

## Cochrane Pakistan: A Gigantic Leap Forward for Research in Pakistan

Pakistan, though a country with maximized potential in terms of young has enormous capacity to evolve and prevail for managing us an exponential technological growth and economy. However, the scarcity in systematic methods to prevail education and most importantly in the field of high-end education. Methodologically generated “Quality evidence” throughout globe defines a direct correlation between education with income generation, country’s productivity and quality technology incorporation.<sup>1</sup> Defining education as the “Linchpin of success” we must acknowledge towards the foundation pivot for proliferating evolutionary education for humanity to be the next to superlative application of research”. The science of “Human Medicology” is exclusively leaning upon quality evidence for applying clinical decision making for patients. While the science of medicine on earthly souls’ dates back to prehistory, perseverant transformative efforts by our ancestors allowed us to this day where the tagging “methodology” to research for quality output to evidence can allow today’s human growth from convention to accelerated AI era.<sup>2</sup> “Cochrane” was one great healthcare research giant leap which revolutionized the use of “Medical evidence” in clinical care pathways. “Archibald Cochrane” the stamped as the father of “Cochrane Collaboration” with renaming in 1993 by “Liam Chalmers” labeling simply as “Cochrane further adding to next-general superbness to evidence synthesis with summation of utilitarian IT tools.<sup>3</sup>

Country-wide need of a contemporary uplift in R & D with tracked evidence base “Cochrane” methodology” should enable a viable and purpose-built unbeaten track, which can allow us the break-neck pace to reduce the current gap between prevailing research standards and desirable upgrades in quality.<sup>4</sup> We must also acknowledge the status quo model of research manuscripts, where we could not move through the defined evidence-based hierarchy with most journal’s heavy reliance on observational studies with little evidence.<sup>5</sup> Though population-specific data is need remain undeniable, we must also realize the deepening gap with less reliance next-level research strategic systems to solidate even our population data. Our medical journals still remain notably deficient in systematic reviews and randomized controlled trials (RCT) which remain

existential for quality generation of evidence-based guidelines for local population.

Apart from questionable absentia of RCTs to systematic reviews, our publications we could enable any population defined guidelines for our population, leaving us choiceless to rely on evidence-wise low graded local data for clinical decision. Thus the indirect consequences for medical community mushroom out to allow observational “in vivo studies” in a very short pan with little data and resourceless atmosphere. Research environment should evolve in 360o i.e., multidimensional and needs to be population focused to address real-time critical replies to our medics and paramedical community in prevailing environment.<sup>6</sup> Thus much of our research do not get cited, non- actionable and with journals struggling for impact factors.

How to help prevail Quality Cochrane within Pakistan and what is take for academics and researchers? Whatever research we generate as a medical industrial product should lead to actionable and quality-suffice to generate evidence solutions for our population-specific data base. Current research mostly breeding on case series or cross-sectional comparison covering little population strata don not provide quality evidence and thus our clinicians only evolve out of this “convention slug”. These studies and their prior workup needs an upgrade and evolution towards more and better quality evidence by incorporating validated standardized models. “Cochrane” is one the better platforms where our critical queries can converge through a systematic process to provide quality and systematic methodology for replies which can be further helpers via ongoing guidance, monitoring and quality highlights.<sup>7</sup> The process of “Cochrane” starts from a critical question developed as “PICO” format to address clarity of thoughts, time management and related variables linking to study.<sup>8</sup> We do acknowledge that bias lives in many dimensions and usually no academic writing is free of bias. Thus, bias factor usually remains a key concern in any study, where linked up algorithms for Cochrane supported software’s like “Risk Of Bias (ROB)” provides a statistical evaluation of five dimensional picture with insights into the domain with highs and lows. Similarly, multiple other functions allow comparative analysis with clear guide therapeutic or diagnostic

option selection and related strength of the outcomes in real-time. In addition, the clinical question after processing provides more insightful data as forest charts with clear visibility of outcome definitions for evidence-based clinical solutions in real time.<sup>9</sup> An additional benefit the key feature to update the new data once identified and synthesized as per Cochrane methodology.<sup>2</sup> Another feature of updated Cochrane website is the “Cochrane Database of Systematic Reviews (CDSR)” where continuous data synthesis can rectify mistakes and updates newly synthesizes an upgrade.<sup>8</sup>

We believe Randomized Controlled Trials (RCTs) and Systematic reviews (SR) can provide higher quality evidence with the software generated inputs and outputs for assessing multiple dimensions of research progress and final outcomes for evidence based clinical practice and research. We believe learners from medical professional, professionals from biological sciences, pharmaceutical researcher, veterinary sciences and others can gain a lot of quality research and how to tackle their biological problems.<sup>9</sup> There is also our ideation that early learners which are usually boosted with better IT skills for medical colleges and universities may benefit a lot by adding “Evidence Based Practice (EBM)”. In recent past there has been preliminary efforts to establish via efforts of National University of Medical Sciences (NUMS) and Agha Khan Hospital (AKU) to establish one of the primary beacons of light to enlighten multiple next level IT supported tools under the umbrella cover of “Cochrane Pakistan” with the rigorous ambition to prevail and educate the medically literate among Pakistani population.

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