

## RESEARCH AGENDA

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Pakistan's contribution to world's research publications is less than 0.04% inclusive of inconsequential amount of publications in the field of health sciences.<sup>1,2</sup> A study indicates a gradual increase in the number of publications in successive years from 2007 to 2010 reflecting research pattern in institutions of medical education in Pakistan, considering publications from JCR indexed by Thomson-Reuters as documented by HEC.<sup>3,4</sup> There are no South Asian institutions in the list of the top 100 universities in the world.<sup>5</sup> South Asian health researchers accounted for only 1.2% of all papers within the Institute for Scientific Information database from 1992-2001.<sup>6</sup>

Some of the reasons, among others of lagging behind our Western counterparts are the absence of training in research methodology in the medical curriculum, lack of trained medical scientists,<sup>5</sup> research being an underpaid and underappreciated profession,<sup>6</sup> lack of guidance to students to run their projects, meagre funding,<sup>7</sup> improper mentorship,<sup>8</sup> inaccessible free full texts on the internet, unequipped outdated libraries,<sup>9</sup> ethical issues like running clinical trials,<sup>10</sup> and the lack of interaction between clinicians and basic scientists.<sup>10</sup>

All tertiary care hospitals and specialized institutes have untapped gold mines of clinical data that can be utilized to do purposeful and meaningful research. Fortunately most units have FCPS trainees as useful human resource who are ordained to do research to be presented in the form of a dissertation or published papers. More ever Pakistan Cardiac Society provides a regular national platform to present and share the research findings. CPSP plays an important role in capacity building of the trainee medical officer in terms of workshops and feedback on synopsis preparation. Why is it that no concrete clinical or basic research is being conducted and published in Pakistan? Most trainees go through the drill and perhaps spend similar amount of time and energy in achieving nothing substantial. Most repeat the common topics without any consideration of relevance, importance or innovation.<sup>11,12</sup>

As rest of the world is progressing towards interventional studies the limited scope of research in our country again has further limited us to very basic descriptive type of studies. Interventional studies of course are expensive and require advanced skills and long follow ups. But interventional studies are the need of the day and are the best designed to generate evidence for decision making and optimal patient management. Allocating sufficient funds for health research not only for consultants but also for post graduate residents would encourage interventional studies.<sup>13-15</sup>

Every Cardiology unit and institution should develop her own research agenda depending upon expertise, research interests of faculty, infrastructure available and geopolitical situation of the center. Research agenda so identified should be revised every year keeping in view the global and local demands. This research agenda should be followed as policy guideline for all health professionals of the department. This agenda shall pave for

some properly conceived and conducted purposeful research by post graduate residents and should get published.<sup>14-16</sup> The supervisors must be given enough training in research methods and a mandate must be set for all supervisors to produce a minimum set of quality publications each year.<sup>17</sup>

The importance of research experience should be highlighted and committed research supervisors should be identified for each trainee and research planning should start as early as possible in the training. Employing hospitals should provide personal support for modest research expenses for trainees undertaking research. In the absence of such support, application would need to be made to grant-giving bodies well in advance. To promote and activate purposeful goal orientated research certain posts may need to be earmarked for the training of future clinical scientists and researchers. Academic units should regard themselves as challenged, but not necessarily threatened, by the new proposals. With appropriate consultation and involvement, and a modest allocation of funding, the overall result should enhance the quality of both service and research.<sup>15-17</sup>

It is recommended that every unit and institution should be encouraged to develop a research agenda and all post graduate trainees be encouraged to follow the same. All supervisors should be retrained in research methodology and project/research management. A constructive approach may be adopted whereas different research projects strengthen each other and some substantial results may be construed from it. It may be in the fields of preventive –primary, secondary or primordial, interventional, electrophysiology, paediatric, cardiac imaging – echocardiography, nuclear, CT angiography and MR and adult and paediatric cardiac surgery. Large institutions should invest in well-conceived agenda with SMART objectives running parallel in different departments.

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