Author's response to reviews

Title: Constructions of sex and intimacy after cancer: A Q methodology study of people with cancer, their partners, and health professionals

Authors:

    Janette Perz (j.perz@uws.edu.au)
    Jane M Ussher (j.ussher@uws.edu.au)
    Emilee Gilbert (e.gilbert@uws.edu.au)

Version: 2 Date: 20 February 2013

Author's response to reviews:

MS: 1630135203797391 Constructions of sex and intimacy after cancer: A Q methodology study of people with cancer, their partners, and health professionals.

Thank you for consideration of our manuscript for publication in BMC Cancer. We thank the reviewers for their careful read and their constructive feedback. We have revised the manuscript according to the reviewers’ comments.

REVIEWER (AMANDA HORDERN)

MAJOR COMPULSORY REVISIONS:

Nil

MINOR ESSENTIAL REVISIONS:

1. “Varimax rotation and centroid method requires further definition”.
   • For the centroid method, the following has been added:
     “This extraction technique maximizes the total explained variance with each successive factor extracted. The openness and permissiveness of this technique allows the researcher to examine the data set from a variety of perspectives [1].”
   • For varimax rotation, the following has been added:
     “In Q analysis, a varimax rotation positions factors so that the overall rotated solution accounts for as much of the explained variance as possible. This is achieved by ensuring that each Q sort (participant) has a high factor loading on only one factor, an analytic technique that can reveal the majority viewpoints of the sample[1].”

2. “Figure 1 grid was missing under heading – looks like it was located after tables”.
   • As per the BMC Cancer journal style guidelines and upload instructions, the Figure 1 legend appears in the main manuscript text file at the end of the document rather than being part of the figure file. A separate figure file has been
3. “Discussion, paragraph 1: minor revision of wording to enhance readability:
Consideration of the endorsements of factor arrays within each factor and the sociodemographic…”
• Has been revised to read:
“Careful consideration of the statements endorsed within each factor along with the socio-demographic characteristics of participants who defined these factors and their interview comments, allowed for a more nuanced interpretation of the salient beliefs represented in these distinct viewpoints.”

DISCRETIONARY REVISIONS:
4. “Would be interesting to note how many patients were newly diagnosed/experiencing advanced cancer, as these categories were alluded to in discussion”.
• The following text has been included:
“Seventy-one participants reported one cancer diagnosis (89.9%) and 8 reported multiple cancer diagnoses (10.1%), with 69% being in remission, with treatment completed, 28% in active treatment, and 3% bereaved partners”.

5. “Under Factor 1: paragraph 3, it would be good to note if quotes came from health professionals or patients/partners, as reviewer was attempting to unsuccessfully deduce this from the data- and this would add to question re ‘mismatched’ perspectives”.
• Descriptors have been added for all interview quotes.

6. “As the authors are recognised for introducing the term ‘renegotiated’ sexual and intimate experiences, it would add value to refer to previous author definitions of renegotiated sexuality and intimacy”.
• The following text and references have been added:
“…successful sexual renegotiation, the development of alternative sexual practices when coital sex was difficult or painful [2, 3], resulted from couples “being able to communication”.”

REVIEWER (JENNIFER REESE)
The reviewer does not categorize recommended revisions as major, minor, or discretionary. Rather, general comments are made followed by specific recommendations for each section of the manuscript. To adequately address this comprehensive and helpful review, we have provided responses to the general comments (summarized), and then proceeded to revise the manuscript according to the specific recommendations per section.

GENERAL COMMENTS:
1. Extreme wording of Q set statements may have marginalized the perspectives of patients’ or providers’ viewpoints, or represent a social desirability measure. “It
is that far more common, far less extreme, and far more complex perspective (i.e., of the patient/partner who has challenges and is working through them) that I am concerned is getting lost here.”

• As the reviewer notes, the composition of the Q set is very important to the overall outcome. Although there is no single or correct way to generate a Q set, the authors did closely follow the Q set generation guidelines recommended by leading Q methodologists[4]. These steps are described in the manuscript under the sub-heading “Item sampling – development of the Q set”.

• Watts & Stenner [1], identify two characteristics for an effective Q set – coverage and balance. As to coverage, “the items must cover all the ground within the relevant conceptual space” pg. 58. To this extent, the authors do feel that the final Q set of 56 items does broadly represent the opinion domain that was elicited through an extensive review of the academic literature on cancer and sexuality, media and popular culture materials, and pilot interviews with people with cancer, their partners and health professionals. The final Q set reflected the range of opinions expressed in these sources.

• As to balance, it is important to ensure that Q set is not biased towards a particular viewpoint. To satisfy this requirement, the authors took care to ensure that within the 56 items, 7 themes were represented, with ‘positive’ and ‘negative’ perspectives represented. For example, the reviewer drew special attention to 2 items - “If a man cannot get an erection there is no point in being intimate” which is balanced against items such as “Intimacy means more than just sex” or “If people with cancer and their partner cannot have sexual intercourse, they find other ways to be sexually intimate”; and “When a person is diagnosed with cancer, sex becomes taboo”, which is balanced by items such as “Open communication between people with cancer and their partner is important to a satisfying sexual relationship” and “A person with cancer/or partner should be able to talk about their sexual needs”.

• The content and face-validity of the final Q set was subjected to an independent assessment and review by oncology clinicians and consumer representatives drawn from an advisory committee (noted on pg. 8).

• As Table 1 indicates, 7 factors were identified but only 3 met the criteria for further analysis and interpretation. Across the 7 factors, there was variability in the endorsement of Q statements across the sorts (participants). This can be taken as evidence that the Q set was not subject to social desirability effects, as the range of possible rankings (from -5 to 5) were represented across items, suggesting that participants were given opportunity to express their viewpoint. As per standard reporting conventions for a Q study, only those factors that met the criteria for further analysis are described.

• Where appropriate, these underlying assumptions and clarifications have been included in revisions to the manuscript.

2. Overall positive representation of patient-provider communication, that may have resulted from the inclusion of “so many psychologists and social workers, who are who are trained to discuss such sensitive issues, yet who serve a less primary role in many cancer patients’ care than their oncologists and nurses,
potentially confounding the results”.

• As noted in “Recruitment and participants”, 37 health professionals were included in the sample. Fifty-four per cent (N=20) were health care practitioners (doctors or nurses) with the remaining 46% (N=17) being allied health workers (psychologists or social workers) working in oncology. These proportions are comparable with the participants that loaded on Factor 1 (Table 2). That is, 60% of the doctors and nurses in this sample endorsed the viewpoint expressed in this factor as did 70% of the allied health professionals suggesting agreement across these groups.

• In Q methodology, strategic sampling is recommended to ensure that a broad range of perspectives is represented, including the recruitment of participants who are likely to express an “interesting or pivotal point of view” [1: 71]. To meet this standard, the final sample in this study included primary care providers and allied health care providers working in oncology.

• Where appropriate, these underlying assumptions have been included in revisions to specific sections of the manuscript.

3. Difficulty in inferring behavior from attitudes. “The critical difference between attitudes and behaviors is not adequately acknowledged here, and I am afraid that the authors have occasionally inferred actual behaviors from self-reported attitudes”.

• The authors agree that attitudes are only a predisposition to behave, acknowledging that there is a substantial body of evidence that suggests that attitudes are at best, only moderately related to behaviour. Despite this, “attitudes are central, relevant constructs in health education and promotion, and the field generally” [5: 208]. The manuscript has been revised accordingly in the “Results” and “Discussion” to so as not to infer actual behaviours from the viewpoints expressed in the Q sort. Where references to behaviours are made by participants in the semi-structured interview data, these are recorded as such.

4. Concerns over the generalizability of the results. Eg. “the generalizability of the “three factors that emerged”.

• As a non-inferential procedure, Q analysis cannot be used to draw inferences to a wider population of people. Rather, as noted on pg. 5, “Q methodology provides a means for sampling subjective viewpoints, and can be used to identify patterns, including areas of overlap or difference, across various perspectives on a given topic [6, 7]”.

• Q methodology aims to establish the existence of particular factors or viewpoints, not people, which can be used to generalize to theory [1]. This is in line with the principle of “moderatum generalizability” where “aspects of [the research focus] can be seen to be instances of a broader set of features” [8: 215]. For example, such theoretical generalization is made on pg. 19 with reference to the PLISSIT model and pg. 20 in the rejection of the coital imperative.

ABSTRACT:
INTRODUCTION:

5. “It was not clear how the authors were aiming to address the mismatch between patient and provider perspectives on sexuality in cancer … given that patients and providers were combined into one larger group”.

• An important aspect of Q methodological design is that Q sorts are gathered from as many of the obviously pertinent demographic groups as possible combined into one P set (participant set) [1]. In Q factor interpretation, examination of which sorts (participants) load on a factor, allows the researcher to assess any sociodemographic characteristics associated with different perspectives.

• To clarify the aim of addressing the “mismatch” between health professionals and patient perspectives on sexuality and cancer, the following has been added to the manuscript:

“… by examining the perspectives of health professionals alongside those of people with cancer and their partners”.

6. “I think it would have been quite interesting to separate patients from providers to examine whether the patterns differed, although I understand that by combining the patients and providers, the authors had enough of a sample size for the factor analysis and would have jeopardized this by splitting up the groups”.

• As noted in response to 5, Q analysis is designed to identify shared perspectives amongst sorts, with sociodemographic characteristics used to inform the interpretation of the resulting factors. This factor interpretation is presented on pages 12-18 where sociodemographic differences in the sorts endorsing each factor are profiled. Separation of the participant set according sociodemographic characteristics would violate a fundamental principle in Q methodology[1] and prohibit further the factor interpretation.

• As to sample size requirements, “the factor analysis performed in Q methodology is used to identify associations between patterns expressed by participants, a procedural inversion to conventional factor analysis that is used to identify associations between variables”(pg. 6). Hence, the minimum ratio of participants to items commonly applied to traditional factor analysis “should not be applied to Q methodology”[1: 72]. As a recommended guideline, multiple-participant Q methodology studies usually consider 40-60 participants to be adequate for a 60 item Q set [9].

7. “I did not feel that there was enough of a rationale behind what this study adds that is unique to the literature … what is new about this method for assessing sexuality-related attitudes”.

• The rationale for this study adding something unique to the literature is outlined in the “Background” on pages 4-6. In summary, unique features include (1) the
examination of health professional, patient and partner perspectives in the one study, that is, a range of perspectives; (2) the inclusion of a broad range of cancer types when previous research has focused upon reproductive cancers; (3) the inclusion of partners of people with cancer who been omitted from sexuality and cancer attitude research; and (4) the use of Q methodology in the cancer context.

• An extensive review of Q methodology and its unique features for assessing sexuality and cancer attitudes is provided on pages 5-11. In addition, the following has been added:

“Q methodology has been described as a more robust technique than alternative methods for the measurement of subjective opinion, and has been recommended in the study of attitudes within the health field [5].”

• The rationale is further strengthened by revisions where appropriate to the manuscript highlighting the unique and distinctive features of the Q analysis.

METHOD:

8. “A more detailed explanation is needed of the use of Q sort methodology here and what makes it unique. Why was this chosen and what does it offer when compared with other methods?”

• The Q method and its application in this study is described on pages 5-10. In addition, the following text has been added:

“Q method begins with a Q set or sample which is composed of statements, rather than participants, reflecting Q’s focus with discourses and how discourses variously come together [9]. A participant group (P set) is selected from as many of the obviously pertinent demographic groups as possible for the topic [1]. Unlike traditional rating scales that work with absolute responses to statements, Q sorting involves the ranking of statements with relative agreement or disagreement, where statements only become meaningful in relation to position of other statements[10]. In Q analysis, an inverted factor analytic procedure, overall configurations of statements, or factors, are produced that are shared by the participants who load onto to that factor, a procedure that detects associations between patterns expressed by persons [10]. These features of the Q method are described below for the current study, with further description of the principles and method of Q methodology described elsewhere [1].”

9. “simplifying their terminology and using less reified terms”

• Manuscript amended as necessary and where appropriate.

10. “The authors should more clearly state what the inclusion criteria were of this smaller study.”

• The following text has been added:

“Of the 873 survey respondents, 274 responded positively to an invitation to take part in a Q sort activity and semi-structured individual interviews. We selected 79 for interview, representing a cross section of cancer types and stages, gender, and sexual orientation, reflecting the larger study population”.
11. “I am not clear on what happened to the individuals who participated yet were not included in the final three factors”.

• As noted in the “Background”, “the focus in Q methodology is not the ‘constructors’ (the participants), but the ‘constructions’ themselves [9]”. To articulate this assumption with regards to the results, the following text has been amended to read:

“In line with the aim of identifying shared perspectives, interpretable Q factors were selected if they met the stringent criteria of eigenvalues greater than one and at least two factor exemplars, that is, Q sorts (participant responses) loading significantly upon one factor alone [4]”.

12. “there is no information on stage of disease or treatments”

• The following text has been added:

“Seventy-one participants reported one cancer diagnosis (89.9%) and 8 reported multiple cancer diagnoses (10.1%), with 69% being in remission, with treatment completed, 28% in active treatment, and 3% bereaved partners”.

RESULTS:

13. “Define centroid analysis”.

• For the centroid method, the following has been added:

“This extraction technique maximizes the total explained variance with each successive factor extracted. The openness and permissiveness of this technique allows the researcher to examine the data set from a variety of perspectives [1].”

14. More descriptors for the verbal quotes to indicate who had said them.

• Descriptors have been added for all interview quotes.

15. “remove the quote using questionable language”

• Text removed.

16. For Factor 3, “describe these in numbers and ratios rather than percentages”.

• Text revised with numbers not percentages.

DISCUSSION:

17. “What do the authors mean by “different shared subjective viewpoints”?  

• Manuscript revised to simplify the terminology (see comments for #9).

18. Unclear what the authors mean by ‘bloody rapt’.

• This direct quote from a cited paper has been amended to include “very relieved”.

19. “In general I find the discussion somewhat misleading in that it presents the view that the results in the study espouse the authors’ agenda of renegotiation of sex”
• The authors have been mindful not to espouse any particular agenda, but present the results of this Q methodology alongside current research exploring constructions of sexuality in the context of cancer. The following text has been added making reference to previous research that has identified different experiences of sexuality in the context of cancer:

“This stands in contrast to previous reports of cessation of sex and intimacy when coital sex is not possible after cancer [5], and reports of high levels of distress associated with sexual changes after cancer [12].”

And

“… are very distressed about sexual changes and not able to renegotiate sexual practices …” as a group of participants that may not have been captured in the current study.

20. “Did not agree that this study showed that patients’ and provider perspectives are no longer mismatched. This would appear to be an overstatement”.

• The certainty of this statement has been revised to read:

“It also suggests that Australian health professional and patient perspectives on sex after cancer may no longer be as “mis-matched” as previously reported [11].”

REFERENCES:
11. Hordern AJ and Street AF: Communicating about patient sexuality and