INTRODUCTION

Access to quality healthcare is a basic human right but only 15 to 20% of the world’s population has access to any standardized treatment. The situation is even worse in developing countries. The ratio of this shortage is expected to increase with the passage of time, considering ever-increasing growth rate, inequitable distribution of healthcare resources and migration trend among health practitioners.1 In order to confront this situation, both the quantity and quality of healthcare personnel need to be enhanced and one has to think beyond provision of physical measures. Here, knowledgeable and trained workforce matters the most2; and in global world, student exchange programmes provide agreeable solution for world class training of healthcare professionals.3 By 2004, 23.6% American medical graduates had an international training exposure.4

Following the global trends, College of Physicians and Surgeons, Pakistan (CPSP) and Irish Health Services Executive (HSE), have joined hands in the form of CPSP/HSE Postgraduate Scholarship Programme where CPSP residents will get the opportunity to gain international exposure in Ireland. Quality assurance (QA) stresses upon continuous course evaluation and monitoring the whole process of assessment for continuous improvement to uplift standards of medical education.5,6 CPSP uses its indigenous E-log system to conduct fair monitoring of all medical residents continually and raise standards of its competency-based training programmes.7

QA and quality improvement (QI) are becoming major concern of medical education worldwide8 and evaluation has become one of the critical tools for strategic development in higher education.9,10 This can provide guidelines for future improvement and imparting professionalism in medical education.11,12 However, descriptions provided by individual residents are hard to judge if some standardized criteria do not exist.13 ‘Upward feedback’ by a junior to the senior is becoming increasingly popular as a tool for assessment of quality of a particular programme.14 This study aims to get

ABSTRACT

Objective: To get direct upward feedback from the residents of first batch of CPSP/HSE Postgraduate Scholarship Programme.

Study Design: Mixed methods qualitative research study.

Place and Duration of Study: CPSP, Regional Office, Lahore, in June 2015.

Methodology: It is a mixed-method study that was conducted in June, 2015. Data was collected through an email survey with 33 medical residents doing their rotation in Ireland; and focus group discussions were carried out with 8 residents, who had successfully completed their rotation. Data were collected through pre-designed questionnaires comprising of open- and close-ended questions. The data were entered into SPSS version 21 and analyzed.

Results: The mean age of residents was 29.9 ±1.1 years, 7 (21.2%) were females and 24 (72.7%) respondents were males. Residents agreed that HSE programme has improved their evidence-based decision making (mean score of 3.3 ±1.2) and enhanced professionalism (mean score of 3.6 ±1.1). They disagreed that training has polished their procedural skills (mean score 2.4 ±1.2). The identified strengths of the programme are: adopting a systematic approach towards patients, evidence-based decision making, better exposure and opportunities, financial stability and development of communication skills. The weaknesses are: less exposure to procedural skills, difficulty in synopsis and dissertation writing and difficulty in adjustment with rotational schedules.

Conclusion: Residents of CPSP/HSE Programme believed that CPSP/HSE has improved their professionalism, communication skills and increased their future opportunities for career growth. Better communication between CPSP focal person and residents will help sort out many minor but important issues.

Key Words: Medical education. Medical residency. Medical professionalism. Professional practice.
direct upward feedback from the residents of first batch of CPSP/HSE Postgraduate Scholarship Programme. The results will be helpful to find the gaps in expected and actual learning outcomes in order to plan further improvement.

**METHODOLOGY**

A mixed-method study was conducted in June, 2015, to obtain the feedback of residents enrolled in the CPSP/HSE Scholarship Programme. The study included 33 medical residents from the first batch of CPSP/HSE programme. Formal approval from the Institutional Review Board of CPSP was sought. An informed consent was taken from the residents whereas participation in the study was on voluntary basis. They were assured confidentiality and anonymity as well as participation in the study would not have any effect on their training/examination. A self-administered questionnaire was sent to these residents via e-mail containing 3 close-ended statements and 3 open-ended questions. The residents were asked to mark the following statements on an agreement scale of 1 to 5; where 1 represented “strongly disagree” and 5 represented “strongly agree”. The close-ended statements included:

1. “CPSP/HSE scholarship programme has polished my procedural skills”,
2. “CPSP/HSE scholarship programme has enhanced my evidence-based decision making”, and
3. “CPSP/HSE scholarship programme has helped me practise/develop professionalism”.

Additionally, a score of 1 - 2 was considered as mild agreement, 3 as moderate agreement and 4 - 5 as strong agreement. The open-ended questions included:

1. “How do you think this experience will help your practice to improve our local healthcare system after your return?”
2. “Mention 3 strengths of this programme”, and
3. “Mention 3 weaknesses of this programme”.

Focused group discussion was also conducted in an isolated meeting room with 8 residents, who had just returned from Ireland after completing 2 years training. The interviews were audio recorded and transcribed later for content analysis. The content was studied by researchers and the most common themes and concepts were identified. The disagreements were cleared by mutual discussion. Data was entered and analysed in SPSS version 21. Numerical data was presented as means and standard deviations; and categorical data as frequencies and percentages. Qualitative data was analysed through content analysis and identifying themes and patterns.

**RESULTS**

Responses were received from 33 residents out of a total of 35 residents of first batch, showing a response rate of 94%. The mean age of residents was 29.9 ±1.1 years. Among 33 respondents, 7 were females (21.2%) and 24 were males (72.7%), and 2 residents did not report gender and specialty. The specialty-wise distribution of the respondents is shown in Table I.

The response to first statement that CPSP/HSE Programme has helped to polish the procedural skills of residents, a mean score of 2.4 ±1.2, on a scale of 1 to 5, was observed. About 58% trainees showed mild, 21% moderate, and 21% strong agreement with the statement. A mean of 3.3 ±1.2 was obtained for agreement with statement: CPSP/HSE programme has enhanced their evidence-based decision making. Here, 58% strongly agreed, 24% mildly, and 18% moderately agreed. A score of 3.6 ±1.1 was obtained in response to the third question that CPSP/HSE programme has contributed to the development of professionalism. About 73% marked a strong agreement, 21% mild agreement, and 6% moderate agreement (Table II).

Residents seem quite impressed by the systematic approach adopted by Irish hospitals towards patient care and they view it as strength of the system. “Well, I think this programme has helped me to take a systematic approach to the patient and also helped me to understand the benefit of multidisciplinary team better” (respondent #7). Similarly, other respondents also...

Table I: Specialty-wise distribution of residents included in the study.

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Frequency (n)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaesthesia</td>
<td>5</td>
<td>15.2</td>
</tr>
<tr>
<td>General medicine</td>
<td>10</td>
<td>30.3</td>
</tr>
<tr>
<td>General surgery</td>
<td>9</td>
<td>27.3</td>
</tr>
<tr>
<td>Obs / Gyne</td>
<td>1</td>
<td>3.0</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>4</td>
<td>12.1</td>
</tr>
<tr>
<td>Emergency medicine</td>
<td>2</td>
<td>6.1</td>
</tr>
<tr>
<td>Missing</td>
<td>2</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table II: Mean scores in questions, Q1, Q2 and Q3 (n=33).

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean ±S.D score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>2.4 ±1.2</td>
</tr>
<tr>
<td>Q2</td>
<td>3.3 ±1.2</td>
</tr>
<tr>
<td>Q3</td>
<td>3.6 ±1.1</td>
</tr>
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Table III: Identified themes from questions, Q4, Q5, and Q6.

1. Adopting a systematic approach towards patients.
2. Evidence-based decision making.
4. Experience gained.
5. Opportunities.
7. Communication skills.
8. Less exposure to procedural skills.
10. Difficulty in rotational training.
mentioned that on their return they could use a more systematic approach that would lead to a better healthcare system in Pakistan (respondent #1). It implies the use of integrative medicine which emphasizes on looking at patients as (bio-psycho-social and spiritual) beings needing to be treated as whole persons rather than a clinical case of a specific disease. The importance of evidence-based decision making was also reflected in the replies given by respondents. It was mentioned that CPSP/HSE programme has “helped in enhancing evidence-based decision making skills” and “more evidence-based decisions can help in improvement of healthcare system in Pakistan” (respondent #1).

The residents replied that CPSP/HSE programme has provided them a better exposure as compared to their previous training. The various responses obtained included “exposure to equipment, drugs and techniques which we only read in books” (respondent #2). Other trainee also mentioned “international exposure” (respondent #3), “exposure to a much more developed healthcare system” (respondent #5), “foreign exposure” (respondent #6) “exposure to advance technology” (respondent #9) and “great exposure in endoscopy and endoscopic surgery” (respondent #17). Results show that respondents believed that CPSP/HSE programme has provided them a valuable experience and this experience can help improve our local healthcare system. “The experience gained in Ireland will help improve the safety and standard of my clinical practice in Pakistan while we all hope for positive changes and development of our healthcare system at a higher level” (respondent #5). Another resident mentioned, “we have learnt here to be sincere with the patients, maintaining good medical records” (respondent #6). “Good clinical experience” (respondent #3), “definitely, working here is a great experience” (respondent #8).

Residents, very positively, pointed out various opportunities to improve their academic profile while being trained in this programme. One of them quoted “we can also appear in Ireland membership examinations” (respondent #2). Others responded as “opportunity to sit in various international examinations during the 2-year duration” (respondent #5). The residents mentioned research as an opportunity and stated “more opportunities for research” (respondent #4). When inquired about opportunities, one of the trainees responded “it is once in a life-time experience both as a surgeon and as a person” (respondent #29). Financial stability was clearly evident from the responses that were received from the residents. Replies included, “it has made me economically sound” (respondent #8), “yes, financial benefits” (respondent #2) and “better salary package” (respondent #4).

Review of the responses also identified improved communication skills as another benefit of CPSP/HSE programme that was perceived by the residents. One of the residents replied that this programme “will help our communication skills and patient care now and in future”, (respondent #8), “main strength of the programme is better communication skills” (respondent #4). One of the respondents mentioned another dimension of communication skills by quoting “working with people of different origins having different nationalities helps to figure out, how to deal with different situations in your professional life” (respondent #15). “The communication skills were markedly improved by the Human Factors Workshops, conducted by Royal College of Surgeons, Ireland (RCSI)” (respondent #16).

Analyses of the responses from residents reveal that some residents consider that they are subjected to limited exposure as far as procedural skills are concerned. As one of the respondents stated, “no exposure to procedures like, endoscopy, bronchoscopy…” (respondent #10). Similar views were also reflected in the responses of other residents which stated, “less exposure to surgical procedures” (respondent #1) and “less hands-on experience” (respondent #7). “Laboratory and radiological based approaches make one lag behind in clinical medicine” (respondent #20).

Another theme that was identified from the responses of residents was that the residents are facing certain issues as far as their mandatory clinical rotations are concerned. One of the residents had mentioned, “no consideration given to fulfillment of mandatory rotation of residents in various sub-specialties, I was not rotated in cardiac anaesthesia throughout my two years here” (respondent #5). Similar concern was also raised by another resident who stated, “lack of proper rotations as we are just like filling locum places” (respondent #9).

Table III shows the main themes identified for the open-ended questions.

**DISCUSSION**

In this study, residents have shown moderate agreement to the statement that CPSP/HSE initiative has contributed to the improvement of their procedural skills. Almost 25% residents showed a strong agreement (good to excellent response). The response matches with previous studies like Silverman, who reported that 34% of the students’ feedback about procedural skills was very good to excellent. Similarly, Khanum reported that students expressed medium to weak agreement with previous studies like Silverman, who reported that 34% of the students’ feedback about procedural skills was very good to excellent. Similarly, Khanum reported that students expressed medium to weak agreement with a mean score of 3.1 ±1.5 with enhancement of surgical skills at the end of second year of training. Technical competence is an important requirement of medical education training. Outcome of many patients depends upon the competency level of the specialists. Grantcharone and Reznick stated that structured training in procedural skills is lacking and validated tools for teaching clinical skills like simulators are not being utilized effectively.
busy schedules of trainee residents are identified as the prime reasons for underexposure of the residents to the clinical procedures, which are considered solely the domain of senior residents. Patient safety is considered by many others as the main factor for underexposure of the residents but the study conducted by Baskett et al. showed that there was no significant difference in the outcome of patients who had procedures done by the residents or the senior surgeons. This study concluded that residents can be trained in complex cardiac procedures without compromising the safety of patients. Underexposure to the clinical procedures may result in poor training outcomes and wastage of precious clinical time of the residents. This needs careful adjustment in future and must be reported seriously if any serious shortcomings are observed in the residents.

The second question was: whether CPSP/HSE programme has enhanced their evidence-based decision making. In this study, almost half of the residents showed a strong agreement with the statement. But in the study of Silverman, 18% residents gave feedback about evidence-based decision making as very good to excellent. Similarly, in the study by Khanum, a mean score of 1.9 ±1.1 was observed on a scale of 0 - 5. The differences between the results of this study and the above-mentioned studies indicate that individual differences do exist in different set-ups. It suggests more coaching is needed for students to make better use of evidences for decision making. A practitioner must have an absolute confidence in his/her decision. Evidence-based medicine involves asking clinical questions, checking for the reliability and relevance of the evidence and applying that evidence to practical situations. It is observed globally that there still is a gap between existing evidence and practice. Discussing the reasons for this gap, Clancy and Cronin pointed out towards limited access to the evidence, knowledge gaps of health professionals, lack of a systematic approach, non-existing information infrastructure and limited resources as some of the main reasons.

Third statement was about professionalism. In the current study, almost 75% residents showed strong agreement to this statement; similar to the study by Durning. These results are in contradiction with the study of Silverman and Khanum, where only 24% residents responded in favour of good to excellent practice of professionalism and a mean score of 1.9 ±1.2 was observed. Development of professionalism is a direct consequence of the quality of the training programme instituted by the teaching hospitals. Also some of the residency programmes lay particular emphasis on the development of professionalism by including it in their core competencies.

Residents have mentioned that they are facing difficulties in writing their research proposals and completing the dissertations. It is a limitation as future progress in medical education careers depends upon high proficiency in research. This problem needs to be addressed at the grassroot level. A revision on MBBS curriculum is needed to ensure that medical students get enough exposure to research and different skills related to research writing. Furthermore, it should be ensured that the research topic is relevant and in line with the socio-cultural background of the student and it is developed under supervision of mentors. Global Health Trainings have recommended in their Ethics Guidelines that if research is part of the training programme, residents should be facilitated by working on the research plan timely, i.e. as early as possible. It means that residents may be allowed more time to develop eligible research frameworks. Similarly, hitches in rotation can be observed through better management and caring for residents’ feedback, realizing that it is a life-time opportunity for the trainee residents, which is not only going to make distinguished difference in their lives but in the lives of many more dependents on the quality healthcare.

CONCLUSION
From the results of the current study, it may be concluded that residents have experienced better exposure, evidence-based medical practice and are learning to develop systematic approach towards patients. The international exposure is inspiring professionalism, better clinical skills, and self-confidence among the residents. However, they are experiencing less exposure to clinical and surgical procedures. It is advised that both CPSP and HSE institutions should follow recommendations of quality health professionals about assessment and evaluation of the programme in order to enhance resident satisfaction and to guarantee standardized training services, thus all expected learning outcomes could be achieved and resident engagement can be ensured.

Conflict of interest: This article is part of requirement of PhD Medical Education thesis of one of the authors.

REFERENCES


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