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LETTER TO THE EDITOR

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Dear Editor

Research training is a part of medical curricula of all medical teaching institutes of Sri Lanka. Training is conducted either through a community stream research project or via an elective research program. The community stream research project is compulsory and takes place before the final year clinical rotations. It encourages undergraduates to communicate with a selected local community to identify public health concerns and to conduct a basic research. Though a well-planned research teaching structure is observed, there is yet minimal evidence, on how medical students self assess their research skills and aptitudes. We aimed to develop a brief study tool to appraise perceived levels of individual student ability to conduct research and attitudes towards learning such skills, among medical students of the Faculty of Medicine, University of Kelaniya, Sri Lanka (FMK).

In 2013 we conducted a descriptive study approved by the FMK ethical clearance board (P202/12/2012). The study tool development was informed by previous research and discussed with student representatives early in the research process [1–3]. The components identified were: (1) research idea generation, (2) literature review, (3) research methodology development, (4) data management, (5) discussion and conclusion writing, (6) presentation and writing up for publications. Each component was linked to a Likert scale with skill grading of 'poor', 'average', 'good' and 'very good'. The tool was distributed among first and second year students between July 2013 and March 2014. Verbal consent was obtained from all participating students.

One hundred and twenty-seven students responded. Many of the students perceived their research 'skills' to be 'average' or 'poor' on the 'skills' evaluated. Average ratings were found for research idea generation (64%); data management (68%); and writing the conclusion (71%). Skills were rated as average/poor for writing a literature review (78%) and poor for research methodology (79%) and discussion writing (45%). Interestingly, students perceived they had 'good' or 'very good' skills in presenting research findings (82%) but only 9% stated that they have 'good' or 'very good' skills in writing-up the research. All the participants wanted to learn and gain more research skills in the future.

These findings based on the self-perceptions of students risk being an incorrect reflection of their actual aptitudes especially if the students had been too critical of themselves. Each component of a research paper was defined as a separate and precise skill required. This, although essentially a self-evaluation of individual research skills rather than a scientific method, helped us comprehend where students perceived they had gaps in their 'ability'. Since each of these components have different ideal methods for learning, we saw no fault in identifying each as a specific skill set. Many of the students recognized that they were good at generating research ideas yet they lacked the ability to carry out an accurate literature review - which could lead to inadvertent duplication of previous studies. When students are trained on critical review of literature prior to identifying research opportunities they may not act hastily on a 'bright idea'. Conducting research training at an earlier stage in the medical learning curriculum can increase the potential for students to identify and take-up opportunities that arise during their early training period. These might stem from basic sciences or from experiences gained during early clinical rotations.

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Yours sincerely

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