

PREVALENCE AND ASSOCIATED FACTORS OF CERVICAL CANCER AMONG WOMEN IN ETHIOPIA: A SYSTEMIC REVIEW AND META-ANALYSIS

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Abstract

Introduction: One of the major problems that threaten the developing countries is cervical cancer, which in fact is a serious threat for the global community. It is the second commonest disease of women in Ethiopia followed by breast cancer. Even though, some studies were conducted to assess the prevalence and associated factors of cervical cancer among women in Ethiopia, a variation in reported prevalence across the studies were observed.

Objective: The aim of this study was to determine the pooled prevalence estimate and associated factors of cervical cancer among women in Ethiopia.

Methodology: A systemic review and meta-analysis was performed based on published and gray literatures between 2010 and 2019. Articles were evaluated using Joanna Briggs Institute database guidelines by two independent authors. The methodological qualities of included studies were assessed using Joanna Briggs Institute meta-Analysis of Statistics Assessment and Review Instruments. The pooled prevalence estimate was calculated using MedCalc software-version 19.0.7 and the pooled odd ratios for predictors was calculated using RevMan software version 5.3. A meta-analysis using a mantel Hansen variance random-effects model was performed to assess the amount of variation in between studies. The report was depicted descriptively using pooled estimated prevalence and odd ratios using tables and plots.

Result: From 124 retrieved data, 10 full text articles were eligible for the review. Of which 7 studies with a total sample size of 3951 were eligible for prevalence study,

whereas all the 10 full text articles were eligible for associated factor studies. The pooled prevalence estimates of cervical cancer among women in Ethiopia using random-effect model was 15.7%, 95%CI (10.8, 21.3%). Statistically significant heterogeneity between studies was detected ($I^2=94.35\%$ ($p<0.0001$)). Among all associated factors measured: numbers of life time sexual partners >1 , OR=0.40, 95% CI (0.21,0.27), being HIV positive, OR=0.41,95%CI(0.21,0.75), having history of STI,OR=1.99,95% CI (1.02,3.87), women getting widowed, separated or divorced), OR=0.32, 95% CI(0.14,0.75),income <1000 birr, OR=1.78, 95% CI (1.19,2.65) and women had experience of contraceptive use, OR=2.32, 95% CI (1.75,3.43) were had statistical significant association with cervical cancer among women in Ethiopia

Conclusion: The pooled prevalence estimate of cervical cancer among women in Ethiopia was high. The pooled prevalence estimate was had a statistical significance association with some variables like income, being HIV positive, previous STI history, more than one numbers of life time sexual partners and prolonged uses of modern contraceptives. There was a variation of cervical cancer reports across studies. Reporting of this information in a consistent manner is important for researchers to enhance future studies and also useful for policymakers and practitioners for better understanding of the burden of cervical cancer in Ethiopia for prevention, diagnosis, and early treatment of the disease.

Keywords: Cervical Cancer; Cancer of the Uterine Cervix; Cervical Neoplasms; Cervix Neoplasms.