

Consistent Condom Use in HIV/AIDS Patients Receiving Antiretroviral Therapy in Northwestern Ethiopia: Implication to Reduce Transmission and Multiple Infections - A Critical Review of Article

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Abstract

Introduction: This is a critical review of an article by Zewdneh Shewamene published in the July 2015. The central theme is that consistent condom use among HIV patients is important in preventing transmission of HIV.

Article summary: The premise of the authors is that consistent condom use among HIV infected is critical for interrupting transmission of HIV and acquisition of resistant strains of HIV. Among the 317 respondents, condoms awareness was 96.2%. Independent factors for consistent use were, male sex (AOR=6.87; $p=0.001$), urban residency, (AOR=4.65; $p=0.001$), a higher education attainment (AOR=8.98; $p=0.001$), and prolonged duration on ART (AOR=3.91; $p=0.001$). The conclusion was that some HIV infected people were not using condoms.

Article critique: The article maybe considered as objective, and unbiased due to the peer review process. The journal that published it is indexed on PubMed, and, Embase, among others. That the article was published in a journal for those with an interest in HIV and palliative care makes it relevant for HIV programming particularly in Africa where HIV burden is high. The objectives are well spelt, and the methodology is easy to follow. Only verbal consent was obtained from the respondents contrary to the dictates of the Belmont report that requires written informed consent.

Conclusion: The articles contributed to literature and can provide a basis of improving future studies of a similar nature. However, it is suggested that measurement of condom use should be serial and be recoded to a dichotomous variable in analysis.

Keyword: Condoms, Ethiopia, HIV.

Introduction

This is a critical review of an article entitled “Consistent condom use in HIV/AIDS patients receiving antiretroviral therapy in northwestern Ethiopia: implication to reduce transmission and multiple infections” published in the July 2015 issue of the HIV/AIDS- Research and Palliative Care journal. The corresponding author is Zewdneh Shewamene. This review will firstly give an overview of the article. Secondly the article structure will be reviewed on the presentation of the content, the alignment and format of the article. Thirdly



the article will be critiqued looking at the authority, accuracy, currency, relevance, objectivity and coverage. Tables will also be looked at before judging the article's accessibility and credibility.

The central theme of the article is that consistent condom use among HIV/AIDS patients is an important method of preventing transmission and acquiring of infections. This includes sexually transmitted infections including HIV, and reinfection with resistant strains of HIV. It is against this background that the frequency and determinant factors of consistent condom use were investigated among attendees of a university Antiretroviral Therapy clinic in Ethiopia. This is generally a well thought and presented article. It is very relevant to Sub-Saharan Africa which accounts for almost 67% of the global total of new HIV infections (UNAIDS 2017). Under such circumstances correct and consistent condom use is a feasible method of preventing reinfection (Population Action International 2002).

Article summary

The background of HIV globally and in Ethiopia is proffered. An elaboration is done on availability of free condoms in the country. The premise of the authors is that consistent condom use among HIV infected is critical as it prevents transmission of HIV to uninfected partners, acquisition of resistant strains of HIV, and, impacts on community HIV prevalence.

The study was a hospital based analytical cross-sectional study that had 317 randomly selected respondents. Data were collected using a pretested questionnaire. The dependent variable was consistent use of condom in every sexual encounter in the six months prior to the study. Independent variables included socio-demographic variables and general awareness regarding condoms. Data analysis was done using SPSS. The study was funded and approved by the University of Gondar in Ethiopia. Verbal consent was obtained from participants.

Among the 317 respondents, 49.8% were males and 50.2% (159) were females. Condom awareness was 96.2%. Independent factors for consistent condom use were, male sex (AOR=6.87; p=0.001), urban residency, (AOR=4.65; p=0.001), a higher education attainment (AOR=8.98; p=0.001), and prolonged duration on ART (AOR=3.91; p=0.001).

The authors concluded that some HIV infected people were not using condoms. However, in the discussion the "*implication to reduce transmission and multiple infections*" as alluded to in the title was not articulated. The article nevertheless, is well presented, has 13 subheadings, ensuring wide coverage of issues. There are citations throughout the article that allows the reader to evaluate findings and thesis against other works.

Article structure

The article has an abstract. In the main body there is the introduction that covered the literature review, objectives and rationale of the study. Under the methodology, subheadings of study area, study design and sampling, data collection procedures are covered. The dependent and independent variables are well defined under the data collection section. Data analysis is also another subheading within the methodology. Ethics section is also included. Under the results section, there are 3 subheadings covering study population characteristics, general condom awareness and the determinants of consistent condom use which are presented as tables. Recommendations and conclusions form the last part of the main body. There is a section on acknowledgements, author contributions and disclosure. The structure is therefore coherent and allows the articulation of pertinent issues in detail and depth.

Article critique

Authority

The article was published by an international peer reviewed open access journal that focuses on research in HIV, "*The Journal of HIV/AIDS Research and Palliative care (ISSN 1179-1373)*" This may be considered to be an objective, unbiased publication due to the peer review process. It is indexed on PubMed,

Embase, Directory of Open Access Journal and the OAlster Open Initiative. These are all credible databases. The journal is also a member of the Committee on publication ethics.

The corresponding author was a member of the faculty of pharmacology at University of Gondor in Ethiopia. He holds a master's degree in Pharmacology and is currently study for his PhD with University of Western Sydney Australia. He has published 27 peer reviewed articles in a variety of journals. The project under review was funded by the University of Gondor; this affords it further credence.

Accuracy

The article is based on field work that was done from April to May 2013. It is backed up by a reference list that is cited in text and can be easily followed by reader. The peer review process, editorial processing and referencing, all contributed to the accuracy of the study. Under the author contribution it is indicated that "*All authors reviewed and approved the final manuscript prior to submission and agree to be accountable for all aspects of the work.*" This is a further attestation that the authors stand by the accuracy of their work.

Currency

The article was published in July 2015. However, its date of submission was not reported. Data were collected between April and May 2013. All these factors make the article relatively current.

Relevance

This article was published in a peer reviewed journal for those with an interest in HIV and palliative care. It was written to inform both researchers and those in HIV programming. It is very relevant for HIV programming particularly in Africa which is burdened with a high prevalence of HIV. Under the circumstances condoms are a recommended intervention (Lurie *et. al.* 2008). In the developed world (and some parts of Africa) it can be used for programming in men who have sex with men. However, looking at the title and the content, the articles falls short of articulating the "*implication to reduce transmission and multiple infections*".

Objectivity

The objectives are clear and well spelt out. The methodology is easy to follow, and the study can be repeated in other settings. Clear methodology and objectives reduces bias and facilitates repeatability. However, the outcome variable consistent condom use was a dichotomous yes/ no. Given that the condom use is a continuous phenomenon, one would argue that this dichotomous measurement of condom use is not a sensitive way to measure condom use. When several response alternatives are provided to a condom frequency question, a researcher can gain reasonable insight into how often one uses condoms (Noar *et. al.* 2006).

The recall period in the study was six months. Whilst a longer recall period may provide a better representation of the sexual behavior, little research has demonstrated the accuracy of recall periods of more than 3 months (Sheeran *et. al.* 1994 and Schroder *et. al.* 2003). This may introduce recall bias. It would also have made the article more specific to indicate if the intercourse was vaginal sex or anal sex or it was man having sex with man.

Whilst ethical clearance was obtained from the University, it is not clear if it were ordinary university authorities or a university ethical review board. Only verbal consent was obtained from the respondents contrary to the dictates of the Belmont report, that requires written informed consent (The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1978) and William *et. al.* 2008)¹. The respondents were clients seeking care at a hospital. It is a known that there is a difference among those who seek care and those who do not. This may affect programming as people with a shorter duration or not on ART are not likely to use condoms consistently (Alene *et. al.* 2014). Nevertheless, the article can be deemed objective. The references cited were published between 1997 and 2011. However, citation of later publications would have made it more objective.

Stability

The paper is stable since it was published in a peer reviewed journal. Other researchers and program managers can depend on it for guidance.

Analysis of tables

There were no graphs in the article. However, there are 3 tables that are adequately labelled and abbreviations appearing in them are explained *e.g.* AOR.

Recent advances related to the topic

Condom use is documented as one of the measures that can prevent sexual transmission of HIV (UNAIDS 2003; UNFPA 2002 and Cohen *et. al* 1999)¹. In 2007, the Global Alliance on Condom use identified social and cultural, legal/policy, economic/financial and structural barriers as barriers to condom use (Drezin *et. al* 2007 and Daly *et. al* 2009). According to UNAIDS (2006) condoms if used correctly and consistently, can reduce the risk of sexual transmission by 80-90 percent. So far, condoms are the only product that can effectively protect against HIV and other sexually transmitted infections (Population Action International 2002). With the improved access to ART some infected people now have suppressed viral loads. With the subsequent improvement in health-related quality of life some of the HIV infected people are engaging in sexual risky behavior, and, this calls for accelerated condom promotion in this subpopulation (Stole *et. al.*2001 and Pedraza *et. al.* 1999).

Nonetheless, several studies in different geographical locations have reported low condom use among the HIV infected. Moazen *et. al.* (2017) reported a consistent condom use rate of 16.7% in a study carried out in Iran. In a study carried out in Zimbabwe (2016), Chirundu reported a 37% and 52% consistent condom use among males and females on ART respectively. Perceptions that condoms reduce pleasure; perception that there is no need for condoms in long term unions all militated against consistent condom use. Macharia *et. al.* (2017) also reported reduced sexual pleasure and non-disclosure of HIV status as barriers to condom use among the HIV infected. Furthermore, Goncalves *et. al.* in a system review published in 2017 concluded that behavioural interventions alone may not be adequate to promote consistent condom use among the HIV infected.

Nakaie *et. al.* (2014) in a study done in Cambodia, reported that the patient's formal education, gender, type of partner (regular or casual) or number of sexual partners were not significantly associated with consistent condom use but the "ability to ask a partner to use condom at every sexual intercourse" was a predictor. In an Italian study among the HIV infected, the prevalence of condom use was 44%. Less income, lower education and having one child were negatively associated with condom use. Alene *et. al* (2014) in a study done in Ethiopia found out that those who had a higher level of education and have been on ART for longer periods were more likely to report condom use. Lurie *et. al.* (2008) in a study among the HIV infected patients in South Africa found predictors of consistent condom being regular partners, urban residence, and higher education levels disclosure and younger age.

In Zimbabwe McClellan *et. al.* (2010). Reported low condom use was among HIV-positive, above-average educated women. Less than half reported ever-use of condoms, being a younger woman, being currently married, living with current husband/partner, religion, longer duration since HIV diagnosis (years), disclosure of HIV status to current husband/partners, and greater number of sexual partners in the past year predicted consistent condom use.

Canto *et. al* (2015) in a study carried out in the Dominican Republic found no association between alcohol consumption and unprotected use. This is contrary to previous reports (Kalichman S.C. 2000. and Crepaz N. & Marks G. 2002).

Conclusion

This was a critical review of Zewdneh Shewamene's article "Consistent condom use in HIV/AIDS patients receiving antiretroviral therapy in northwestern Ethiopia: implication to reduce transmission and

multiple infections”. The content, structure and limitations of the study were analyzed and suggestions made. The article has contributed to literature and can provide a basis of improving future studies of a similar nature. However, it is suggested that measurement of condom use should be serial and be recoded to a dichotomous variable in analysis. It is also suggested that the recall period be 3 months or less as recommended by other studies. Condoms may be used for vaginal or anal sex and it would give the reader more clarity if same is specified. A study on condom use among HIV infected in the general population not seeking care is also recommended.

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