

Abstrak

Background: Adolescent is a very important stage because there is a transition process from childhood to adulthood and is very risky with reproductive health problems, sexual behavior, and Human immunodeficiency virus (HIV). About 22.6% of adolescents in 33 provinces of Indonesia have had sexual intercourse and this is a threat that can cause health problems, especially HIV transmission. Therefore, efforts to prevent sexual behavior are at risk of HIV in adolescents. Because adolescents have a high engagement of technology, so HIV prevention programs in adolescents should have started to take advantage of existing technology developments, such as using mobile application. **Purpose:** To determine the effectiveness of mobile application to sexual behavior in adolescents in the city of Bandung.. **Method:** This research is a quantitative research of pre-experimental two group pre-posttest design, conducted in April-May 2021, a sample of 150 students in Bandung. **Result** Using an ANCOVA statistical test shows p value = 0.023. Based on these results, you can see the significance of p value $(0.023) < \alpha (0.05)$. **Conclusion:** Interventions regarding health education with mobile application are effective in lowering risky sexual behaviors in HIV prevention in adolescents.

Keywords: adolescents; HIV; mobile application; sexual behavior