

Comments on Waseem N et al. (J Pak Med Assoc. Vol 71, No-4, April 2021)

## Medical students' attitudes towards the clinical importance of embryology

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Madam, we have read the article, "Medical students' attitudes towards the clinical importance of embryology" (JPMA, Vol 71, No-4, April 2021) with fervor and agree with the authors that it is the need of the hour to revisit our medical curriculum to make it clinically relevant. However, there are numerous equivocal points that require the attention and are enlisted as:

1) The MBBS curriculum covers embryology in the pre-clinical, i.e., 1st and the 2nd year of the degree program.<sup>1</sup> The general principles and developmental science are taught in the 1st year with clinical aspects, and the systemic embryology, including the organ-system development, is in the 2nd year syllabus. However, the authors selected 1st and 5th year MBBS students for this study. First, there is a systematic bias by excluding the 2nd year students, which compromises the external and the internal validity of the drawn results. Secondly, the administration of items specific to clinical aspects, like, "Embryology needs little understanding in the clinic" to 1st year pre-clinical medical students, is incorrect. Multiple other items in the questionnaire pose a similar challenge for the pre-clinical students. The study also lacks the time of the year when the questionnaire was administered since only the 1st year students at the end of an academic year can discuss the general embryology.

2) Another issue is that the study is based on the Thurstone scale, a type of differential scale used to

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quantify each item of a construct based on the scoring by selected judges.<sup>2</sup> Though, it provides a significant weight to each item but is limited by the subjective perception of the judge. Thus, it becomes imperative to mention the final weight allocated to each item of the construct by the judges. This crucial piece of information is missing from this study.

3) Other issues include a final median score generated using a 1-11 point 'modified Likert scale' that does not allocate uniform scores to the 'pro' and 'anti' groups, which further instigate bias. In contrast, there is a neutral point in the symmetric Likert scale that lies at an equal distance from two extremes.<sup>3</sup> Additionally, Figure-1 does not correctly correlate with the results in Table-1.

Also, the authors mentioned the term 'tetology' in the first paragraph of their introduction section, which is a term unknown to the world of existing medical science. We wonder if they meant 'teratology', a branch of science dealing with congenital anomalies.<sup>4</sup>

### References

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### NOTE:

The authors of the article, **Medical students' attitudes towards the clinical importance of embryology**, decided not to submit a REJOINDER to the above comment.