PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Knowledge, Attitude, and Practice of Community Pharmacy Personnel in Tuberculosis Patient Detection: A Multicentre Cross-Sectional Study in a High-Burden Tuberculosis Setting
AUTHORS	Pradipta, Ivan; Khairunnisa, Khairunnisa; Bahar, Muh. Akbar; Kausar, Mersa; Fitriana, Efi; Ruslami, Rovina; Aarnoutse, Rob; Abdulah, Rizky

VERSION 1 – REVIEW

REVIEWER	Khan, Amer Hayat Universiti Sains Malaysia, Clinical Pharmacy, School of Pharmaceutical Sciences
REVIEW RETURNED	29-Dec-2021

GENERAL COMMENTS	**The Potential Role of Community Pharmacy in Tuberculosis Case Detection: A Multicentre Cross-Sectional Study in a High-Burden Tuberculosis Setting** ***ID: bmjopen-2021-060078*** 1. Abstract conclusion is not matching the study aim, so it is suggested to rephrase. 2. …and referring the suspected TB patient to the health facility for further examination in the sixth last months.., May I know that why in last 6th months & how they remembered that they refer the patients to the clinics in last six months. Further, inclusion criteria indicated for the study participant should be 6 months' minimum experience in the community pharmacy… Any justification? If above statement is the reason, then need to rephrase and make it more clear. 3. Why author used 3 Likert scale for the knowledge but 5 for attitude and practice? I will appreciate to standardised or otherwise rationalise it and strengthen with any reference. 4. Does ethical approval was granted for this work, need to highlight. 5. Research Results shows that 49.3% had never TB training, means that 50.7% participant had TB training. Is there any proper training in the system been provided to the community pharmacist? If so then elaboration is required in the article. [By the way, this question was generated based on table2, section 3; TB sign &

	Symptoms (Correct answers 29.5%), as 50.7% had training and only these limited number respond correctly? 6. TB attitude; TB Practice……. Subheading should be self-explanatory, rephrasing is suggested. 7. Discussion needs more arguments/reasons instead of literature comparison. 8. General conclusion should meet the hypothesis, which is lacking. Moreover, 2nd sentence is not true with TB training related information. I will strongly suggest to rephrase the conclusion. 9. It is advised to re-confirm the references and omit the repetition like ref.21 & 29. 10. Reference 13, need to recheck and should comply with the journal format. 11. Reference 14 need to make sure in English and accessible for the readers.

REVIEWER	Daftary, Amrita York University, School of Global Health and Dahdaleh Institute of Global Health Research
REVIEW RETURNED	13-Jan-2022

GENERAL COMMENTS	A well written, interesting paper explicating pharmacy based knowledge, attitudes and practices related to TB in Indonesia. Main comments 1. Describe the context of the four settings - are these urban or rural areas or mixed. Perhaps clarify the meaning of a peripheral vs central area. 2. How were the pharmacies/participants selected? The sample size calculations do not explain participant/pharmacy selection. Was it convenience, locality focussed? 3. Gender seems to be a factor with male gender associated with better practice. Still females comprised 80% of the sample. Were males more likely to be pharmacists (vs lower cadre professionals) - does this explain the finding associating males with better practices. 4. Even if the term TB cases was used in data collection tools, in the text of the paper this term should be substituted with TB patients or people with TB. Likewise suspected TB patients should be replaced with presumptive patients or the like.

REVIEWER	Mehta, Kedar GMERS Medical College Gotri Vadodara, Community Medicine Department
REVIEW RETURNED	04-Feb-2022

GENERAL COMMENTS	I shall congratulate the authors for selecting and publishing this novel and interesting topic. However, there are major concerns in the study. 1. Title is misleading. This is just KAP study among pharmacists - which is not clearly mentioned in title.

	2. In abstract, methods section is poorly written. For example, 'Descriptive and regression analyses were used for the analyses.' It is not clear which analyses? 3. Sample size and Sampling process is not explained clearly. How did you select 979 pharmacies? Then how did you select 1129 pharmacy personnel from these pharmacies? Sampling mehtod is missing. 4. Statistical analysis is not robust. 5. In table 2, it is mentioned 'Tuberculosis (TB) is caused by virus ' ? What was the question asked to pharmacists about TB pathogenesis!! 6. Page 11, line 286 mentioned 'TB attitude' and line 295 mentioned 'TB practice' - it sounds too vague. Pleas complete the sentence like 'Attitude of pharmacy personnel on TB' 7. Suppl files number - 4 and 5 are main outcomes of the study so it needs to be explained and discussed at length. All factors have to be identified and its further role can be discussed. 8. Conclusion is not based on the study findings - 'Community pharmacies have potential roles in supporting TB case detection considering the current basic available knowledge and positive attitude'

REVIEWER	Lombard, Carl South Africa Medical Research Council, Biostatistics Unit
REVIEW RETURNED	22-Mar-2022

GENERAL COMMENTS	page 7. Seems that the study have been completed (end of 2021) before the publication of this protocol. This has be clarified or updated. page 13. The precision of estimates linked to the expected number of providers should be stated similar to the sample size outline for participants.. Some clustering effect has to be considered page 14. Estimates. Need to state that estimates will be done with 95% confidence intervals

REVIEWER	Dobbin, KK University of Georgia, Epid and Biostat
REVIEW RETURNED	22-Mar-2022

GENERAL COMMENTS	Overall this study was well done and nicely reported, and provides preliminary work on important future research on pharmacy interventions in TB in Indonesia. Statistical issues: At several points p-values are reported as $p<0.00$. We all know what you mean, but this is not good reporting. $p<0.01$ or $p<0.001$, etc. is better. The high proportion of females in Table 1 was surprising. A little discussion would help non-experts understand this. Supplementary Tables 4 and 5: Please state on the table somewhere whether these are univariate or multivariate fits. Supplmentary Tables 4 and 5: What is the amount of missing data for these analyses, and how was it handled in the analysis.

	The English is overall good but could use another go-through for grammar.

VERSION 1 – AUTHOR RESPONSE

Reviewer 1
Dr. Amer hayat khan, Universiti Sains Malaysia
Interesting work, but a few queries will improve it more.
• Abstract conclusion is not matching the study aim, so it is suggested to rephrase.

Author response:
Thank you for your suggestion. We have revised the conclusion based on the objective and result. Please kindly find in the revised manuscript.

Line 60: "Most participants had good knowledge and attitude, which did not translate into actual TBPD practice. We identified that TB educational programs are essential in improving KAP towards TBPD. A systematic and comprehensive assessment is needed to develop effective strategies to engage the community pharmacy in TBPD activities."

• …and referring the suspected TB patient to the health facility for further examination in the sixth last months.., May I know that why in last 6th months & how they remembered that they refer the patients to the clinics in last six months.

The six months were based upon the results of our previous studies that there was the pharmacy personnel who provided the TBPD practice once six months.[3,4] Hence we tried to capture the TBPD in the prior six months. Since it is unusual activity, we believe that the participants can still remember when they conducted TBPD activities.

To follow up on your valuable comment, we have added new information to the revised manuscript:
Line 177: " The TBPD practice was evaluated over the past six months. The six months were based upon the results of our previous studies[11,23] that there was the pharmacy personnel who provided the TBPD practice once six months. To have a clear definition and comprehensive duration assessment, we defined “very often” as the practice performed at least every week; “often” is the practice performed at least once a month; “sometimes” is the practice performed at least once in 2-4 months; “rarely” is the practice performed once in 5-6 months; and “never” is never doing the practice in the last six months.."

• Further, inclusion criteria indicated for the study participant should be 6 months' minimum experience in the community pharmacy… Any justification? If above statement is the reason, then need to rephrase and make it more clear.

Since we captured the referral activities in the 6-month duration, we included the participant who had experience in a minimum of 6 months in the community pharmacy. We have added the text to clarify the information. Please also consider our comment above and kindly find new information in the revised manuscript:

Line 193: " The six-month experience was defined considering that the study captured TBPD activities in the last six months."

• Why author used 3 Likert scale for the knowledge but 5 for attitude and practice? I will appreciate to standardised or otherwise rationalise it and strengthen with any reference.

We used the KAP guideline for TB published by WHO [5] and Ruel, et a l[6] in developing our item response. The item responses were selected based on the domain and construct of the item.

We attempted to assess whether the participant understood or not the knowledge items. Hence, a dichotomous (true/false) item is the ideal option for assessing the knowledge items. To cover participants who really do not know about the item answer, we provide "don't know" as an option in the knowledge item. It will reduce the potential participant who guesses the answer. Guessing the answer from the participants will lead to reducing the item reliability.
We ask their opinion on the attitude items that a dichotomous item cannot justify. The attitude item should provide a wider range of responses than the dichotomous responses exploring the participant's opinion. Hence we used the 5 Likert option as suggested by Ruel, et al for the attitude items. In the practice items, rating scales were used to assess the frequency of practice. Therefore we used very often", "often", "sometimes", "rarely", and "never" for the practice items.

To clarify this issue, please kindly find our revision in the revised manuscript:
Line 153: " The questionnaire was developed based on the guideline for knowledge, attitude, and practice survey in TB published by the WHO[5], the practice of survey research[6], the Indonesian national TB guideline[7], experts' consensus on the psychological factors for implementing evidence-based practices[8], and previous relevant studies[9–11]."

Line 172: " The participant's characteristics domain items were assessed using closed and short open questions, while the item of knowledge domain was measured on a nominal scale ('true', 'false', and 'do not know'). Five Likert scales were used for the attitude, while rating scales were used for practice domain items. We used "strongly agree", "agree", "doubt", "disagree", and "strongly disagree" for the attitude items, and "very often", "often", "sometimes", "rarely", and "never" for the frequency of practice items."

• Does ethical approval was granted for this work, need to highlight.

Ethical approval was granted for this study. It was highlighted in the part of the ethics declaration on the last page of the original manuscript. Please kindly find in line 600 "Ethic declarations":
"The ethics committee approved this study of Universitas Sumatera Utara No. 599/KEP/USU/2021. All methods were carried out in accordance with the principle of the declaration of Helsinki.".

• Research Results shows that 49.3% had never TB training, means that 50.7% participant had TB training. Is there any proper training in the system been provided to the community pharmacist? If so then elaboration is required in the article. [By the way, this question was generated based on table2, section 3; TB sign & Symptoms (Correct answers 29.5%), as 50.7% had training and only these limited number respond correctly?
Thank you for your critical comment. There is no proper TB training system for pharmacy in our study setting. It was highlighted in our previous study [3]. Hence, developing an integrated training system has been a study implication for policy and practice in this study.
Please kindly find relevant information in the revised manuscript:
Line 370: " Unintegrated pharmaceutical services in TB programs and a lack of public-private collaboration with community pharmacies were reported in Indonesia.[3,4] This potentially leads to the limited exposure of community pharmacy personnel to the educational program from the national TB programme."
Line 445: " Second, a TB training system for improving the KAP should be developed for pharmacy personnel. The training is not only for increasing TB awareness about case detection activities but

also for minimising irrational dispense of TB drugs[12] and raising awareness on the other potential roles of community pharmacy in TB (e.g., treatment supporter, TB medication counsellor)."

• TB attitude; TB Practice……. Subheading should be self-explanatory, rephrasing is suggested.

Thank you for your suggestion. We have revised the sub-heading.
Line 303: "The Attitude of Pharmacy Personnel toward Tuberculosis Patient Detection
Line312: "The Practice of Pharmacy Personnel toward Tuberculosis Patient Detection "

• Discussion needs more arguments/reasons instead of literature comparison.

We have added our argumentation in the general discussion and the study implication. Please kindly the information in the revised manuscript.

Line 368: " Good knowledge was associated with participants who have a pharmacist background. This finding highlights the importance of exposing TB knowledge to the pharmacy technicians since they also have a role as the frontline in pharmacy."

Line 370: " Unintegrated pharmaceutical services in TB programs and a lack of public-private collaboration with community pharmacies were reported in Indonesia.[3,4] This potentially leads to the limited exposure of community pharmacy personnel to the educational program from the national TB programme"

Line 382: " We finally analysed that experience in following TB training is essential for improving TB knowledge, forming a positive attitude, and performing activities on TBPD. Our study thus emphasises the importance of TB training to gain TB knowledge and a positive attitude. The knowledge and attitude can then generate action for TBPD. "

Line 404: "Furthermore, we assessed that time available to perform TBPD activities is essential. Our study emphasised the need for workload assessment for the community pharmacies to be able to conduct TBPD activities."
• General conclusion should meet the hypothesis, which is lacking. Moreover, 2nd sentence is not true with TB training related information. I will strongly suggest to rephrase the conclusion.

Thank you for your suggestion. We defined the conclusion based on the study objective. According to the study objective, we analysed the KAP in TB patient detection (TBPD) of the community pharmacy personnel, aiming to find innovative strategies to engage community pharmacies in TBPD activities. To follow up your comment, please kindly find our revision in the revised manuscript.

Line 456:"Our study showed that most Indonesian pharmacists and pharmacy technicians have a good knowledge and attitude related to TBPD. However, their knowledge and attitude do not align with their actual TBPD practice. We identified that a TB educational program is essential in improving KAP among pharmacy personnel for TBPD activities. A systematic and comprehensive assessment is needed to develop an effective strategy for engaging the community pharmacy in sustainable TBPD activities."

• It is advised to re-confirm the references and omit the repetition like ref. 21 & 29.
Thank you for your correction. We have removed a repeated reference no, 29

• Reference 13, need to recheck and should comply with the journal format.
We have revised the reference according to journal guidance

• Reference 14 need to make sure in English and accessible for the readers.
We used a reference manager that followed the BMJ open format. It's a website page. We have revised reference no. 14 according to the BMJ format.

Reviewer 2
Dr. Amrita Daftary, York University
• A well written, interesting paper explicating pharmacy based knowledge, attitudes and practices related to TB in Indonesia.

Author response: Thank you for your compliment.

• Describe the context of the four settings - are these urban or rural areas or mixed. Perhaps clarify the meaning of a peripheral vs central area.
We included the province's capital as the central city while the non-capital of the province as the peripheral area. To clarify, we have added the information in the revised manuscript. Please kindly find the revision:
Line 132: " A cross-sectional study was performed in four areas in Indonesia's western, central, and eastern parts. The three areas are the capital of provinces, while one area is a peripheral area outside the province capital. "

• How were the pharmacies/participants selected? The sample size calculations do not explain participant/pharmacy selection. Was it convenience, locality focussed?

We used a locality focus for the sample collection that collaborated with the local professional organisation of pharmacists and pharmacy technicians in the study sites. Since the database of pharmacy personnel is comprehensively managed by the two professional organisations, we collaborated with the two local professional organisations for data collection. The responsible data collectors from the professional organisation identified and distributed the questionnaire to the potential participants based on the participant eligibility, database, networking, and geographical distribution at the district level. All the collected data were managed and analysed for eligibility of the data and achievement of the sample size by the researchers at each study site.

Considering your valuable comment, please kindly find the additional information in the revised manuscript

Line 203: " Considering that pharmacists and pharmacy technicians operate pharmacies, two responsible persons for data collection were appointed in each study site, i.e. a data collector for the pharmacists and one for the pharmacy technicians. We collaborated with the two local professional organisations for data collection. The responsible data collector identified and distributed the questionnaire to the potential participants based on the participant eligibility, database, networking, and geographical distribution at the district level. In light of the pandemic COVID-19 situation, we distributed the questionnaire using online and offline approaches. All the collected data were managed and analysed for eligibility of the data and achievement of the sample size by the researchers at each study site (ISP, Kh, MAB, MNK)."

• Gender seems to be a factor with male gender associated with better practice. Still females comprised 80% of the sample. Were males more likely to be pharmacists (vs lower cadre professionals) - does this explain the finding associating males with better practices.

Thank you for your critical comment. We have added a subgroup analysis for gender in the revised manuscript. The subgroup analysis explained that males have a more positive attitude and provide

more drug consultation services than females. Please kindly find our sub-group analysis in supplementary file 5. We also have added a new discussion in the revised manuscript.

Line 391: " We identified that the proportion of females (80.6%) is higher than males (19.4%) in our study. It is in line with national data showing that females represent the majority of pharmaceutical personnel in Indonesia (80.6%)[13]. Although the proportion of females is higher than males, our study identified that males are more likely to perform TBPD practices. Our sub-group analysis explained that males have a more positive attitude towards TBPD and provide more drug consultation services than females (See Supplementary File 5). The positive attitude may drive them to provide the drug consultation service and lead them to perform TBPD activities as well. It can be explained that providing drug consultation services will give them more opportunities to meet patients directly, leading to the TBPD activities."

• Even if the term TB cases was used in data collection tools, in the text of the paper this term should be substituted with TB patients or people with TB. Likewise suspected TB patients should be replaced with presumptive patients or the like.

Thank you for your suggestion. We have revised the terms accordingly.

Reviewer: 3
Dr. Kedar Mehta, GMERS Medical College Gotri Vadodara

• I shall congratulate the authors for selecting and publishing this novel and interesting topic. However, there are major concerns in the study.

Authors response: Thank you for your compliment

• Title is misleading. This is just KAP study among pharmacists - which is not clearly mentioned in title.

We have revised the title to "Knowledge, Attitude, and Practice of the Community Pharmacy Personnel in Tuberculosis Patient Detection: A Multicentre Cross-Sectional Study in a High-Burden Tuberculosis Setting". Please kindly the revision in the revised manuscript.

• In abstract, methods section is poorly written. For example, 'Descriptive and regression analyses were used for the analyses.' It is not clear which analyses?

Thank you for your correction. We have revised the text accordingly. Please kindly find the revision on the revised manuscript.

Line 47: " Descriptive analysis was used to assess participant characteristics and their KAP, while multivariable regression analyses were used to analyse factors associated with the KAP on TBPD.”.

• Sample size and Sampling process is not explained clearly. How did you select 979 pharmacies? Then how did you select 1129 pharmacy personnel from these pharmacies? Sampling method is missing.

We used a locality focus for the sample collection that collaborated with the local professional organisation of pharmacists and pharmacy technicians in the study sites. Since the database of pharmacy personnel is comprehensively managed by the two professional organisations, we collaborated with the two local professional organisations for data collection. The responsible data collectors from the professional organisation identified and distributed the questionnaire to the

potential participants based on the participant eligibility, database, networking, and geographical distribution at the district level. All the collected data were managed and analysed for eligibility of the data and achievement of the sample size by the researchers at each study site.

Considering your valuable comment, please kindly find the additional information in the revised manuscript:
Line 203: " Considering that pharmacists and pharmacy technicians operate pharmacies, two responsible persons for data collection were appointed in each study site, i.e. a data collector for the pharmacists and one for the pharmacy technicians. We collaborated with the two local professional organisations for data collection. The responsible data collector identified and distributed the questionnaire to the potential participants based on the participant eligibility, database, networking, and geographical distribution at the district level. In light of the pandemic COVID-19 situation, we distributed the questionnaire using online and offline approaches. All the collected data were managed and analysed for eligibility of the data and achievement of the sample size by the researchers at each study site (ISP, Kh, MAB, MNK)."

• Statistical analysis is not robust.

Thank you for your comment. We have attempted to add and revised the manuscript accordingly. Please kindly find the revised manuscript

• In table 2, it is mentioned 'Tuberculosis (TB) is caused by virus ' ? What was the question asked to pharmacists about TB pathogenesis!!

Thank you for your correction. Knowledge about the pathogen is fundamental to managing TB patients. Hence the type of pathogen should be known by the pharmacy personnel. Considering your comment, we have revised the term based on our purpose. We have changed the term "pathogenesis" to "pathogen".

Please kindly find our revised manuscript in table 2 and line 287.
Line 166: "We assessed TB knowledge related to activities in TB detection, i.e., TB pathogen, transmission, symptoms, risk population, diagnosis, and medication".

• Page 11, line 286 mentioned 'TB attitude' and line 295 mentioned 'TB practice' - it sounds too vague. Pleas complete the sentence like 'Attitude of pharmacy personnel on TB'

We have revised the text accordingly. Please kindly find in the revised manuscript:
Line 274: "Knowledge of pharmacy personnel on Tuberculosis"
Line 289: "The Attitude of Pharmacy Personnel toward Tuberculosis Patient Detection
Line 298: "The Practice of Pharmacy Personnel toward Tuberculosis Patient Detection "

• Suppl files number - 4 and 5 are main outcomes of the study so it needs to be explained and discussed at length. All factors have to be identified and its further role can be discussed.

We have added the result and discussion regarding supplementary file 4 and 5 in the revised manuscript.
Line 333: “we explored factors associated with TB knowledge and attitude. In terms of TB knowledge, we found that age (B= 0.07; p< 0.05; 95%CI= 0.03— 0.10), being a pharmacist (B= 2.2; p< 0.001; 95%CI= 1.68— 2.63), experience in TB training (B= 0.65; p< 0.001; 95%CI= 0.25— 1.04), and a positive attitude on TBPD (B= 0.1: p< 0.001; 95%CI= 0.03— 0.17) were positively associated with TB knowledge. Meanwhile, the factors of being a participant from the county of Bandung (B= -1.04; p<

0.001; 95%CI= -1.63─ -0.45) and from the city of Makassar (B= -1.13; p< 0.001; 95%CI= -1.70─ -0.55) were negatively associated with TB knowledge as compared with being a participant from the city of Bandung.“
Line 342: “Regarding the attitude, the analysis demonstrated that factors positively associated with TB attitude were male gender (B= 0.68; p< 0.001; 95%CI= 0.26─ 1.09), TB knowledge (B=0.74; p< 0.001; 95%CI= 0.02─ 0.12), provision of drug consultation services (B= 0.91; p< 0.001; 95%CI= 1.40─ 0.68), experience in TB training (B= 0.84; p< 0.001; 95%CI= 0.51─ 1.16), being a participant from the county of Bandung (B= 0.93; p< 0.001; 95%CI= 0.44─ 1.43) and city of Makassar (B= 0.51; p< 0.05; 95%CI= 0.02─ 0.99). Meanwhile, working in a chain pharmacy (B= -0.64; p< 0.001; 95%CI= -1.07─ -0.21) was negatively associated with TBPD attitude. The regression analyses on the factors associated with TB knowledge, and attitude, are presented in Supplementary File 4.”
Line 351: “Generally, our study demonstrated that exposure to TB training is strongly associated with improving TB knowledge (B= 0.65; p< 0.001; 95%CI= 0.25─ 1.04), attitude (B= 0.84; p< 0.001; 95%CI= 0.51─ 1.16), and practice (B= 0.83; p< 0.001; 95%CI= 0.52─ 1.15) in TBPD.”
Line 367: “Good knowledge was associated with participants who have a pharmacist background. This finding highlights the importance of exposing TB knowledge to the pharmacy technicians since they also have a role as the frontline in pharmacy. Unintegrated pharmaceutical services in TB programs and a lack of public-private collaboration with community pharmacies were reported in Indonesia.[3,4] This potentially leads to the limited exposure of community pharmacy personnel to the educational program from the national TB programme”
Line 384: “The knowledge and attitude can then generate action for TBPD. It is in line with the knowledge, attitude, and practice (KAP) theory that states that the changes in human behaviour are divided into three successive processes, i.e., knowledge acquisition, the generation of attitudes, and the formation of behaviour [14]. In the health belief model, knowledge plays a key role in generating action, and then belief and attitude drive behaviour change[15]..
Line 397: “The positive attitude may drive them to provide the drug consultation service and lead them to perform TBPD activities as well. It can be explained that providing drug consultation services will give them more opportunities to meet patients directly, leading to the TBPD activities”

• Conclusion is not based on the study findings - 'Community pharmacies have potential roles in supporting TB case detection considering the current basic available knowledge and positive attitude' -

Thank you for your suggestion. We defined the conclusion based on the study objective. According to the study objective, we analysed the KAP in TB patient detection (TBPD) of the community pharmacy personnel, aiming to find innovative strategies to engage community pharmacies in TBPD activities. To follow up your comment, please kindly find our revision.

Line 456:"Our study showed that most Indonesian pharmacists and pharmacy technicians have a good knowledge and attitude related to TBPD. However, their knowledge and attitude do not align with their actual TBPD practice. We identified that a TB educational program is essential in improving KAP among pharmacy personnel for TBPD activities. A systematic and comprehensive assessment is needed to develop an effective strategy for engaging the community pharmacy in sustainable TBPD activities."

Reviewer: 4
Dr. Carl Lombard, South Africa Medical Research Council
• page 7. Seems that the study have been completed (end of 2021) before the publication of this protocol. This has be clarified or updated.

Thank you for your comment. Since the protocol is needed to provide better study planning and guidance for the research team, we have developed the protocol at the beginning of the study.

However, we did not publish it considering timeframe of the study. To clarify this information, please kindly find the additional information in the revised manuscript:

Line 235: " An unpublished protocol was developed prior to the study to provide better study planning and guidance for the research team "

• page 13. The precision of estimates linked to the expected number of providers should be stated similar to the sample size outline for participants.. Some clustering effect has to be considered.

Thank you for your valuable comment. We have now included the expected number of providers and its estimate into study size and participants characteristics outline (line 256).
Our multivariate analyses have analysed all the participants' characteristics to the defined study outcomes. However, we agree that a clustering analysis should be considered to sharpen the results. Hence, we have added a sub-group analysis for variables with significant value in the multivariate analysis. We performed a gender analysis to explain why the male gender is more likely to perform TBPD activities than the female gender despite the male proportion being lower than the female. The other participant characteristics effect has been described in the multivariate analysis and discussion part. Please kindly find our additional information in the revised manuscript:

Supplementary file 5 and Line 391: " We identified that the proportion of females (80.6%) is higher than males (19.4%) in our study. It is in line with national data showing that females represent the majority of pharmaceutical personnel in Indonesia (80.6%)[13]. Although the proportion of females is higher than males, our study identified that males are more likely to perform TBPD practices. Our sub-group analysis explained that males have a more positive attitude towards TBPD and provide more drug consultation services than females (See Supplementary File 5). The positive attitude may drive them to provide the drug consultation service and lead them to perform TBPD activities as well. It can be explained that providing drug consultation services will give them more opportunities to meet patients directly, leading to the TBPD activities."

• page 14. Estimates. Need to state that estimates will be done with 95% confidence intervals

Thank you for your comment. We have included the information in the method section. Please kindly find in the revised manuscript.
Line 232: " All significance levels were set at 5%, and 95% confidence intervals (CI) were presented."

Reviewer: 5
Dr. KK Dobbin, University of Georgia
• Overall this study was well done and nicely reported, and provides preliminary work on important future research on pharmacy interventions in TB in Indonesia.

Authors response: Thank you for your compliment.

Statistical issues:
• At several points p-values are reported as p< 0.00. We all know what you mean, but this is not good reporting. p< 0.01 or p< 0.001, etc. is better.

Thank you for suggestion. We have revised accordingly. Please kindly find in the revised manuscript.

• The high proportion of females in Table 1 was surprising. A little discussion would help non-experts understand this.
The highest proportion of females is due to the included subjects are dominated by the female gender. It is in line with the national report that pharmacy personnel is nationally dominated by the

female gender as many as 63.699 people or 80,6% [13]. We have added a new discussion in the revised manuscript.
Line 391: " We identified that the proportion of females (80.6%) is higher than males (19.4%) in our study. It is in line with national data showing that females represent the majority of pharmaceutical personnel in Indonesia (80.6%)[13]. Although the proportion of females is higher than males, our study identified that males are more likely to perform TBPD practices. Our sub-group analysis explained that males have a more positive attitude towards TBPD and provide more drug consultation services than females (See Supplementary File 5). The positive attitude may drive them to provide the drug consultation service and lead them to perform TBPD activities as well. It can be explained that providing drug consultation services will give them more opportunities to meet patients directly, leading to the TBPD activities."

• Supplementary Tables 4 and 5: Please state on the table somewhere whether these are univariate or multivariate fits.

We have added new information in each title, "Multivariable regression analysis.."

• Supplementary Tables 4 and 5: What is the amount of missing data for these analyses, and how was it handled in the analysis.
As described in figure 1 (flow diagram of included participants), we do not have any missing data since the data collection instrument and process were designed for all participants to complete all the information needed. So, there are no technics to be reported to handle the missing data.

• The English is overall good but could use another go-through for grammar.

Thank you for your suggestion. We have read and reviewed it carefully. An English expert also reviewed the manuscript. Please kindly find our revision in the revised manuscript.

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VERSION 2 – REVIEW

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REVIEW RETURNED	16-May-2022

GENERAL COMMENTS	The authors have addressed my comments.