



The effect of educational intervention on shaping safe sexual behavior based on problem-based pedagogy in the field of sex education and reproductive health: clinical trial among adolescents

## The effect of educational intervention on shaping safe sexual behavior based on problem-based pedagogy in the field of sex education and reproductive health: clinical trial among adolescents in Tanzania

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### ABSTRACT

**Background:** The majority of adolescents are currently becoming sexually active before their 18th birthday having to battle with unsafe sexual behaviors, teenage pregnancies, sexually transmitted infections, and school dropouts. The study designed and tested the effect of integrated reproductive health lesson materials in a Problem-Based pedagogy (PBP) to enhance safe sexual behaviors among adolescents in Tanzania.

**Methods:** Clustered Randomized Controlled Trial was adopted among 660 adolescents in Tanzania. The study consisted of three research arms including pure PBP, Hybrid PBP, and Lecture-Based Pedagogy (LBP). Sexual-risk Behavior Beliefs and Self-esteem Scale adopted from previous studies measured adolescents' sexual behaviors. A Statistical Analysis Software (SAS) version 9.4 was used to analyze data. Descriptive analysis established adolescents' socio-demographic profiles. Generalized Estimating Equation (GEE) determined the effect of interventions on adolescents' intentions to practice safe sexual behaviors at a 95% confidence interval and a significance level of 5%.



**Results:** Adolescents' mean age was  $15 \pm 1.869$  years. Sums of 57.5% ( $n = 380$ ) were females, 39.5% of adolescents were sexually active whereas 44.8% of them initiated sexual intercourse by the age between 10 and 12 years. The end-line findings showed that 54.9% of adolescents in the LBP group demonstrated a significant intention to unsafe sexual behaviors against 26.3% and 30.9% of adolescents in the pure PBP and Hybrid PBP groups respectively. The Difference-in-Difference odds ratio for unsafe sexual behavior among adolescents in the Hybrid PBP and pure PBP was less ( $AOR = 0.30$ ;  $p < 0.0001$ ; 95%CI: 0.1398, 0.5559) and ( $AOR = 0.30$ ,  $p < 0.0002$ ; 95%CI: 0.1386, 0.5487) contrary to a control group respectively.


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