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Competency-based assessment in nutrition education: a systematic literature review

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Training future nutritionists to meet competency standards set out by the Association for Nutrition (AfN) requires high-quality education and assessment methods. Currently little is known about the implementation of competency-based assessment (CBA) practices in nutrition education and their efficacy in evaluating a student's performance at undergraduate and post-graduate level. CBA measures a student's competence by analysing their performance and achievements and comparing them to the competence standards[1]. This is important as we must ensure our future nutrition graduates are fit for employment and confident in their abilities, especially now during the Covid-19 pandemic, to maintain and improve the health of the public. The objective of this review was to understand how CBA is implemented and evaluated in nutrition education, and their alignment with the AfN's competency standards.

A systematic literature review was carried out on four databases with broad search criteria according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines[2]. The PICO (Participant, Intervention, Comparator, Outcome) framework was used to define the research question: How has competency been assessed in nutrition degrees? Keywords included competence* in combination with nutrition or dietetic. Database searches identified a total of 7,026 studies and after screening using our PICO framework excluding dietetics only populations, combined interprofessional populations, and studies not implementing or evaluating CBA, only six full papers were deemed eligible for inclusion.

The six included studies focused on competency assessment in nutrition education. Individual competencies were assessed in each, with the majority using objective assessment methods such as pre- and post-questionnaires, video assessment, and portfolio analysis. Mapping against the AfN competencies indicated that each study assessed a competence from one of the five core competencies, however, only four of the five were addressed across the studies. Improvements to knowledge or skills were achieved across all studies and highlighted the importance of effective CBA for preparing future nutritionists to enter the workforce. Voluntary registration of nutritionists has been provided since 2011 through the AfN. There are currently 57 undergraduate degrees and 38 postgraduate degrees accredited with the AfN, the majority of which are UK-based. Only one of the included studies originated in the UK using a cohort of students from an AfN accredited course[3] highlighting a need for further research in this area.

In conclusion, the lack of nutrition education research around CBA has highlighted a gap in the literature that must be addressed to ensure we are effectively training future nutritionists who can demonstrate all competencies required. This is particularly evident when compared with dietetics education and the vast research being done to develop better assessment approaches[4]. Future research on who is assessing the efficiency of CBA, and the development of a framework for CBA, are also necessary.

References

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