

## Attitudes and Practices of Postgraduate Medical Trainees towards Research - a Snapshot from Faisalabad

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### Introduction

The rapidly evolving medical science of today necessitates that physicians keep abreast with the latest developments. This requires the understanding and use of scientific principles and methods. Research activity of postgraduate medical trainees is important as it promises better clinical care, critical reasoning, lifelong learning and future research activity.<sup>1</sup> With rising health costs, local literature is important for facilitating evidence based and cost-effective decisions and thereby improving clinical practice.

The utilization and production of research along with human and institutional development are two important components of health research.<sup>2</sup> Trainees constitute an integral part of both these components. The poor state of health research in Pakistan is well established.<sup>2,3</sup> One reason being the insufficient teaching of scientific research methodology during undergraduate and postgraduate medical training.<sup>4</sup> The study assesses the attitudes and practices of trainees towards research utilization and production in a tertiary care health facility in Pakistan.

### Methods

This cross-sectional survey was conducted in April 2004, on the post-graduate trainees of Allied Hospital in Faisalabad which is an 1150 bed teaching hospital attached to the Punjab Medical College. About 225 trainees who had done their MBBS and were undergoing higher medical training, in medicine and allied disciplines or surgery and allied disciplines, at the hospital constituted the total population. Of these, conveniently selected 55 trainees answered a voluntary, confidential and self-administered

questionnaire. It contained demographic data and multiple-choice questions assessing attitudes and practices towards research. The Statistical Package for Social Sciences (SPSS) (Version 10.0.1, copyright SPSS; 1989-99) was used for data collation and analysis.

### Results

Of the 60 trainees approached, 55 consented to participate giving a response rate of 92%. The respondents included 34 males and 21 females. The mean age was 26.15 years (SD± 2.43). Of all, 13 were interns, 17 belonged to first, 12 to second, 6 to third, 4 to fourth and 3 to the fifth year of training respectively. There were 36 respondents from medical and 19 from surgical disciplines.

There were 7 respondents who had never read a medical journal. Monthly journal reading was done by 11 trainees. Journals were read at least once in six months by 21 and at least once in a year by 16 respondents respectively.

Table. Respondents' attitudes and practices towards research (n=55).

	Written an article for a journal	Presented paper at a conference	Received adequate research education	Medical literature affects practice	Plan to do research in future	Will use journals during practice
Yes	7 (12.7)	9 (16.4)	18 (32.7)	54 (98.2)	39 (70.9)	46 (83.6)
No	48 (87.3)	46 (83.6)	37 (67.3)	1 (1.8)	16 (29.1)	9 (16.4)

Of all, 7 trainees had written an article for a journal while 9 had presented a paper at a scientific conference (Table). Approximately two-third (37) respondents believed that they receive inappropriate research training. Regarding the importance of reading current literature, 36 opined that it is very important, 15 rated it as important, while only 4 regarded it as less important. Almost all (54) participants believed that medical literature can

influence the way medicine is practiced. There were 39 respondents who intended to do research in the future. A large majority (46) intended to use health sciences research, through reading journals, when they start their own practice.

When asked to name the single most important reason for poor research activity in Pakistan (Figure), 17 ascribed it to poor research training during medical and postgraduate education while 16 attributed it to poor research awareness. Other notable factors were high workload and poor financial condition.

## Discussion

The aim of this study was to investigate the attitudes and practices of post-graduate trainees towards health sciences research and to illuminate factors that may have an impact on their behaviour in this regard.

Although a large majority rated highly the importance of reading current literature, only a few actually read journals. This discrepancy between attitude and practice is a cause of concern and merits further investigation. Similarly, only a few were actively involved in making scientific contributions to the literature. These observations reflect the lack of utilization and production of research by medical trainees.

The importance of local health research is invaluable as it is tailored to local needs and problems and serves to generate indigenous solutions. It has been shown that local journals are most likely to influence clinical practice in the developing countries.<sup>5</sup> In order to strengthen the local literature, it must not only be properly utilized, but properly contributed to as well. It is therefore important to promote critical literature reading and analyzing skills.

The findings showed that most of the participants had positive attitudes towards health sciences research. These findings are comparable to those in India.<sup>6</sup> While majority plan to engage in future research, one must look at this intention with a degree of caution. This is primarily due to the following reasons: firstly, if they do engage in research it is impractical to expect the generation of high quality, locally relevant studies and secondly, research publications during training are a strong predictor of future research activities<sup>7</sup>, which is not the case in our study. The former inference is made because of lack of proper research training imparted to our trainees<sup>4</sup>, a fact also acknowledged by the respondents of this study.

The major reasons cited for poor research activity

in Pakistan were poor research training and poor research awareness. These are different from the western settings where lack of time and lack of interest were more important obstacles to research as compared to poor training<sup>8</sup>, although improper training and high workload were also cited.<sup>9</sup> The consensus on the importance of research among trainees both in Pakistan and the west, however, is universal.

The limitations of the study are that it was conducted at one institution involving a limited number of trainees. Therefore, the findings cannot be generalized. In spite of the limitations, this study aims to stimulate more research on this critical issue. We believe that there is an urgent need to conduct more detailed studies across the health education institutes of the country. Other impediments to trainees' research like high workload, poor funding and poor access to journals should be investigated further.

This lack of research exposure and training underscores the need to review both undergraduate and postgraduate curricula so that some specific educational intervention is incorporated. Previous studies demonstrate that with some extra efforts from teachers; learning opportunities can be created on a systematic basis without demanding additional resources.<sup>6</sup> There is a need to investigate the problem further to generate interventions which may very well serve to increase research activity in the country, both in terms of quality and quantity.

## References

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