

IDENTIFYING CHALLENGES AND EVALUATING STRATEGIES TO PREPARE PARAMEDIC SCIENCE STUDENTS TO UTILISE MATH IN THEIR FUTURE CAREER

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ABSTRACT

In 2010, Ambulance Victoria (the primary employer of Victoria University Bachelor of Health Science graduates) introduced a math examination as part of their recruitment. The exam aimed to improve the process of clinical drug administration by deselecting graduates who were unable to demonstrate predetermined mathematical skills. Anecdotally, it has been noted that many applicants do poorly in math assessments within the course and during recruitment. Anxiety appears also to be raised when undertaking a math assessment compared to other components of university assessment and employment recruitment (Arem, 2010; Bull, 2009; Le Blanc et al, 2005; Taylor and Galligan, 2006). In order to improve student chances of pursuing this career, whilst maintaining a minimum standard, a more structured approach to mathematical education in this health science degree is required. Our aims are to engage students in mathematical learning, improve their math skills, alleviate math related anxiety and identify the relevance of math in their future health science career (Richardson and Suinn, 1972).

REFERENCES

- Arem, C. (2010). *Conquering Math Anxiety: A self-help workbook*. Belmont, California, Brooks Cole, Cengage Learning.
- Bull, H. (2009). Identifying maths anxiety in student nurses and focusing on remedial work, *Journal of Further and Higher Education* 33(1): 71-81.
- LeBlanc, V. R., R. D. MacDonald, McArthur, B., King, K. and Lepine, T. (2005). Paramedic performance in calculating drug dosages following stressful scenarios in a human patient simulator, *Prehospital Emergency Care: Official Journal Of The National Association Of EMS Physicians And The National Association Of State EMS Directors* 9(4): 439-444.
- Richardson, F. C. and R. M. Suinn (1972). The Mathematics Anxiety Rating Scale: Psychometric data, *Journal of Counselling Psychology* 19(6): 551-554.
- Taylor, J. and L. Galligan (2006). Mathematics for Maths anxious tertiary students: integrating the cognitive and affective domains using interactive multimedia, *Literacy and Numeracy Studies* 15(1): 23-43.

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