which has made teaching at the bedside more challenging and time restricted. Research confirms our findings as the priority of patient care to teaching (25, 26), and lack of sufficient time for bedside teaching (23, 27, 28) have been investigated in other studies. By the same token, several studies indicate that time constraints and the large number of patients limit the effectiveness of clinical rounds (7, 23). These findings are consistent with the results of our investigation.

Bedside teaching must be a high priority for the system. Research highlights that in order to accommodate this important matter, the system can provide institutional incentives/rewards (20, 29) for those involved in the teaching of medical students, and responsibilities or competing demands on teachers should be reduced or eliminated (21, 29). However, our medical teachers stated that they preferred to do more research than bedside teaching. In this regard participant number 3 mentioned: "*If I do some research activities instead of teaching, I can promote much faster. Does teaching have a reward for me?*" The demand of research duties, patient care and administrative responsibilities may create a major hindrance to bedside teaching, if not properly managed, and all the stakeholders incur some expenses.

Another obstacle articulated concerning the system factors was related to facilities and educational aids in the clinical setting. Research findings show that before the initiation of the clinical round, there are important issues which need to be taken into account. These can be related to logistic provision for proper implementation of bedside teaching (12). This was one of the problems expressed by our

medical teachers as they needed educational aids when doing the rounds. Participant number 1 stated: "*We have problems to see x-ray films at the bedside. We used to see the patient's radiography using a negatoscope, but our new PACS system is not as efficient as the old one*". Participant number 8 declared: "*During a round, we have to move to a classroom to use the whiteboard or show a slide to students*". The use of technological aids in education is inevitable and traditional teaching methods are being replaced by new technologies and medical educators are keener on using technology-related aids. Our participants believed that the use of smart phones to see radiographies of the patients at the bedside was a better way to patient care and student teaching. Evidence also shows that mobile technologies have become ubiquitous in medical education and have captivated great attention among medical community. The use of smart phones during the rounds allows access to the Internet and learning materials which enhances learning (30).

Teacher-related factors

Our participants cited problems that are addressed numerously in previous literature reports. These included lack of expertise in clinical teaching, theory-based teaching on the rounds, lack of enthusiasm, and the use of specialized discussions as well as one-sided discussions at the bedside. Lack of teacher expertise in terms of the paucity of bedside skills (9, 20, 29, 31) and experience (32) have been repeatedly stated in other studies, which is in line with our results. As most of the clinical teaching occurs at the bedside and subsequently by the medical teacher, there is a need of faculty development programs to equip teachers with the required skills in our context. We believe that medical teachers should take part in faculty development programs, especially training in medical education, when they start their professional career. However, we should not consider it as a general rule of thumb, but many teachers need training in teaching when it comes to teaching medical students. This matter is highly important as many studies emphasize the need for faculty development training to educate teachers on bedside rounds (20, 29, 33).

Based on the elicited responses from our participants, teaching at the bedside is mostly theory-based without much engagement of medical students. Teachers are dominant and take the lead most of the time and students are only observers of rounding practices. The importance of active participation on the rounds has been

expressed in a study (34). Participant number 3 mentioned: "*When I was a medical student, my best teachers engaged me in discussions. Talking about medical facts and figures bores the students on the rounds*". Our medical teachers were unanimous about conducting rounds by having participatory discussions in order to involve as many students as possible. In a study by Faidon-Marios et al. on the educational value of ward rounds, they found that seniors rarely asked students questions to involve them on rounds or gave feedback (35); this is compatible with what our medical teachers stated.

Another identified challenge was teachers' lack of interest and enthusiasm. Our participants stated that disinterest has been internalized in us. Participant number 8 said: "*In early times, one teacher taught four medical students. Currently, we are forty teachers, but we cannot do the work for four patients. We want to leave the hospital soon at 11:00*". Several studies highlight that teachers are not enthusiastic in teaching (7, 31, 36); this also supports our finding. One important strategy for motivating teachers can be the provision of medical education awards among many other ways of teacher motivation.

Another area of attention was given to specialized topics articulated by medical teachers at the bedside. Participant number 7 stated: "*One of the most important problems is specialization of discussions on the rounds. I regret when interns and students must listen to such topics which are to no avail*". We assume that when it comes to teaching junior students, topics of patient care should revolve around more general related subjects of medicine in comparison to when senior students attend the bedside. Several studies in Iran have stressed the specialized nature of discussions on the rounds with medical students (37, 38).

A difficult task for medical teachers is to find a balance between work responsibilities and clinical development of students and they often have to teach multilevel learners with different learning objectives (39). In our context, our medical teachers are also faced with simultaneous teaching of a heterogeneous group of learners on the rounds. This obstacle is in line with other research reports in which the presence of multilevel learners on the round is an obstacle and medical teachers find group heterogeneity a challenge (40). Another important challenge the focus group discussed was the lack of teachers' time dedicated to teaching. Our medical teachers are faced with the challenge of patient care and teaching students simultaneously in a time constrained

environment. Factors such as the high number of patients and different responsibilities play a pivotal role and impede effective teaching on rounds. Literature shows that in order to tackle the problem of time when teaching medical students, teachers must adopt various time efficient strategies (41).

The last but not the least, another challenge was lack of attention paid to affective domain of learning. Participant number 5 stated: "*We never teach students how to deal with patients' concerns. Being a doctor means having responsibility towards patients. The most important part of becoming a doctor apart from gaining medical knowledge is professionalism and commitment which are embedded in the affective domain of learning*". Most of the teaching somehow occurs for the cognitive domain and psychomotor domain of learning. It seems that most of the demands by medical teachers in order to transform novice medical students into competent doctors are on a large volume of knowledge and hands-on experiences. We contend that it is critical to get students know and be cognizant of humanities aspect of care as it is required for proper doctoring; as such, it should be as much a part of medical education training as technical knowledge and practical skills. Evidence shows that medical educators cannot ignore the students' affective domain as attitudes, virtues and values are also cornerstones of medical education training (42). Thus, it becomes mandatory on the medical teachers' side to teach the so-called non-teachable issues to medical students.

Student-related factors

Our participants feel that the majority of the students on the rounds are the passive recipient of medical knowledge and they do not take heed to the activities on the rounds. One of the main reasons for passivity on the rounds can be the lack of planned activities at the time of bedside round. Medical teachers should try to involve students as much as possible during the round to foster better learning opportunities. Our participants stated that senior students such as residents and fellows are too hectic with patient care and multiple tasks and responsibilities. They only attend working rounds (daily rounds on in-patients) not teaching rounds. As a matter of fact, no teaching round is planned for senior students. In different studies, multiplicity of the task done by medical students has been emphasized (29, 43). This high volume of workload that senior students are faced with may have an impact on their quality of

learning. Conversely, in some settings in our context interns and students are not given any responsibility. It is important to know that when students and interns are not given the patient care responsibilities, there is no opportunity to assess them and provide feedback on their performance. Participant number 3 mentioned: "*The underlying problem is our lack of trust in interns as we want everything to be meticulously done. So, we put the responsibilities on residents' shoulders. We never reprimand interns for their actions. We only reprimand them for their bad handwriting concerning history taking*". There is a need for a balance between the clinical care responsibilities among medical students. The focus group participants felt that medical students are not justified about their roles. Different studies highlight the lack of clinical responsibilities defined for medical students (9, 44). Participant number 7 stated: "*Students, interns and residents are not oriented towards their roles, responsibilities and expectations at the beginning of the clinical rotation. I guess they must be justified in advance*". This obstacle can be addressed by proper orientation during the introductory clinical sessions in order to define the roles and responsibilities of each batch of students on the rounds.

Immaturity of medical students to commence a career in medicine was another important topic discussed during the FGD. In this regard, participant number 5 declared: "*An immature person should not be accepted and graduated as a doctor. He/she cannot be trusted and they do not take responsibilities for their actions*". Our participants feel that a medical student must be fully grown to have a clear perspective of medicine to commence his/her career. We believe that the acceptance of medical students should be based on some factors apart from educational attainment.

Another hindrance to effective clinical round was related to the students' lack of interest and enthusiasm and they rarely took part in discussions on the rounds. Participant number 5 stated: "*Students are very smart. They know how to evade their responsibilities. Lack of enthusiasm and disinterest pervades in them*". Several studies have considered this issue as hindrances to clinical rounds (12, 21, 31, 36), which is in the same line with our finding.

Patient-related factors

Patient factors such as lack of priority given to patients, distrust between patients and students, and unavailability of suitable patients were important issues identified by our

participants. Our medical teachers believed that patients should be highly privileged. This is in line with what Yoder claimed as the right of the patients to be preserved by the health care team (45). Participant number 5 stated: "*This is the most important training if we understand that the patient is privileged to other things. Classes and rounds must be postponed to afternoons. This is wrong if training precedes patient care*". Due to the nature of our educational hospitals where medical students must be trained, medical teachers stated that patients were not justified about medical students. This is exacerbated as distrust pervades between patients and medical team and makes a tense atmosphere in the clinical setting. Research reports highlight that interpersonal trust between patients and the health care team is an important determinant of care. In addition, trust is a significant predictor of acceptance of recommended care (46), satisfaction with care (47), and loyalty and satisfaction with the physician (48).

Evaluation-related factors

Concerning evaluation, our participants felt that there were many problems related to teachers' and students' evaluations. They stated that evaluations were theory-based without targeting what should be evaluated. They considered evaluations as fallacious without taking into account the "teaching quality" in teachers' evaluation. Lack of appropriate criteria and standards pervades evaluation for both teachers and students. Participant number 2 mentioned: "*I have not seen if a teacher has been demoted due to lack of proper teaching given to students. Our best medical teachers are those who have been retired with assistant professor academic rank. Conversely, weak teachers are promoted*". Our participants believed that there must be high standards for evaluation because many graduates, physician practitioners, carry great responsibility upon graduation. In this regard, evaluations must be correctly and justly implemented in order to assess the quality of teaching as well as the quality of our graduates. Research shows that criteria and standards must be established and according to these standards, evaluation instruments must permit a fair, accurate and reliable assessment of teaching quality (49). Although students' evaluation on teachers' performance and their feedback is deemed to be the most effective and reliable method (50), our medical teachers considered the students' evaluations as controversial in our context. Participant number 1 stated: "*Students give the*

highest evaluation mark to those teachers who are not tough and easygoing". One strategy to overcome this obstacle is to adopt other possible sources of feedback and evaluation on teachers' performance. Methods such as peer evaluation, self-evaluation and administrative observation can be used accordingly. Our finding is in line with the results of Bastani et al. in which they declared that student assessment cannot be an appropriate indication of evaluating the teachers' performance (51). The result of a study by Joibari *et al.* also showed that the results of evaluation were subjectively routinized and invalidated (52).

Our participants felt that little endeavor is invested and giving feedback is absent or teachers receive little constructive feedback for improvement. It is only done to meet requirements. Another area of attention must be given to the acquired clinical competence of medical students and methods of its evaluation. In our context, there is a need to more relevant and appropriate methods for evaluating the students' clinical performance. Participant number 7 expressed: "*Our evaluations are fallacious concerning the clinical competence of medical students. Our evaluations are theory-based and clinical evaluation is a matter of concern when we use an inappropriate method of evaluation for a clinical skill*". A qualitative study on the challenges of clinical evaluation and the approaches to improve it in Iran showed that clinical evaluation was inefficient, and practical skills of students were not addressed appropriately when doing evaluations (53). This result is in line with our findings. Assessment of medical students upon their clinical competence seems to be limited and based on inappropriate and limited methods. We assume that it is vital to know more about the current assessment methods in our context to see how practical they are to assess clinical competence and replace them with varied and more robust competency-based approaches. Research shows that as clinical competence is multidimensional, no single assessment tool is usually able to evaluate all of the competencies. Thus, multiple assessment tools are often essential to completely evaluate the student's clinical and professional performance (54).

Limitations

This study has several limitations. Our findings cannot be applicable to other settings as only a single medical university was selected for this research. However, other studies have similar findings which are consistent with many

of those reported in our study. This validates our findings. In addition, our findings only represent the perspectives and attitudes of medical teachers. It is important to mention that the perspective of other stakeholders in the clinical setting including students, nurses, and patients should be taken into account for further analysis. Another limitation of this study may be selection bias as our sample could be larger with more medical teachers attending the focus group sessions. It is suggested that more studies should be conducted using a FGD format (or different methods of data collection) by recruiting other stakeholders such as students, patients and nurses to get a deeper understanding of the topic under investigation.

Conclusion

Although medical knowledge and clinical skills are fostered and developed during teaching at the bedside, the educational value of the rounds is augmented when challenges and barriers are identified and proper action is taken. This study showed that many challenges affect the quality of teaching at bedside that should be taken into consideration by medical teachers to enhance the quality of clinical rounds. The varied perspectives elicited from our participants revealed that multiple and multilevel students at the bedside were major problems in our context. In addition to time constraints, lack of standardization for rounding practices, and priority of research and patient care to bedside teaching, our medical teachers need to be equipped with essential skills when teaching medical students on the rounds. There is also a need to pay attention to teachers' and students' motivation and balance the workload with teaching time. It is crystal clear that the role of trust between patients and medical students as a factor for a better bedside teaching is crucially important and our findings had an emphasis on it. By the same token, there is a dire need for implementation of a good evaluation system to improve the quality of teaching and provide feedback to students concerning their performance. Hence, bedside teaching as an invaluable tool of teaching tangible and intangible skills needs empirical evaluation of its practices to identify its challenges in order to improve it.

Acknowledgement

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