PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Physicians' attitudes towards the media and peer review selection of the "best cancer doctor": comparison of two different selection methods
AUTHORS	Shin, Dong; Cho, Juhee; Yang, Hyung-Kook; Kim, So Young; Lee, Soohyeon; Nam, Eun Joo; Chung, Joo Seop; Jeong Soo, Im; Park, Keeho; Park, Jong Hyock

VERSION 1 – REVIEW

REVIEWER	Caryn Chan Mei Hsien The National University of Malaysia
REVIEW RETURNED	25-Sep-2017

GENERAL COMMENTS	Title: Physicians' attitudes towards the selection of the "best cancer doctor" by the media: comparison of two different selection methods. This study examines an under-examined topic, and adds to the literature on this area from the perspective of physicians. This study is important because publicised reports of physician rankings and reputation could influence the way patients make decisions about where to undergo treatment and their choice of physician, regardless of the reliability of the metrics used. Making a comparison between how the media versus peer evaluation system selects "the best cancer doctor" from the perspective of physicians themselves is timely, given the growing interest in providing patients with information to encourage active health decision making and participation. It is also especially relevant for market-based health care systems in countries like Korea where this study was conducted as patients are able to choose their cancer physician. This study however can benefit from several small changes. May I suggest that the title be tweaked along the lines of "Physicians' attitudes towards media and peer review selection of "best cancer doctor": a comparison of two different selection methods." While the sample size was large with an acceptable response rate, the study design was inadequately described. Details on the study method are scant and can benefit from provision of additional informational such as how the nationwide survey was conducted. You might want to consider including a CONSORT diagram type of figure to delineate the steps of the sampling procedure. Response rates should be calculated according to the two methods recommended by the America Association of Public Opinion Research, with (1) the number of eligible physicians as the denominator, and (2) with the number of those who were able to participate.

	In the measures section, it is merely stated that 'Given the paucity of the relevant research, we developed a questionnaire based on the literature and after a discussion among the researchers.' The development of the instrument used should be furnished with greater detail. Describe the background of these researchers who formed the expert panel. Were subsequent focus groups used to develop the survey instrument? Was it piloted and subsequently revised? How were potentially eligible respondents contacted? Was this an online or telephone survey, or of the paper and pen variety? Face-to-face or self-administered? How many physicians refused participation? Additional information on hospital selection criteria and characteristics will be informative. Please add these details to the methods section in the abstract as well. In terms of statistical analysis, were results weighted? If so, how did findings differ from unweighted results? Multivariate analyses appears not to have been attempted. For Table 2, the term 'oncologists' in the title should be changed to 'respondents' or 'physicians'. It would be useful to provide the details of the types of physicians by specialty who provided clinical support for cancer care. For Table 4, clarification is needed on what the 'number mentioned' refers to. Could the findings be stratified by characteristics of the respondents? For the results in general, would it be possible to identify predictors of perceived reliability and perceived usefulness for each of the selection method used? For example, respondents can be dichotomised by negative/ positive perception of a particular selection method, using separate logistic regression models for media/ peer review to identify physician characteristics. This might generate greater insight into your results, such as whether more senior physicians (those with greater time since board certification) were more likely to endorse peer evaluations as credible, fair and valid compared to media review since these were likely to be in their favour. The discussion was well written, with the authors conceding that public reporting can be an important quality improvement strategy provided that a regulatory mechanism is set in place. I would strongly recommend acceptance of this manuscript for publication once these points are addressed.

REVIEWER	Haruka Nakada National Cancer Center, Japan
REVIEW RETURNED	27-Sep-2017

GENERAL COMMENTS	I agree with the authors that the information contributing to doctor selection would be important for patients and families. They invest a lot of time for relevant information seeking; media play an essential role in providing health information for patients and families. However, I have found a few issues that will improve the manuscript. First, why did you focus on the physicians' attitudes? I recommend you to put more specific reasons in Introduction. This would be the essential point of this study. Second, why did you choose the two selection methods; selection by media and peer-reviewed selection?

	As you mentioned in the limitation, there are many other evaluation system of doctors. I understand that media have impacts on both patients and doctors, however, the reason you chose the two remains unclear. Third, the definition of "impact on the health care system" should be re-considered. You put the item saying "This would help to improve the quality of cancer care." in this section, but this is far from "health care system"; this would be "satisfaction of cancer care". Finally, the authors need to discuss implication for patients and families/caregivers. Current discussion focused on only regulation or guidelines for selecting methods.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name
Caryn Chan Mei Hsien

Institution and Country
The National University of Malaysia

Please state any competing interests or state 'None declared':
None declared.

Please leave your comments for the authors below
Title: Physicians' attitudes towards the selection of the "best cancer doctor" by the media: comparison of two different selection methods.

This study examines an under-examined topic, and adds to the literature on this area from the perspective of physicians. This study is important because publicised reports of physician rankings and reputation could influence the way patients make decisions about where to undergo treatment and their choice of physician, regardless of the reliability of the metrics used. Making a comparison between how the media versus peer evaluation system selects "the best cancer doctor" from the perspective of physicians themselves is timely, given the growing interest in providing patients with information to encourage active health decision making and participation. It is also especially relevant for market-based health care systems in countries like Korea where this study was conducted as patients are able to choose their cancer physician. This study however can benefit from several small changes.

Comment #1.
May I suggest that the title be tweaked along the lines of "Physicians' attitudes towards media and peer review selection of "best cancer doctor": a comparison of two different selection methods."

Response: Thank you for your excellent suggestion. We changed the title as advised.

Comment #2.
While the sample size was large with an acceptable response rate, the study design was inadequately described. Details on the study method are scant and can benefit from provision of additional informational such as how the nationwide survey was conducted. You might want to consider including a CONSORT diagram type of figure to delineate the steps of the sampling procedure. Response rates should be calculated according to the two methods recommended by the America Association of Public Opinion Research, with (1) the number of eligible physicians as the denominator, and (2) with the number of those who were able to participate.

Response: In Korea, National Cancer Center (NCC) has a role to develop and implement the National Cancer Control Plan (NCCP), and Cancer Control Policy Branch (CCPB) at NCC conducted a nationwide survey to find unmet needs and issues related to cancer control every year(?). For this survey, the CCPB asked administrators of the Cancer Control Department of each Regional Cancer Center (RCC) where is the designated center for NCCP to recruit the physicians considering their specialty (similar to quota sampling). Physicians were eligible for this survey if they were board certified physician who are involved in cancer care. In response to the reviewer's comment, now we included detailed information about nationwide survey in METHODS section as well as a diagram to explain study flow (page 9, paragraph 1-2).

"This study was performed as part of a nationwide survey which was conducted by the by Cancer Policy Branch of National Cancer Center to explore find unmet needs and issues related to cancer control every year.19-21 This study were administratively supported by Ministry of Health and Welfare, and 13 cancer centers (National Cancer Center and 12 regional cancer centers designated for national cancer control program) across all the administrative regions of Korea participated in the survey.

Physicians were eligible for this survey if they were board-certified physicians involved in cancer care. Study coordinators at each participating cancer center recruited physicians by attending faculty meetings or contacting potentially eligible physicians individually and explained the study purpose and details. Once a physician agreed to participate in the study, a paper-based survey questionnaire was given to the physicians and physicians self-administered the survey and returned them with informed consent. The study coordinators were guided to recruit physicians of various specialties so the sample can be representative of cancer care clinicians. Of the 901 eligible physicians contacted by the study coordinators, 680 (75.5%) agreed to participate in the study, and 678 (75.3%) physicians who completed the survey were included in this study (Figure 1). The study was approved by the institutional review board (IRB) of the NCC."

Comment #3.
In the measures section, it is merely stated that 'Given the paucity of the relevant research, we developed a questionnaire based on the literature and after a discussion among the researchers.' The development of the instrument used should be furnished with greater detail. Describe the background of these researchers who formed the expert panel. Were subsequent focus groups used to develop the survey instrument? Was it piloted and subsequently revised?

Response: The idea of this study was came from a criticism of the famous TV show, named 'Best doctor' in Korea. Most lay personals consider that the doctors who were broadcasted in this program are the real best doctors (with high profiles and qualification. However, many physicians do not agree with the selection process and think that hospitals used the program as an advertising tool of the physician or hospital. While we designed the survey, we tried to find relevant previous studies, however, there were almost no studies that could guide us. Then, our study team, a multidisciplinary group which is consisted with 3 healthcare services researchers, 3 supportive care oncologists, and 1 behavior scientist who are expert in patients education developed the questionnaire based on the concept of the health information in general. In addition, we conducted a pilot test with 5 physicians at the National Cancer Center and none of physician had difficulties or problem with the questionnaire. They agreed that the questionnaires were well described and understandable. In response to the reviewer's comment, now we included additional information about the questionnaire development in METHODS section like following (page 11, paragraph 1):

"Given the paucity of the relevant research, we developed a questionnaire based on the literature review and a discussion of the expert group. T

he expert group was comprised of 3 researchers in healthcare services and management, 3 supportive care oncologists and 1 behavior scientist who are expert in patient education, and they had several meetings to develop and finalize the questionnaire. In addition, a pilot study was conducted with 5 physicians at NCC. They all agreed that the questionnaires were well described and understandable. As none of the physicians participating in the pilot study had difficulties, no revision was made."

Comment #4.
How were potentially eligible respondents contacted? Was this an online or telephone survey, or of the paper and pen variety? Face-to-face or self-administered? How many physicians refused participation? Additional information on hospital selection criteria and characteristics will be informative. Please add these details to the methods section in the abstract as well.

Response: Please see our response to Comment #2. We also revised the ABSTRACT section as follows (page 3):

Design: Nationwide, cross-sectional survey
Setting: National Cancer Center and 12 Regional Cancer Centers across Korea
Participants: A total of 680 cancer care physicians participated in the survey (75.5% participation rate), and 2 were excluded due to incomplete response.
Outcome measures: Physicians' opinions on the credibility, fairness, validity, helpfulness to patients, their intention to use the information, and helpfulness to improve the quality of cancer care of the two different methods.

Comment #5.
In terms of statistical analysis, were results weighted? If so, how did findings differ from unweighted results? Multivariate analyses appears not to have been attempted. For Table 2, the term 'oncologists' in the title should be changed to 'respondents' or 'physicians'. It would be useful to provide the details of the types of physicians by specialty who provided clinical support for cancer care. For Table 4, clarification is needed on what the 'number mentioned' refers to. Could the findings be stratified by characteristics of the respondents?

Response:
The results were not weighted as we do not have exact information on the number and baseline characteristics of source population (cancer care physicians in Korea). We did not run multivariate analyses to find predictors of the positive attitudes toward "selection methods for best doctor" because of the following reasons. First it was not our study purpose. Second, when we did exploratory analysis, the attitudes towards two different selection methods were not different by the characteristics of the respondents, such as age or specialty, when we explored it. Therefore, we focused on the results of the descriptive analysis. As reviewer suggested, we corrected the term 'oncologist' to 'respondents' in Table 2, and provided the details of the types of physicians by specialty in the RESULTS section as following (page, paragraph);

"Rest of the respondents were physicians who provided clinical support to the oncologists (e.g. 51 radiologists, 42 pathologists, 26 pain specialists, 17 laboratory medicine physicians, 10 psychiatrists, 7 nuclear medicine physicians, 6 cardiologists, 6 rehabilitation specialists, and 9 others)."

'Number mentioned' means the number of physicians who provided additional comments similar to listed items. This was specified in footnote of Table 4.

Comment #6.
For the results in general, would it be possible to identify predictors of perceived reliability and perceived usefulness for each of the selection method used? For example, respondents can be dichotomised by negative/ positive perception of a particular selection method, using separate logistic regression models for media/ peer review to identify physician characteristics. This might generate greater insight into your results, such as whether more senior physicians (those with greater time since board certification) were more likely to endorse peer evaluations as credible, fair and valid compared to media review since these were likely to be in their favour.

Response: Thank you for the creative suggestion. We explored whether the attitudes towards two different selection methods are different by the characteristics of the respondents, such as age or specialty. However, there were no specific characteristics which predicted the attitudes, and we did not perform multivariate regression.

Comment #7.
The discussion was well written, with the authors conceding that public reporting can be an important quality improvement strategy provided that a regulatory mechanism is set in place.

I would strongly recommend acceptance of this manuscript for publication once these points are addressed.

Response: Thank you very much for your kind comments.

Reviewer: 2

Reviewer Name
Haruka Nakada

Institution and Country
National Cancer Center, Japan

Please state any competing interests or state 'None declared':
None declared

Please leave your comments for the authors below
I agree with the authors that the information contributing to doctor selection would be important for patients and families. They invest a lot of time for relevant information seeking; media play an essential role in providing health information for patients and families. However, I have found a few issues that will improve the manuscript.

Comment #1.
First, why did you focus on the physicians' attitudes? I recommend you to put more specific reasons in Introduction. This would be the essential point of this study.

Response: Thank you for this comment. We provided the reason for selecting cancer physician as our respondents for this study as following (page 8, paragraph2):

"As physicians who involved in cancer care with enough medical knowledge and who had experience or interaction with some of 'best doctors' on TV would provide fair insight on this issue than patients or public, we decided to explore cancer physicians' attitudes towards the selection of the "best cancer doctor."

Comment #2.
Second, why did you choose the two selection methods; selection by media and peer-reviewed selection? As you mentioned in the limitation, there are many other evaluation system of doctors. I understand that media have impacts on both patients and doctors, however, the reason you chose the two remains unclear.

Response: To our best knowledge, there is no scientific classification of the methods of selection of 'best doctor'. Although we tried to find relevant previous research, there were not many studies which can guide our study questionnaire.
The idea of this study was came from a criticism of the famous TV show, named 'Best doctor' in Korea. Most lay personals consider that the doctors who were broadcasted in this program are the real best doctors (with high profiles and qualification. However, many physicians do not agree with the selection process and think that hospitals used the program as an advertising tool of the physician or hospital. While we designed the survey, we tried to find relevant previous studies, however, there were almost no studies that could guide us. Then, we searched for real world examples of the methods for 'best doctor' selection, as detailed in INTRODUCTION section, and thought that 'media selection' and 'peer selection' seems to be on the opposite side of the spectrum in terms of transparency and could highlight the different attitudes toward different methods. Given the paucity of the relevant research, we developed a questionnaire based on the literature review and a discussion of the expert group. The expert group was comprised of 3 researchers in healthcare services and management, 3 supportive care oncolopgists and 1 behavior scientist who is an expert of cancer patient education, and they had several meetings to developed and finalized the questionnaire. In addition, a pilot study was conducted with 5 physicians at NCC. In response to the reviewer's comment, now we included details about the 2 methods in the METHODS section as following (page 11, paragraph 2):

"To compare the attitude towards different methods of selecting the "best cancer doctor," we selected two examples on opposite sides of the spectrum (Table 1). The first one is the peer-selection system, which is used in 'best doctor in America' in the US or 'Best cancer doctor and hospital' in Korea. The second is selection by media personnel without open and specified methodology which is used in 'This is worlds' super doctor' in Japan or 'Best doctor' in Korea."

Comment #3.
Third, the definition of "impact on the health care system" should be re-considered. You put the item saying "This would help to improve the quality of cancer care." in this section, but this is far from "health care system"; this would be "satisfaction of cancer care".

Response: As the reviewer pointed out, "impact on the health care system" might be misleading. Therefore, we used the term 'quality of cancer care' as used in the questionnaire (page 19, paragraph 1):

"Perceived usefulness for doctor selection and impact on the quality of cancer care"

Comment #4.
Finally, the authors need to discuss implication for patients and families/caregivers. Current discussion focused on only regulation or guidelines for selecting methods.

Response: Reflecting the reviewers comment, we added the following in the DISCUSSION section (page 27. Paragraph 2):

"Our study shows that media selection of 'best cancer doctor' is likely to be biased, and such program might provide misinformation the patients and their family."

VERSION 2 – REVIEW

REVIEWER	Caryn Mei Hsien Chan National University of Malaysia
REVIEW RETURNED	07-Dec-2017

GENERAL COMMENTS	Although I could not find the point-by-point response to the comments, I have examined the marked manuscript and am satisfied that the authors have addressed all queries raised by incorporating the suggestions in-text.

REVIEWER	Haruka Nakada National Cancer Center in Japan
REVIEW RETURNED	31-Dec-2017

GENERAL COMMENTS	I think the manuscript was revised well.