PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Menstrual health and period poverty among young people who	
	menstruate in the Barcelona metropolitan area (Spain): protocol of a	
	mixed-methods study.	
AUTHORS	Medina-Perucha, Laura; Jacques-Aviñó, Constanza; Valls-Llobet,	
	Carme; Turbau-Valls, Rosa; Pinzón, Diana; Hernández, Lola; Briales	
	Canseco, Paula; López-Jiménez, Tomàs; Solana Lizarza, Enara;	
	Munrós Feliu, Jordina; Berenguera, Anna	

VERSION 1 - REVIEW

REVIEWER	Jane Wilbur	
	London School of Hygiene and Tropical Medicine, UK	
REVIEW RETURNED	19-Dec-2019	

GENERAL COMMENTS	This is a much needed piece of study and is well thought out and	
	resourced. Below are some specific comments to strengthen the	
	protocol further. I have focused on the qualitative research as I've	
	recommended that a quantitative researcher also reviews the	
	protocol.	
	Abstract	
	Consider using less acronyms so it's easier to read,	
	especially in the abstract	
	Include the ethics board's institution in the abstract	
	 Please include sample sizes and number of schools 	
	Strengths and limitations	
	It's unclear from the abstract how the study will contribute to	
	the intercultural approach gap. Please clarify what the different	
	cultures are either in the abstract or under this section	
	 Another strength is that this study is conducted in the high 	
	income setting, where limited studies on the topic exist	
	Introduction	
	'This study will provide recommendations for future	
	research, policy and practice, aiming at addressing social inequities	
	of health in YPM (and especially amongst those that may be	
	experiencing period poverty)': can you quantify who you are	
	targeting with your recommendations here (i.e. high income settings,	
	Spain specifically etc)?	
	Methods and analysis	
	Please define and reference gender-based and intercultural	
	approach	
	If you have space, provide more info on photo elicitation	
	techniques	
	Please include a sentence justifying your qualitative	
	methods and the age ranges of the participants	

 Will you test/refine the data collection tools before
administering them for your research?
 Qualitative sample size: this is a big sample for a qual study,
but I assume a large team of quali researchers will be analysing and
cross checking the analysis? If not, you may want to consider
reducing the sample so that more time can be dedicated to in depth
analysis
 Qual data analysis: what language will the interviews be
conducted in? Will these be translated in the transcriptions? If so,
will you back translate or will someone check the quality?
Ethical considerations
 For minors, will you seek their assent and their carer's
consent for their enrolment in the study? Will you be using a
simplified information consent sheet for children?

simplified information consent sneet for children?
 Will you be including quotes in the documentation? If so,
how will you protect people's identity (i.e. will you be assigning
participants codes and taking out all identifiable data from the
transcriptions)? Will you protect the identity of people taking part in
photo elicitation? If so, how?

REVIEWER	Laurel Steinfield
	Bentley University, USA
REVIEW RETURNED	26-Feb-2020

GENERAL COMMENTS

I commend the researchers for addressing the gap in our knowledge of period poverty among more developed countries, and for undertaking much needed research that can inform policy.

While I like the overall objective of the study, there are areas that need to be address to help readers understand how the study will achieve the outlined objectives. I summarize these below:

- 1 While the authors discuss wanting to 'identify the prevalence of period poverty in YPM' they do not detail how they will measure period poverty. Given that this is a multi-faceted concept, a clearer understanding of what questions they will ask to measure this would greatly improve the ability of reviewers to gauge whether the study will indeed measure period poverty and what might still need to be considered. Additionally, having these questions included would allow for other researchers to repeat the study.
- 2 The authors mention measuring other 'variables' in their quantitative study (page 5). To this list they may consider adding reported infection levels or indicators of infections (which can be a signal that a YPM is not practicing proper menstrual hygiene, e.g., itchiness, burning feeling while peeing etc.). They should likewise think about how they might delve deeper beyond merely measuring 'menstruation-related school absenteeism' to understand what is causing this absenteeism (e.g., is it fear of bleeding through their clothes, cramps, infection-related illnesses, etc.). This could help policy makers to between understand the ways periods and period poverty can disadvantage girls' school attendance. The authors may also want to ask questions related to overall menstrual management knowledge. The authors would likely benefit from looking over the recent systematic reviews on the topic: e.g., Hennegan, J., Shannon, A. K., Rubli, J., Schwab, K. J., & Melendez-Torres, G. J. (2019). Women's and girls' experiences of menstruation in low-and

middle-income countries: A systematic review and qualitative metasynthesis. PLoS medicine, 16(5).

3 - The authors may want to rethink their numbers for sample populations. In the quantitative study, if they wish to be able to do comparison between girls, having only 817 girls surveyed seems like a low result, particularly if they then want to do comparison between schools, and likely compare answers between those who have and have not (but will) menstruate. Likewise, the numbers for the qualitative study seems quite low, particularly if they want to do focus groups. It is highly advisable that they undertake more than one focus group in a school, thereby ensuring that a focus group does not produce biased results because of certain students dominating the sessions. Having more focus groups in a school would ensure that researchers can collect sufficient evidence to parcel out what is unique to the school distinct versus the individuals in the focus group. My ultimate concern is that a good saturation point will not be reached with the qualitative study done with the students given that variances in school area could result in differences in experiences of period poverty and myths/sociocultural dynamics that surround menstruation.

Finally, I would suggest that the authors do a close reading/edit of their manuscript. There are some sentence structures that need additional more.

VERSION 1 – AUTHOR RESPONSE

	Comment	Changes/comments made by the	Section and
		authors	Manuscript
			pages
Abst	ract		
1	Consider using less acronyms so	We agree that using many acronyms	Abstract
	it's easier to read, especially in the	can compromise the manuscript's	Page 1
	abstract	readability. For this reason, we have	
		tried to keep acronyms to a minimum.	
		We have however decided to keep the	
		acronyms "YPM" and "YNM" in the	
		abstract to limit the word count.	
2	Include the ethics board's	The name of the institution has now	Abstract
	institution in the abstract	been written in a clearer way.	Page 1
3	Please include sample sizes and	These details have now been included	Abstract
	number of schools	in the abstract.	Page 1
Stre	ngths and limitations		
4	It's unclear from the abstract how	We have included a brief explanation	Abstract
	the study will contribute to the	about this in the abstract and methods	Page 1
	intercultural approach	section. As it is now explained in the	Methods and
	gap. Please clarify what the	manuscript, we want to make sure that	analysis
	different cultures are either in the	we include the experiences of different	Page 7
	abstract or under this section	communities that live in our context	
		(e.g., the gipsy community, migrants,	
		etc.) in our research. We are then	
		recruiting to ensure this cultural and	
		social diversity is represented and	

		made visible through this study.	
5	Another strength is that this study	Given that we are limited to 5 strengths	Strengths and
J	is conducted in the high income	and limitations, we have included this	limitations
	setting, where limited	strength combined with the first bullet	
	studies on the topic exist	point.	Page 1
Intro	duction	point.	
6	'This study will provide	We have included more details on the	Introduction
O	recommendations for future		Page 4
		recommendations that we expect to provide from this study.	raye 4
	research, policy and practice, aiming at	provide from this study.	
	addressing social inequities of		
	health in YPM (and especially		
	amongst those that may be		
	experiencing period poverty)': can		
	you quantify who you are targeting		
	with your		
	recommendations here (i.e. high-		
	income settings, Spain specifically		
	etc)?		
Moti	nods and analysis		
7	Please define and reference	We have now included references on	Methods and
1			
	gender-based and intercultural	the gender-based and intercultural	analysis
0	approach	approaches.	Page 5
8	If you have space, provide more	We agree that we could include more	Methods and
	info on photo elicitation	details on the use of particular	analysis
	techniques.	qualitative methods (e.g., photo	Page 5
	Please include a sentence	elicitation techniques). We have	
	justifying your qualitative methods	included a general justification for both	
		quantitative and qualitative methods.	
		We hope this is okay to the reviewer	
		given the wordcount limitations.	
9	() and the age ranges of the	The justification for addressing	Introduction
Ð	participants	menstrual health and period poverty	Pages 3 and 4
	participants	among people who are starting or have	i ayes s allu 4
		just started to menstruate is available in	
		the introduction. As for justifying the	
		specific data collection techniques, we	
		believe that the arguments in the introduction will be sufficient. We have	
		highlighted the places in the introduction where we have argued the	
		9	
		need to focus the efforts on children	
10	Will you toot/rofine the date	and adolescents.	Mothodo and
10	Will you test/refine the data	Yes, we have piloted the questionnaire	Methods and
	collection tools before	so far and will do the same for the topic	analysis
	administering them for your	guides. We have specified this in the	Page 7
4.4	research?	manuscript now.	
11	Qualitative sample size: this is a	We agree that this is a large sample	
	big sample for a qual study, but I	size for qualitative research. Three	
	assume a large team of	researchers in our team are experts in	
	quali researchers will be analysing	qualitative research and will lead the	

		T	
	and cross checking the analysis? If not, you may want to consider reducing the sample so that more time can be dedicated to in depth analysis	data collection and analyses. The rest of the team will also contribute to the analysis. We believe it is possible to carry it out with the resources that we have. We will cross check the analysis and use other methods to ensure the quality and depth of the analysis as the reviewer suggests. Also, the sample size in large for the study as we will stratify by age and socioeconomic status.	
12	Qual data analysis: what language will the interviews be conducted in? Will these be translated in the transcriptions? If so, will you back translate or will someone check the quality?	For the qualitative research, data will be collected in Spanish or Catalan, depending on the preference of each participant. The questionnaire will be mostly available in Catalan, as this is the official language used in schools. Most members of the team (and participants) are bilingual (Catalan/Spanish) so overall there will be no need for translations. Translations to Spanish and English of the findings, conclusions and some verbatims will be required when presenting the study outside Catalonia (in Spanish is also our mother tongue there will be no issues translating into Spanish. Also, we believe that our command of English and the support of English-speaking colleagues will ensure that any translations to English are of good quality. We have now included that data will be collected in Catalan and Spanish in the manuscript.	Methods and analysis Page 5
Ethic	cal considerations	manasonpt.	
13	For minors, will you seek their assent and their carer's consent for their enrolment in the study? Will you be using a simplified information consent sheet for children?	Yes, we will both seek the minor's assent to participate and the carer's consent. Either the research team or the schools' staff will give minors verbal information about the study, both before obtaining the carer's consent and prior to their participation in the study. We have also prepared an information participant sheet adapted to minors so that they can also read about the study. Verbal consent will be obtained from all minors before they take part in the study. This is explained in the manuscript in the Ethical considerations section	Ethical considerations Pages 10-11

		(pages 10-11). We have highlighted the	
		sentences that refer to these ethical	
		concerns.	
		Besides, we have included in the	Ethical
		manuscript that we will hand in	considerations
		debriefing forms to all participants that	Page 12
		include different resources (such as	. «go
		books, websites and social media	
		accounts) to learn more about the	
		menstruation and the menstrual cycle.	
		Participants will be referred to health	
		care professionals if they are concerned	
		about their menstrual health.	
14	Will you be including quotes in the	All data will be anonymised. This means	Ethical
'4	documentation? If so, how will you	that we will take out all identifiable	considerations
	protect people's	details from the transcripts and will	Page 11
		•	rage 11
	identity (i.e. will you be assigning	assign participant codes. Anonymity in	
	participants codes and taking out	the photographs used in the photo-	
	all identifiable data from	elicitation interviews will also be	
	the transcriptions)? Will you	ensured. The team will do this by not	
	protect the identity of people taking	using photographs in which people are	
	part in photo elicitation? If	identifiable, unless written consent is	
	so, how?	given from identifiable people in the	
		photographs. We have included these	
		details in the manuscript.	

Reviewei 2			
	Comment	Changes/comments made by the authors	
15	Detail how period poverty will be measured to provide a clearer understanding of what questions they will ask to measure. Having these questions included would allow for other researchers to repeat the study	The variable "period poverty" will be composed based on the following variables: 1) use of menstrual products, 2) financial (and other) barriers to access menstrual products, 3) use of hormonal contraception, 4) period pain and menstrual disorders, 5) mental health, 6) access to menstrual health consultations, 7) menstruation-related school absenteeism, 8) menstruation-related interference on school performance and other activities, 9) menstruation-related stigma and discrimination, 10) access to menstrual health education, and 11) menstrual hygiene and management. These data will be collected in the questionnaire. We have now included an English version of the questionnaire in the appendices.	Methods and analysis Pages 5 and 6 Appendices: Questionnaire
16	Authors may consider included "reported infection levels" or "indicators of infections"	We have included a few questions to identify potential infections in the questionnaire.	Methods and analysis Page 6

17	Think how they might delve deeper beyond merely ensuring "menstruation-related school absenteeism" to understand what is causing absenteeism (e.g., is it fear of bleeding through their	Thank you for the suggestion. We also believe this to be an important point. We will certainly explore in much depth the reasons of absenteeism in the qualitative study.	Appendices: Questionnaire Questions 41- 43
10	clothes, cramps, infection-related illnesses,)	Therefore for the average time. We have	Mathadaaad
18	May want to ask questions related to overall menstrual management knowledge. Check Hennegan et al 2019	Thank you for the suggestion. We have re-checked the reference "Hennegan et al 2019" and have included a few questions on menstrual management and hygiene.	Methods and analysis Page 6 Appendices: Questionnaire
19	Rethink the numbers for the sample populations for the quantitative study. Having only 817 girls surveyed seems like a low result, particularly if they then want to do comparison between schools.	Please note that we not trying to make comparisons between schools, but rather get an idea of the extent of period poverty in the Barcelona metropolitan area. The sample size was calculated and considered enough based on the population's characteristics in our context and previous research in the area. However, to our knowledge, there is no previous research with a large sample conducted in the particular area of our study (e.g., there are some studies on menstrual hygiene and management but not to identify the prevalence of period poverty per se), so it is indeed challenging to calculate the sample size. We understand the reviewer's concern although we believe that a sample size of 871 will be enough in our context to get a first attempt to capture the prevalence of period poverty in the Barcelona metropolitan area. We would certainly have large sample sizes if we were aiming to identify period poverty and menstrual health in the whole Catalan region/Spain. The factors considered to calculate the sample size are explained in the Methods and Analysis section (page 9).	Methods and analysis Page 9
20	The numbers in the qualitative study seem quite low. Ensuring that a focus group does not produce biased results because of certain students dominating the	We understand the reviewer's concern. We however believe that the sample size for the qualitative research is sufficient and, as the other reviewer stated, that it is even quite large.	

	aggiona	Mo agree with the reviewer that it will be	
1	sessions.	We agree with the reviewer that it will be	
		likely that some people may dominate the	
		discussion in the discussion groups. This	
		is however intrinsic to group dynamics	
		and can be part of the findings of group	
		discussions. Likewise, what we may	
		identify as biases are part of all research	
		and human interactions and we do not	
		believe that these can be eliminated.	
		Also, the main aim of qualitative research	
		here is to explore diversity and	
		representativeness in the discourses,	
		rather than homogeneity and	
		generalisability.	
		Taking these arguments into	
		consideration, a larger sample size will	
		not eliminate biases and change group	
		dynamics. However, it will be within the	
		research team's job and expertise to	
		address any group dynamics that may be	
		a barrier to ensuring the quality of data	
		collection, and data saturation.	
21	My ultimate concern is that good	Following on the points made in the	
	saturation will not be reached with	previous response, we believe that good	
	the qualitative study done with the	saturation will be reached given the target	
	students given that variances in	sample size and the focus on	
	school area could result in	socioeconomic and cultural diversity and	
	differences in experiences of	representativeness of schools and	
1	period poverty and	participants for recruitment. To address	
1	myths/sociocultural dynamics that	the reviewer's concern, it will be within the	
1	surround menstruation	research team's tasks to ensure that data	
1		saturation is reached.	
22	I would suggest that the authors	Thank you for the suggestion. We have	
1	do a close reading/edit of their	re-read and edited the manuscript for	
	manuscript. There are some	language errors.	
	sentence structures that need		
	additional more.		

VERSION 2 – REVIEW

REVIEWER	Jane Wilbur	
	London School of Hygiene and Tropical Medicine, UK	
REVIEW RETURNED	01-Apr-2020	

GENERAL COMMENTS	This will be a very valuable contribution to the existing body of
	literature on menstrual hygiene. The qualitative component is very
	ambitious, but you have a large team working on the research, so it
	should be manageable. My detailed comments are:

madadion
• Is this sentence incomplete? Promoting menstrual health is key to
reach gender equity and promote health among people who

menstruate, and it has even been suggested that menstrual health should be incorporated as a vital sign,[5,6].

- Is this a hypothesis that you will explore? If so, please state that. If it is based on existing evidence, please include a reference. Considering these events enough for "menstrual health education" is questionable, as these companies rather focus on selling their products and medicalising menstruation instead of delivering high quality education on the menstrual cycle and the wide range of products available.
- The following sentence need referencing: In the meantime, many people who menstruate in Spain seem to still be unaware of how their menstrual cycle works and the relationship with their overall health.

Participants

Introduction

• As people with disabilities are often absent from research on menstrual hygiene, would you consider including (or not actively excluding) people with disabilities in your study population?

Qualitative study sample

• Nb, the sample size is very large for a qualitative study, so you may reach saturation after about 20-30 (no need to change this section)

Qualitative study

• Will you need to translate any of the transcriptions? If so, please include that along with any measures to ensure quality (i.e. back translation)

Potential risks

• Will any training be provided to the research team before the data collection? If so, please can you include details? If not, please explain why they don't need this training (ie researchers' skills)

REVIEWER Laurel Steinfield	
	Bentley University, USA
REVIEW RETURNED	11-Apr-2020

GENERAL COMMENTS	I could not access the supplementary material to view the questions that will be asked in the surveys. Without seeing these questions, it is difficult for me to discern if the way the study is measuring period poverty is sufficient.
	The paper also needs one final edit.

VERSION 2 – AUTHOR RESPONSE

11011	ewer i		
	Comment	Changes/comments made by the authors	Section and Manuscript pages
Intro	duction		
1	Is this sentence incomplete? Promoting menstrual health is key to reach gender equity and promote health among people who menstruate, and it has even been suggested that menstrual health should be incorporated as a vital sign,[5,6].	We have re-written this sentence to improve clarity.	Introduction Page 2
2	Is this a hypothesis that you will explore? If so, please state that. If it is based on existing evidence, please include a reference. Considering these events enough for "menstrual health education" is questionable, as these companies rather focus on selling their products and medicalising menstruation instead of delivering high quality education on the menstrual cycle and the wide range of products available.	This sentence is part of the reflexivity process and discussion of the research team. It refers to the team's perspective on the topic and part of the justification for the project. We have included a reference.	Introduction Page 2
3	The following sentence need referencing: In the meantime, many people who menstruate in Spain seem to still be unaware of how their menstrual cycle works and the relationship with their overall health.	This sentence is based on the experience of health professionals, educators and activists within the team. This is why the sentence is written in a tentative manner, using "seem to". We have however included a reference where this is discussed.	Introduction Page 2
Meth	nods and analysis	l	
4	As people with disabilities are often absent from research on menstrual hygiene, would you consider including (or not actively excluding) people with disabilities in your study population?	Thank you for this comment. We agree that it is important not to exclude people with disabilities. The team will not exclude people with disabilities, unless they do not meet the inclusion criteria (e.g., if they cannot give consent or cannot communicate with the researchers). We have added a note on this on page 8.	Methods and analysis Page 8
5	Nb, the sample size is very large for a qualitative study, so you may reach saturation after about 20-30 (no need to change this section)	We agree with the reviewer.	N/A
6	Will you need to translate any of the transcriptions? If so, please	We will only need to translate part of transcriptions if we publish any	Dissemination Strategy

	include that along with any	articles/present our research in English.	Page 12
	measures to ensure quality (i.e.	We have included the use of back	
	back translation)	translation methods in the protocol.	
7	Will any training be provided to the	No specific training will be provided as	N/A
	research team before the data	the members of the team who will	
	collection? If so, please can you	conduct the study have years of	
	include details? If not, please	experience in qualitative (and	
	explain why they don't need this	quantitative) research. This is the	
	training (ie researchers' skills)	reason why we did not mention the	
		need for training the protocol.	

Reviewer 2

	Comment	Changes/comments made by the	Section and
		authors	Manuscript
			pages
1	I could not access the	Supplementary material could only be	Supplementary
	supplementary material to view the	attached as a non-reviewable	material
	questions that will be asked in the	document. We will request to submit it	
	surveys. Without seeing these	differently so that the reviewers can	
	questions, it is difficult for me to	access it. When reviewing the	
	discern if the way the study is	questionnaire, please consider that we	
	measuring period poverty is	have already started collecting data	
	sufficient.	using this questionnaire.	
2	The paper also needs one final edit.	We have edited the paper. We hope it	All sections
		reads better now.	

VERSION 3 - REVIEW

REVIEWER	Jane Wilbur
	LSHTM
REVIEW RETURNED	30-Apr-2020

GENERAL COMMENTS Thank you for making the revisions and addressing all of my	
	comments. Good luck with the research! I'll look forward to reading
	the article when you've published the results.

REVIEWER	Laurel Steinfield
	Bentley University, USA
REVIEW RETURNED	10-May-2020

GENERAL COMMENTS	Thank you for providing the questionnaire. A few comments about
	this questionnaire contained in the supplementary materials:
	1 - Question 6 asks participants to note where both their parents are
	from (mom and dad). What happens if a child doesn't live with their
	immediate parent, has one parent that is not alive or not a part of
	their lives, has multiple sets of step-parents, or lives with parents
	that are in a homosexual relation? Second, I'm wondering why the
	authors are including this. Suggestion: if they deem this question as

relevant please indicate why it is relevant, and re-word it to allow the student to indicate who they consider their parent(s) to be and where these parent(s) are from (versus assuming a heteronormative, dual parent family model.

- 2 When they ask about menstrual pain, they should ask about severity of pain i.e. differentiate between a mild pain (slight cramping) to medium (constant cramping so that I take a pain killer) to severe pain (intense cramping that keeps me in bed and on meds). This will allow them to note conditions of endometriosis, which could then explain why they may miss days of school, etc.
- 3 They should ask for what kinds of symptoms they exhibit: headache, lower back pains, stomach cramps. nausea, bloating, joint paint, muscle aches, etc. see here for a suggested list to include https://www.yourperiod.ca/normal-periods/symptoms-of-menstruation/
- 4 If they miss school, it would be very intriguing to note if this caused them to: i) get behind in school work; ii) get behind in school work to such an extent that it made it difficult to get good marks. This would help to make it more readily clear the potential longer-term impact of period poverty.
- 5 The english of this questionnaire needs to be checked. There are areas where it is incomplete/results in poorly worded sentence. See, for example, Q36:

"Can you ask for menstrual products for free in your school?"
Do you mean "Can you get menstrual products for free in your school?"

Going back to the main document, I believe the authors are almost there. Another close reading/edit to ensure proper English is required. Some sentences still do not make sense. For example, pg 2 - 'Menstrual health has even been suggested as a vital sign" - a vital sign of what? Of overall healthiness?

also on page 2 - It is precisely these companies [that are] the ones often delivering menstrual health education...

There are other areas throughout the text where English needs improvement. Please higher a copy-editor to assist.

Thank you for doing this research study. Your team is advancing very important work, and clearly lays this out in your article.

VERSION 3 – AUTHOR RESPONSE

Reviewer 1 No comments made.

	Comment	Changes/comments made by the authors	Section and Manuscript pages		
Main document					
1	Going back to the main document, I	We appreciate the reviewer's	All sections		

3	believe the authors are almost there. Another close reading/edit to ensure proper English is required. Some sentences still do not make sense. For example, pg 2 - 'Menstrual health has even been suggested as a vital sign" - a vital sign of what? Of overall healthiness? also on page 2 - It is precisely these companies [that are] the ones often delivering menstrual health education There are other areas throughout the text where English needs improvement. Please higher a copyeditor to assist.	concerns. We have hired a native English speaker and English teacher to review the manuscript. Changes have been made.	
Que	estionnaire		
4	Question 6 asks participants to note where both their parents are from (mom and dad). What happens if a child doesn't live with their immediate parent, has one parent that is not alive or not a part of their lives, has multiple sets of stepparents, or lives with parents that are in a homosexual relation? Second, I'm wondering why the authors are including this. Suggestion: if they deem this question as relevant please indicate why it is relevant, and re-word it to allow the student to indicate who they consider their parent(s) to be and where these parent(s) are from (versus assuming a heteronormative, dual parent family model.	We completely agree with the reviewer's comment. This is a discussion that the research team had for some time. This question is relevant to explore sociocultural background and (potentially) migration status. We were then interested about biological parents/life-long tutors. We do not want to assume heteronormativity/that they live with their biological parents/both biological parents are alive, etc. We thought that this was the way that most children and adolescents would better understand this question. Given that this is a minor change to the questionnaire and we agree it is important not to make the assumptions mentioned, we will change mother/father for "Carer (e.g. parent/tutor) 1 and Carer (e.g. parent/tutor) 2". We have also included an "I don't know" option. We hope this is acceptable to the reviewer.	Questionnaire
5	When they ask about menstrual pain, they should ask about severity of pain - i.e. differentiate between a mild pain (slight cramping) to medium (constant cramping so that I take a pain killer) to severe pain (intense cramping that keeps me in bed and on meds). This will allow them to note conditions of endometriosis, which could then explain why they may miss days of	Thank you for your comment. Previous questionnaire drafts included a similar question. We however needed to shorten the questionnaire so we decided to explore this further in the qualitative studies. Also, please note that this questionnaire is already being used to collect data and that it was developed for months and piloted several times.	Questionnaire

	school, etc.		
6	They should ask for what kinds of symptoms they exhibit: headache, lower back pains, stomach cramps. nausea, bloating, joint paint, muscle aches, etc see here for a suggested list to include - https://www.yourperiod.ca/normal-periods/symptoms-of-menstruation/	Thank you for your comment and the link. Previous questionnaire drafts included a similar question. We however needed to shorten the questionnaire. We decided to explore this further in the qualitative studies.	Questionnaire
7	If they miss school, it would be very intriguing to note if this caused them to: i) get behind in school work; ii) get behind in school work to such an extent that it made it difficult to get good marks. This would help to make it more readily clear the potential longer-term impact of period poverty.	Thank you for your comment. We will explore this further in the qualitative studies.	Questionnaire
8	The english of this questionnaire needs to be checked. There are areas where it is incomplete/results in poorly worded sentence. See, for example, Q36: "Can you ask for menstrual products for free in your school?" Do you mean "Can you get menstrual products for free in your school?"	A native English speaker has now checked the questionnaire and made language improvements. Please note that this research is conducted in Spanish and Catalan. The questionnaire has only been translated to English to include it in this publication.	Questionnaire