PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Consensus Statement - Loneliness in older adults, the 21st	
	Century Social Determinant of Health?	
AUTHORS	Prohaska, Thomas; Burholt, Vanessa; Burns, Annette; Golden, Jeannette; Hawkley, Louise; Lawlor, Brian; Leavey, Gerard; Lubben, Jim; O'Sullivan, Roger; Perissinotto, Carla; van Tilburg, Theo; Tully, Mark; Victor, Christina; Fried, Linda	

VERSION 1 – REVIEW

VERSION I - NEVIEW		
REVIEWER	Barbara Weinstein	
	Graduate Center, CUNY	
	NEW YORK	
	USA	
REVIEW RETURNED	21-Dec-2019	
TEVIEW ILEI ORIGED	21 200 2010	
GENERAL COMMENTS	An excellent, succinct and much needed consensus document	
GENERAL COMMENTS		
	overviewing the complexities of loneliness and the need for	
	scientists to attend to its prevalence and devastating impacts on	
	health behaviors, well-being and mortality	
REVIEWER	Harm Van Marwijk	
	Brighton and Sussex Medical School	
	UK	
REVIEW RETURNED	03-Jan-2020	
GENERAL COMMENTS	This consensus statement is relatively interesting but there was	
	little in it that was new to me. The reader is perhaps most	
	convinced by the list of expert authors. Not all readers may	
	recognize these, however. It is a specific format, and it is therefore	
	not easy to assess. There is no direct empirical underpinning and	
	many of the comments they make are a bit straightforward or	
	gratuitous even perhaps. The abstract mentions a methods	
	paragraph but I could not find that in the paper. How exactly	
	consensus was reached and whether everyone agreed with what	
	is unclear. I am not sure how this paper would help a new	
	researcher or interested professional. The decision to accept etc is	
	mostly editorial. It seems to reflect a collaborative effort.	
REVIEWER	Manfred Beutel	
	Dept. of Psychosomatic Medicine, University Medical Center	
	Mainz, Germany	
REVIEW RETURNED	Center Mainz, Germany	
ILLAILAA KETOKIALD	01-Feb-2020	
	01-1-00-2020	
GENERAL COMMENTS	I encourage publication of a Consensus Statement which serves	
	to promote research into loneliness, its assessment, antecedents,	

consequences and interventions . However, there are some distinct weaknesses to be taken care of:
1) A substantial Proportion of the references is not accessible to
the Reader, including conference presentations and unpublished
sources such as 18. Thus, the Reader cannot access the data
base underlying the Consensus statement. Please make These
available (e.g. web links) or leave them out, and subsitute by
accessible data bases
2) while the authors make a good Point about the relevance of
loneliness to General health I am still confused about its specific
relevance to aging adults. On p 9 the authors state that loneliness
is not proportionally increasing in older adults. So why is this
particularly important in aging? Increased vulnerabilty regarding
General or mental health, cognitive Deterioration in lonely elderly?
3) Among causes (I would prefer antecedents given the lack of
knowliedge), mental health appears to be neglected, and I find it
reductionistic only to consider environmental and social factors
excluding Person factors
4) I do not understand why the two to three scale have been
selected and recommended

REVIEWER	Jose L Ayuso-Mateos
KEVIEVEK	Department of Psychiatry
	Universidad Autonoma de Madrid
	CIBERSA
	SPAIN
REVIEW RETURNED	11-Feb-2020

GENERAL COMMENTS

The paper present a consensus statement of a meeting that took place in december 2018. The aim of the meeting was to determine the state of the field of loneliness among older people, highlighting best practices, evidence and key research gaps.

Author should expand the information concerning the meeting's participants. Particularly, it is not clear if the group of international experts and policy makers gathered included representatives from low and middle income countries. Althrough the paper mentions that the meeting gathered international researchers, practitioners and policymakers, it appears that the consensus statement is signed only by academics.

All listed authors, with the exception of one expert of the Netherlands, are from English speaking countries and work in high income countries. The authors should specifically mentioned whether the evidence reviewed during the meeting included information and experiences collected outside high income countries and societies. Cultural variations on the experience and consequences of loneliness are not mentioned in the document nor is identified as a research gap.

Page 9 mentions the important topic of the assessment of interventions in this area. The issue of outcomes to be considered as part of this assessment is not mentioned

VERSION 1 – AUTHOR RESPONSE

Reviewers' comments and summary response and action

Reviewer: 1	Reviewers' Comments to Author	Response
Reviewer Name: Barbara Weinstein Institution and Country: Graduate Center, CUNY, NEW YORK, USA Please state any competing interests or state 'None declared': NA	An excellent, succinct and much needed consensus document overviewing the complexities of loneliness and the need for scientists to attend to its prevalence and devastating impacts on health behaviors, well-being and mortality	We thank the reviewer for this feedback on our consensus document and the need for same.
Reviewer: 2 Reviewer Name: Harm Van Marwijk Institution and Country: Brighton and Sussex Medical School, UK Please state any competing interests or state 'None declared': None declared	This consensus statement is relatively interesting but there was little in it that was new to me. The reader is perhaps most convinced by the list of expert authors. Not all readers may recognize these, however. The decision to accept etc is mostly editorial. It seems to reflect a collaborative effort.	Our aim was to come together to produce the first ever consensus statement on loneliness which provides an up to date summation of the existing evidence and continuing knowledge gaps. As stated in the paper: "The purpose of this consensus statement is to determine the state of the field of loneliness among older people, highlighting key issues for researchers, policymakers and those designing services and interventions."

It is a specific format, and it is therefore not easy to assess.	We accept the reviewer's point that a specific format is employed here. However, as this is a consensus statement we argue that this is somewhat unavoidable and is also in line with previous consensus statements on other topics (Bangsbo et al. 2016) (Morley et al. 2013) We have, however, in the interests of increased clarity added a methods section to the main text to illustrate the process in terms of reaching this consensus.
	We opted to submit this statement as a 'Communication' as it does not fit under the category of original research and relevant headings and instead was considered appropriate to this format which BMJ Open describe as 'rather than presenting primary research, it is an
	opportunity to present ideas, examples, and innovations relating to the conduct of clinical research.'
There is no direct empirical underpinning and many of the comments they make are a bit straightforward or gratuitous even perhaps.	The aim of this consensus statement was to provide a high-level summary with evidence cited. While we agree many of the points maybe known to some, there is a lot of continued misinformation and conflation around this important topic that needs clarification.
	Furthermore, this communication is directed not solely at academics new to this area but also at HCPs, policy makers, service planners, the

	voluntary and community sector and a wider public audience including media who we would also seek to engage further with press releases upon publication.
The abstract mentions a methods paragraph but I could not find that in the paper.	We have now added a methods section to the paper and thank the reviewer for pointing this out and providing the opportunity to improve the statement in this way.
How exactly consensus was reached and whether everyone agreed with what is unclear.	We have now added a methods section to the paper which describes this and thank the reviewer for pointing this out and providing the opportunity to improve the statement in this way.
I am not sure how this paper would help a new researcher or interested professional.	This paper provides a summary of the state of the field of loneliness among older people, highlighting key issues for researchers, policymakers and those designing services and interventions as well as directions for moving forward in an informed and scientific way.
	For professionals, we feel this statement helps by outlining in one brief document the difference between loneliness and isolation, a definition, types of loneliness and associations and the current lack of evidence on interventions.

Reviewer: 3 Reviewer Name: Manfred Beutel	I encourage	We thank the reviewer for their support of the publication of a
Institution and	publication of a Consensus Statement which serves to promote research into	consensus statement on this topic and for their below recommendations which have allowed us to strengthen
Country: Dept. of	loneliness, its assessment, antecedents, consequences	and improve this statement.
Psychosomatic	and interventions.	
Medicine, University		
Medical Center		
Mainz, Germany		
Please state any		

competing interests or state 'None declared': None declared	However, there are some distinct weaknesses to be taken care of:	
	A substantial Proportion of the references is not accessible to the Reader, including conference presentations and unpublished sources such as 18. Thus, the Reader cannot access the data base underlying the Consensus statement. Please make These available (e.g. web links) or leave them out, and subsitute by accessible data bases	We thank the reviewer for pointing out this omission and have now included the link to online location for all presentations cited.

while the authors make a good Point about the relevance of loneliness to General health I am still confused about its specific relevance to aging adults. On p 9 the authors state that loneliness is not proportionally increasing in older adults. So why is this particularly important in aging? Increased vulnerabilty regarding General or mental health, cognitive Deterioration in lonely elderly?

We appreciate the reviewer's point and wish to emphasize, as stated in our statement, that we recognise that loneliness occurs across the lifecycle and indeed the importance of more research in relation to groups such as young adults. As we have stated:

"the majority of older adults are not chronically lonely and evidence indicates that loneliness is also experienced by other age groups, especially young adults where levels are even higher than in older adults [19]" "Future research is needed to help expand our understanding of loneliness, antecedents and consequences across the life course and in different groups such as young people..."

However, the fact that the vast majority of research and publications on loneliness to date have focused on older adults also means that it is about this group which we can currently draw some conclusions in relation to existing knowledge, while also highlighting the significant persisting knowledge gaps.

In addition to this the vast majority of the authors listed are gerontologists and so best equipped to speak in relation to this group.

Finally, issues such as the growing older population globally also provide a further rationale for a consensus

	statement on loneliness in older adults specifically.
Among causes (I would prefer antecedents given the lack of knowledge), mental health appears to be neglected, and I find it reductionistic only to consider environmental and	We accept the reviewer's point here and have changed wording to use antecedent instead of cause throughout.
social factors excluding Person factors	In relation to mental health, we have now edited the statement to acknowledge associations with mental health more broadly in addition to the point we make regarding the particularly strong evidence for depression.
	We also acknowledge the focus on environmental and social factors over personal in this statement and have now acknowledged this focus in the text too: "Personal level characteristics (e.g. gender, marital status, socio-economic status) are often included as antecedents to loneliness in research, but there is less focus on the role of environmental and structural factors."
I do not understand why the two to three scale have been selected and recommended	These scales have been selected and recommended because, as stated in the statement, they are the most widely used validated scales in relation to loneliness.
	We do however acknowledge that these scales have been developed in HIC/individualistic cultures and therefore may not be as relevant in different cultures and we have now added this reflection to the statement in the section on measurement:

Reviewer: 4 Reviewer Name: Jose L Ayuso-Mateos Institution and Country: Department of Psychiatry, Universidad Autonoma de Madrid, CIBERSA, SPAIN Please state any competing The paper present a consensus statement of a meeting that took place in Decemeber 2018. The aim of the meeting was to determine the state of the field of loneliness among older people, highlighting best practices, evidence and key research gaps			"It is also recognised that these scales have been developed in HIC/individualistic cultures and thus require validation in LMIC and collectivist cultures, where they may be not be as relevant or capture all dimensions."
Jose L Ayuso-Mateos Institution and Country: Department of Psychiatry, Universidad Autonoma de place in Decemeber 2018. The aim of the meeting was to determine the state of the field of loneliness among older people, highlighting best practices, evidence and key research gaps	Reviewer: 4 Reviewer Name:		
Psychiatry, Of the field of loneliness among older people, highlighting best practices, evidence and key research gaps Madrid, CIBERSA, SPAIN		place in Decemeber 2018. The	
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Autonoma de Madrid, CIBERSA, SPAIN	Universidad	practices, evidence and key	
	Autonoma de	research yaps	
interests or state 'None declared':	Please state any competing interests or state 'None		
None declared	None declared		

Author should expand the

information concerning the this event and resultant statement meeting's participants. was limited to representatives from high income countries only and thank Particularly, it is not clear if the the reviewer for rightly pointing out group of international experts the need to highlight this limitation and policy makers gathered which we have now added to the included representatives from statement: low and middle income countries. "This statement is limited by its lack of data or representatives from LMICs and also by its broad focus on English speaking countries with only one author from a country where

We acknowledge as a limitation that

English is not the first language represented (the Netherlands). The

	representatives of this group have however worked in LMICs and with ethnic minority groups from these countries. As a group, we acknowledge the lack of research from LMICs on prevalence, pathways, and cultural differences in measurement."
Althrough the paper mentions that the meeting gathered international researchers, practitioners and policymakers, it appears that the consensus statement is signed only by academics.	This consensus statement has been written by the signed authors not by all those that attended the event. Practitioners and policymakers however also presented at the event and thus have informed the paper and these presentations are cited with links to online presentations also provided in the reference section.
	We have also now added an acknowledgement section to this statement to formally thank these contributors:
	"Acknowledgements We would like to thank all the contributors (practitioners, policymakers and researchers) to the symposium, for both their presentations and for the insightful discussion that took place over the three days."

All listed authors, with the We acknowledge as a limitation that exception of one expert of the this event and resultant statement Netherlands, are from English was limited to representatives from speaking countries and work in high income and largely English high income countries. The speaking countries and thank the authors should specifically reviewer for rightly pointing out the need to highlight this limitation. mentioned whether the evidence reviewed during the meeting included information and As above we have added this under experiences collected outside limitations: high income "This statement is limited by its lack of data or representatives from LMICs countries and also by its broad focus on English speaking countries with only one author from a country where English is not the first language represented (the Netherlands). The representatives of this group have however worked in LMICs and with ethnic minority groups from these countries. As a group, we acknowledge the lack of research from LMICs on prevalence, pathways, and cultural differences in measurement." countries and societies.

Cultural variations on the experience and consequences of loneliness are not mentioned in the document nor is identified as a research gap.

We have added to the statement to ref

Should we add this as a further limitation?

Important cultural differences or variations are mentioned in the statement under 'A way forward':

"Future research is needed to help expand our understanding of loneliness, antecedents and consequences across the life course and in different groups such as young people, migrants, LGBT, and other minority groups as well as country/cultural differences and diverse health domains including the impact of enduring long term loneliness."

We have also added some further detail near the beginning of the statement to help set the scene in relation to differences between high versus low and middle income countries:

"With growing concern about rates and consequences of loneliness in civic society, there is also an increasing body of research on loneliness and social isolation among older adults especially in high income countries (HICs). However, there are significant gaps in our understanding of the 'true rates' of loneliness within and across countries, the drivers of loneliness in different populations and sub-groups, its impact on health and well-being, and a lack of high quality evidence on effective solutions. In low- and middle-income countries (LMICs), research to underpin the allocation of resources to meet

medical needs, and/or to secure adequate food and housing in later life has been given greater priority than studies on loneliness " As well as mentioned this lack of data as a limitations again at the end of the statement: "This statement is limited by its lack of data or representatives from LMICs countries and also by its broad focus on English speaking countries with only one author from a country where English is not the first language represented (the Netherlands). The representatives of this group have however worked in LMICs and with ethnic minority groups from these countries. As a group, we acknowledge the lack of research from LMICs on prevalence, pathways, and cultural differences in measurement."

Page 9 mentions the important topic of the assessment of interventions in this area. The issue of outcomes to be considered as part of this assessment is

not mentioned

We acknowledge the reviewers point and have now linked back to the validated widely used scales in this section as well as pointed out the need for further outcomes to be assessed in an established way adding the below:

"While we recommend appropriate use of the validated widely used measures described above we also acknowledge that minimal attention has been directed toward determining the optimal intensity, duration and frequency of the therapeutic elements of loneliness interventions and further validated established outcomes are therefore needed."

References

Bangsbo J et al. (2016) The Copenhagen Consensus Conference 2016: children, youth, and physical activity in schools and during leisure time Br J Sports Med 50:1177-1178

Morley JE et al. (2013) Frailty consensus: a call to action Journal of the American Medical Directors Association 14:392-397