Exploring the reasons of unsuccessful attempts in examination during postgraduate clinical training

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Abstract

Objective: To explore the reasons of unsuccessful attempt in examination during postgraduate clinical training in Pakistan.

Method: The qualitative, exploratory study was conducted at the Allied Hospital, Faisalabad, Pakistan, from December 1, 2022, to February 25, 2023, and comprised postgraduate trainees from different departments who had at least one unsuccessful attempt in examination during their residency programme. Data was collected through direct interviews that were recorded. The data was subjected to thematic narrative analysis.

Results: Of the 14 participants, 10(71.4%) were males and 4(28.5%) were females. The maximum number of unsuccessful attempts were 7(7%), followed by 6(14%), 4(7%), 3(14%), 2(42%) and 1(14%). There were 3 main themes; personal factors, training factors, and exam factors. All the themes had subthemes.

Conclusion: At the start of the residency programme, postgraduate trainees must be provided with adequate guidance, and a support system must be present during the programme to help them cope with the stress during training.

Key Words: Medical residents, Surgical residents, Training, Postgraduation, Reasons, Unsuccessful.

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Introduction

Many doctors fail their postgraduate exams on first attempt. Undoubtedly, this is a cause for disappointment, but as time goes by and the individuals continue to fail, these disappointments compound, leading to an overwhelming sense of despair, a lack of confidence, and demoralisation. Despite having strong clinical credentials, many unfortunate candidates experience training delays.[1]

To maintain an adequate standard of medical education and patient care, examination boards are committed to providing a fair and rigorous assessment of individuals in specialised fields. The degree to which this is accomplished is still up for debate. It is common knowledge that not all students who pass tests are clinically competent, and that not all failures reflect clinical ineptitude.[1,2]

People who have failed postgraduate medical exams may experience significant mental stress. Due to the fact that passing these examinations is currently required for career advancement and that some universities only permit a limited number of retakes, this adds to the regular exam stress, which can eventually lead to poor performance. Exams change from being merely tests in these circumstances to high-stake obstacles that may ultimately have an impact on finances and job prospects.[1,3,4]

The fact that an exam can become the focal point of a person's life, the centre around which everything else revolves, and that they are unable to make any long-term plans for the future until that hurdle is overcome, is something that many candidates who have been unsuccessful in the past will attest to.[1]

The pass rates differ from one college to the other. Exam validity and reliability are concerned with whether the assessment is suitable and whether the test has served the intended purpose. Exam reliability focusses on how accurate the assessment is. A theoretically reliable test may fall short in terms of validity, according to Holsgrove,[1] who mentioned limitations in medical postgraduate tests capacity to gauge critical skills, including verbal and written communication, technical proficiency, and the ability to develop a diagnostic and treatment strategy. Hutchinson et al. also concluded that there was a general dearth of published evidence on the validation of these examinations, especially when considering the impact they had. This was part of a systematic review looking into the validity of medical

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postgraduate certification.[5,6] The current study was planned to explore the reasons of unsuccessful attempt in examination during postgraduate clinical training in Pakistan.

Subjects and Methods

The qualitative, exploratory study was conducted at the Allied Hospital, Faisalabad (AHF), Pakistan, from December 1, 2022, to February 25, 2023, after approval from the ethics review committee of Faisalabad Medical University (FMU). The AHF is a public-sector tertiary care hospital which currently has PGTs in two types of clinical programmes. The current sample comprised PGTs from both the streams associated with different departments with at least one unsuccessful attempt in examination during their respective residency programmes.

After taking informed consent from the participants, data was collected using direct interviews that were recorded, and each participant was given a code to ensure anonymity and confidentiality. Data saturation was ensured after which the data-collection process was stopped. The interviews were transcribed and the text was sent back to the participants for verification. The data was subsequently subjected to thematic narrative analysis with consensus among the researchers to avoid personal bias. Themes and subthemes were generated by open, axial and selective coding of data.

Results

Of the 14 participants, 10(71.4%) were males and 4(28.5%) were females. Majority of the participants were from the General Medicine department 5(36%) (Figure).Out of total 14 participants, one participant (7%) had 7 unsuccessful attempts, 2 (14%) had 6 unsuccessful attempts, followed by 4 unsuccessful attempts in case of 1(7%) participant (7%), 3 unsuccessful attempts in 2 participants (14%), 2 unsuccessful attempts in 6 participants(42%) and 2(14%) participants had 1 unsuccessful attempt. There were 3 main themes; personal factors, training factors, and exam factors. All the themes had subthemes (Table).

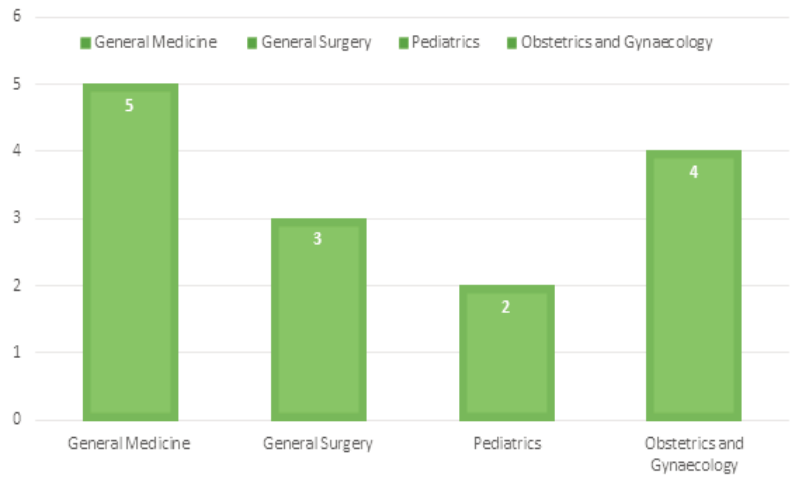

Figure: Departmental distribution of postgraduate residents.

The first theme was personal factors. The participants mentioned that their own personal reasons were the main cause of failure in their exams, and they were unable to maintain a balance between their personal and professional lives during their residency. The theme had 3 subthemes.

The first subtheme was time management. Failure to make a timeframe for the residency, adjusting personal commitments, professional responsibilities, and preparations for expected tasks and assessments on time had a major impact on the outcome of training. The trainees did not have the ability to cope with the daily routines and ongoing residency assessment, resulting in inability to pass their training programme. *"I could not foresee the time period and failed to make a good plan (AM)".*

The second subtheme was family pressure, Family was described as a cause of failure by the participants, especially females. Being a life partner, a parent, especially a mother, and, in the social context, being a daughter-in-law, puts a lot of pressure on females, just as the males faced the pressure of being the main bread-winner for the family. There are many responsibilities and expected roles that add to the pressure of postgraduate training and cause stress, leading to reduced working capacity. "There were many factors which had affected my training and I had to make multiple attempts to pass. One reason was that I got married and I had to manage finances and that pushed me hard. Now my son is 14 years old and it took me long to pass the exam (AM)".

The third subtheme was peer pressure and social issues. The participants said they faced peer and social pressure after being unsuccessful in the examination. The feeling of shame and humiliation attached with the failure resulted in stress and anxiety which ultimately lowered their confidence and affected their performance in a negative way.

The second theme was training factors that comprised issues related to the training programme that contributed to failure. The theme had 2 subthemes.

The first subtheme was structured training. The format of the training programme had a major impact on the training and success of

Table: Themes and subthemes.

Themes	Sub-themes	Quotes
I. Personal Factors	**Ia. Time management**	*"I was so casual, as I was in my undergraduate course where I used to study in last days and pass the exams. I could not manage the synopsis writing and exam preparation on time. My first synopsis was rejected and I had to do it again and thus my research got late, whereas my training was completed". (ID)"I am the one who took maximum years to pass the exams after many attempts. I could not foresee the time period and failed to make a good plan. I did not take research seriously and it was not my priority" (AM)I too was of the mind set "abhi bara time para hy"(still there is a lot of time left) (laugh), so yes, I too could not make a proper self-monitored study plan" (G)"I have two kids and my whole family is very supportive because no female can pursue the career without family support. I attempted my first exam without preparation and it was a failure. In my case major factor was the burn out as I was totally drained managing the balance of personal and professional life and while in 2nd attempt I was having anxiety and was afraid of failure" (GM)*
	Ib. Family Life	*"I got married in final year, pursuing career and post-graduation after marriage demands a lot. I have to manage family life, training, duties, studies and being a female, it takes too much to meet all the needs" (GM)"Many doctors have family commitments by the time they are in clinical training years, so the training programmes and work places must be reevaluated to make it more conducive for learning" (AT)*
	Ic. Peer pressure and social issues	*"It is very hurtful experience to face our peers and family after any unsuccessful attempt. Sometimes it's very hard to face people after multiple attempts, it lowers our self-esteem. My kids say" papa, kahin phir na fail ho jana."(papa, don't fail again) (IM)."I have given 6 attempts in medicine and I know how hard it is to carry on the routine. My father is a simple man and a farmer and after my two unsuccessful attempts he asked me "puter, fir fail ho gya ayein"(Son, did you fail your examination again). Now I do not share with him and ask him just to pray." (TI)*
II. Training Factors	**IIa. Structured training**	*"At present, we are more focused on the book knowledge as we have to pass the written exam. So, we prefer to spend more time in library to get prepared for the theory exam and in this situation, we cannot give more time to the patients" (W)"we need reforms in clinical training structure. A proper yearly learning outcome book must be published and supervisors must arrange internal assessments and only those who pass that internal exam and show proper clinical skills must be promoted to next year. This will prepare us best for our final attempts." (SD)"There is a gap in training and examination standard. We are supposed to manage the cases independently while we are on the duties and our training for final examination through these clinical experiences is not given proper consideration. There are flaws in us (students) too but in many units where the Heads are strict they have developed proper system for training and their trainees show very high passing rates" (MA)*
	IIb. Student support system	*"We face so many issues, regarding examination and our mental and emotional health, there is no proper support system for the post graduate students. As now you are asking about these issues, we need such a support on regular basis, or at least after examination." (GM)*
III. Exam Factors	**IIIa. Table of specification**	*"In all international post graduate exams proper structure and guidelines are given for the candidates and we are well familiar with the exam when we enter in the skills exam and even we know what subject/ case will be there on each station but in local examination, it is all surprise. So, this high-stake exam must be revised for all such compulsory details" (AT)"In foreign international exams, no one ever said that paper was vague or out of the given course line, always they talk about the difficulty level of the questions. In our system, the most common feedback of the students is about the typo err, and vague paper. This must be properly addressed" (WP)*
	IIIb. Content Validity	*"In written examination, there are no specific rules, In my first attempt 10-12 questions were only from one topic and in 2nd attempt same happened for another small topic." (AM)"In medical terms, even if one word is changed, it will change the whole question and will lead to the wrong option. So proof reading and quality MCQs are the basic need. Focus must be on the difficulty level, not to confuse the candidate" (MM)*

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	IIIc. Examination Bias	*"Examiners must also be trained properly to show appropriate gesture and response when they observe the cases. In my one case the examiner comments and response at the end has shown the displeasure and I was totally demotivated at that time and I had to attempt my next stations and it does affect our performance at such a critical time." (IM)"In clinical Skills, Patients pool must be raised and at least in one day all the candidates must be exposed to the same cases to remove any kind of examination bias and increase the test reliability" (TI)"There is also examiner's assessment reliability issue. Same examiner asks tough question to the first few students and till the last student, he/she gets exhausted and it effects the final results" (SD)*
'	**IIId. Post exam audit**	*"There must be a proper audit to improve the system then we will be able to set standards. It is a high-stake exam and students and teachers' feedback must be included". (WP)"Both theory and skills component must be made more structured and there should be more standardization in skill examination". (IM)"We have given feedback many times about our written attempts and sadly, there has been no response. It really demotivates us". (AM)"There must be video recordings as it is done in other international exams and must be shared with the candidates who score less on some specific stations so that they could improve" (AT)"I have given 5 attempts and my suggestion is that if I am passing few sections every time then I must be tested only for the component I could not pass so that I focus on that particular thing and I must be given a chance to improve my that particular section. There must be such rules to improve the examination system" (TI)*

the trainee. The participants highlighted the need to have a structured training programme with well-defined outcomes and instructional strategies that should be time-bound as well to ensure that each trainee must go through a uniform training in a systematic and organised way, hence, providing them with the opportunities to get the best training whose goals were clearly articulated to the trainees enrolled in that programme. "There should be proper guidance for the trainees because after completing college life, it is a major shift to clinical training where the whole system is different and we have to integrate learning and patient management. Study guide for each year, with specific details, can be very helpful for the young doctors to bridge the gap (AT)". Lack of a uniform training system was mentioned a major cause of failure by the participants.

The second subtheme was student support system. The lack of a student support system that might help them to cope with stress during the residency programme was mentioned as a cause of failure by the participants. Training itself is a difficult time, and personal and social factors made the trainees prone to burnout and anxiety. "As humans, we are struggling with different roles and we need support for developing ourselves as a good professional who would keep a balance of personal and professional life. So, in addition to academic sessions, such life skills must also be included in the curriculum (IM)". Counselling and support were needed during training for the mental health of the participants.

The third theme was exam factors. The system of assessment was pointed out by the participants as an important contributor to the success or failure status. Gaps in the examination system was another factor highlighted by trainees. There were 4 subthemes.

The first subtheme was table of specifications. The participants highlighted the importance of having a table of specification for all postgraduate residency programmes in Pakistan, just like other training programmes internationally.

The second subtheme was content validity. The content in written assessment needs to be validated to ensure quality assessment and standardisation of results. The participants complained about the quality of multiple-choice questions (MCQs) in written assessment, and blamed the sub-standard exam papers for their failure.

The third subtheme was examination bias, The participants also mentioned the need to train the examiners to ensure the quality and standardisation of assessment. Similarly, in clinical assessment, the patients used must be properly counselled and it will be better to use simulated and standardised patients. Maximum efforts should be done at the administrative level to standardise the assessment system for transparency and accuracy.

The fourth subtheme was post-exam audit. The participants mentioned that a proper audit of written and clinical assessment should be conducted at the end of each examination so that bias may be reduced, and quality of the exam should be maintained. Feedback of the participants should be taken as well, and evaluation must be implemented.

Discussion

The participants of the current study attributed the cause of their failure in postgraduate clinical residency training programmes to three main domains; personal, training and exam factors. Personal factors, like poor time management and planning, was indicated as the primary cause of academic failure in preclinical medical education in many studies done previously as well.[7] This is similar to results shown by undergraduate engineering students.[8] Intrinsic motivation has shown to be positively associated with mental wellbeing and positive academic outcomes in first year students.[9] Being married and having family responsibilities was also highlighted as a cause of failure in the current study. This is in contrast to a study done on postgraduate surgical residents who reported to be more self-satisfied and happier compared to their unmarried colleagues, but they had more work-life conflicts, which was similar to the current participants.[10] To cope with the work-life balance, the PGTs advocated the need to have social and emotional support programmes during the course of their training. A programme for surgical residents in the United States was started for the mental wellbeing of trainees, and had reported a positive impact.[11] Similarly, among German residents, burnout was positively associated with professional pressure and work-life conflict, leading to decline in expected outcomes and competency level.[12] In neurosurgery residents, the work-life imbalance was reported to be the cause of burnout in 55% cases.[13]

The current PGTs highlighted the importance of a strong, well-structured training programme and proper supervision about academic outcomes on academic success, and were of view that their failures could have been minimised by proper orientation and structured guidance during their training. Lack of proper supervision during residency was reported to be associated with signs of depression in residents from 22 different countries.[14] Building a programme that considers and solves the problems that may lead to doctors' burnout is considered important for better healthcare outcomes.[15] Collaboration during teaching has been associated with student achievement in US.[16] Repeated evaluation of training programme and delivery of relevant information to the enrolled residents are significantly important elements for the success of the trainees and of the programme itself.[17]

Equity in assessment to reduce bias is a major concern for policy-makers and healthcare institutions, and it has been strongly recommended that any type of bias during assessment must be reduced, including intrinsic (related to tool), contextual (assessment environment) and instrumental (programme and assessment evaluation).[18] Racial discrimination during assessment of postgraduate residency programmes leading to lower scores in academic examination ultimately adversely affecting the career trajectory of these residents and their future choices has further increased the importance of having a uniform, unbiased and structured assessment system to ensure justice, and to earn the trust of the enrolled students in the whole programme.[19]

Postgraduate residency period was a time of great stress and anxiety for the PGTs in the current study, which was in line with previous studies conducted globally.[20,21] This leads to burnout and compromised patient safety outcomes as well as academic outcomes.[21] Time management, work-life planning, inherently difficult job situations, and interpersonal relationships are considered factors that contribute to PGTs' burnout, affecting their competency.[21] This, in turn, causes medical errors, health issues and career turnover in working PGTs and healthcare providers.[22] It badly affects the quality of personal and professional life, and is directly related to negative assessment results.[23]

The current study has limitations as it was conducted at a single institution, and residents were trained at the same teaching hospital. Besides, the perceptions and ideas of supervisors and programme evaluators were not explored.

Conclusion

At the start of a residency programme, PGTs must be provided with adequate guidance about the programme, including assessment methodologies and the process of assessment. The audit of assessment and its review should be done on a regular basis, and necessary updates should be done and communicated to the trainees. Further, a support system for the PGTs must be present during the programme to help them cope with the stress of professional and personal life, and to solve any problem they may encounter during their training. They should also be trained about time management, planning and balancing personal-professional life during the course of the training phase.

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Author's Contributions

SE: Designed the research, data collection, analysis, final editing of manuscript.

MOF: Conceived idea, data collection, review.
AA: Data collection, analysis, manuscript writing.
BB: Data analysis, final manuscript evaluation.