

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

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## Dear editor

We read the article by Alshogran et al<sup>1</sup> 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 Gupta<sup>2</sup> 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,<sup>3</sup> 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.<sup>1</sup> 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.<sup>4</sup> These remedies are commonly touted as being natural, but this does not mean they are harmless.<sup>5</sup> Since herbal remedies are often not subject to the same rigorous regulations of OTC/prescription medicine, they may represent a significant risk to

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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.

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## Authors' reply

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## 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.<sup>1,2</sup> 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 study<sup>3</sup> 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,<sup>4</sup> 14.1% of the patients with coronary artery disease<sup>5</sup> and 7.6% of those with chronic diseases<sup>6</sup> have practiced herbal therapy in Jordan. This partially may be related to the concern about the detrimental effects of herbal medicine.<sup>7</sup> 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.

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