Author's response to reviews

Title: A Systematic Review of Symptom Assessment Scales in Children with Cancer

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Author's response to reviews: see over
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Dear Editors,

We wish to thank you and the reviewers for the careful review and constructive comments regarding our manuscript entitled, “A Systematic Review of Symptom Assessment Scales in Children with Cancer” (1396533948674823). Based upon these comments, we have modified the manuscript and believe that the manuscript has been much improved by these changes.

Please find below an itemized list of responses to the comments. We look forward to further correspondence with your office.

Yours sincerely,

Lillian Sung MD, PhD
REVIEWER #1:

1. The authors conducted a systematic search for published articles that pertained to assessment of symptoms in pediatric cancer patients. This issue is a relevant one that may be of interest to readers of BMC Cancer. The paper is succinctly and clearly written and the authors’ search methods appear to be logical, reliable, and thorough.

Response: Thank you very much for these comments.

2. A main issue for the authors to consider is to include more specific information about the symptom assessment measures used in pediatric cancer research. Despite the authors’ stated intention to review or describe the existing symptom assessment tools, very little detail is presented on the actual measures that were identified in the literature search. Providing additional information about the measures (see below) would strengthen the utility of the paper to clinical practice and also aid investigators in selecting or adapting existing measures for specific research aims related to the screening of physical health symptoms in pediatric cancer patients. Specifically, it would be helpful for the measures themselves to be listed and briefly described (e.g., How many items? Scope of symptoms? Who reports? What scale is used? Age range of patients assessed? How often cited in the literature?). It would also be potentially useful to know how many of these measures included questions pertaining to the nine symptoms that have been included in the ESAS. This could appear in a table to provide readers with a clear and accessible means to review the measures.

Response: We agree and have created a new Table 2 that illustrates the characteristics of the scales. In particular, the number of items, number of dimensions and their names, and type of scale are included in this Table. We struggled with including the actual symptoms because of their number. For example, for the MSAS 10-18, there are 30 items and with the Dupuis instrument, there are 69 or 71 items. Consequently, we have listed each symptom only for instruments that contain < 15 items. The modifications to accompany these changes can be found in the Methods:

“We also then described the details of the identified scales.”

and Results as follows:

“Table 2 illustrates the details of the identified instruments including the number of items, description of items for scales that included < 15 items, dimensions and scale types.”

In terms of the other elements, we have reported the age range of patients assessed and who reports in Table 1. Table 1 illustrates the number of times the instrument was used, which we felt was more meaningful than the number of times the instrument was cited.
3. The title as written gives the impression, at least to this reader, that the individual symptom measures were to be reviewed or evaluated in some detail. The authors may consider changing the title to reflect what the paper presents: the identification and use of symptom assessment tools used in the pediatric cancer literature. Alternately, the inclusion of more detailed information about each measure would render the existing title an appropriate one.

Response: We hope that the inclusion of Table 2 allows us to maintain the original title although would be happy to change the title if the Reviewer prefers.

4. In the Abstract, it would be helpful to briefly clarify that the authors are referring to a review of assessments of primarily physical health symptoms. The first two sentences of the Abstract “Conclusions” are redundant with information in the results; rephrasing these sentences, merging the Results and Conclusions sections, or adding additional detail to the Conclusion would clarify this section.

Response: We did not restrict our review to primarily physical health symptoms but rather, simply reported the results of our review of symptom assessment scales. We have rephrased the abstract to make it less redundant as follows:

“We failed to identify any symptom assessment scales that were used as a symptom screening tool. There is a need to develop such a tool for use in children with cancer.”

5. In the Introduction, it would also be beneficial for the authors to briefly clarify the type and scope of symptoms they included in their search for symptom assessment tools. In their exclusion criteria, the authors note that assessments measuring only psychological symptoms were not included, by which it can be inferred that measures of primarily physical health symptoms were being considered. Although this may already be assumed by most readers, it would help to define the scope of the targeted review more precisely at the outset.

Response: In our search strategy, we did not limit the scope of symptoms other than to exclude instruments that only measured psychological symptoms. In other words, many instruments could have been heavily weighted toward psychological symptoms but were included as long as at least one physical symptom was included. Our goal was to identify instruments that addressed symptoms apart from purely psychological symptoms. However, we have identified this as a Limitation of our study as below:

“Another limitation of our study is the exclusion of scales which address psychosocial symptoms alone.”

6. Early in their Discussion, the authors may perhaps more accurately conclude that their review of available data indicated that symptom assessments are not used for symptom screening, or that there is a lack of information about the utility of these measures for symptom screening purposes. From the evidence provided, it seems
difficult to conclude that the existing measures reflect an absence of screening measures; rather, there is not sufficient evidence from which to characterize the reliability and validity of their use towards that aim. Indeed, the authors note that a logical next step is to carefully evaluate these identified measures for that purpose. As such, it would be of interest for the authors to list or discuss possible essential features that would be necessary in an ideal screening instrument (aside from merely that it be brief): What scope of symptoms should be included? Would it be critical that a child-report version be available? What age range should be evaluated? Etc..

Response: We agree that this is an excellent point. In order to address this point, we have added the following to the Discussion:

“In considering an ideal screening instrument, the scope of symptoms should include the most important symptoms to the patient. The instrument should take into account the perspective of the patient’s family regarding symptom impact, be applicable to children of all ages and have adequate psychometric properties such as reliability and validity. Both parent-proxy versions and child self-report versions would be important to address the needs of children of different ages and cognitive abilities.”

REVIEWER #2:

7. The paper reviewed an important research area that has been ignored but much needed in pediatric oncology care. Indeed that there is a great need to establish a symptom assessment tool in this population. However, to fully contribute to the topic, this paper is missing some important information.

There is no review criterion to separate the availability of single symptom assessment tools and tools for multiple symptom assessment. For example, for screening purposes, perhaps pain scales have been used most, not been reviewed in pediatric care in this paper. Given that multi symptom assessment is only getting more research attention in recent ten years, pain assessment has been the leading symptom for both measurement and management in the past two decades. It is worth an introduction of single symptom (or clearly defined clinical conditions) assessment tools to readers, such as for pain, for fatigue, and for GI symptoms.

Response: We agree that the issue of single symptom scales is extremely important. However, they were outside of the scope of our review and consequently, we specifically excluded screening symptoms tools that evaluated a single symptom according to exclusion criterion 8 as below:

“(8) Symptom assessment scale not appropriate because: a) only included psychological symptoms; b) included items that are not symptoms; or c) only measured a single symptom.”
However, in order to address the reviewer’s concern, we have added the following as a Limitation:

“A final limitation is that our review excluded single symptom scales. Although these scales are also extremely important in clinical practice and research, they do not address our goal to identify a scale which could either be used as a symptom screening tool or adapted for this purpose.”

8. For multiple symptom assessment tools, HRQOL tools always included some important symptom items, either a subscale to company with functioning scales or been the part of tool. For example, QoL tools often include items as author identified 5 most common symptoms form symptom tools. Although the ideal items for comprehensive symptom assessment in pediatric cancer patients have not been identified, this precious resource on both items selection and symptom prevalence data from QoI measures cannot be ignored for pediatric symptom research history. For example, peds-FAACT for cachexia related QoI for pediatric cancer patients; PedsQL; PCQL-32, and so on. It’ll be more convincing for including these data on this review.

Response: The Reviewer makes an excellent point. In our original design of this study, we made a distinction between QoL measures and symptoms screening tools as described in the Background section:

“It is important to distinguish between QoL instruments and symptom assessment scales as these are closely intertwined but distinct. QoL is a multidimensional construct grounded in the World Health Organization’s definition of health in which health is not merely the absence of disease, but rather, a state of complete physical, mental, and social well-being.[1] Many QoL instruments include symptom assessment although their purpose is to measure the construct of QoL rather than the symptom specifically. In contrast, the purpose of symptom assessment scales is to identify and measure symptom burden.”

In addition some QoL measures such as the PedsQL include elements that are not symptoms such as “missing school to go to the doctor or the hospital”. While these instruments are extremely important for documenting the impact of treatment on health, they are not appropriate to be used as symptom screening tools and consequently, they were excluded from our review.

9. It’ll be very helpful if author could add a column for introducing the name of symptom items by each tool on Table 1.

Response: Please see response to Comment #1.
REFERENCES