

Review



Physical violence against housemaids in Ethiopia: a systematic review and meta-analysis

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Physical violence against housemaids in Ethiopia: a systematic review and meta-analysis

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Abstract

Physical violence against women is commonly experienced among housemaids. Unlike other workers, housemaids are not protected by any of the acts of legislative body. Individual studies conducted in Ethiopia revealed inconsistent findings about the prevalence of physical violence among housemaids. Therefore, this review aimed to determine the pooled magnitude of physical violence among housemaids in Ethiopia. The literature were searched from different databases such as PubMed/MEDLINE, Scopus, HINARI, Cochrane Library, Science Direct, and Google scholar from October 03-22, 2021. All the required information was abstracted using a data extraction form. Extracted data were analyzed

using STATA version 11. Heterogeneity was tested by Cochran's Q and I² tests. Lastly, the pooled magnitude of physical violence was estimated using a random effects meta-analysis model. After appraising 9807 studies, seven studies with a total of 3,380 housemaids were included in this review. The pooled estimate lifetime prevalence of physical violence among housemaids in Ethiopia was 22.54% (95% CI: 15.41, 29.66). Employer alcohol consumption (AOR: 1.81, 95% CI: 1.40, 2.21) was significantly associated with physical violence among housemaids in Ethiopia. This study found that nearly one-fourth of housemaids experiencing physical violence in Ethiopia. Therefore, health care professionals and other relevant stakeholders shall provide health information that could create community awareness about the consequences and adverse reproductive health outcomes of physical violence. Furthermore, education, screening, and referral of physical violence against housemaid should be integrated with health extension service programs.

Introduction

Gender-based violence (GBV) is a serious public health concern which includes sexual, physical and emotional abuse resulted from social, economic, cultural, political, and religious factors [1-4]. Violence is an intentional use of power or physical force, threatened or actual, against another person or oneself, against a community or group that either results in or has a high likelihood of resulting in psychological harm, injury, death, mal development or deprivation [5]. Violence is a worldwide problem that mostly affect women with a varied magnitude from 15% reported in Japan to 71% documented in rural Ethiopia [6,7].

Physical violence is one of the commonest form of GBV, which defined as the deprivation of a person or the use of physical force against a person to access water, food, clothing, rest, shelter, or exposing a person to inhuman treatment [8]. It mostly affects women, in particular domestic workers; about 10-69% of women suffered from

physical violence globally [9]. Evidence indicated that the proportion of physical violence in Africa ranged from 27-50% [10]. Ethiopia is one of the countries where the highest proportion of physical violence is reported [11]. Violence can affect social, sexual and reproductive health of individuals and families [6,12]. It is a treacherous human right matter and has negative effects on women which lead sexual and reproductive health matters, injuries, physical disability, adverse pregnancy outcomes, mental health disorders, sexually transmitted infections (STIs), gynecological disorders, an increased risk of non-communicable disease, chronic pain, drug and alcohol abuse, depression and impacts on the health and wellbeing of their children [7,13-17].

Housemaids with physical violence suffer from health-related problems; feeling of isolation and powerlessness, low self-esteem, and often from a sense of guilt [18-20]. As a result, housemaids who are victims of physical violence are 12 times more likely to attempt suicide [21]. Physical violence against women is a public health problem in Ethiopia, and it is more likely experienced among employed women [22]. The majority of housemaids are females, poor and immigrants (from urban to rural) with minimal education who leave their families or primary place of living as a consequence of challenging life events [23,24]; and their responsibilities include cleaning and arranging the house, cooking and serving food for families; and providing care for children and the whole families [25,26].

Worldwide, most domestic workers do not have access to governmental and social security benefits, they failed to have social and legal protections. Thus, making them more vulnerable to abuse and exploitation [20,21]. Evidence stated that housemaids, unlike other workers in the factories, offices, and mines are not protected by any of the acts of government body [27,28]. This could make housemaids at risk of unintended pregnancy which further lead to unsafe abortion, and other health problems. This happens

commonly to women's in low and middle-income countries like Ethiopia [29].

Individual studies conducted in Ethiopia revealed inconsistent findings about the prevalence and determinants of physical violence among housemaids. Therefore, this review aimed to estimate the pooled prevalence of physical violence among housemaids in Ethiopia using available studies. The findings of this systematic review would highlight the prevalence of physical violence with implications to improve and ensure effective interventions, and hasten the reduction of physical violence among housemaids. Furthermore, it can help for policy-makers, and any other concerned stakeholders to develop prevention and controlling strategies to alleviate the problem.

Methods

Information sources and search strategy: this review was prepared and presented in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist. This systematic review was employed through defining physical violence against housemaids and associated factors in Ethiopia. A systematic and exhaustive articles search was made to retrieve potentially relevant original articles. Potentially relevant articles were searched through the following databases: PubMed/MEDLINE, Science Direct, HINARI, Scopus, Cochrane Library, and Google Scholar. To find unpublished articles, input of content experts and Institutional Digital Library were searched. Furthermore, the references of identified relevant original articles were also looked into. The search was performed using the following searching terms: "Magnitude", "Prevalence", "physical violence", "physical injury", "housemaid", "domestic workers", "associated factors", "determinants", "predictors" and "Ethiopia". The search terms were used using different Boolean operators like "OR" or "AND". The search was performed from October 03 to 22, 2022.

Inclusion criteria: studies focused on physical violence among female housemaids, and both published and grey literature conducted only in Ethiopia were considered for systematic review. Epidemiological study design including cross-sectional, and case controls which clearly report the prevalence of physical violence and its associated factors were considered.

Exclusion criteria: based on their titles and abstracts, articles were noticeably screened prior to exclusion. Then, full texts articles were also reviewed for the eligibility. Articles focusing on whole females but which did not report physical violence among housemaids separately were excluded.

Outcome measurements: the primary outcome of this study was the prevalence of physical violence which defined as any form of violent act that result in physical harm such as punching, slapping, kicking, twisting the arms, beating with any object, strangulation, using gun or knife against housemaids [30].

Data extraction: all the required information was pulled out from incorporated original studies by using the Joanna Briggs Institute (JBI) data extraction format. Pertinent information was extracted from primary studies including name of first author, publication year, study region, study area, study design, sample size, response rate and prevalence physical violence.

Quality Assessment: the quality of each original study was evaluated using the Joanna Briggs Institute (JBI) critical appraisal checklist [31]. The assessment tool has three main parts. The first part focuses on the methodological quality of each study (i.e., sample size, sampling technique, and response rate) and rated one to five stars. The second part of the tool weighed up the equivalency of the primary studies included in the review. The last part is concerned with the statistical analysis and outcome point of view. All the studies scored ≥ 6 out of 10, and were included.

Data analysis and synthesis: the data were extracted using Microsoft Excel spreadsheet form, and then imported into STATA Version 11 for meta-analysis. The characteristics of included studies and main findings were summarized using table as well as forest plots. The pooled prevalence of lifetime physical violence against housemaids was computed using a random effects meta-analysis model. In addition, the association between physical violence and its determinants was estimated using a log odds ratio. The presence of heterogeneity across the included studies was evaluated using the I^2 statistics and its corresponding p-value. The I^2 statistics of 75%, 50% and 25% were used to declare high, moderate and low heterogeneity, respectively [32]. Visual inspection of funnel plots asymmetry and the Egger regression tests were used to check the publication bias, setting $p < 0.05$ [33,34]. Moreover, sensitivity analysis was performed to identify the presence of any possible outlier.

Results

Search results: in the search strategy, 9807 potentially relevant articles were accessed. Of these, 1388 records were removed because of duplication. Then, 8405 records were further excluded after screening based on their titles and abstracts. Therefore, 7 studies were excluded from 14 full-text records appropriately eligible according to preset criteria. Finally, 7 studies were included in the final systematic review and meta-analysis (Figure 1).

Characteristics of original articles: the articles included in this review were cross-sectional studies. In the present meta-analysis 3,578 participants were identified of whom, 3,380 were involved in the studies, yielding a response rate of 94.5%. Regarding study region, four studies were from Addis Ababa administrative city [35-38], two from Amhara [39,40], and one from Tigray region [41]. The highest (37.1%) prevalence of physical violence against housemaids was reported in Debre Tabor [39], whereas the lowest

(10.9%) was noticed in Gondar city [40]. The results of quality assessment showed that three studies were scored 6, two studies were scored 7 points, and two were scored 8 points. All studies that reported physical violence against housemaids in Ethiopia from 2006 to 2019 were included in the review (Table 1).

Sensitivity analysis and publication bias: sensitivity analysis was carried out to identify larger or smaller pooled prevalence estimates that could affect the pooled estimate of sexual violence. Hence, the result revealed that no study considerably affected the pooled prevalence of physical violence. Publication bias was checked using asymmetrical inspection of funnel plot and Egger's tests at a 5% significant level. The results of Egger's test ($p = 0.677$) and funnel plot indicated that there was no publication bias (Figure 2).

Prevalence of physical violence among housemaids: based on the random effect model, the overall pooled prevalence of physical violence among the 3,380 housemaids in Ethiopia was 22.54% (95% CI: 15.41, 29.66). Random effect model was executed as the heterogeneity test showed significant heterogeneity across the included studies, $I^2 = 96.2\%$ and $p < 0.001$ (Figure 3).

Factors associated with physical violence: based on the findings of the studies the association between physical violence and its determinants was examined. Each study has reported determinants of physical violence against housemaids. However, they used inconsistent grouping (categorization) of independent variables to measure presence of statistical association with the dependent variable (physical violence), which impede to execute the pooled odds ratios. Two studies indicated that employer alcohol consumption was significantly associated with the physical violence against housemaids. The pooled odds ratio indicated that the likelihood of physical violence experience was 1.81 times higher among housemaids whose employer drinks alcohol as

compared to their counterparts (OR: 1.81, 95% CI: 1.40, 2.21 (Figure 4).

Discussion

This meta-analysis was conducted to estimate the pooled prevalence of physical violence among housemaids and associated factors. Accordingly, nearly one-fourth of housemaids did experience physical violence by their employers or other intermediary person. Significant number of domestic workers experienced physical violence. This can justify the findings related to housemaid's vulnerability which revealed lack of legal protection to their rights, their lower status in the societies, and being poor and less educated were the main factors for many domestic workers to be abused and exploited by their employers [42,43]. Though, globally domestic working is recognized as a "work" and is already under existing international labour standards and human rights frameworks, still in this "21st century, domestic work around the world is mainly informal and characterized by widespread violations of human and labour rights [19,21].

This systematic review and meta-analysis indicated that the pooled lifetime prevalence of physical violence among housemaids was 22.54% ranging from 15.4% to 29.7%. Even though there is no similar meta-analysis on this research question, this finding was consistent with the prevalence of physical violence (23%) among Ethiopian women [22]. This finding was consistent with a systematic review and meta-analysis that reported workplace physical violence against health care professionals as 19.33% [44]. However, this finding is lower than a multi-level study conducted in Bangladesh, which documented the prevalence of physical violence among women as 37.9% [45]. The variation may be due to the differences in study population, socio-cultural difference, and definitions and tools used to measure physical violence.

In this meta-analysis, employer alcohol consumption was significantly associated with the physical violence against housemaids. The result indicated that the likelihood of physical violence experience was 1.81 times higher among housemaids whose employer drinks alcohol as compared to their counterparts. This finding is supported by meta-analysis done in sub-Saharan Africa [46] and a systemic review conducted on domestic violence against women and associated factors in Ethiopia [6]. This finding could be explained by alcohol's influence on psychological and physical capacities, which leads to a decline in employers' ability to solve rather than intensify conflicts. In addition, alcohol use can increase financial burden on the entire family, which may further lead to a conflict between an employer and housemaid [47,48].

Although Ethiopia has international and regional human rights instruments including the convention on the elimination of discrimination against women, still substantial number of housemaids are experienced physical violence [49,50]. This review has implication for government policy makers, non-government organizations, and other stakeholders for the design of intervention, policy, and programming in Ethiopia to alleviate the burdens of physical violence among housemaids. It also suggests that Ethiopia should design a community intervention program to address physical violence against housemaids at household level and community settings by using health extensions program as an opportunity. Furthermore, interventions that try to address and change cultural norms might be expected to have knock-on effects in the primary violence prevention.

There were limitations of this review. Although the number of primary studies was limited, this meta-analysis is the first of its kind to estimate the pooled prevalence of physical violence against housemaids in Ethiopia, as to the best of the authors' knowledge. Second, this meta-analysis did not include the review of some associated factors due to inconsistent grouping of variables,

and the differences in associated factors in primary studies. This study represented only studies reported from three regions which may affect the pooled prevalence of physical violence as it may yield under-representation.

Conclusion

This meta-analysis revealed that the prevalence of physical violence among housemaids in Ethiopia was significant with nearly one-fourth of housemaids experiencing physical violence. Employer alcohol consumption was the identified factor that significantly associated with physical violence among housemaids. The results suggest that the need for government policy makers, program designers, and other stakeholders to develop effective intervention and prevention strategies. Therefore, health care professionals and other relevant stakeholders shall provide health information that could create community awareness about the consequences and adverse reproductive health outcomes of physical violence. Also, education, screening, and referral of physical violence against housemaids should be integrated with health extension service programs. Although there is no magic bullet to reduce physical violence, a special contemplation shall be given to housemaids by policy-makers and programmers. The authors also suggest that further studies should be conducted using a longitudinal study on determinants of physical violence among housemaids.

What is known about this topic

- *Worldwide, most domestic workers do not have access to governmental and social security benefits, they failed to have social and legal protections;*
- *Ethiopia is one of the countries where the highest prevalence of physical violence is reported.*

What this study adds

- *This study has revealed that nearly one fourth of housemaids experienced physical violence by their employers or other intermediary person;*
- *This study identified employer alcohol consumption was significantly associated with physical violence among housemaids;*
- *This review has implication for government policy makers, and other stakeholders for the designing of intervention to alleviate the burdens of violence against housemaids.*

Competing interests

The authors declare no competing interests.

Authors' contributions

Birye Dessalegn Mekonnen conceptualized the study, wrote the proposal, extracted the data, performed data analysis and drafted the paper. Yibrie Azmeraw, Mulatu Wubu and Asnakew Asres Tegegn assisted in the design of the review, developing the proposal, data collection and analysis. All the authors reviewed and approved the final manuscript for publication.

Table and figures

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Figure 2: funnel plot of the studies included in the meta-analysis of physical violence against housemaids in Ethiopia, 2021

Figure 3: forest plot of the pooled prevalence of physical violence among housemaids in Ethiopia, 2021

Figure 4: the pooled odds ratio of the association between alcohol consumption and physical violence in Ethiopia, 2021

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Table 1: descriptive summary of studies included in the meta-analysis of physical violence among housemaids in Ethiopia, 2021

Author	Year	Region	Study area	Study design	Sample size	Response rate	Participants	Outcome (event)	Prevalence(%)
Kefyalew AA <i>et al.</i>	2019	Amhara	Debre Tabor	CBCS	634	100	634	235	37.1
Milete Z <i>et al.</i>	2014	Tigray	Mekelle	CBCS	634	94	595	97	16.3
Alem E <i>et al.</i>	2019	Addis Ababa	Addis Ababa	CBCS	826	99.5	822	188	22.8
Yared G <i>et al.</i>	2006	Addis Ababa	Addis Ababa	CBCS	82	95.1	78	15	19.2
Yonas H <i>et al.</i>	2017	Addis Ababa	Addis Ababa	CBCS	545	96.1	524	176	33.6
Muluken M <i>et al.</i>	2018	Amhara	Gondar city	CBCS	384	88.5	340	37	10.9
Mahilet G <i>et al.</i>	2015	Addis Ababa	Addis Ababa	CBCS	473	81.8	387	68	17.6

CBCS: Community based cross sectional

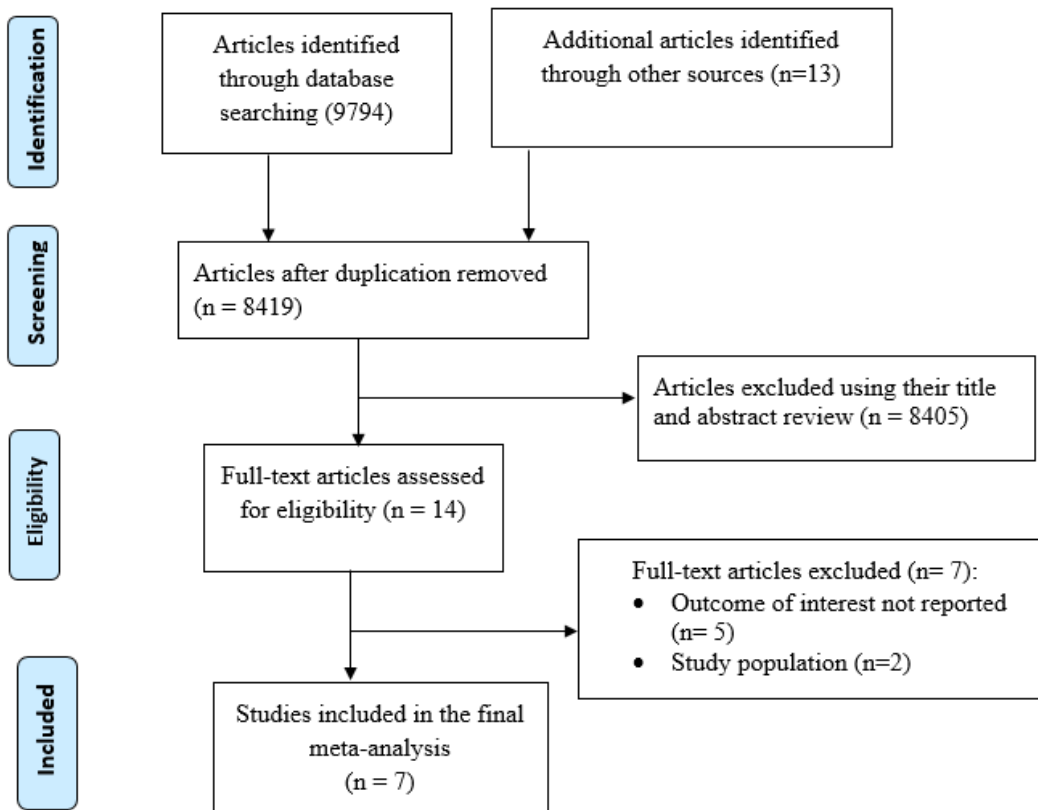


Figure 1: flow diagram of the included studies in the meta-analysis of physical violence against housemaids in Ethiopia, 2021

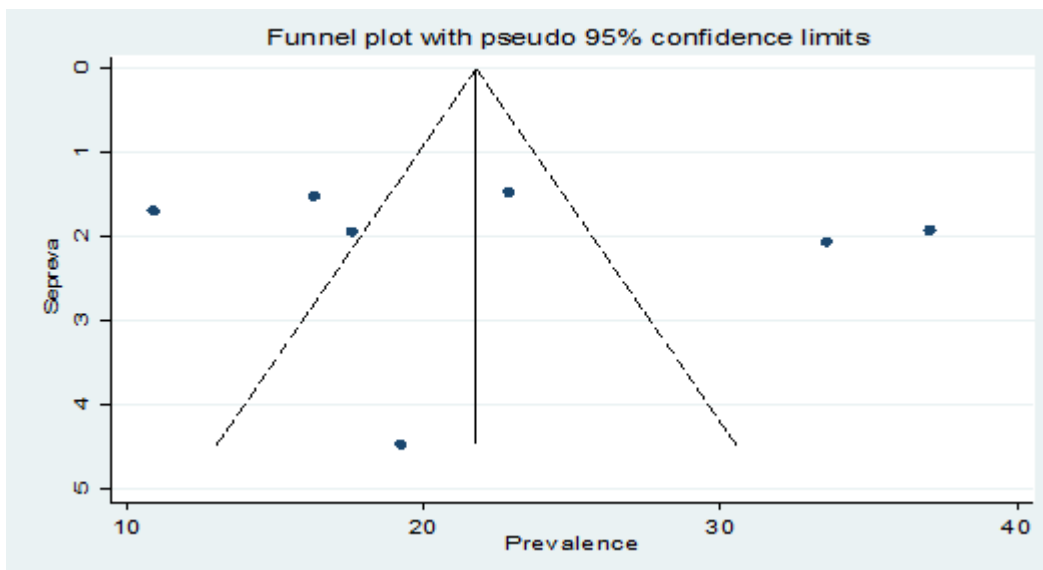


Figure 2: funnel plot of the studies included in the meta-analysis of physical violence against housemaids in Ethiopia, 2021

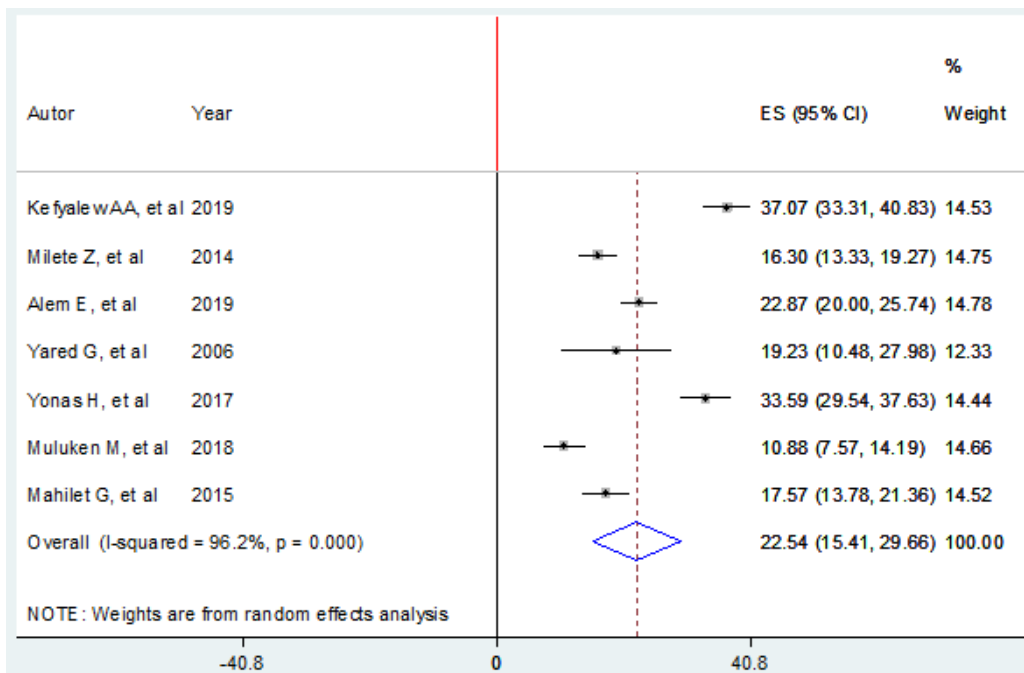


Figure 3: forest plot of the pooled prevalence of physical violence among housemaids in Ethiopia, 2021

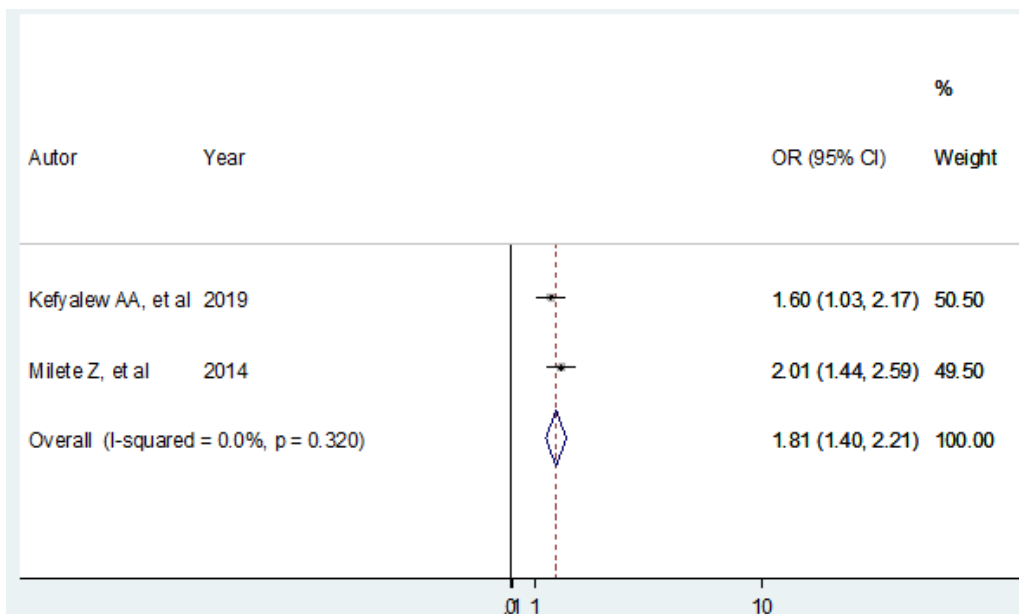


Figure 4: the pooled odds ratio of the association between alcohol consumption and physical violence in Ethiopia, 2021