Dear Editor and Reviewers

Thank you for taking the time to review and accept our paper with revisions. Thank you also for your suggestions for revisions; we have addressed all of the recommendations. The revisions are in red font to indicate how they have been addressed here and in the revised submission.

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author

ULT-20-019 Sonographers level of autonomy in communication in Australian obstetric settings: does it affect their professional identity?

Thank you for this really interesting article that highlights the challenges in Australia for sonographers.

Thank you for your interest

The aims are clear and the justification for the study is comprehensive.

Thank you

It is not always clear how the judgments about professional identity have been reached from the case studies described. Could this be explained further?

To clarify this further we have added the paragraph

"For the purpose of this study, the authors' interpretation of a sonographer's sense of professional identity was drawn from the participant's account of their perceived level of autonomy in communicating with patients and how they viewed this in the context of their sonographer role. It was evident from participants' accounts that their sense of professional identity was shaped by their workplace settings and relationships, with those in Radiology settings feeling they had less autonomy and therefore a weakened professional role compared to those working in obstetrician-reporting settings or as sole-sonographers working remotely."

There are no limitations of the study highlighted. It would add credibility to the work if you could consider what limitations there are and the impact they could have on the results and subsequent interpretation.

Thank you for highlighting this; we have included the following:

"A limitation of this study is that the participants included in the case study comparison were purposively drawn from survey respondents who volunteered for a follow-up interview; this was done

to further explore the themes previously identified as informing three 'Communicator Types'. As such, the participants included were limited to female sonographers with over 15 years' experience and therefore consideration is not given to male or inexperienced sonographers. Further qualitative research is needed to understand if the experiences of the three case study participants are representative of Australian sonographers working in obstetric settings, and also to include the experiences of pregnant patients in their interactions with sonographers in these settings."

Some specific comments below might help to fine tune this article for publication:

Page 3. Line 48-53: you say that sonographers have a "reduction" in autonomy.

Could you either clarify what it is reduced in comparison to or consider the use of a different word?

This is a good point.

We have changed this to read "they do not have any formal authority or control in.." rather than a reduction in autonomy.

Page 4.

Line 10: Do you have evidence that the independent sonographer role in the UK was supported by NICE? If not, you might want to quote the CASE standards https://protect-au.mimecast.com/s/NV3pCROND2uRPpBzf98njr?domain=case-uk.org

Thank you for this reference, we have replaced the NICE reference with the more suitable one you recommended .

"Consortium for the Accreditation of Sonographic Education (CASE) standards (Dolbear, Harrison, Bolton, Venables, & The Society and College of Radiographers, 2019)"

Line 19: Suggestion, but not essential: Sonography is not a recognised profession in the UK, so this may be worth clarifying.

This is a good point and the sentence has been adjusted to now read:

" The sonographers' autonomous role in the UK has demonstrated an improvement in patient outcomes and developed a strong professional identity despite sonography not yet being recognised as a profession in the UK."

Method: this is quite brief. A little more detail would be helpful e.g. how were the interviews conducted? Were they structured, semi-structured or unstructured? It might be useful to reiterate in this article any ethical issues e.g. ethics approval.

We have added "This was done using a semi-structured interview format."

Details of the institutional ethics approval for the study was removed as part of the blinded peer review process and will be included in the published article.

Findings: How did you select the three cases from the seven interviews undertaken? Was it simply the best for each communicator type?

As outlined in the Methods under **Sample, Participants and Recruitment Strategy**, participants in the follow-up interviews were purposively selected to reflect the variety of workplace settings (e.g., radiologist practices, obstetrician-run practices) and geographical locations (metropolitan, regional, remote). The three case studies were chosen to represent these paramaters and, additionally, as representative of the previously identified three communicator types. This has been made more explicit in the Findings section.

Case study 1: was there any indication about how "Chloe" feels about not being able to communicate as openly with working in the MFM unit? This would be valuable information to share, particularly given the 2nd aim of the study. You say she is "comfortable in her changed role", but was this explored further in relation to the initial patient communication and impact this has on her autonomy?

An important point and we have clarified this is the case study as follows:

While she performs the examination, she is not solely responsible for communicating any adverse findings as this is shared with other team members, including an obstetrician and/or geneticist. She explained that the team have an understanding of each other's specialties and support each other in their roles. Chloe feels confident that all team members are caring for the patient and therefore is comfortable in this more limited role in managing patient outcomes in this setting.

Case study 2: Again did "Jackie" explore her feelings about being unable to communicate to some patients? Was there any indication of her satisfaction in the cases where the radiologist's protocols did allow some discussion with a patient, compared to those that did not permit any communication of results? She mentioned the changes in patient expectations, did this have any impact on her role, identity or sense of fulfillment in her job?

Did she say that the limitations "weakens her professional identity".

Thank you for highlighting these areas. The following sentences have been inserted to reflect Jackie's dissatisfaction with some radiologists.

"Jackie expressed feeling frustrated and disappointed with some radiologists because they do not get involved in communicating with a patient or in providing any form of support. "

We have inserted this sentence in the discussion on Jackie to clarify the contrast in Jacki's sense of her own professional identity being different to the authors.

"*Jackie's limited level of communication autonomy, due to control and mediation of communication with patients by radiologists, weakens her professional identity."*

We believe that her lack of independence/autonomy in communication and decision making is linked with weakening of one's professional identity.(references are cited)

Page 11.

lines 39-43: Could you clarify the point you make about practising as an 'open communicator' remotely? What is meant by remotely?

We have included :

"(population<5000)"

Lines 54 – 58: It would be insightful to know how this strong sense of identity ties in with the comment in the case study box, which says the practice control "weakens her professional identity".

We have included the following sentences to make this point clearer:In the case study box

"This is due to the medical dominance controlling her actions."

And in the discussion (as above)

"*Jackie's limited level of communication autonomy, due to control and mediation of communication with patients by radiologists, weakens her professional identity."*

Conclusion: From the case studies you have concluded about the sense of professional identity. As already mentioned, it would help the reader if you could expand on how you came to this conclusion from the interviews. Were questions asked about professional identity, linked to the communication aspects of the role?

We agree this link needed to be improved so included the following :

For the purpose of this study, the authors' interpretation of a sonographer's sense of professional identity was drawn from the participant's account of their perceived level of autonomy in communicating with patients and how they viewed this in the context of their sonographer role. It was evident from participants' accounts that their sense of professional identity was shaped by their workplace settings and relationships, with those in Radiology

settings feeling they had less autonomy and therefore a weakened professional identity compared to those working in obstetrician-reporting settings or as sole-sonographers working remotely.

Reviewer: 2

Comments to the Author

This is a topical article which will be of interest to the national and international sonographic community.

It is generally very readable. The article raises a valid point of standards or lack of a consensus within a 'profession'. It will be relatable mainly to Sonographers not based in the U.K. but will resonate with U.K sonographers and other struggles they face.

The term 'sonologist' should be formally defined at first use within the main text.

This is a good point, we have moved the following sentence earlier in the paragraph

"In Australia, the official report must be completed by a sonologist who is a physician specifically trained and qualified in ultrasound; in the case of obstetric examinations, it can be an obstetrician or radiologist."

'This puts pressure on sonographers as the struggle to provide patient centred care given the limits on their communication during the ultrasound examination.' Is 'pressure' the right word here. I know what they are trying to say but it doesn't seem pressure is the right term.

We have changed the wording to "emotional labour".

"The emotional labour on sonographers is increased as they struggle to provide patient-centred care given the limits put on their communication during the ultrasound examination."

I think there could be a little more on the possible effect on the patient on the variable types of communication allowed. For example case study 2 gives an example of the patter she would use for a recommendation to a tertiary centre. This must be quite distressing mentally for parents.

This is a great point and we have included the following sentence to recognise this impact on patients:

"All three sonographers recognise that their communication and interactions with patients may bring about an emotional and psychological impact, particularly in the situation of an adverse outcome."

Weakens/strengthens professional identity – it is not clear how this is measured and what level of value is based on what – sometimes it seems it's more about job satisfaction than professional identity. Was this a panel decision or an individual interpretation. However, I appreciate the author has highlighted where a full description of the research design and methodology can be found

The authors discussed and used the literature to to gain an understanding of what is characteristic of a 'professional' and role identity; that is, the level of autonomy and control the sonographer experiences in communication and recognition of their role within their workplace setting.

To clarify this further we have added the following :

"For the purpose of this study, the authors' interpretation of a sonographer's sense of professional identity was drawn from the participant's account of their perceived level of autonomy in communicating with patients and how they viewed this in the context of their sonographer role. It was evident from participants' accounts that their sense of professional identity was shaped by their workplace settings and relationships, with those in Radiology settings feeling they had less autonomy and therefore a weakened professional role compared to those working in obstetrician-reporting settings or as sole-sonographers working remotely."

There was a difference in a sonographers sense of their professional identity to the authors perception in the case of Jackie. This has now been included in the manuscript:

"Jackie's limited level of communication autonomy, due to control and mediation of communication with patients by radiologists, weakens her professional identity"

When reading the case studies - i did feel that this could be little more scientific in depth analysis of the interpretation of the interviews could have been made.

We thank you for the comment and offer the following explanation for the choice of a case study presentation of the individual interview material. Analysis of the open-text responses from national survey respondents was done to derive the themes that inform the three communicator types; this has been reported elsewhere (Thomas, O'Loughlin, & Clarke, 2019). The follow-up interviews with a small number of survey respondents further explored these themes, and the case studies included here draw on the experiences of three of the interview participants which we feel capture the key characteristics and are representative of the three communicator types.

Good conclusion to bring it all together highlighting that lack of national standard operating procedures in Australia vary standard of patient care.

Could identify limitations of the study and opportunities for further research – i.e. the effects on patients etc.

Thankyou for highlighting this oversight. We have included the following limitations.

"A limitation of this study is that the participants included in the case study comparison were purposively drawn from survey respondents who volunteered for a follow-up interview; this was done to further explore the themes previously identified as informing three 'Communicator Types'. As such, the participants included were limited to female sonographers with over 15 years' experience and therefore consideration is not given to male or inexperienced sonographers. Further qualitative research is needed to understand if the experiences of the three case study participants are representative of Australian sonographers working in obstetric settings, and also to include the experiences of pregnant patients in their interactions with sonographers in these settings."

There are some very old references but reading what they relate to in the body of the text I believe them to be relevant and the remaining reference are very up-to-date.

It is sometimes difficult to take in qualitative research in my opinion, despite this being emotive subject matter for Sonographers, especially currently in ANZ. I commend the research on this topic and note it is approached in a pragmatic, citable and useful way.

ADDITIONAL COMMENTS FROM THE EDITOR:

I agree with the reviewers' comments, many of which overlap.

In your abstract and main text, make sure you state you are referring to the Australian sonographer community.

The last sentence of your Conclusion in the main text is new info. It is relevant but must be mentioned in the main body of the text first please.

We have included the following sentences into the main text:

"In contrast, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) acknowledge through their guidelines there must be a collaborative and multidisciplinary approach to a mothers care during pregnancy (The Royal Australian and New Zealand College of Obstetricians and Gynaecologists, 2016). This is reinforced by the Australian perinatal guidelines for care in the event of stillbirth and perinatal death (Perinatal Society of Australia and New Zealand, 2018). The guidelines

include the need for positive interactions with sonographers for pregnant patients recovery after these traumatic events."

Suggest you write something on p4 like '...a strong identity despite sonography not yet being recognised as a profession in the UK'

Thank you this has been included

P5 No one doubts the level of education and interpretation that ANZ sonogs have. Isn't this state of restricted practice just about medical dominance and money? Should that be suggested otherwise i feel it's the elephant in the room? You go on to state, if i've interpreted your work correctly, that radiologists are worse and put up more heirarchical barriers, and obstetricians are much better at valuing you and having respect for you. I'd like to see you postulate why this is.

The sonographer's dependence on sonologists is officially recognised in both the organisational and medically-dominated hierarchical structure of Australia's healthcare system, in which the sonographer is not expected to work independently of a sonologist and does not have the authority to provide the official report to a referring practitioner

You need to offer limitations for your work and also recommendations for further study. One could be exploring radiologists' resistance to sonog autonomy. I think you should also state that there should be uniform practice between radiologists' settings and it's not in anyone's interest (sonogs or patients) to have practice so variable.

These are great points and we have included them.

In the discussion:

"A limitation of this study is that the participants included in the case study comparison were purposively drawn from survey respondents who volunteered for a follow-up interview; this was done to further explore the themes previously identified as informing three 'Communicator Types'. As such, the participants included were limited to female sonographers with over 15 years' experience and therefore consideration is not given to male or inexperienced sonographers. Further qualitative research is needed to understand if the experiences of the three case study participants are representative of Australian sonographers working in obstetric settings, and also to include the experiences of pregnant patients in their interactions with sonographers in these settings."

In the Conclusion:

‘‘and encourage uniformity of practice across all settings ‘‘

As stated by the reviewers, more info is needed on how you determined the case study people's perception of their own professional identities.

We agree, and these have been included as described above.

Finally, consider alternative key words. These should differ from the words in your title so that your work has a greater chance of being found during searches. Suggest (although it is entirely your call) words like: ultrasound, adverse results, independent practice, information, patient-centred care, preliminary report.

We will include these thank you.

I look forward very much to receiving a revision soon.

Dolbear, G., Harrison, G., Bolton, G., Venables, H., & The Society and College of Radiographers. (2019). Consortium for the Accreditation of Sonographic Education (CASE) standards for Sonographic Education. Retrieved from https://protect-au.mimecast.com/s/NV3pCROND2uRPpBzf98njr?domain=case-uk.org

Perinatal Society of Australia and New Zealand. (2018). Clinical practice guideline for care around stillbirth and neonatal death 3rd Edition. Retrieved from https://www.stillbirthcre.org.au/assets/Uploads/Respectful-and-Supportive-Perinatal-Bereavement-Care.pdf

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists. (2016). Collaborative maternity care C-Obs 33. Retrieved from https://ranzcog.edu.au/RANZCOG_SITE/media/RANZCOG-MEDIA/Women%27s%20Health/Statement%20and%20guidelines/Clinical-Obstetrics/Collaborative-Maternity-Care-(C-Obs-33)-Review-March-2016.pdf?ext=.pdf

Thomas, S., O'Loughlin, K., & Clarke, J. (2019). Sonographers' communication in obstetrics: Challenges to their professional role and practice in Australia. *Australasian Journal of Ultrasound in Medicine*. doi:10.1002/ajum.12184