

# Medical embryology in 115 minutes – surely not?

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## Dear Editor

The article by Kazzazi and Bartlett<sup>1</sup> asked “Condensing embryology teaching for medical students: can it be taught in 2 hrs?” Their answer was “yes” – asserting that they had ‘demonstrated that is possible to design and produce an embryology teaching program that covers an undergraduate embryology curriculum in chronological systems-based manner in 2 hours with successful results’. This astounding claim warranted exploration.

A more accurate title would have been an “Embryology crash course” - this was how they had publicised their lecture. Replying to a letter to the Editor from Fallaha et al,<sup>2</sup> Kazzazi and Bartlett said their “course was not a ‘summary’ by any extent and was comprehensive and covered the full embryology curriculum in an unorthodox didactic style in under 2 hrs”. Not accurate: it was not “systems-based” as there was no mention of urinary, reproductive or vascular systems? The critical part of this presentation was the PowerPoint™ slides - these apparently consisted of five or less bullet points, diagrams or both and the presentation also provided “information regarding congenital malformations” and that “there was little additional information to note down that was not present in the slides.” Surely impossible that this could take less than two hours? For students learning embryology, sources should be expert and information verifiable: for example, Dudek’s High-Yield Embryology<sup>3</sup> (in 1996 was 47 pages, but now 140+ pages in the 2014 edition).

Bizarrely, there was no ethical approval for this student-led educational experiment. The “study was independently run and subsequently endorsed through the student-run university societies.” Seemingly, neither Cambridge or Birmingham University were aware that this “original research” had been undertaken on their first-year medical students just before critical examinations, when students were at their most impressionable/vulnerable. More curiously, the authors claimed that “students were not required to provide consent to attend the course as it was part of their timetables”. If timetabled teaching, why were the universities unaware of the study and why no attribution/acknowledgement of anyone from Birmingham? Was the focus group run at only one of the two institutions? Were the critical comments on embryology teaching (attributed to the focus group), applicable to both medical courses? Important issues – not addressed in the paper.

These concerns aside, the article was not scholarly. Few medical courses retain a “preclinical basic science teaching” Flexnerian model;<sup>4</sup> modern designs favour integrated programmes, often either case- or problem-based. The paper claimed that “Although speakers in embryology appear confident in teaching the course, these results are discordant with the opinions of medical students as to the effective

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delivery of the course". To support the first assertion, a PhD thesis by Cassidy was partly cited:<sup>5</sup> a survey of only 34 variously qualified American faculty, teaching a range of courses. Two respondents had never taught embryology but were included in the "level of confidence when teaching embryology" data. Significantly, students taught by this faculty would have been postgraduate, unlike most medical students in UK medical schools. The "discordance with medical student opinion" that the paper suggested, was claimed to be supported by Scott et al<sup>6</sup> who surveyed 184 University of Sydney final-year medical students and showed "that the vast majority of students valued embryology teaching in their medical programme" – hardly "discordant". A second source simply demonstrated that a team-based learning approach was better received by first-year medical students than didactic teaching.<sup>7</sup> Similarly, Scoville et al<sup>8</sup> did not corroborate Kazzazi and Bartlett's assertion that "peer teaching has been utilized as a means of increasing student confidence in the understanding of embryology" – the source was an Abstract that outlined Mayo Medical School's approach, and ends with "Student satisfaction and utilization of near-peer and inter-professional resources will be assessed at the end of the course".

When Patel et al wrote to the Editor<sup>9</sup> suggesting that Kazzazi and Bartlett's evaluation of their 2 hr lecture was too subjective and that they might consider more objective evaluation methods, the response was that these would be "fraught with bias" – Kazzazi and Bartlett were clearly happy to set and then mark their own homework. Overall, instead of padding out their paper with redundant

"supplementary material", the authors should have taken a scholarly approach to their "research" – not least for the reasons given above.

## Disclosure

The author reports no conflicts of interest in this communication.

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