A Cost-Effective Work-Based Interprofessional Collaboration Program for Healthcare Professionals

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ABSTRACT

Despite the availability of online interprofessional collaboration (IPC) programs, few cater for low- and middle-income communities and healthcare workers with limited Internet resources. This article describes how an interdisciplinary team developed an IPC blended learning program for healthcare workers in a low- and middle-income maternity setting. The purpose of the article is to discuss and outline how the authors developed an IPC program that is easily accessible and cost-effective to implement in low- and middle-income communities. To scaffold the program content and structure, the authors integrated IPC principles and the ADDIE instructional design model. By discussing the design process and methodology, the article aims to demonstrate how an accessible learning program can be developed using a work-based pedagogy and blended learning approach. In doing so, the authors trust the design process and approach can guide other healthcare professionals and educators in similar contexts, as well as encourage educational professionals to utilize resources optimally.

KEYWORDS

ADDIE Design Model, Blended Learning, Edpuzzle, Google Classroom, Healthcare Professionals, Interprofessional Collaboration, Low- and Middle-Income Communities, Maternity Care, Work-based Learning

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Globally, interprofessional collaboration (IPC) is becoming central to clinical practice, with evidence of improved patient outcomes (Kaini, 2017). Since 2010, the World Health Organization (WHO) has recognized collaboration as a priority to improve and strengthen global health systems (WHO, 2010, 2019). Separately trained healthcare professionals (i.e., physicians, nurses, midwives, physiotherapists, and pharmacists) must, therefore, learn to collaborate in their everyday work environment (Bogossian & Craven, 2021).
Interprofessional education (IPE) has been integrated at tertiary educational institutions to promote IPC in clinical practice (Aldriwesh et al., 2022). However, working healthcare professionals are overlooked although they should also be enabled to partner with other members of the healthcare team through work-based IPC education programs (Seppänen et al., 2022). Online learning environments facilitate work-based IPC, supporting development and readiness to collaborate (Aldriwesh et al., 2022).

Online learning IPC interventions often originate from high-income countries that have access to technical resources and connectivity (Mounier-Jack et al., 2017). Low- and middle-income countries, however, are faced with challenges related to accessibility, technical problems, and isolation when implementing such interventions in remote communities (Reeves et al., 2017; Sunguya et al., 2014). The context of the study reported in this article was a sub-Saharan clinical setting of Botswana, an example of a low- and middle-income country as in need of IPC education due to its high maternal morbidity and mortality rates (Statistics Botswana, 2019; United Nations & Botswana, 2017). An IPC work-based program is needed in maternal settings in low- and middle-income communities because existing programs do not address the interprofessional practices of healthcare professionals in the clinical setting (Lutfiyya et al., 2019).

To address the need for a cost-effective, accessible IPC program, the authors developed a work-based blended learning program for healthcare workers in a maternity setting in Botswana, titled Mabogu-Dinku (Together We Can). This article provides a meta-discussion that outlines the considerations and reasonings behind the design process of the IPC program. Such a discussion could assist other healthcare professionals in low- and middle-income countries as they face similar challenges in designing and developing work-based learning programs. Additionally, educational professionals working in high-income countries may gain insight into optimally utilizing resources in under-resourced settings.

To demonstrate the design process, the authors identified the preliminary considerations that provided the background for the program and applied the ADDIE model to the design and development of Mabogu-Dinku. The next section indicates the preliminary considerations, including the contextual insight, blended learning approach, and required interprofessional collaboration and education (IPC/E) competencies that informed the development of the work-based program.

**PRELIMINARY CONSIDERATIONS**

The context of Botswana and maternity care, components of blended learning, interprofessional collaboration, education, and the ADDIE instructional design model were taken into consideration before developing the Mabogu-Dinku program. Taking these into account assisted the authors in synthesizing work-based program instruction. The fields of existing research provided a framework for program design and development, with the aim of increased collaboration and easily accessible content.

Despite the existing scholarship between blended learning and IPC, as well as blended learning and the ADDIE instructional design model, literature on integrating blended learning, IPC, and ADDIE is sparse. Several studies present blended learning as a pedagogical approach to IPC in healthcare settings (see Cappi et al., 2019; Chen et al., 2017; Kenwright, 2012; Lala et al., 2021; Riesen et al., 2012). Studies also incorporate a blended learning approach, via the ADDIE model of instructional design (see Adri et al., 2020; Reinbold, 2013; Risdianto, 2019; Shibley et al., 2011), to manage and keep blended learning methods and tools organized during the design process (see Shibley et al., 2011). Yet few studies included ADDIE and blended learning technologies when developing IPC/E (Bellucci, 2019; Pintz et al., 2021).

As IPC/E requires further expansion into low-income countries, it becomes important to extend and adapt instructional design methodology. The intersection between blended learning, IPC/E, and ADDIE is important and deserves further investigation. The authors argue that