PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Facilitators and barriers to optimum Uptake of Multi-Month Dispensing of Anti-Retroviral Treatment in Morogoro, Tanzania: a qualitative study
AUTHORS	Machumu, Neema; Frumence, Gasto; Anaeli, Amani

VERSION 1 – REVIEW

REVIEWER	Vallès, Xavier University Hospital Germans Trias i Pujol, Badalona, Spain.
REVIEW RETURNED	19-Oct-2023

GENERAL COMMENTS	Thank you for providing me the opportunity to revise this timely work. The issue about the barriers and enablers to implement MMD ARV uptake is of unmost importance, and continuous evaluation of ongoing programs in middle and low income countries are most needed. In this case, this is a qualitative study which explores this issue through of an in depth interviews with health workers, clients and stakeholders. The results in general speaking are not surprising at all (drug stock outs, lack of training, not-timely VL results, etc.), except the fact that surrounding stigma towards PLHIV in MMD could be increased in case they carry a large number of drugs to home, which are difficult to hide. The extend of this phenomenon should be better considered and one of the recommendations might be to ask to the patients for their own preferences, besides the eligibility to MMD according to implemented guidelines. You can find that some of them would prefer monthly dispensation rather than MMD. I suggest to develop this idea in the next version of the article. One general impression, not underscored by the authors, is that the rigidity in the implementation of MMD might be by itself a barrier (it should be not mandatory to be under MMD even if a client meet the criteria). For instance, do not make sense from a clinical point of view to exclude for MMD patients under TPT. The findings are a mix of structural factors (i.e. drug provision, VL accessibility), and individual factors (i.e. stigma), which need different answers at different levels to mitigate them. For a better clarification of the findings, I suggest to structure the different barriers and enablers to access MMD detected using, for instance, the PASS model you can find in “Hausmann Muela, S., Muela Ribera, J., Toomer, E., & Peeters Grietens, K. (2012). The PASS-model: a model for guiding health-seeking behavior and access to care research. Malaria Reports, 2(1), e3. https://doi.org/10.4081/malaria.2012.e3”. I strongly suggest to develop more precise recommendations at the end of the discussion section based on your findings. The article should have an impact and health policy implementers need evidence-based and straight recommendations.

REVIEWER	Jo, Youngji Johns Hopkins Bloomberg School of Public Health Center for Teaching and Learning
REVIEW RETURNED	29-Oct-2023

GENERAL COMMENTS	Based on the in-depth interview from cross-sectional study, authors discussed contextual and individual factors influencing MMD uptake in Tanzania. Authors identified the enablers (policy and guidelines, providers' moral support, quality improvement strategies, peer-peer motivation, client's inspiration and awareness on MMD) and challenges (insufficient supplies, prolonged turn-around time of HVL results, delayed TPT initiation, provider unavailability). The authors described study design, data collection and analyses methods well in detail. Sample sizes are relatively small but participants are a mix of providers and patients with different professional levels and lengths of treatment. Authors classified the main theme and sub theme related to MMD uptake (Table 2) by health systems, health facilities and individual aspects which are helpful and relevant. However, somehow most factors authors identified seem generally expected so not sure what new insights this study can offer in Tanzania context beyond general descriptions. The many expressions in the discussion section are somewhat largely redundant and repetitive of the result information, rather than discussing deeper causes of these factors or further short-term/long-term/financial implications from the findings or synthesizing how to address these various factors (better MMD design or delivery strategies?) to guide optimal MMD uptake. Authors said some factors as enablers of MMD uptake in Tanzania were identified as barriers in other countries ["Client's awareness on MMD and increased demand was among the enablers of MMD uptake, however a study conducted in Uganda highlighted low patient literacy on differentiated service delivery as a gap in the enrollment of clients in differentiated service delivery.(citation?)"] It is uncertain whether the mechanisms of enablers and barriers are similar or different. In other words, can we interpret the lack of enablers as barriers (and vice versa)? To improve MMD uptake, is it more important to invest in strengthening facilitators or to reduce barriers more? (Perhaps for the future study) With a greater sample size, it would be better if authors could also characterize the specific patient group and identify the similar or distinctive enablers or barriers by such subgroups--that way, these study findings can be more specific and targetted rather than too general.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Dr. Xavier Vallès, University Hospital Germans Trias i Pujol, Badalona, Spain.
Comments to the Author:
Thank you for providing me the opportunity to revise this timely work. The issue about the barriers and enablers to implement MMD ARV uptake is of unmost importance, and continuous evaluation of ongoing programs in middle and low income countries are most needed. In this case, this is a

qualitative study which explores this issue through of an in depth interviews with health workers, clients and stakeholders. The results in general speaking are not surprising at all (drug stock outs, lack of training, not-timely VL results, etc.), except the fact that surrounding stigma towards PLHIV in MMD could be increased in case they carry a large number of drugs to home, which are difficult to hide. The extend of this phenomenon should be better considered and one of the recommendations might be to ask to the patients for their own preferences, besides the eligibility to MMD according to implemented guidelines. You can find that some of them would prefer monthly dispensation rather than MMD. I suggest to develop this idea in the next version of the article.[NM1] One general impression, not underscored by the authors, is that the rigidity in the implementation of MMD might be by itself a barrier (it should be not mandatory to be under MMD even if a client meet the criteria). For instance, do not make sense from a clinical point of view to exclude for MMD patients under TPT. The findings are a mix of structural factors (i.e. drug provision, VL accessibility), and individual factors (i.e. stigma), which need different answers at different levels to mitigate them.[NM2] For a better clarification of the findings, I suggest to structure the different barriers and enablers to access MMD detected using, for instance, the PASS model you can find in "Hausmann Muela, S., Muela Ribera, J., Toomer, E., & Peeters Grietens, K. (2012). The PASS-model: a model for guiding health-seeking behavior and access to care research. Malaria Reports, 2(1), e3. https://doi.org/10.4081/malaria.2012.e3".
[NM3]I strongly suggest to develop more precise recommendations at the end of the discussion section based on your findings. The article should have an impact and health policy implementers need evidence-based and straight recommendations.[NM4]
Response:
Thank you so much Dr Xavier for your constructive comments on our work.
Please find my itemized comments as seen above as well as in the revised document.

Reviewer: 2
Dr. Youngji Jo, Johns Hopkins Bloomberg School of Public Health Center for Teaching and Learning
Comments to the Author:
Based on the in-depth interview from cross-sectional study, authors discussed contextual and individual factors influencing MMD uptake in Tanzania. Authors identified the enablers (policy and guidelines, providers' moral support, quality improvement strategies, peer-peer motivation, client's inspiration and awareness on MMD) and challenges (insufficient supplies, prolonged turn-around time of HVL results, delayed TPT initiation, provider unavailability).
The authors described study design, data collection and analyses methods well in detail. Sample sizes are relatively small but participants are a mix of providers and patients with different professional levels and lengths of treatment. Authors classified the main theme and sub theme related to MMD uptake (Table 2) by health systems, health facilities and individual aspects which are helpful and relevant. However, somehow most factors authors identified seem generally expected so not sure what new insights this study can offer in Tanzania context beyond general descriptions.[NM5] The many expressions in the discussion section are somewhat largely redundant and repetitive of the result information, rather than discussing deeper causes of these factors or further short-term/long-term/financial implications from the findings or synthesizing how to address these various factors (better MMD design or delivery strategies?) to guide optimal MMD uptake.[NM6] Authors said some factors as enablers of MMD uptake in Tanzania were identified as barriers in other countries ["Client's awareness on MMD and increased demand was among the enablers of MMD uptake, however a study conducted in Uganda highlighted low patient literacy on differentiated service delivery as a gap in the enrollment of clients in differentiated service delivery.(citation?)"] [NM7]It is uncertain whether the mechanisms of enablers and barriers are similar or different. In other words, can we interpret the lack of enablers as barriers (and vice versa)? To improve MMD uptake, is it more important to invest in strengthening facilitators or to reduce barriers more?[NM8] (Perhaps for the

future study) With a greater sample size, it would be better if authors could also characterize the specific patient group and identify the similar or distinctive enablers or barriers by such subgroups--that way, these study findings can be more specific and targetted rather than too general.[NM9]

Response:
Thank you so much Dr Youngji for your constructive comments on our work.
Please find my itemized comments as seen above as well as in the revised document.

[NM1]Thank you so much for the comment, it's true most of the results coincide with previous studies done however not any documented from Tanzania but we do have new findings arising from the study. I showcased them in the revised documents.
We have considered your recommendation and therefore included in the revised document.
[NM2]I appreciate your observation on this however. Our country had adopted WHO and CDC recommendation on the use of TPT that clients must be monitored on monthly basis due to its adverse reactions. Hence these clients don't fit the criteria to be given MMD. https://www.cdc.gov/mmwr/preview/mmwrhtml/00001643.htm#:~:text=Patients%20should%20be%20thoroughly%20educated,monthly%20monitoring%20cannot%20be%20done.
[NM3]Thank you for this comment, however the pass model cwas not part of the initial study design thus our data collection and analysis did not consider this format. This is appreciated and will be included in future studies.
[NM4]We have tried to reframe the conclusions and recommendations as seen in the revised document
[NM5]Thank you so much for the comment, it's true most of the results coincide with previous studies done however none documented from Tanzania but we do have new findings arising from the study. I showcased them in the revised documents.
[NM6]Thank you so much for this constructive observation. We have worked on refining our discussion and it can be reviewed from the revised manuscript.
[NM7]Thanks for the comment however we tried to elaborate on this contradicting finding from the study in Uganda and the citation is there as well. [20] This can be well observed from the manuscript
[NM8]I appreciate this observation and yes due to the observed results we see both facilitators and barriers affected MMD implementation positively and negatively respectively therefore strengthening enablers with simultaneous barrier reduction will improve the uptake of MMD. This will definitely be considered in further studies to figure out where to invested more. However there may be a need of further quantitative studies to assist knowing magnitude of the problem and conclude more on this.
[NM9]Thank you so much, this will definitely be considered in the future studies.

VERSION 2 – REVIEW

REVIEWER	Vallès, Xavier University Hospital Germans Trias i Pujol, Badalona, Spain.
REVIEW RETURNED	20-Feb-2024

GENERAL COMMENTS	None

VERSION 2 – AUTHOR RESPONSE

REVIEWER COMMENT:

I worked on the 2nd reviewer's comment on pages 9-11 of the manuscript, and I commented on the main document with comments.