

Research at an undergraduate level - An insight into its importance

Pradhun Ram¹, Akshay Sethi², Mohammed Madadin^{3,4,5}, Ritesh G Menezes³

Correspondence: Dr. Ritesh G Menezes, Professor, College of Medicine, University of Dammam, Dammam, Kingdom of Saudi Arabia. Email: mangalore971@yahoo.co.in

Received 24 March 2016/**Revised** 26 March 2016/**Accepted** 29 March 2016

Citation: Ram P, Sethi A, Madadin M, Menezes RG. Research at an undergraduate level - An insight into its importance. Nepal J Epidemiol. 2016;6(1); 528-529.

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Copyright © 2016 CEA& INEA. Published online by NepJOL-INASP.

www.nepjol.info/index.php/NJE

As the world of medicine stands today, on the strong feet of progress, with head held as high as the sky of its boundless limits, and an inherent desire to know, some would say we've come too far. Some others would say we haven't come far enough. This world has wonders that no number of encyclopaedias can even come close to contain. As the seasoned, experienced fathers of modern medicine look through the key-hole of the mysterious house of untouched and unseen knowledge, the little toddlers - the undergraduate medical students in medicine run around in circles, still searching for the address. What they lack in knowledge, given their level of training - they more than make up for in character, for without discipline, confidence and hope we all know deep down that none of us would have made it through medical school.

Through the subtleties of the practice of medicine and interaction with real human lives and emotions, it's easy to underestimate the importance of research. More so, for the undergraduate who not only is bestowed upon the herculean task of mastering the demanding medical curriculum, but also to excel in other co-curricular activities such as sports to meet the bar for excellence in today's ever competitive world. While there may be an entire lesson on methods and techniques that one can learn for discovering new information through research, there is more than that meets the eye.

Discipline- Through the meticulous procedural format of conducting a research project, right from its inception to the possible formulation of a hypothesis, one important quality

that research imparts to the student is discipline. The slow search for answers is a long and arduous journey and research tames the impatience that any and every doctor seems to have inside, only to help in the future in matters of health care in this modern world.

Knowledge- It's unlimited. It's vibrant. The lesser we know at the end of each day, there is infinitely more to know the next. With a research project, answers to many questions can be obtained. And the difficulty of achieving it only helps in consolidating the new found knowledge into memory with lesser effort.

Vision- The horizon of human existence is a place which, in reality, does not exist. Just as the curious mind of a toddler tries to question the physics and biology of every object and being, an undergraduate develops the broad mind and vision to see beyond what is apparent. If one is to find new objects, he has to look outside the box he is placed in.

Certainty- Seek and you shall find, is what is usually said. The importance of research is telling us what we are seeking. We cannot find what we don't know we're looking for. The multitude of research projects that have already been done act as a guide to help the undergraduate student of medicine further the cause of the original thinker and create a more concrete road to progress.

Confidence- Every research project, on its completion, needs an audience. The investigator thus develops an integral quality, necessary to be an efficient doctor. The ease with which the results of a research can be effectively

communicated to a most critical crowd is the true measure of a doctor's resilience.

Character- What our system lacks when our bookish knowledge is tested to decide our fate as doctors is the ability to predict the integrity of the doctor's character. With research, when multiple human beings are studied in a bid to understand any aspect of our deficiencies, it is more or less given that the introspection which every investigator puts themselves through, builds good character.

Hope- The ultimate goal of our efforts is humanity. Understanding is only half the battle. Conducting a research project and finally getting the results published help in fathoming the gaps in health care that can someday save millions of lives.

Many a misconception exists amongst undergraduate researchers such as the lack of any real-world contribution through their research and the lack of guidance and support from medical professionals in various fields necessary to carry out such research. However, it was only by crushing such false beliefs did countries such as the US and the UK start encouraging and promoting undergraduate research which has subsequently lead to amazing discoveries.

Taking prompt notice from such a novel initiative and the glaring need of the hour, many notable organisations started providing lucrative grants for undergraduates. A mandatory research component is also included in the medical curriculum in few countries [1]. Research opportunities also exist for the undergraduate medical student beyond the medical curriculum. The Short Term Studentship Programme introduced by the Indian Council of Medical Research is one such opportunity for the undergraduate medical students to hone their research skills and knowledge [2].

One can only hope that this trend of research – soon becomes mundane in the life of every undergraduate.

We have come a long way from the caves that we once lived in. An important factor that has helped in our evolution is understanding. We have come a long way from the time when we tried to make people bleed in an attempt to cure cancer. What began on a small ship with twelve people and some bleeding gums is now something which is bigger than ourselves. And there is always room for improvement. We are still evolving. Today's air conditioned penthouse may be tomorrow's cave. And if that is going to happen, it's definitely going to be because of research. And the undergraduate, with all the inexperience and all the questions is the most fertile target, most productive soil and the most potent seed that can exist.

Conflict of interest:

The authors declare that they have no financial or non-financial potential conflicts of interest.

Author's affiliation:

¹ Albert Einstein Medical Centre, Philadelphia, PA, United States of America

² Kasturba Medical College (Affiliated with Manipal University), Mangalore, India

³ College of Medicine, University of Dammam, Dammam, Kingdom of Saudi Arabia

⁴ Victorian Institute of Forensic Medicine, Melbourne, Australia

⁵ Monash University, Melbourne, Australia

Reference:

1. Sreedharan J. Introduction of a research component in the undergraduate medical curriculum: review of a trend. *Nepal J Epidemiol* 2012;2:200-204.

<http://dx.doi.org/10.3126/nje.v2i3.6901>

2. Deo MG. Undergraduate medical students' research in India. *J Postgrad Med* 2008;54:176-179.

<http://dx.doi.org/10.4103/0022-3859.41796>

PMid:18626161