Development of a trauma care assessment instrument for emergency nurses in West Africa

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Abstract

Background Strengthening the provision of emergency health services, including the nursing workforce, is progress towards decreasing the burden of injury in sub-Saharan Africa. The WHO Essential Trauma Care Guidelines provide minimum knowledge and skills to ensure quality in-hospital trauma care. Our aim was to develop an emergency nursing trauma care knowledge, attitudes, and skills minimum competency assessment instrument with WHO guidelines for African emergency care settings.

Methods Constructs anchoring the assessment were defined by an expert panel of six emergency nurses from Ghana, Malawi, South Africa, and Tanzania, with a modified Delphi approach. The panel did each phase of the knowledge, attitudes, and skills instrument creation and validation by: (1) identifying objectives and attributes; (2) narrowing the domain of content previously pre-defined by WHO; (3) developing survey questions; (4) reviewing questions in the instrument; and (5) pilot testing the survey with 23 emergency nurses in Ghana.

Findings A four-part instrument was created. Important objectives and attributes of the instrument included easy measurement and discrimination of trauma care knowledge, attitudes, and skills among emergency nurses in sub-Saharan Africa. Domains assessed were primary, secondary, focused, and ongoing trauma assessment and management, including team-oriented practices, nursing analysis, planning, and implementation. The knowledge, attitudes, and skills instrument included ten demographic and 46 attitude questions self-administered on paper, 49 open-ended oral interview questions, and 26 administered in an observed patient simulation format. Pilot results show the instrument was easy to apply, appropriate for low-resource testing, and was able to discriminate knowledge, attitudes, and skills among nurses of various competencies.

Interpretation In Ghana, the longitudinal assessment instrument should be implemented for cohorts of newly trained emergency nurses. In other sub-Saharan African countries, actively trained emergency nurses the instrument should be locally validated and piloted, then deployed to measure basic trauma competencies between nurses. Ultimately, the instrument should serve as a standard across sub-Saharan Africa for measurement of competency among nurses, thereby allowing multinational comparisons or longitudinal assessments.

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Contributors SAB, N-KM-M, and SR developed the instrument. SAB wrote the Abstract. PB, VB, N-KM-M, and SR provided extensive edits and input on the Abstract. All authors have seen and approved the final version of the Abstract for publication.

Declaration of interests We declare that we have no competing interests.

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