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Enhancing Nutrition Physiology Learning Through Reality Bites™ VR

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BACKGROUND
Traditional teaching of nutrition physiology often relies on dense, text-heavy materials and rote memorisation, limiting student engagement and deeper understanding. Digital innovations, particularly those that support experiential and immersive learning, offer the potential to transform this educational landscape.

AIMS
This study aimed to evaluate *Reality Bites™*, a student-led virtual reality (VR) learning resource, in its capacity to enhance learner engagement in undergraduate nutrition education.

DESCRIPTION OF INTERVENTION
Reality Bites™ is an immersive VR tool that guides students through a narrative-driven, self-directed journey of the human digestive system. The creation of *Reality Bites™* was driven by nutrition students' storyboard nutrient pathways, which were transformed into interactive VR experiences by computer science peers and used as an in-class learning resource for the subsequent nutrition cohort.

DESIGN AND METHODS
The mixed-methods evaluation study included 35 Year 1 undergraduate nutrition physiology students during a class setting and 21 nutrition experts during a nutrition conference showcase. Data were collected via anonymous post-intervention surveys combining Likert-scale and open-ended questions following the participants use of the *Reality Bites™* VR tool.

RESULTS
All student participants (100%) reported *Reality Bites™* to be engaging, informative and a helpful tool in supporting their understanding of the subject. Additionally, 97% of students felt it would adequately prepare them for assessments and 89% reported they would prefer more VR-based learning over traditional delivery. Qualitative responses highlighted improved conceptual understanding through the immersive, visual learning experience. Expert feedback confirmed educational value, with 94% endorsing its practical application and 88% expressing intent to adopt the tool in their own teaching.

CONCLUSIONS
Reality Bites™ demonstrates strong potential for transforming nutrition science education through immersive, student-centred VR learning. Its cross-disciplinary development and strong endorsement by students and educators position it as a scalable model for learning resource innovation in higher education.