

## Abstract

**Study Purpose:** Complications during pregnancy and childbirth are the second leading cause of death for 15- to 19-year-old adolescent women globally. Limited studies have been conducted in addressing the knowledge and support needs of pregnant adolescents. The purpose of this study was to determine the effectiveness of a peer led-education program on knowledge of obstetric danger signs, social support and coping mechanisms of pregnant adolescents.

**Methods:** A quasi-experimental study was conducted. The study included pregnant adolescents aged 15-19, who could read and speak Swahili, and could access and use a mobile phone. The study was conducted in two randomly selected public health facilities in Tanzania. Participants in the intervention (n=26) and control group (n=24) were non-randomly chosen within each of the two facilities. The intervention group received an education program from trained peer educators and the control group received the usual care and the “*Nne na Tano*” [Four and Five] story booklet about two adolescents with very different pregnancy outcomes. Data were collected during the pretest, post-test, and follow-up test using a self-administered questionnaire for both groups.

**Results:** A total of 50 participants were recruited with the mean age of 18.00 (SD = 0.91). There were no statistical significant differences in the baseline characteristics of the intervention and control group. There was a statistically significant difference in the knowledge of obstetric danger signs’ scores between the intervention and control group during post-test ( $p = <0.001$ ). The program was successful at improving knowledge of obstetric danger signs. There was a statistically significant difference in the scores of social support ( $p = <0.001$ ) with higher scores in the control than intervention group compared to the pretest. There was no statistically significant difference in coping mechanism scores between intervention and control group.

**Conclusion:** The study demonstrated the potential of peer-led education program on obstetric danger signs in improving knowledge of danger signs among pregnant adolescents. However, further evaluation of the effectiveness of the program is needed using a large sample before recommending program implementation in the health-care system.