Reviewer Comments

Article ID: 2021-0271

Title: Comprehensive design considerations for a new hospital gown: a patient-oriented qualitative study

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Reviewer 1: Carla Ginn / University of Calgary, Faculty of Nursing

A clever and engaging title for a much-needed research study. [Editor's note: Titles in CMAJ Open have a standard format. Please see Editor Comments above on reformatting the title.] Thank you for this logical, well-written manuscript, containing new and unique information on a compelling topic. This manuscript provides insight into the complexities surrounding the lifecycle of hospital gowns, a well-rounded approach, with consideration of perspectives of patients, clinicians, and stakeholders. Ethical approval was obtained from the Nova Scotia Health Authority and Michael Garron Hospital. Verbal consent was obtained prior to interviews. Anonymity and confidentiality were protected through identification of role(s) and hospital departments.

Thank you for your kind words and helpful review.

A more detailed description of the deductive and inductive approaches to thematic analysis is required.

Please see response to item 35 and corresponding additions in the manuscript.

Codes are mentioned in the results, but not in the data analysis, please clarify.

Please see response to item 35 and corresponding additions in the manuscript.

Data saturation is mentioned, but not concepts of trustworthiness in relation to qualitative research.

Below we clarify and summarize our revisions.

- **The COREQ guided our reporting to facilitate rigor / trustworthiness.**

- **In the "Data source and collection" section, we added explicit mention of credibility and confirmability in relation to the member checking that we conducted. We added a corresponding citation.**

- **In the "data analysis" section, we added that during regular teleconference calls, patterns and preliminary themes**

were discussed and triangulated with field notes generated by CA, SS, and JC. This also facilitated the credibility and confirmability of our findings. We added a corresponding citation here.

Dependability was facilitated by providing the interview guide and a detailed description of the analytic steps taken in the study. Evidence of confirmability was evident through the use of quotations. Authenticity and transferability were facilitated through our maximum variation sampling approach and diversity reflected in Table 1. See Klem et al., 2022 for support for this bullet point

Also see responses to items 22, 31, 36.

More detail is needed surrounding the theoretical framework, along with more detailed reporting surrounding the needs assessment processes.

As suggested by the editor, we removed all references to needs assessment and we frame our design as a qualitative interview study. Addressing your comment, we maintain that we situated our study in a constructivist paradigm which appreciates each individual's unique experiences and perspectives. It also recognizes that findings are co- constructed between researchers and participants. We provide a key citation.

Within our constructivist approach, we also maintain that we approached our study with a patient-oriented lens (framework) and provide a citation. We expanded our description of our patient partner's involvement and how they shaped the study - please see the following revised sections:

- *Study design and setting*
- *Data source and collection*
- *Patient engagement*
- *Data analysis*
- **Lessons Learned from Patient Engagement**

Please also consider our original 2,500 word limit which has now been increased to 3,000 to help accommodate our revisions. We did our best to provide additional details with this constraint in mind.

Maximum variation sampling was employed to capture a wide range of perspectives including patients/family, clinicians, and system stakeholders. This could also be considered/described as purposive sampling. It would be helpful to include other socio-demographic characteristics of the sample along with age (29 of 40 participants reported their age).

We clarified that "A maximum variation (12) approach to purposeful sampling was used …". Maximum variation sampling is a type of purposeful sampling. Therefore, we have added precision by specifically noting that maximum variation was sought. Our citation (12; Palinkas et al.) outlines the types of purposeful sampling, including maximum variation sampling.

We appreciate your comment regarding collecting additional characteristics; however, we did not collect socio-demographic characteristics and retroactively collecting and analyzing these in relation to our existing findings would

require a new protocol and ethics submission/approval.

There is no mention of socioeconomic status in the manuscript.

We appreciate you pointing this out, however, our study was not intended to report on socioeconomic status in relation to hospital gown stakeholders' experiences and perspectives.

Future studies of gown re-designs and barriers and facilitators to novel gown use would benefit from collecting and discussing socioeconomic status. For example, landscapes where novel gowns are only available for purchase may form a barrier to their use in certain populations.

Some formatting/spacing issues noted throughout the manuscript along with a need for consistency in capitalization of themes and formatting of tables. [Editor's note: papers are professionally copyedited after acceptance.]

We did our best to correct these issues, and we appreciate the editor's note regarding copyediting.

Thanks again for your helpful review.

Reviewer 2: Sophy Chan-Nguyen

Thank you very much for the opportunity to read and review this study. The findings of this paper were certainly illuminating and interesting. Overall, the topic of this paper is relevant as it seeks to meet ongoing concerns around the need for patient-centred designs of the hospital gown. The paper also meets its intended research goal to contribute to the evidence base around patient gowns that produces positive patient, provider and system outcomes. There are a few areas of concern that could be addressed:

Thank you for your kind words and helpful review.

Patient engagement: While the paper holds true to a patient- oriented lens by means of the interview questions, the degree of patient engagement in this project is unclear. The authors state that a patient advocate helped to design and conduct the study. However, it is unclear to me why the patient advisor was crucial to the process. Why was the patient advocate's experience/insights crucial to this project? How did they affect the research process specifically? How did you gain feedback from the patient advisor and how was it implemented?

We expanded our description of our patient partner's background experience, role in this study, and how they affected the research process. Please see the following revised sections for these details:
- ***Study design and setting***
- ***Data source and collection***
- ***Patient engagement***
- ***Data analysis***
- **Lessons Learned from Patient Engagement**

Please also consider our original 2,500 word limit which has now been increased to 3,000 to help accommodate our revisions. We did our best to provide additional details with this constraint in mind.

I was looking forward to having these questions answered in the "Lessons Learned" section, but the section only recaps vaguely how the patient was involved. The "Lessons Learned" section provided no lessons for other clinicians/researchers to follow. Therefore, the overall tone of the paper makes me question whether there was genuine patient engagement in the project. This could be addressed by providing more details about how the patient advisor was involved and why their voice was crucial to the project.

Please see response to item 60 and corresponding revisions in the manuscript.

I also find the critical reflections in the GRIPP2 to be lacking. I am not sure what is meant by "ongoing patient advocacy" and I didn't get a sense that the study was set in an advocacy setting. This section of the GRIPP2 also requires rethinking as I don't get a sense of the things that went well and the things that did not go well.
The GRIPP2 has been revised and we removed reference to advocacy. The lesson learned section in the revised manuscript now provides specific details on things that went well / not well. Aspects of this section were written by our patient partner.

Also, I noticed that while this is a patient-oriented research, patients and family members make the smallest number of the three groups interviewed. Why the small sample size? There is also often distinction between patient and family perspectives. Why were the two grouped together? How many patients were actually participating in the study? Also, did some of the patients belong to multiple health care domains? There were multiple listed. A demographics table would be beneficial.

We agree that the sample size for patients/family members appears small. In Table 1, we clarify that we categorized each participant into one of the three stakeholder groupings (patients/family, clinicians, or system stakeholders) to reflect the context in which they primarily interacted with gowns.

However, many clinicians and system stakeholders also spoke of their experiences as a patient or family member of a patient; this is not reflected in the "patient/family" sample size. We also clarified that participants often belonged to many different domains.

Patients and family of patients shared very similar experiences and perspectives, even when representing very different healthcare domains. Therefore, it made sense to group them together and we could not justify recruiting additional patients/family. In contrast, the diversity and novelty of experiences/perspectives shared by systems stakeholders required us to seek additional participants in this group to gather adequate information about their experiences and perspectives.

Please see response to item 40 and the manuscript regarding the added demographics table (Table 1).

As noted, the "Patient Engagement" section should include more details about how the patient advisor participated in the project and not just in what parts of the study.

Thank you for this suggestion. We added details.

The COREQ doesn't provide more details about the analysis and details on the analysis is lacking. How many individuals participated in the analysis? Were they members of the research team? How was a codebook established? Was a codebook established/ how were the themes organized? How was feedback and triangulation established? Why was thematic analysis chosen as the mode of analysis?

The analysis section now addresses your questions.

The results of the paper are fantastic but I feel it could be condensed for better readability.

In the revised manuscript, we did our best to cut repetitive and unnecessary content.

The paper could really benefit from a fuller discussion of the findings in context of the literature. Only 4 studies were cited and not explored in detail. The authors draw attention to the fact that an inherent power imbalance is present between decision makers and gown users, and the patient perspective is not prioritized. Is this speaking to the findings of the study? Or is this found generally in the literature? Also, it is unclear where the power imbalance lies. Is it because patients are not consulted in the decision-making process? Is it because decision-makers do not know about patient needs? Is this concern about power imbalances seen in the literature?

We added to the discussion and included new citations. Unfortunately, there is little peer-reviewed gown literature to draw from. This limited our ability to compare to existing literature, yet reinforced the importance of our study and future work in this area. We removed the vague content on power imbalances.

Overall, the study is important and timely but several sections of the paper require closer attention and revision, particularly as it pertains to patient engagement.

Thanks again for your helpful review.

Reviewer 3: Lise-Anne Lavigne (Patient partner)

I don't like the title, "Exposing the Gown". This study is important to all concerned, and its value is in exposing the shortcomings of the gown. People's ability to do their jobs, patients' requests for comfort and privacy are taken seriously. The title could reflect this. [Editor's note: please see Editor comments on revising the title.]

Thank you for this suggestion. We revised the title. Please see response to item 2, as well as item 51 containing notes from the editor.

Reviewer 4: Brian Cho / Maritime SPOR SUPPORT Unit, Patient Partner - SPOR MSSU

I am reviewing this paper in the context of a patient partner peer reviewer. As such I followed the framework outlined here: Patient-Oriented Research Collection: Information for Peer Reviewers I CMAJ Open

Do the researchers provide a clear description of how they engaged patients in their research?

Yes, detailed in the Methods: Design, Data Sourcing and Setting section. The researchers provided a good description of the design of the questions, recruitment of participants, and how patient perspectives were incorporated into the study.

We appreciate your review. Thank you.

Were patients engaged in various phases of the project? (e.g., Were patients involved in identification of priorities for what should be studied, in how the research should be done, in analyzing or making sense of the data or in disseminating the findings?)

Please see response to item 60.

Did patients contribute meaningfully to the research (rather than just as a participant, or as a token member of the research team)?

Detailed in the Methods and Lessons Learned from Patient Engagement, a patient partner (CA) was identified as a member of the research team; CA was involved in recruitment, interviewing, shaping the interview guides, and data/thematic interpretation. This demonstrated a strong interest in having a patient representative on the research team. CA's perspective seemed to have been incorporated during several levels of study design, execution, and analysis. Further, the supplemental GRIPP2 checklist highlighted goals and rationale for patient and public involvement and it was good to see the checklist included and the authors efforts to implement each checklist item.
This is great to hear. Thank you.

Do the researchers describe how the engagement of patient partners added value (or did not add) to the results or outcomes of the study?

Yes, detailed in Lessons Learned from Patient Engagement and GRIPP2 checklist supplemental. The authors did a good job explaining how patient partner engagement added valuable insight into study design and execution. A small critique, I would like to see components of the GRIPP2 detailed in the patient engagement section within the Methods.

Please see response to item 60. We added details regarding patient engagement in multiple sections in the manuscript.

Do the researchers describe any challenges with engaging patients in the study?

Detailed in the GRIPP2 supplemental, the authors highlighted the difficulty of coordinating interviews with a patient partner who was well integrated into the hospital network. As previous relationships with the patient partner had to be considered when conducting interviews.

In the Results section the authors mentioned that interviewees often spoke of their experiences across the listed stakeholder domains. Whether or not this proposed a challenge was not stated directly in the paper. No other mention of challenges with patient engagement was mentioned in the paper.

Please see updated section on lessons learned.

Does the article include lessons learned from using a patient- oriented approach to research, so that others can learn from their experience?

A short paragraph was included as Lessons Learned from Patient Engagement. Further detail was included in the GRIPP2 supplemental which detailed impacts of the patient partner on data acquisition, community connection, and detailed how the patient partner was recruited to be a part of the study. Personally, I would have liked to see parts of this specifically checklist item 5, to be included in the body of the paper if possible.

Please see response to item 60. We added details regarding patient engagement in multiple sections in the manuscript.

In your opinion, are the outcomes of the research ones that will make a real difference to patients, their families and their providers?

Yes, I think the findings presented in this paper does a great job exploring the experience of hospital gowns across many stakeholder groups. The breadth of opinions detailed are valuable and provide important insight when making decisions regarding the utility, implementation, and design of hospital gowns in the future. It was evident that a patient partner was involved in the entire study process and the efforts made to include patient input are noted and appreciated.

Thanks again.