

# Letter to the Editor in response to the article “Willingness to human papillomavirus (HPV) vaccination and influencing factors among male and female university students in China.”

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**Letter to the Editor in response to the article “Willingness to human papillomavirus (HPV) vaccination and influencing factors among male and female university students in China.”**

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To The Editor,

I carefully read the cross-sectional study by Dai, Z et al<sup>1</sup>. I appreciated the work, especially the purposive selection of these universities in different geographical regions of China and the analysis of males and females separately, which is critical considering the policies of HPV vaccination in mainland China. Still, there are some issues that I would like to discuss.

First, it is the discordance of a set of data. In the abstract part, “Female students were more willing to be vaccinated against HPV if they had ever had sexual experiences (AOR=2.628, 95% CI: 1.788–3.863).”<sup>1</sup> In the results part, “Students who ever had sexual experience were almost three times more likely to take the vaccine than those who had not (AOR = 2.628, 95% CI:1.788–3.863) (Table 4).”<sup>1</sup> In table 4, according to the cells of row: “Ever had sexual behavior”, column: “Female”, OR = 2.628, AOR = 1.646, 95% CI: 1.088–2.490.<sup>1</sup> Though the conclusion remains the same whichever set of data, I still think it needs to be clarified.

Second, the university choice is not representative enough. All universities selected are Project 985 schools, which are the top schools in China. In other words, the sample has been pre-screened by the Chinese education system, while these students only make up less than 3% of university students<sup>2</sup>. As a result, the sample of the article is unlikely to be representative of university students in China.

Last but most important, the article argues that university students’ perceptions of threat and severity of HPV are related to the result that “female students were less willing to be vaccinated against HPV and to encourage their friends to be vaccinated while they were more likely to receive sex education and knowledge of HPV”.<sup>1</sup> But it contradicts a set of data in the study that there was no significant difference in fairness between males and females.<sup>1</sup> Besides, this assumption totally ignored the inclusion criterion- “had never been vaccinated against HPV before”<sup>1</sup> and the policies related to HPV vaccination in China. Since vaccination against males has not been proved in China, it was highly possible that part of the women who were willing to be vaccinated had been excluded. In other words, the proportion of women who knew the severity but would not get vaccinated would be bigger than it really was. Yet, they could get the conclusion based on other results, like “female students were more willing to be vaccinated, if relatives or friends had certain cancer”<sup>1</sup>. However, the correlation was not the same with males. So the conclusion should be accessed cautiously.

Maybe, they should not exclude females who had been vaccinated against HPV at the beginning of the study. In that way, they would not get into this quandary and could analyze the rate of HPV vaccination among university students in China as well, which might be a good reason for the urgency for the promotion of HPV vaccination.

In conclusion, though the article filled the gap of a national study on HPV awareness among university students based on sex, it still has some small confusing parts to be clarified. Further research could be conducted by involving a broader range of university students, like students in midstream universities, or investigating whether the level of a university is associated with HPV infection and willingness to HPV vaccination, which is significant since some universities<sup>3</sup> have started the trial to provide HPV vaccination on campus.

## References

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