PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Journalists' views on media coverage of medical tests and overdiagnosis: a qualitative study
AUTHORS	O'Keeffe, Mary; Nickel, Brooke; Dakin, Thomas; Maher, Christopher; Albarqouni, Loai; McCaffery, Kirsten; Barratt, Alexandra; Moynihan, Ray

VERSION 1 – REVIEW

REVIEWER	Kim Walsh-Childers University of Florida, United States
REVIEW RETURNED	05-Dec-2020

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GENERAL COMMENTS	This is, in general, a well-written and interesting study that addresses an important issue. I would offer a few relatively minor suggestions for changes that I believe would strengthen the article.
	First, this is not, in fact, the first paper to examine journalists' views on the issue of overtreatment/overdiagnosis, although it may well be the first study of Australian journalists' views on this topic. I would encourage the researchers to examine work by Walsh-Childers & Braddock (2016) (https://www.tandfonline.com/doi/full/10.1080/10410236.2016.12540 79), which was a quite similar study of U.Sbased health journalists. It might be interesting to compare the similarities and differences in responses from these two studies.
	One advantage this study has over the earlier work is that it included broadcast journalists; in fact, the largest group of journalists worked for TV. I would have liked to see the authors discuss whether there were differences in the responses between broadcast journalists and those who worked for more text-based outlets (print and online).
	I would quibble somewhat with the characterization of academics who write for The Conversation and certainly with anyone from a peer-reviewed journal as "journalists." While The Conversation is intended for a lay audience, those who write for the website are, almost by definition, experts, so unless the individuals interviewed are former journalists or academics with expertise in health journalism, it seems odd to call them journalists. And an editor who works for a peer-reviewed journal is not really developing content for lay audiences anymore, so I'd like to see more explanation of why that individual was considered a "journalist." At the least, the article ought top acknowledge that these individuals would be expected to have somewhat different perspectives.
	In Table 1, the authors need to explain how they decided whether the journalists had "a lot," "some," or "very little" experience writing

about health. For that matter, why would the study have included anyone who had "very little" experience writing about health?

I would also be curious to know what percentage or what number of the journalists said they would seek clarification about conflicts of interest before they reported on a test. Previous research shows that it is quite uncommon for journalists to report on conflicts of interest, particularly in relation to tests, so one has to wonder if there was some social desirability influence at work in these responses. I also would have been interested to know what these journalists regarded as a conflict of interest among their sources.

It would have been useful to know why journalists felt it was so difficult to find "trustworthy experts for independent comment." It certainly isn't the case that Australia has any shortage of medical experts, so this comment made me wonder if the journalists simply didn't take/have the time to reach out to experts, couldn't find experts who would question the value of screening tests, or what would interfere with finding individuals with expertise.

On pg. 13, the authors mention that journalists thought researchers and "peak bodies" should communicate the harms of overtesting. I'd like to see a clarification of what they meant by "peak bodies."

Finally, one of the elements Walsh-Childers and Braddock mentioned from their interviews with journalists was that U.S. journalists commented on the tradition of including real-life patients who had experienced a medical problem in their stories; several noted that it's very difficult to find such patients who either were harmed by overtesting (because their health providers often are reluctant to acknowledge that a patient underwent unnecessary or harmful testing), and it's even more difficult to find patients who benefitted from something that did not happen. In other words, the traditional early testing story often includes one or more anecdotes about how early testing saved someone's life, but it's far more difficult to find an individual who did not experience unnecessary treatment or anxiety because he or she did not have a test he/she didn't need or that would provide no useful information. Perhaps this use of anecdotes is not such a strong tradition in Australia as it is in the United States, but the fact that journalists would have difficulty putting a human face on the issue of overtesting seemed to play a significant role in the lack of U.S. coverage.

I realize the authors will be working with space limitations, but I do think the article would be stronger if some of these issues could be fleshed out.

REVIEWER	Elaine Douglas
	University of Stirling
	Scotland
REVIEW RETURNED	21-Dec-2020

GENERAL COMMENTS	To the authors:
	This paper studies important issues surrounding the positive bias in reporting of diagnostic tests, and the under-reporting of overdiagnosis - a potential harm of early testing. The media play a significant role in the public understanding of health conditions, testing and treatments. This paper makes a welcome contribution to understanding the role that journalists play, and in its findings

and conclusions offers strategies to improve such health communication.

Minor revisions:

- 1. page 6 and page 7 cite the interview schedule as Supp file 2 and Supp file 1 respectively.
- 2. The study sample were 82% female. Is this reflective of the gender ratio of health journalists? Do the authors have any further reflections or insights into if, or how, this gender bias may affect the views gathered from the sample?
- 3. I had to look up the term 'peak bodies' I now understand it to be an Australian term. The authors may wish to consider giving further explanation for the wider audience who will be interested in this paper.

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Prof. Kim Walsh-Childers, University of Florida

Comments to the Author:

This is, in general, a well-written and interesting study that addresses an important issue.

Thank you for your positive comments.

I would offer a few relatively minor suggestions for changes that I believe would strengthen the article.

First, this is not, in fact, the first paper to examine journalists' views on the issue of overtreatment/overdiagnosis, although it may well be the first study of Australian journalists' views on this topic. I would encourage the researchers to examine work by Walsh-Childers & Braddock (2016) (https://www.tandfonline.com/doi/full/10.1080/10410236.2016.1254079), which was a quite similar study of U.S.-based health journalists. It might be interesting to compare the similarities and differences in responses from these two studies.

Thank you for this suggestion and we have now referred to the 2016 study by Walsh-Childers and Braddock in the Introduction and Discussion. In particular, we have referred to how the US journalists in this specific study referred to the role of diagnostic testing in encouraging overtreatment.

We added the following text to the final paragraph of the Introduction.

"To our knowledge, one qualitative study33 has previously examined US journalists views of media coverage of overtreatment. The sample of journalists in this study nominated overtesting (e.g. cancer screening) as an important driver of overtreatment."

We added the following text to Paragraph 3 in the Discussion.

"In a qualitative study33 examining US journalists' views of media coverage of overtreatment, the sample of journalists viewed the issue of overtreatment – together with overtesting – as a complex matter driven by strong public faith in healthcare and societal norms that make medical uncertainty difficult to accept."

One advantage this study has over the earlier work is that it included broadcast journalists; in fact, the largest group of journalists worked for TV. I would have liked to see the authors discuss whether there

were differences in the responses between broadcast journalists and those who worked for more text-based outlets (print and online).

Thank you for this point. The Australian Broadcasting Corporation (ABC) provides radio and online services, as well as television. We should have mentioned this in our manuscript. The majority of the ABC journalists in our study perform an online and/or radio role – not a television role.

We have now added this clarification in the legend at the bottom of Table 1.

"Note: The ABC provides radio, television, and online services. The majority of ABC employed journalists in this study perform online and radio roles."

I would quibble somewhat with the characterization of academics who write for The Conversation and certainly with anyone from a peer-reviewed journal as "journalists." While The Conversation is intended for a lay audience, those who write for the website are, almost by definition, experts, so unless the individuals interviewed are former journalists or academics with expertise in health journalism, it seems odd to call them journalists. And an editor who works for a peer-reviewed journal is not really developing content for lay audiences anymore, so I'd like to see more explanation of why that individual was considered a "journalist." At the least, the article ought to acknowledge that these individuals would be expected to have somewhat different perspectives.

Thank you for this point. Our two participants from The Conversation are journalists/editors. They oversee the selection of article topics and help steer the actual content of the articles. They also edit and approve the final version of the articles submitted by academics. Academics who submit their articles to the outlet would not be considered eligible for our study. Similarly, the editor from the peer-reviewed journal is a long time journalist (30 years) with much experience in mainstream media (e.g. print, radio, tv), who currently edits an online news service for the journal.

We have now added this clarification in the legend at the bottom of Table 1.

"The participants from The Conversation and The Medical Journal of Australia are journalists/editors who select, steer and edit news stories and submitted articles. They have former roles in mainstream media.

In Table 1, the authors need to explain how they decided whether the journalists had "a lot," "some," or "very little" experience writing about health. For that matter, why would the study have included anyone who had "very little" experience writing about health?

We have added the following explanations to Table 1 A lot (writes health articles full time) Some (every second week) Very little (less than once a month)

Our inclusion criteria for participating in this study were broad. Ideally all the journalists in the sample would have had significant health reporting experience, but due to the move towards more generalist journalists covering health matters we decided to include all journalists willing to participate in an interview about this topic. The one journalist with "very little" experience in our interview study was a recently graduated journalist who was about to start health stories at the time of the interview.

I would also be curious to know what percentage or what number of the journalists said they would seek clarification about conflicts of interest before they reported on a test. Previous research shows that it is quite uncommon for journalists to report on conflicts of interest, particularly in relation to tests, so one has to wonder if there was some social desirability influence at work in these responses. I also would have been interested to know what these journalists regarded as a conflict of interest among their sources.

Four journalists (18%) explicitly said they would ask about vested interests. Their understanding of vested interests focused on persons who stand to benefit financially from promoting and/or selling the test.

In light of the reviewer comments, we have added the following text to the last paragraph of Theme 2 (Ingredients of a 'good' story) in the Results.

"Four journalists explicitly said they would ask about vested interests, including financial gain from promoting and/or selling the test."

It would have been useful to know why journalists felt it was so difficult to find "trustworthy experts for independent comment." It certainly isn't the case that Australia has any shortage of medical experts, so this comment made me wonder if the journalists simply didn't take/have the time to reach out to experts, couldn't find experts who would question the value of screening tests, or what would interfere with finding individuals with expertise.

It seemed to be due to a combination of the factors you mention. Lack of time was frequently mentioned by journalists. They said if the press release did not come with independent comment, they often lacked the time to get one. Sometimes it was difficult to get an expert in specific health areas. Further, the journalists felt that researcher availability was an issue. Specifically, it was difficult to get in touch with certain researchers as they may not answer calls/emails.

We have added the following text to Paragraph 3 in Theme 5 (Barriers to critical coverage) in the Results

"If a press release did not come with an independent comment, journalists often lacked the time to find one. Some felt it was difficult to access experts on certain health topics. Researcher availability was also mentioned as an issue. Specifically, it was difficult to speak with certain researchers as they may not answer calls/emails."

On pg. 13, the authors mention that journalists thought researchers and "peak bodies" should communicate the harms of overtesting. I'd like to see a clarification of what they meant by "peak bodies."

We have replaced the word 'peak' with 'national' and provided an example (e.g. The Cancer Council).

Finally, one of the elements Walsh-Childers and Braddock mentioned from their interviews with journalists was that U.S. journalists commented on the tradition of including real-life patients who had experienced a medical problem in their stories; several noted that it is very difficult to find such patients who either were harmed by overtesting (because their health providers often are reluctant to acknowledge that a patient underwent unnecessary or harmful testing), and it is even more difficult to find patients who benefitted from something that did not happen. In other words, the traditional early testing story often includes one or more anecdotes about how early testing saved someone's life, but it is far more difficult to find an individual who did not experience unnecessary treatment or anxiety

because he or she did not have a test he/she didn't need or that would provide no useful information. Perhaps this use of anecdotes is not such a strong tradition in Australia as it is in the United States, but the fact that journalists would have difficulty putting a human face on the issue of overtesting seemed to play a significant role in the lack of U.S. coverage.

Thank you for this comment, and we agree this is an interesting and important point. While we agree that this need for anecdotes is a central challenge for journalists trying to better cover overuse, it did not seem to come up significantly in our interviews. Indirectly related to this issue, journalists felt they needed more specific support from academics in speaking about the harms. Two journalists also felt uncomfortable talking about the harms of cancer screening in particular since it would be an emotional issue for families affected by cancer, advocacy and patient groups.

We have added the following text to the last paragraph in Theme 5 (Barriers to critical coverage) in the Results

"A small number of journalists said they tended to feel uncomfortable talking about harms including overdiagnosis as they can be difficult to communicate, and have potential to provoke unpleasant emotions in people who may be affected by a health condition (e.g. cancer)."

I realize the authors will be working with space limitations, but I do think the article would be stronger if some of these issues could be fleshed out.

Thank you for all of your comments and we have made several revisions to manuscript, as noted above.

Reviewer: 2

Dr. Elaine Douglas, University of Stirling

Comments to the Author:

To the authors:

This paper studies important issues surrounding the positive bias in reporting of diagnostic tests, and the under-reporting of overdiagnosis - a potential harm of early testing. The media play a significant role in the public understanding of health conditions, testing and treatments. This paper makes a welcome contribution to understanding the role that journalists play, and in its findings and conclusions offers strategies to improve such health communication.

Thank you for your positive comments.

Minor revisions:

1. page 6 and page 7 cite the interview schedule as Supp file 2 and Supp file 1 respectively.

Thank you. Both now refer to Supplementary File 2.

2. The study sample were 82% female. Is this reflective of the gender ratio of health journalists? Do the authors have any further reflections or insights into if, or how, this gender bias may affect the views gathered from the sample?

We do not have access to specific health journalism data, but more broadly males outnumber females in both media production and content – particularly at more senior, decision making levels. The Global

Media Monitoring Projects tracks these data globally.

On review of the interview transcripts, the male journalists commonly referred to prostate cancer when speaking about overdiagnosis, while the female journalists spoke frequently about mammography. We cannot comment on whether this gives any indication of what male and female journalists prioritise in terms of content about medical tests.

3. I had to look up the term 'peak bodies' - I now understand it to be an Australian term. The authors may wish to consider giving further explanation for the wider audience who will be interested in this paper.

We have replaced the word 'peak' with 'national' and provided an example (e.g. The Cancer Council).

VERSION 2 - REVIEW

REVIEWER	Walsh-Childers, Kim
	University of Florida
REVIEW RETURNED	05-Mar-2021

GENERAL COMMENTS I very much appreciate the care the authors have taken in addressing my original comments on the manuscript, and I believe it is definitely worthy of publication at this point. Just a few additional comments, which I hope the authors will consider addressing. First, I was horrified to read that only a few journalists thought it was important to get information about safety concerns or potential side effects before writing a story about a test. I'd love to see a bit more discussion of why they thought this was not important. I also found it interesting that the journalists wanted a sort of checklist of issues that needed to be covered in stories about new tests. In fact, Australia's now-defunct "MediaDoctor" was the original source for a set of criteria that have been adopted by numerous organizations worldwide, including the semi-defunct HealthNewsReview.org in the United States. I think it would be worth mentioning these criteria, which actually address guite directly the specific issues these journalists were talking about. (See https://www.healthnewsreview.org/about-us/review-criteria/ for the criteria.) It's truly unfortunate, given the apparent need for this sort of checklist in both the United States and Australia, that neither of the organizations that really promulgated this sort of resource has been able to survive financially. The one other bit of information I think the authors could usefully add is a description of the location of these journalists. I realize that ABC provides coverage country-wide, but it strikes me as unfortunate that so few of the journalists interviewed seem to have come from outside Sydney. If, in fact, many of these journalists were from other cities, it would be worth noting that. If not, it may be worth mentioning why so many of the journalists were from Sydney and discussing what difference, if any, that might make. I'm guessing that if Sydney-based journalists have a tough time finding experts to talk to, that problem must be much worse in any of the smaller cities.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

Prof. Kim Walsh-Childers, University of Florida

Comments to the Author:

I very much appreciate the care the authors have taken in addressing my original comments on the manuscript, and I believe it is definitely worthy of publication at this point.

Thank you for this positive comment.

Just a few additional comments, which I hope the authors will consider addressing.

First, I was horrified to read that only a few journalists thought it was important to get information about safety concerns or potential side effects before writing a story about a test. I'd love to see a bit more discussion of why they thought this was not important.

Thank you for this comment. We asked the journalists an open question about what, in their view, are the key ingredients of a good story on a medical test, and what information did they need to write one. This question was asked early in the interview. Few journalists volunteered harms as important, and we did not introduce the subject of harms ourselves at this time, so we avoided probing at this stage of interview. We did not want to be overly leading. Therefore, we are unable to say specifically why the journalists did not consider harms. Perhaps some journalists' belief that testing is beneficial may influence this consideration.

I also found it interesting that the journalists wanted a sort of checklist of issues that needed to be covered in stories about new tests. In fact, Australia's now-defunct "MediaDoctor" was the original source for a set of criteria that have been adopted by numerous organizations worldwide, including the semi-defunct HealthNewsReview.org in the United States. I think it would be worth mentioning these criteria, which actually address quite directly the specific issues these journalists were talking about. (See https://protect-

<u>au.mimecast.com/s/fR0CCnx1jni76PEZ3CJU5LW?domain=healthnewsreview.org</u> for the criteria.) It's truly unfortunate, given the apparent need for this sort of checklist in both the United States and Australia, that neither of the organizations that really promulgated this sort of resource has been able to survive financially.

Thank you for this comment. We have added a sentence to the end of the 'Meaning of this Study' paragraph in the discussion to acknowledge previous efforts.

"This research should build on previous workshops and tipsheets for journalists (e.g. US National Institutes for Health Medicine in the Media workshops by Drs Lisa Schwartz and Steven Woloshin^{47,51}), and available checklists of medical reporting criteria for journalists (e.g. those available from Media Doctor Australia and HealthNewsReview.org)."

The one other bit of information I think the authors could usefully add is a description of the location of these journalists. I realize that ABC provides coverage country-wide, but it strikes me as unfortunate that so few of the journalists interviewed seem to have come from outside Sydney. If, in fact, many of these journalists were from other cities, it would be worth noting that. If not, it may be worth mentioning why so many of the journalists were from Sydney and discussing what difference, if any, that might make. I'm guessing that if Sydney-based journalists have a tough time finding experts to talk to, that problem must be much worse in any of the smaller cities.

Thank you for this comment. Most of the journalists were based in major population regions such as Sydney, Melbourne, Gold Coast, and Perth. We have added this as a note under Table 1. We are unsure if the location would influence the journalist's ability to find an expert as Australia has good phone and internet coverage. A lot of the time when we are contacted by journalists, it is by phone or email. Also our journalists' locations are broadly representative of where most of the Australian population lives.

I also wonder about why TV journalists are so unwilling to participate in these sorts of studies. Maybe it's because (at least in the United States), there's evidence that they do the worst job of providing critical coverage of medical interventions, including tests. But because TV is such an important source of information for many audiences, TV reporters have a lot of power to shape the testing-is-always-good narrative – to the detriment of their audiences.

Thank you for this comment. Unfortunately, we found it very difficult to recruit TV journalists. Most did not respond to the recruitment email. Therefore, we are unable to explain why they may be unwilling to participate.