

Enhancing biomedical research in Saudi Arabia

To the Editor

It was with great interest that we read the article published in the Saudi Medical Journal by Aziz et al,¹ and we congratulate the authors for shedding light on such a vital area in the biomedical field. As academic clinicians from Saudi Arabia and students of health research methodology, we would like to reiterate the points mentioned in the above article and share our insights. Our intent is to facilitate productive collaboration and to enhance the Saudi health research initiatives. The ideas presented hereafter are inspired through scientific discussions with our research mentors at McMaster University, Canada.

We believe that medical school curriculum should emphasize the importance of evidence-based health care practice through the implementation of didactic critical appraisal courses covering the basic principles of evidence-based medicine. In addition, competition among medical students in conducting their own research projects, or through collaboration with their supervisors, should be encouraged. This can be achieved through starting a medical journal for medical students and organizing regional research days where awards are presented for quality projects. Further, program directors of postgraduate residency programs should promote the involvement of residents in research activities, link residents to research mentors with matching interests, and perhaps put together a mandatory minimal research requirement during their training. For instance, it is expected from the residents in several residency programs in North America to present their research work every 1-2 years. Another important incentive is to allow interested residents a 3-month period of research elective through their residency training. Such a mandate can be facilitated by the Saudi Council of Health Specialties. Lastly, residents who carry their projects to completion should be encouraged through financial support to present their work at international meetings.

One major hurdle in the current Saudi academic system is the practice of awarding points for academic promotion. The present structure tends to reward those with the greatest number of projects or publications, regardless of the quality of the research. It is crucial to set more 'weight' of the points on the quality of research instead of on single or first authorship, or the number of publications. Since the majority of the current faculty and staff have no formal training in research, establishing workshops in research methodology would have a significant impact on the quality of papers published.

We acknowledge the generous contribution of King Abdul Aziz City of Science and Technology in funding novel research projects. However, to date, the contribution of industry and private sector to research development and postgraduate training scholarships in Saudi Arabia is minimal, if any. Such funding, sponsored by industry, can have a significant positive impact on research initiatives. However, it is crucial that pharmaceutical companies should remain at arm's length and not influence the design, conduct, results, and publication of the research. We believe financial contributions should be encouraged, proportional to the privileges granted to these companies, to ensure continuity and quality of research activities.

Finally, the negative perception of the public towards participation in clinical trials has thwarted the establishment of clinical trials in Saudi Arabia. Proper public health education through the media and public lectures would enhance better societal understanding of the significance of research towards improving the quality of health care delivery.

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Reply from the Author

We would like to thank Drs Khalid AlFaleh and Sohail Bajammal, and all those who have written to us, for showing their interest in our previously published paper on the topic of research and biomedical publication.¹ Drs Al-Faleh and Bajammal raised a number of important points in their correspondence and we hope that relevant bodies would consider them when planning future research and academic programs.

1. We fully agree with Drs AlFaleh and Bajammal suggestion that medical journals especially designed for students need to be established, and we would like to take this opportunity to suggest to the ever expanding Saudi Medical Journal to produce a sister journal especially designed for students. Such a journal would need to contain a mixed balance of educational (reviews, cases, views and opinions on current medical advances and events, and so forth) and research papers in order to appeal to all medical and biomedical students.

2. We also fully agree that students should be encouraged to present their work in departmental/hospital seminars; which should be taking place regularly (weekly/monthly). In

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addition, student should be encouraged to present their work at national and regional conferences. Since attendance of international conferences is very expensive, the benefit of attendance to students and institutions should always be weighed against the cost of attending these conferences. Students (and all staff) wishing to attend international conferences should justify their need for attendance. In addition, they should be required to communicate their experience to the rest of the department/institution afterward.

3. We agree that the quality of research papers should be judged when assessing candidates for promotion and grant awarding. For this to be possible, there is an urgent need for grading national and regional medical journals.

4. Finally, with respect to the point regarding clinical trials, we feel this topic may need to be discussed extensively before making any decisions. Strict laws and regulations will need to be established, and clinical trials carried out in specialized centres with appropriate facilities and expertise. Clinical trials may need to be performed

under the overall guidance of a given body. The benefit of opening the gate to clinical trials, in the absence of the right base could, at best, prove inconclusive. Until that base is solid, the public resistance to participate in clinical trials may after all be justified; particularly in situations where alternative treatments are available.

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References

1. Aziz KA, Sallam T, Ibrahim AH, Sufian T. Improvement of research and biomedical publication. *Saudi Med J* 2004; 25: 1319-1322.

Erratum

In manuscript "Magnetic resonance imaging of pelvic and femoral bones for detection of bone marrow infiltration in patients with non-Hodgkin's lymphoma" Saudi Medical Journal 2005; Vol. 26 (1): 31-36, Table 1 should have appeared as follows:

Table 1 - Comparative results of pelvic and femoral marrow magnetic resonance imaging (MRI) and bone marrow (BM) biopsy in the studied patients.

MRI	Negative n (%)	Positive n (%)	Total n (%)
<i>Biopsy results before treatment (p=0.037*)</i>			
Normal	13 (43.3)	0	13 (43.3)
Positive	8 (26.7)	9 (30)	17 (56.7)
Total	21 (70)	9 (30)	30 (100)
<i>Biopsy results after treatment (p=0.034*)</i>			
Normal	11 (64.7)	0	11 (64.7)
Positive	5 (29.4)	1 (5.9)	6 (35.3)
Total	16 (94.1)	1 (5.9)	17 (100)
*Significant p value			