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Impact of Educational Mentorship for Managing Postpartum Hemorrhage on Nurses and Midwives' Knowledge and Self-Efficacy

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Introduction

Despite determined efforts that Rwanda employed to address critical development challenges, including those aimed at improving the health and quality of life of its population, Rwandan women are still prone to death while giving life. Up to 70% of these maternal deaths, are attributed to postpartum hemorrhage (PPH) (Ghalandari et al 2017). This is noticeable as the first leading cause of maternal mortality not only in Rwanda but worldwide. It accounts for 34% of maternal deaths in Africa (Mutunga, 2015). Rwanda, a landlocked, hilly country with an area of 26,338 square kilometers located in East Africa, has a workforce that is still not well skilled or educated, and has spent the last twenty-four years rebuilding all sectors after the devastating 1994 Genocide against the Tutsi. Nonetheless, it achieved its Millennium Development Goals (MDGs) for health when many countries in Sub-Saharan Africa were unable to achieve their targets. Despite these gains, PPH is still prevalent in Rwanda.

Prata, Bell, and Weidert (2013) define PPH as blood loss of more than 500 ml after a vaginal delivery or more than 1000 ml after a cesarean section. PPH may be classified into two categories, primary (or early) PPH, which occurs in the first 24 hours after delivery of a baby, and secondary (or late) post-partum hemorrhage, which occurs beyond 24 hours after delivery.

Sayinzoga et al (2016) report that 61% of all maternal deaths are attributed to the improper management of PPH. To address this challenge, the global commitment to sustainable development goal is to have reduced maternal deaths to less than 70 deaths per 100,000 live births by 2030 (Abbott, Sapsford, & Binagwaho, 2017). As an interim goal, Rwanda has committed to reduce PPH deaths from 210/100,000 live births to 126/100,000 live births by 2024 (Ministry of Health, 2018). However, the management of PPH is fostered by how knowledgeable nurses and midwives are about it and how self-motivated they are to employ this knowledge together with the efficacy beliefs to influence their capability (Bandura, 1977).

A study conducted by Ritchie, Bates, & Deary, (2015) in Scotland about educational mentorship and cognitive ability shows that if educational mentorship about PPH management is associated with improvements in general cognitive development, it reduces PPH-related maternal deaths, suggesting the positive impact of educational mentorship. Similarly, a current study conducted by Powell (2018) in United States emphasizes improving labour and delivery nurse's knowledge through educational mentorship that helps them with rapid identification and treatment of PPH. Using a pre and post-test study design, the results reveal a statically significant increase in knowledge after the educational mentorship, where 63% of the participants passed the pre-test with an average of 80% compared to 90% of participants who passed the post-test with an average of 80%. Rwandan health facilities have very limited resources available for mentorship related to managing PPH at the level of health centers. It is from this context that, the Training Support Access Model (TSAM) developed a mentorship model to address this gap in selected Rwandan health facilities. TSAM, is a 5-year international development partnership project sponsored through the Government of Canada with a mission of improving maternal, newborn and child health (MNCH) in Rwanda. It achieves its mission through working with local partners to improve maternal and child health. As part of its mentorship program, TSAM targets maternity nurses and midwives working in health centers within the Gakenke, Rulindo and Gicumbi districts in Northern Province of Rwanda. Evaluation of the TSAM's mentorship is the focus of this study which was designed to assess the impact it has on nurses and midwives' knowledge and self-efficacy in managing PPH.

Purpose:

The purpose of this study is to investigate whether educational mentorship will improve nurses and midwives' knowledge and self-efficacy in managing postpartum hemorrhage in selected health centers of Rwanda.

Methods:

The TSAM Project has organised and is delivering the educational mentorship to nurses and midwives. The researchers, who are not developing or delivering the mentorship, will assess the impact of that mentorship by comparing pre and post mentorship knowledge and self-efficacy. The sample for this study is 141 nurses and midwives who participated in pre-mentorship assessments that were conducted in July and August of 2018. A pre-mentorship assessment was conducted at the participant's work place, using a self- administered survey about PPH knowledge adapted from Mutunga (2015) and PPH-related self-efficacy adapted from (Bandura, 2006). In addition, TSAM mentorship occurs monthly for a total of six months. Thus, post-mentorship assessment will not occur until early 2019.

Results:

The preliminary assessment from pre-mentorship shows that most nurses and midwives hold the advanced diploma level of education 65.2% (n=92), 5% have bachelor's degree, while the rest have secondary level training. These results also show that the mean pre-mentorship knowledge score about PPH is 68.9% (SD=11.981). According to the nurses and midwives 'self-efficacy in managing PPH, the preliminary results reveal the average of 6.90 (SD=1.884). The preliminary results also show the moderate positive correlation between knowledge and self-efficacy ($r = .218, p = .009$). Post-

mentorship assessment will help to provide a broad picture of the mentorship impact and these comparisons will be presented as they become available.

Conclusion:

The published literature suggests there is a positive impact from educational mentorship on nurses and midwives' knowledge and self-efficacy in managing postpartum hemorrhage. While our preliminary results cannot yet assess the impact of mentorship on knowledge and self-efficacy we have now established our baseline for these future comparisons. If the more nurses and midwives are knowledgeable, the more their self-efficacy improves, then our preliminary results that reveal a positive correlation between knowledge and self-efficacy support this contention. In the same way, researchers believe that the findings from educational mentorship will equip nurses and midwives with extra knowledge which will help them to self-motivate their capacity in managing PPH. Thus, it is possible that PPH mentorship could help health facility managers, leaders and policy makers plan for better health care services in managing PPH in Rwanda.

Title:

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Keywords:

Educational mentorship, Knowledge and self-efficacy and Postpartum hemorrhage

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Abstract Summary:

Postpartum hemorrhage is still costing women's lives worldwide; especially in sub-Saharan Africa where Rwanda is located. The Educational mentorship about emergency obstetrics including postpartum hemorrhage management to the nurses and midwives is of paramount importance to save women's lives.

Content Outline:

Content outline

I. Introduction

A. General information about postpartum hemorrhage (PPH) and Rwanda context about PPH and the way forward.

B. The focus of Rwanda about PPH management among nurses and midwives in the health facilities, educational mentorship among nurses and midwives' knowledge and self-efficacy in managing PPH from literature basing on Bandura's social cognitive change (self efficacy).

II. Body

A. Main point#1: Assessment of nurses and midwives, who will be trained to manage PPH, at pre-mentorship program conducted by the training support access model (TSAM) project.

1. The purpose of the study:

The purpose of this study is to investigate whether, the educational mentorship will improve nurses and midwives' knowledge and self-efficacy in managing PPH.

B. Main point #2: Methodology used

1. a. Mentorship plan: TSAM project has planned a mentorship of 141 nurses and midwives working at the health centers within three districts (Rulindo, Gakenke and Gicumbi) of Rwanda, using a selected and trained team of midwives from district hospitals at the health centers' catchment area. They will visit health center once a month for a period of six months.

b. The role of researchers: Researchers have assessed pre-mentorship knowledge and self-efficacy to the maternity nurses and midwives who will be trained by TSAM.

2. a. Instrument used : A self-administered study survey adapted from Mutunga, (2015) about knowledge and self-efficacy adapted from Bandura, (2006) in terms of managing PPH.

b. The period of data collection: Preliminary assessment among nurses and midwives who will be trained took place from August up to October, 2018 at the selected health centers.

C. Results

Preliminary results about knowledge and self-efficacy that maternity nurses and midwives possess in managing PPH prior to mentorship will be presented.

III. Conclusion

- a. Review of literature about educational mentorship to the nurses and midwives knowledge and self-efficacy in managing PPH.
- b. Preliminary results suggestions regarding the educational mentorship to the nurses and midwives' knowledge and self-efficacy in managing PPH in Rwanda.

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