

Insight into strategies adopted by the residents who passed exit fellowship examination in first few attempts

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ABSTRACT

Background: The residents who pass exit fellowship examination in few attempts adopt certain strategies for early success. The lived experiences of residents passing FCPS final examination in few attempts, barriers to success and strategies to overcome those barriers were studied.

Participants and methods: This phenomenological research study was conducted at Services Hospital, Lahore, Pakistan from June 2015 to May 2017. Purposeful snowball sampling was done. Eleven residents who passed their Final FCPS examination in few attempts, in the last 15 years were included in the study. Semi-structured open-ended interview of the residents was audio-recorded and transcribed. Three themes of helpful factors, barriers encountered and suggestions to overcome those barriers to get through the final FCPS examination and the emerging sub-themes were analyzed and textural and structural description were assigned.

Results: Three themes were based on the aim of study and their related emerging sub-themes were found. The helpful factors included self-directed learning, peer assisted learning, interactive educational environment, rehearsal and self-determination. Barriers encountered were related to learning difficulties, competing responsibilities and physical and emotional burnout. Lastly, suggestions to overcome the barriers were use of multiple technology based learning strategies, developing self-confidence and self-efficacy together with prioritization of emotional and physical wellbeing.

Conclusions: This study found that self-regulation and internal motivation were important strategies for success in the FCPS exit examination. Barriers can be overcome through technology based learning and increased self-efficacy and prioritizing physical and emotional wellbeing.

Keywords:

Strategies, Exit fellowship examination, Residents, Few attempts

INTRODUCTION

Postgraduate training in medicine is high-stakes education. There are scores of strategies adopted by residents to successfully get through post-graduate training and the fellowship exit examination, which is meant to qualify them as consultants in a specialty. One of the main strategies is self-regulation. An interplay of the principles of adult learning and self-regulation in the development of clinical and practical skills is vital for patient care.¹⁻³ Self-regulation is a cyclical process of strategic planning phase, performance-monitoring phase and self-evaluation-reflection and adjustment phase.⁴ Strategic planning phase involves goal setting and deciding about the appropriate learning strategies. The performance phase involves self-monitoring, seeking feedback and resource management in the clinical environment and social interaction with peers

and seniors.⁵ Self-reflection and attribution allows one to decide on goal attainment and adjustment to form new goals. The learning in the clinical settings of the hospital departments like outpatients, emergencies and operation theaters and other critical care areas is unpredictable, messy and complex.^{6,7} Combined regulation of self-regulation by the trainee and trainer leads to a shift in the focus of learning from peers to senior role models, from external motivation to internal motivation and from task based to competency based development of professional identity.⁸⁻¹¹ Combined regulation of self-regulation equips the future specialist with lifelong learning to better manage the ever changing landscape of healthcare delivery.¹²

The exit examination carries high stakes for the residents because not gaining an earlier success leads to stoppage of stipend and hence increased stress. Final FCPS is a highly competitive summative exit examination leading to certification as a specialist. After passing the theory examination, the clinical component has to be passed in three consecutive attempts. In case of failure, the resident has to re-sit the theory examination, as per rules and regulations for the exit

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Table 1. Semi structured interview questions

Questions type	Questions
Opening	1. How did you prepare for your final FCPS examination?
Questions	2. What were the factors that help you clear the examination in few attempts?
	3. What was your motivation and how did it influence your learning?
	4. What were the difficulties that you faced during your preparation?
Ending	5. What are your suggestions for the residents taking final FCPS examination?

examination by the College of Physicians and Surgeons of Pakistan (CPSP).¹³ Currently the pass percentage in the final exit examination is not very good.¹⁴ We need to explore the factors leading to success from the resident's perspective. On review of literature there is a lack of local evidence. The gap in this area needs to be explored as to what are the factors contributing to the success in few attempts, what are the barriers involved and how to overcome those barriers. In this respect the lived experiences of the residents to explore the strategies to achieve success in a few attempts were studied. Furthermore, the challenges or barriers encountered to get through in the exit fellowship examination and suggestions to overcome those barriers were looked into.

PARTICIPANTS AND METHODS

This phenomenological study was conducted in the constructivist paradigm from June 2015 to May 2017 at Services Hospital, Lahore, Pakistan after approval from the Institutional Review Board, Services Institute of Medical Sciences, Lahore, Pakistan. Purposeful snowball sampling was done by requesting one participant being interviewed to identify the other participant fulfilling the criteria. Eleven participants shared their lived experience of using strategies to pass the final FCPS examination in their natural environment. The selection criteria observed for few attempts was those residents who cleared the theory paper in first attempt and clinical part in three attempts as per rules and regulations of the CPSP. There were eight male and three female participants. Each participant signed the consent form with brief overview of the topic, objective of the research, and all of them agreed to participate. A semi-structured interview was conducted which was audio recorded and transcribed verbatim, along with the field notes at the workplace. Ethical considerations of anonymity and autonomy were addressed through allocation of pseudonyms of A to K to all participants to conceal their identities. This research was done under the supervision of qualified and trained medical educationists. The interviewer was the first author. There was no hierarchical differential in status since the interviewer and interviewee were

colleagues and a few years apart working in the same institution. Tea with snacks was served during the 30-minute interview which gave an openness and relaxed environment for the participant to talk his/her heart out. Research question was about the strategies adopted by the residents to pass FCPS exit examination in a few attempts. Three themes were derived from the aims of the study. A list of significant statements was made i.e. **“horizontalization” was done. Then grouping of significant statements into meaning units or sub-themes was done and meaning units were assigned names by allocating them heading, which were the emerging meanings of the unit. Textural description of the experience, through verbatim examples was the next step to validate sub-themes. Whereas, structural description of the experience, highlighting the context of the experience was another step to provide rich information regarding the phenomenon, and finally the composite description of the phenomenon was developed incorporating both textural and structural descriptions to share “essence” of the phenomenon, called “essential invariant structure”.**¹⁵ Trustworthiness of the findings was addressed to improve credibility and transferability of the data by means of prolonged engagement with the participants, and field notes were taken and interviews were audio-recorded. The bias was bracketed by maintaining a reflective log about researcher's perceptions. Transferability has been addressed by sharing the thick description in results. The answers with similar meanings were assigned sub-themes with minimum overlap. Themes and sub-themes were revalidated through iteration of revisiting the questions and transcription by all the authors.

RESULTS

A semi-structured interview questionnaire was used (Table 1). Three themes were based on the aim of the study were helpful factors (theme I) , barriers encountered (theme II) and suggestions by the residents to get through the exit fellowship examination in few attempts (theme III) .The analysis framework helped in developing composite summary of the phenomenon incorporating both textural and structural descriptions. Identification of related sub-themes, textural

Table 2. Theme I - helpful factors in passing the final FCPS examination in few attempts

Subthemes: Textural description	Structural description
1) Self-directed learning a) "...I isolated myself for 2-3 hours to study in the library". b) "...I used to read for 7 days a week at home"... c) "...I used to set my own goals and try to achieve them in a step by step manner".	The residents did self-study in the library or at home. They monitored and evaluated their learning by setting achievable goals.
2) Peer assisted learning a) "...I believe in collaborative study because in this exam you have to be more practical". b) "...we did role play with a colleague on history taking, one being the patient and the other being the doctor".	In the given context, the residents engaged in collaborative study with fellow residents in the hostel room. Cases seen in the out patient departments were read from the book and then discussed to clarify concepts through mutual feedback and reflection.
3) Interactive educational environment a) "...Weekly teaching sessions were taken and cases were discussed in our postgraduate class by the professors who were examiners as well." b) "...There were our supervisors who motivated us that you are the one who can do it in first attempt. These small statements on frequent basis gave us a lot of courage and moral support to perform".	An ophthalmology resident emphasized that weekly teaching sessions during the training tenure in the outdoors as well as indoors with senior faculty helped to gain knowledge about the subject. During case presentation in the ward rounds encouraging remarks by the supervisors were helpful for the residents to pass the examination.
4) Rehearsal a) "...Mock exams are very helpful when done on the same lines as the final examination"	The mock examination at the hospitals in their wards, provided context for practice and opportunities for feedback and self-monitoring as mentioned by ophthalmology residents.
5) Self determination a) "...I motivated myself to clear the examination to become a consultant and to decide for my patient. I wanted to achieve the highest degree in Pakistan which is FCPS". b) "...I had excellent clinical skills which I polished during my residency. My motivation was my own thought "failure is a word unknown to me". When you have to pass the examination you have your own "internal motivation", you are self-organised, you have self-esteem. They say "there is always space at the top and try to fill that space".	In the given context, the desire was to achieve competence and be a part of the Ophthalmology fraternity.

description of the experience, through verbatim examples, structural description of the experience, highlighting the context of the experience, are displayed in (Table 2 and 3)

The residents shared their lived experiences regarding strategies adopted by them as helpful factors to get through the exit fellowship examination in a few attempts. Most of the residents were self-directed and self-regulated. They set their own goals and planned self-study both at home and in the library. Case based discussions and case presentations provided interactive educational environment in the ward and out patients with feedback by both colleagues and seniors. Mock examinations provided opportunity for practice and reflection. The barriers to success were lack of adequate training and coaching, financial constraints and physical and emotional burnout. To have more clinical exposure they had to go on their own to the outpatient departments of other institutions. They used multiple technology based learning strategies like Whatsapp and Facebook, Google videos and reading from reference books on the laptop. Financial burden due to limited stipend was one of the main competing responsibility as Lahore has higher living expenses, compelling residents to work part time in private hospitals. The busy schedule like 24 hour emergency and on call duties and lack of rest and sleep led to physical and emotional

burnout. The residents felt that meditation and going for a walk in the park or eat out with the family was helpful for physical and emotional wellbeing. To gain self-confidence and increase their self-efficacy, the difficulties in the working environment, like busy 24 hours emergency duty and on call duties, were taken as opportunity for on the job learning. The residents were internally motivated to achieve competence for independent clinical practice to be a part of medical fraternity.

DISCUSSION

Postgraduate exit examinations carry high stakes for the residents.^{16,17} FCPS fellowship awarded by the CPSP to the successful residents is recognized as one of the highest post graduate qualifications by the Pakistan Medical and Dental Council (PMDC) to practice independently as a licensed specialist. After MBBS and one year house job, the medical graduates pass the entrance examination (FCPS-Part 1) and join the training program of their chosen specialty. They are registered in the training program and are entitled to draw stipend from the hospital for the duration of training. On completion of the training program, the residents sit the final exit examination. It is the desire of every resident to get through the FCPS exit examination in a few attempts. Failing to get through

Table 3. Theme II (barriers encountered) & Theme III (suggestions for passing the final FCPS examination)

Subthemes: Textural description	Structural description
Theme II- Barriers encountered	
1) Learning difficulties	As all categories of patients were not covered in one department, so there was a lack of training in some areas. In this context in order to bridge these gaps the residents had to go on their own to out patient departments of other units/institutions
a) "...Not all patients are covered in our department, we had to go to other places to learn". b) "...Lack of training and lack of coaching are the biggest problems".	
2) Competing responsibilities	In the given context, the residents were living in Lahore during training. The residents were compelled to work part time in private hospitals.
a) "...I did double job in my first year of training but then I could not cope with the routine work so I quit the second job".	
3) Emotional and physical burnout	24 hours on call emergency duties including operation theatres list every third day was exhausting for residents working in surgical departments. This busy schedule of the residents led to disconnect from social responsibilities towards the family. It resulted in physical and emotional burnout. In order to keep up with the schedule one had to compromise on rest and sleep time which resulted in sickness in some cases.
a) "...The schedule for the residents is very busy"	
b) "...We are disconnected from the social setup and our absence at family social occasions is emotionally challenging"	
c) "...One had to compromise on sleep and rest time".	
Theme III-Suggestions for passing the final FCPS examination in few attempts.	
Subthemes: Textural description	Structural description
1) Use different technology based learning strategies	In this context, social media was used. An ophthalmology resident used whatsapp to discuss cases by sharing live videos and pictures with the colleagues, from her home at a specified time. Another resident in surgical speciality used the google videos to learn the diagnostic procedures and operating skills, when he was working 24 hours on call duty in the ward.
a) "...I found a colleague on facebook and was on whatsapp with a foreign student...".	
b) "...Utilize the mobile facility. Use google videos". c) "...I had a lot of reference books in my laptop for ready reference".	
2) Develop high self-confidence and self-efficacy	Residents mentioned that on the job learning even during busy 24 hours emergency duties, helps to gain self-confidence and increase self –efficacy.
a) "...Always do the emergency work , you will gain confidence". b) "...At all levels go for hands on training and learning."	
3) Prioritize physical and emotional wellbeing	In this context, the residents suggested to find time to relax, to go out for walk in a park or eat out with family. Some residents suggested to meditate for better work life balance by praying at home or in masjid in case of male residents.
a) "...We should offer prayer and should keep strong connection with ALLAH." b) "...Do find time to relax yourself like walk, watch television, or eat out".	

leads to low morale and financial instability. This study provided an insight into the lived experiences regarding strategies adopted by residents to clear the FCPS exit examination in a few attempts, including the barriers to success and strategies to overcome them.

The residents being adult learners are self-directed and self-regulated. Self-regulation involves goal setting, social interaction with peers and seniors, feedback and self-monitoring. Self-reflection and self-evaluation allows one to decide on gap analysis in goal attainment and adjustment to form new goals.^{2,4,5,8} Our results indicated that the residents set their own goals and engaged in self-study at home and in the hospital or departmental library. (Table2, theme I, comment 1-a to c). Patient based learning took place while working in the outpatients and wards, interacting with the colleagues and seniors was identified as another method of learning. Case based discussion with the peers and seniors helped to clear concepts through feedback. In a study by Norcini and Burch, support and guidance to the trainee in the form of formative feedback should be provided at their workplace.¹⁸ The participants considered case presentations in the weekly ward classes provided further opportunities to develop communication skills and practice for viva voce in the examination. Encouraging remarks and verbal praise by the supervisors, internally motivated the residents to

put in more effort to achieve their goals (Table 2, theme I, comment 3-a, b). In a study by Mukhtar et al, the residents who were more intrinsically motivated reported better utilization of self-regulated learning strategies.¹⁹ The fulfillment of basic psychological needs of competence, autonomy and relatedness result in internal motivation. The desire to be competent provides a strong drive for internal motivation. Self-regulation and self-determination go hand in hand.^{19,20} Internally motivated residents are better at using self-regulation learning strategies of planning and goal setting. They are good at implementing and monitoring their learning. They also engage in reflection and evaluation of their learning deficiencies. The residents seek appropriate coaching and mentoring in the adjustment phase. Internal motivation also leads to higher self-efficacy in achieving the goals. The residents emphasized that the main drive for success in the exit examination was to become a consultant (Table2, theme I, comment 5-a, b). A resident summed it up very well by saying that "there is always room at the top and I will try to fill that space". Another resident remarked that FCPS is the highest degree and he aspires to achieve that in the context of professional competence. The achievement of professional identity through competence enables a sense of belonging to the medical

fraternity. Thus, the attainment of professional identity and competence leads to autonomy.^{20,21}

The challenges faced by the residents were related to increased workload due to busy out patients and emergency duties, thus compromising opportunities for training and coaching. The hectic schedule also led to lack of rest and sleep. The competing responsibilities of supporting the family with limited stipend added to the stress and frustration. This was further compounded by a disconnect from family and social support (Table 3, theme II, comment 3-a, b, c). In a study by Simpkin et al deterioration in concentration and cognitive abilities of the residents have been attributed to the long duty hours, continuous stretch of duty and burden of work leading to emotional and physical burnout.²² In another study by Sohail, it has been shown that higher level of stress, interferes with residents preparation, concentration and performance.²³ Long and busy working hours add to stress and cause emotional and physical burnout leading to impairment of clinical decision making, reasoning and judgment. Limited resources of working memory cause cognitive overload and lead to medical errors as well as failure in exit examination.

The residents suggested that the aforementioned barriers can be overcome by better self-regulation and by developing higher self-efficacy. The residents desire to utilize their busy work environment for learning is evidence of higher self-efficacy. Technology based learning strategies like Whatsapp and Facebook groups can be used for discussion, Google videos for diagnostic and surgical procedures and books on laptop for ready reference (Table 3, theme III, comment 1-a, b, c). In a study by Shukur et al, use of different resources gives a variety of learning opportunities suited to different learning styles.²⁴ The learning styles influence the information processing, problem solving abilities and learning behaviors with peers and trainers. The participants agreed that although 24 hours emergency duties are hectic, but they also give an opportunity for on the job learning to gain self-confidence and increased self-efficacy (Table 3, theme III, comment 2-a, b). The participants thought that working with colleagues and seeking help by accepting mistakes provides learning opportunities through feedback and reflection. In a study by Kennedy et al, early success in final examinations implies effective use of self-regulation strategies, self-monitoring and focusing on weak areas by accepting mistakes and seeking help and feedback from colleagues and seniors.²⁵ A study by Sitzmann and Ely showed that effective use of self-

regulation strategies results in better self-management and an increased effort and control to achieve targets on time.²⁶ Our study findings revealed that physical and emotional wellbeing through work life balance can be achieved by practicing meditation and spending time with the family (Table 3, theme III, comment 3-a, b).²⁷

The strategies identified in this study need to be addressed to improve the pass percentage in exit fellowship examination. Effective use of self-regulation strategies to increase self-efficacy and internal motivation helps in overcoming the barriers to success. The results of this qualitative study may be transferable to other institutions where the residents face similar issues of not being able to pass the exit examination in few attempts. This study was done at Services Hospital, Lahore, Pakistan. It is suggested that larger, multi-institutional studies should be conducted doing focus group discussion in addition to in-depth interviews to find out a variety of strategies adopted by the residents to pass exit examination in a few attempts.

CONCLUSION

This study provided an insight into the lived experiences regarding strategies adopted by the residents to pass the exit fellowship examination in a few attempts. The helpful factors to achieve success included engaging in self-regulated learning, peer assisted learning, an interactive educational environment, being internally motivated and self-determined. The barriers to success were related to learning difficulties, competing responsibilities and burnout. The suggestions to overcome the barriers were to use multiple technology based learning strategies, working on increasing one's self efficacy, and prioritizing physical and emotional wellbeing.

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