

Patterns of self-medication among university students – a medical students' analysis

Syed Waqar
Mustafa Saad Al-Khayat
Mohammed Athif Khan

Faculty of Medicine, St George's,
University of London, London, UK

Dear editor

We read the article by Alshogran et al¹ with great interest. The article aimed to identify the “prevalence, attitudes, determinants and sources of self-medication” among both medical and non-medical students. As medical students ourselves, the article resonated with us and encouraged us to explore the subject of self-medication.

Alshogran et al showed that the prevalence of self-medication was comparable between medical and non-medical students. However, it is important to note that the majority of students included were in their third or fourth year of study (68%) and only 20.6% of the participants were in their first or second year. Kasulkar and Gupta² conducted a study among medical students, and their results demonstrated that the prevalence of self-medication increased from first year to final year. It would be intriguing to see what effect, if any, having a fairer representation of junior medical students would have been on the results of Alshogran et al.

There are certain demographic differences between the study groups in Alshogran et al.

One of which is gender: 69.8% of the medical students were female, compared to just 42.2% of the non-medical students ($P < 0.001$). Several studies, such as the study by Yousef et al,³ have reported that the prevalence of self-medication is higher in females. Other statistically significant variables that were different between the study groups included the following: smoking status, monthly income and nationality. Some of these variables may act as confounders, and combined with the gender bias, they may skew the results. Although the differences were acknowledged in the original study, the consequences were not explored thoroughly.¹ The main consequence is that any conclusion obtained from the comparison between the two groups cannot simply be attributed to being a student of a medical faculty alone.

The definition of self-medication that Alshogran et al alluded to includes the use of herbal and home remedies. However, the focus of this study was on traditional over the counter (OTC) medications, such as analgesics and anti-cold/flu, and herbal remedies could not be identified separately. Perhaps, this could be attributed to the fact that many people classify herbal remedies as supplements rather than medications.⁴ These remedies are commonly touted as being natural, but this does not mean they are harmless.⁵ Since herbal remedies are often not subject to the same rigorous regulations of OTC/prescription medicine, they may represent a significant risk to

Correspondence: Syed Waqar
Faculty of Medicine, St George's,
University of London, Cranmer Terrace,
London SW17 0RE, UK
Email waqarsyed458@gmail.com

vulnerable patients who are lulled into a false sense of security by unethical marketing techniques.

We greatly value the study by Alshogran et al, which brings light to this important issue and agrees that further studies are required to assess the impact of self-medication. Ultimately, the purpose of studies such as Alshogran et al is to identify the risks to public health. To that end, we would suggest that future studies include herbal medicine as a discrete option for self-medication as this will allow for the development of a more comprehensive health care policy.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Alshogran OY, Alzoubi KH, Khabour OF, Farah S. Patterns of self-medication among medical and nonmedical university students in Jordan. *Risk Manag Healthc Policy*. 2018;11:169–176.
2. Kasulkar AA, Gupta M. Self medication practices among medical students of a private institute. *Indian J Pharm Sci*. 2015;77(2):178.
3. Yousef AM, Al-Bakri AG, Bustanji Y, Wazaify M. Self-medication patterns in Amman, Jordan. *Pharm World Sci*. 2008;30(1):24–30.
4. Awad A, Al-Shaye D. Public awareness, patterns of use and attitudes toward natural health products in Kuwait: a cross-sectional survey. *BMC Complement Altern Med*. 2014;14(1):105.
5. Ekor M. The growing use of herbal medicines: issues relating to adverse reactions and challenges in monitoring safety. *Front Pharmacol*. 2014;4:177.

Authors' reply

Osama Y Alshogran¹

Karem H Alzoubi¹

Omar F Khabour²

¹Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology, Irbid, Jordan; ²Department of Medical Laboratory Sciences, Faculty of Applied Medical Sciences, Jordan University of Science and Technology, Irbid, Jordan

Correspondence: Osama Y Alshogran

Department of Clinical Pharmacy, Faculty of Pharmacy, Jordan University of Science and Technology, Irbid 22110, Jordan

Tel +962 2 720 1000

Fax +962 2 720 1075

Email oyalshogran@just.edu.jo

Dear editor

Waqar et al have discussed the self-medication practice among medical students. There are some points we would like to display in response to their letter and as a further stimulus to the readership. First, we agree with the point that the patterns of self-medication might be dependent on the seniority of students. When students advanced in their study, the knowledge about the disease and medications might be different and that would have an impact on self-medication practice.^{1,2} Indeed, I suspect that some would disagree with this opinion as they believe that students have little medical knowledge during the preparatory years of study (especially the first year).

Second, we would like to highlight that we have acknowledged in limitations of our previous study³ that there were multiple significant differences in demographic factors between medical and nonmedical students, and they were not largely matched. These differences could have an effect on the pattern of self-medication among students. We could not adjust for such confounders as the survey was not initially developed in a way to conduct a regression analysis. The study was mainly descriptive.

Finally, while self-treatment with herbal medicine is critical, this study did not assess for this behavior because of its small prevalence among Jordanians. Previous studies showed that 21.6% of the diabetic patients,⁴ 14.1% of the patients with coronary artery disease⁵ and 7.6% of those with chronic diseases⁶ have practiced herbal therapy in Jordan. This partially may be related to the concern about the detrimental effects of herbal medicine.⁷ However, exploring the use of herbal medicine among students will be of great value.

Collectively, the points highlighted by Waqar et al are important to be further explored in future investigations, so that we would have a better understanding of the effect of self-medication practice on public health.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Albusalih F, Naqvi A, Ahmad R, Ahmad N. Prevalence of self-medication among students of pharmacy and medicine colleges of a public sector university in Dammam City, Saudi Arabia. *Pharmacy*. 2017;5(4):51.
2. Alkhataibeh MJ, Alefan Q, Alqudah MA. High prevalence of self-medication practices among medical and pharmacy students: a study from Jordan. *Int J Clin Pharmacol Ther*. 2016;54(5):390–398.
3. Alshogran OY, Alzoubi KH, Khabour OF, Farah S. Patterns of self-medication among medical and nonmedical university students in Jordan. *Risk Manag Healthc Policy*. 2018;11:169–176.
4. Gharaibeh B, Tawalbeh L. Beliefs and practices of patients with diabetes toward the use of herbal therapy. *AIMS Public Health*. 2017;4(6):650–664.
5. Omeish AF, Nimri MA. Predictors of herbal medicine in patients with coronary artery disease in Jordan. *J Pak Med Assoc*. 2013;63(2):216–219.
6. Wazaify M, Alawwa I, Yasein N, Al-Saleh A, Afifi FU. Complementary and alternative medicine (CAM) use among Jordanian patients with chronic diseases. *Complement Ther Clin Pract*. 2013;19(3):153–157.
7. Akour A, Kasabri V, Afifi FU, Bulatova N. The use of medicinal herbs in gynecological and pregnancy-related disorders by Jordanian women: a review of folkloric practice vs. evidence-based pharmacology. *Pharm Biol*. 2016;54(9):1901–1918.

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