

**PCI Registered Reports #487
Responses**

We would like to take this opportunity to thank Matti, Amy, Jana, Lisa, Elena and Gaurav for taking the time to read this report and for your thoughtful and kind comments, which have helped make the manuscript more focused. Our revisions are in tracked changes within the revised manuscript and we note our responses below.

Comments by

Veli-Matti Karhulahti: pages 1-5

Amy Orben: pages 5-8

Jana Papcunova: pages 8-10

Lisa Orchard: pages 10-12

Elena Gordon-Petrovskaya: pages 12-17

Additional supplementary material:

Upon responding to comments, we felt that the methods section became too long, and we have therefore created a 3-page supplementary material with further details on methods. We are happy to include this text back in the main manuscript if the editor and reviewers feel would be more useful for the readers.

Additional focus groups/interviews:

We have addressed all comments, except ones relating to additional data collections. While we will acknowledge the limitations of our sample in the discussion of the final manuscript, we are unfortunately unable to conduct additional data collection. Data is already being generated (making this is a Level 2 registered report) due to constraints with school holidays and the overall project timelines. Given that the focus groups findings will inform some of the questions for our Delphi study, which is scheduled to take place in October 2023, we are unable to conduct further focus groups. However, we hope that some of the sample limitations will be negated by the Delphi Study with young people, where we will capture additional views.

Comments	Responses	Pages (lines)
Comments by Veli-Matti Karhulahti		
Although it is surely possible use RTA in this study, two reviewers already make insightful observations about the difficulties of matching RTA with the current design and goals. I agree with them and am also worried that the underlying philosophical premises – driven by measure development, multiple analysts, and robust conceptualization – are not fully in line with RTA. Essentially, RTA is a non-positivist method defined by researcher subjectivity. It is not very easy to match that with the present process and large team. With reference to Braun & Clarke’s guidelines for editorial RTA assessment:	<p>Firstly, thanks to all the reviewers for their considered comments on the use and appropriateness of RTA in this RR context, and feedback on where explanation and reflexivity is lacking. All the comments have been immeasurable helpful in focusing our approach to analysis.</p> <p>Following a team discussion, we have decided that we still intend to approach the data analysis using TA. We feel it is the most appropriate for the data and the outcomes we seek. The fact that</p>	

Comments	Responses	Pages (lines)
<p>“A research team is not required or even desirable for quality ... We contend that even TA with a descriptive purpose is an interpretative activity undertaken by a researcher who is situated in various ways, and who reads data through the lenses of their particular social, cultural, historical, disciplinary, political and ideological positionings. They edit and evoke participant ‘voices’ but ultimately tell their story about the data” (2021:https://doi.org/10.1080/14780887.2020.1769238 [doi.org]) ... “themes in [RTA] are conceptualized as meaning-based, interpretative stories” (2023:https://doi.org/10.1080/26895269.2022.2129597 [doi.org])</p> <p>I encourage you to consider one more time whether you wish to report these data — that ultimately aim at measure development — under the above RTA premises. To be clear, I fully support whatever analytic approach is chosen and it’s ok to use RTA, but in case of choosing RTA, we must ensure that the Stage 1 plan coheres with it and is doing it knowingly. You have already done a great job explaining some elements of reflexivity. But Braun & Clarke (2023) explicitly warn about “positivism creep” in RTA studies, such as aiming for “accuracy” or “assuming... line-by-line coding apply to TA without any explanation or justification” (2021: p. 345). As some reviewers point out, there are instances that imply such issues, e.g. identifying analysis as “data-driven” (p. 13) and “new themes created to represent the data more accurately” (p. 14) and “Systematic line-by-line coding to organise data” (p. 15). You also refer to saturation (p. 11), which is against RTA (2019:https://doi.org/10.1080/2159676X.2019.1704846 [doi.org]) – since you’ve written “guided by” it’s not a major issue here but also raises questions: how saturation, which doesn’t apply to RTA, can guide RTA?</p> <p>If the RTA approach is kept, it would be necessary to revise the MS systematically with these features in mind and include a separate section where epistemological, ontological, and other author/team positional premises are explicitly discussed, with a plan for integrating them in outlined semantic/latent analytic process. Alternatively, a list of justified deviations could be noted, or other TA or qualitative approaches, which are not so fully committed to researcher subjectivity, could be applied.</p>	<p>this data will be built upon through other studies (the Delphi) and triangulated with other data (the EMA) to develop the draft measure rationalise this approach. However, we recognise that the manuscript requires a more open explanation of how our positionality impacts on the analysis and a repositioning of the outputs that acknowledges the inherent subjectivity involved. We have therefore made the following amendments:</p> <ol style="list-style-type: none"> 1) We have added a section on ‘the research team’ (p. 10, lines 208-) to give more context on our positionalities as a team and how we approach this data 2) We have justified our analytical approach (p. 14-16), outlining a slightly more nuanced (hybrid) approach to TA than purely inductive. 3) We have amended particular sentences / language highlighted as being too positivist/jarring with RTA: 	
<p>The section “The Appropriateness of the Registered Report Format” is ok, but I would also like to offer an opportunity to remove it and win some word space. I understand you wish to justify the use of RR in a qualitative study because it’s historically not very common, but today when we already have multiple Stage 1 and Stage 2 qualitative RRs (and a primer: https://doi.org/10.12688/openreseurope.15532.2 [doi.org]), I don’t see it necessary. To be clear again, you can also keep this section if you wish.</p>	<p>We agree and have therefore changed the length of this section and have also drawn attention to measurement specifically. We have maintained it in part because the registered report format appealed to us as an opportunity to draw attention to the importance of this qualitative stage.</p> <p>We therefore also want to bring in readers (who nevertheless have a substantive or psychometric interest in the paper) to qualitative</p>	8 (169-186)

Comments	Responses	Pages (lines)
	registered reports. In addition, in preparing this manuscript we found it difficult to identify relevant journals inviting qualitative registered reports which we feel confirms the need to highlight the issues in this section.	
I agree with the reviewers that the RQs are generally appropriate, but it's also a bit unusual to have as much as five unique RQs! Sufficiently answering all of them in a single study -- especially considering that RTA typically leads to 2–6 themes -- can be a challenge. How do you ensure that the themes generated in the inductive process will match all five RQs? After taking into consideration the reviewers' valuable feedback on conceptualization, please carefully assess whether fewer and more focused RQs could be the basis for analysis.	We agree and have therefore provided more focused research questions that more closely relate to the research aims, as follows: RQ1: What are the motivations behind adolescent social media use? RQ2: What are adolescents' social media experiences? RQ3: What are the views of adolescents of the risks and benefits associated with using social media?	9 (202 – 205)
I also agree with the reviewers that the background for QHs needs more explanation and justification. Only a single previously undiscussed study (van der Wal et al., 2022) is cited to ground them, without explaining what that study says. It's ok to not commit to any specific theory in a study like this, but a reader is left thinking through what conceptual or theoretical frame do you understand e.g. "motivation" (incentive salience, SDT, etc?) and "experience" (narrative identity, phenomenology, etc?)? I would personally prefer to have a paragraph for each QH that clearly explains why do you expect this (but other solutions can work too). Also, "heterogeneity" is used a bit vaguely -- what qualitative data would not be heterogenous? Following that you already have mentioned age (this's great!), perhaps consider the reviewers' suggestions and expect heterogeneity to be associated with the use of different platforms, specific apps, or similar? (If that's what you actually expect, naturally.)	The purpose of our qualitative hypotheses was not to be attached to our research questions, or specific past studies, rather to serve as pre-registered hypothetical biases. We have therefore moved these hypotheses under "The Research Team and Reflexive Statement" section. The study by van der Wal et al., 2022 was meant as an example of qualitative work that we engaged with. Our hypotheses were influenced by our overall engagement of the literature and our own work, and we have thus clarified this in the manuscript, as follows: <i>Instead, they relate to the research team's extant knowledge and experience and act as a mechanism for transparency (Karhulahti et al., 2023). We, therefore, use qualitative hypotheses in the current study to disclose and pre-register our hypothetical biases. Based on our own experiences and perceptions, and our overall engagement with previous literature (as part of this report, or through our own work; e.g., Panayiotou et al., 2023), we consider the following qualitative hypotheses, which have relevance for all three research questions:</i>	10 (221-227)
Reviewers worry about the sample, and I share that. Adding to their notes, my worry is the following: because many negative experiences with technology tend to go hand-in-hand with accumulating health and life challenges, the focus groups might be selecting for participants who are doing well or at least fine – and the voices of those who are	We appreciate the feedback and suggestions. Unfortunately, as we mention above, we will not be able to conduct additional data collection, but we will have the opportunity to reach more young people via the Delphi study, to which they will participate	

Comments	Responses	Pages (lines)
<p>socially excluded, lonely, or otherwise uncomfortable speaking in a peer group will not be heard. This could be exactly the group whose experiences are at the core of all debates. This should be discussed in limitations. Also, I'm thinking, perhaps follow-up 1-to-1 interviews with selected individuals could mitigate this issue to some degree.</p>	<p>anonymously and independently, mitigating some of the limitations of focus groups (e.g. being uncomfortable speaking in a peer group).</p> <p>We plan to explicitly acknowledge the sample limitations in the Discussion of the final Stage 2 manuscript. We will add the following:</p> <p><i>The number and composition of the focus groups is guided by practicalities and resourcing, which have introduced some limitations to the study. In particular, the convenience sampling approach has limitations in terms of generalisability and cultural transferability. Though it was beyond the scope of this study to collect data that is representative of all young people's social media experiences, we aim to capture a range of experiences that can be built upon in future studies (Figure 1). This will include the opportunity to gather the perspectives of adolescents with different backgrounds and experiences, and adult professionals who engage with groups of adolescents who may be harder to reach in a focus group setting (e.g. adolescents who have mental health diagnosis).</i></p>	
<p>Two technical corrections about references to my own studies. Qualitative hypotheses are not discussed in the cited solo-authored 2022 article, but in our team RR:https://doi.org/10.1525/collabra.38819 [doi.org] . Later the same article is also cited for data anonymization guidelines; that seems to be a confusion with another article from the same year which (unlike the cited article) addresses qualitative data anonymization: https://doi.org/10.1111/bjso.12573 [doi.org] (I also encourage following the references, many of which can be more informative than my own paper -- e.g. Libby Bishop, Arja Kuula-Luumi, and Peter Branney's teams have written really helpful work about qualitative data sharing and stewardship!)</p>	<p>Thank you for the references. Sorry, this was an Endnote error! We have added the 2023 reference we had in mind and have corrected the anonymization one.</p>	
<p>One reviewer suggests considering duplication of the focus groups. It would be a wonderful addition for sure, but also I understand you may not have resources (or ethics approval) for that. If you do consider going forward with it in this study or later, online focus groups could be a fit: Flayelle et al. 2022https://doi.org/10.1111/add.15944 [doi.org]</p>	<p>We agree, this would have been a great addition, but unfortunately due to the time (and indeed ethical approval) constraints mentioned above, we will not be able to duplicate our focus groups. However, the Delphi Study will have open text where young people can privately share their views.</p>	

Comments	Responses	Pages (lines)
<p>Finally, I think member reflections in later parts of analysis could be very helpful: Tracy 2010 https://doi.org/10.1177/1077800410383121 [doi.org] (again, you can also skip if you're not comfortable with this element)</p> <p>I hope you find the reviewers' generous comments and the above extra notes useful in your revision. Please respond to all reviewer feedback carefully. At any point, you can contact me directly if you wish to further negotiate about how to proceed most optimally, or with any other questions. I'm confident this will become a highly valuable study and help in measure development.</p>	<p>We agree that including a reflexivity statement regarding our own experiences and how these have led to discussions and influenced analysis would be beneficial to adding transparency to this study. We have included a reflexivity statement in the Methods section.</p> <p>We will include a section in our Stage 2 report that captures our individual and collective responses to the data, and any conflicting interpretations or discussions that arise, in order to highlight how our own reactions and considerations influence the analysis process (with example extracts of our reflexive note-taking).</p>	10 (208-217)
Comments by Amy Orben		
<p>I enjoyed reviewing this Registered Report about adolescent focus groups for social media measure generation.</p> <p>Note: I have no expertise in qualitative or focus group methods, so an additional review will need to be sought for this area of the manuscript. I have focused on the area of social media use, adolescence and pre-existing measurements.</p> <p>The manuscript was well written and tackled an interesting set of research questions. I felt it was lacking predominately in two areas:</p>	Thank you for your comments!	
<p>Review of pre-existing social media measures</p> <p>The social media measurement space is vast and includes a wide range of measurements that are not addiction centred (these were the only ones mentioned in the manuscript). The review on pages 3 and 4 was not extensive enough to adequately give an overview of this measurement space and provide a background for where the measure to be developed would sit (see also point 2) and what its contributions would be. There have also been recent measures developed to tap into social media experiences (see for example a new scale of social media flourishing in adolescence https://doi.org/10.3389/fdgth.2022.975557 [doi.org]) which need to be considered.</p>	<p>Thank you for the paper suggestion. We agree that there is a wide range of measures, and our focus in the original submission was too narrow. We have now expanded this section to clarify broader issues and made more explicit the implications of these problems.</p> <p>We should note that we have also started our preliminary searches of our systematic review of measures (already pre-registered), which aims to systematically summarise social media measures of behaviours and experiences that relate to mental health (like the examples we give in the report). We explain in the revised manuscript why we have opted for a focus groups first, rather than the systematic literature review (p. 5, lines 99-107).</p>	5 (115-137)
<p>While reading the manuscript, I was not sure what the planned measure is trying to quantify. On page 3, the authors introduce that considering "social media experiences" is important, but then note that "quality" is also relevant. Later in page 6 the authors then talk about "identifying features of social media". On Page 8 they intend to</p>	<p>We agree this was unclear and appreciate the suggested references. We have now added a new section called "The Construct of Interest and its Conceptualisation" which clarifies our construct of interest is (lines 65-98).</p>	3 (65-98)

Comments	Responses	Pages (lines)
<p>measure “experiences, motivations and perceptions”. These are all different, and would result in very different measures with different intended uses.</p> <p>I think it is crucial for the authors to specify at what level they intend to measure social media use effects (e.g., see Adrian Meier and Leonard Reinecke review paper). It will be impossible to measure multiple levels in just one questionnaire measurement. For example, if they want to pin down social media “effects”, a measure of just experiences might be ineffectual as “ I think likes impact my mood” has a very different conceptual/methodological meaning to measuring the amount of likes received and statistically linking it to mood. Further, measuring social media features engaged with (e.g., Instagram stories), is very different to measuring activities (e.g., perpetrating cyberbullying). Motivations (e.g., I intend to go on social media to chat to my friends) are very different from actions (e.g., I went on social media X times last week to chat to my friends). Each of these levels would have potentially hundreds of potential constructs to measure, so the broad conceptualisations in the paper currently seem non-feasible.</p>	<p>The focus groups indeed aim to capture experiences, motivations and perceptions, but this is not the intended use of our measure. As we note in “The Current Study” (p. 9, lines 187-200), we focus on these aspects as they might help us to better understand the mechanism (e.g. I go on social media because I am bored (motivation), and then it makes me feel worse (effect) because I end up scrolling for hours (experience)), from their own view and in a non-causal way.</p> <p>Beyond that, as we explain in the same section, the findings of the current work will help inform the design of future studies. For example, beyond the Delphi study, we are currently designing an ecological momentary assessment study that will track social media use and trigger an EMA that asks young people to identify their behaviour (e.g. they were watching a video) and content of that interaction (e.g. it was a tutorial), but also answer mental health and related momentary questions. Therefore, some of the focus groups questions and findings from the current study (e.g. what they do on social media, what platforms they use, etc.). will inform the development of these EMA questions.</p>	
<p>Page 3, “this is necessary”, I am not sure what “this” refers to</p>	<p>We agree this was unclear and have edited to make clearer the importance of self-reporting for our measure.</p>	<p>6 (116-120)</p>
<p>Page 5, very long paragraph with many separate ideas, I would recommend to split</p>	<p>This paragraph has now been split up. Some of the content has been moved to the ‘stakeholder engagement in measure development’ section, and some has been removed.</p>	<p>7 (138-168)</p>
<p>Page 5, bottom: I don’t think the authors’ bottom up approach completely avoids drawing on existing conceptualisations of social media use, as pre-existing conceptualisations are also impacting how adolescents think about and perceive their social media use. E.g., see work on social media mindsets by Angela Lee and Nicole Ellison. I think a more nuanced discussion is needed here.</p>	<p>We agree, and appreciate the reference. We have edited this section to also distinguish between the overall method and participant experience, as follows:</p> <p><i>We recognise that, as with the research team, young people’s views and experiences of social media use do not exist in a vacuum and are likely shaped by prior research and associated headlines. These are also likely influenced by their own mindsets (Lee & Hancock, 2023), which itself can shift during the focus groups discussions (Parker & Tritter, 2006).</i></p>	<p>13 (288-296)</p>

Comments	Responses	Pages (lines)
	<p><i>Therefore, we acknowledge that our approach, while bottom-up within the wider measure development framework, might not be entirely bottom-up for the participants. The aim of the focus groups is therefore to highlight potential gaps in previous conceptualisations and identify constructs that may have been omitted from existing conceptual frameworks (Detmar et al., 2006).</i></p>	
Page 6. "Psychometric perspective (above)", I am not sure what is meant here.	This sentence has now been removed.	
Figure 1, not clear what the numbers in the figure mean at the moment.	We realise now that the figure was a bit confusing, so we have edited.	5 (108)
Page 10, I think more detail would be good about how a balanced sample will be recruited. For example, what prevents the authors from using specific quotas for balancing gender, ethnicity, SES and marginalised groups?	A clearer account of how our sample will be recruited and the strategy to recruit diversely has been added to the 'Participants' section.	12 (258-271)
Page 11, while bringing in young people might be an opportunity to minimise power dynamics, their demographics (especially age and gender) might also contribute to how young people disclose about their activities. I would have benefited from a more nuanced discussion here.	<p>We have moderated this point now, e.g. noting that whilst it still holds value it does not offer something akin to peer research, as follows:</p> <p><i>Bringing in young people as researchers is an opportunity to minimise these power dynamics and create a more welcoming research environment, closing the gap between the researchers and the participants. While the involvement of the YRs is not meant to facilitate a peer research process (Coppock, 2011), as the YRs stated, they see themselves as a 'bridge' between MP, JHD, and LB, and the participants. This can be valuable, as YRs may facilitate follow-up questions or 'prompts' that are closer to the experience of adolescents, thus supporting a more effective interpretation and feedback loop between researchers and participants.</i></p>	14 (315-318)
Page 11, how long are the focus groups?	The length of the focus groups is given in the manuscript at the beginning of 'Focus group schedule and procedure' section (1 hour), however this has now been fleshed out to give more detail on the break-down of delivery (see supplementary material).	13 (299)

Comments	Responses	Pages (lines)
<p>Page 12, I did not have the permissions to review the osf document with the questions, and as wondering whether it would make more sense for those to be put into the main text.</p>	<p>Very sorry about this. We now realise it was not made public. This should now be available.</p>	
<p>Comments by Jana Papcunova</p>		
<p>I am thankful for the chance to review this RR and provide some valuable suggestions that could help enhance the ideas presented within.</p> <p>The authors emphasize the need for valid and reliable instruments to understand adolescents' experiences, motivations, and perceptions of social media, and to assess the effects of social media use on adolescent mental health. The inclusion of user consultation, particularly through focus groups, is highlighted as a valuable approach to inform measure development. The RR is well-structured and provides a clear rationale for the research. The arguments presented are supported by relevant references. However, there are a few areas where further clarification and expansion would strengthen the manuscript.</p>	<p>Thank you for your comments!</p>	
<p>Conceptualization. The argument for conducting focus groups as a bottom-up approach is well-justified, given the inconsistent conceptualizations of social media experience and the potential biases in existing measures. I would encourage the authors to place their undertaking within the broader area of concept explication (e.g., Chaffee, 1991, Sage). This framework involves two stages, meaning analysis and empirical analysis, which aim to clarify and define a concept or construct. By adopting this framework, the authors can systematically analyze and refine their understanding of adolescents' experiences, motivations, and perceptions of social media, as well as the effects of social media use on adolescent mental health. This approach will establish a strong foundation for developing valid and reliable instruments and contribute to advancing knowledge in the field.</p>	<p>We appreciate the book suggestion. While we had already planned to follow a clear conceptualisation framework, we agree that this was not unpacked in the manuscript.</p> <p>We have therefore added a new section called “The Construct of Interest and its Conceptualisation” which places our current work within a conceptualisation framework.</p>	<p>3 (65-)</p>
<p>Ensuring the protection of young adults. The authors mention that the Young Researchers (YRs) were involved in designing the study, ensuring appropriate focus group schedules, study procedures, etc. It would be helpful to provide more specific details about the role of YRs in these activities. How were they engaged in the study design process? Did they provide feedback on the study materials or were they involved in making decisions about the focus group questions? Given the prevalence of cyberbullying among adolescents (Zhu et al., 2021), it is crucial to prioritize the well-being of participants in the study. Establishing protocols for participant support and follow-up, including follow-up debriefing, is essential. By addressing potential risks and</p>	<p>We have created supplementary material that gives more detail on the study design and delivery, and specifically the roles of YRs and our safeguarding approach.</p>	

Comments	Responses	Pages (lines)
<p>providing support, the authors can ensure ethical considerations and contribute to a positive research experience for the adolescents involved.</p>		
<p>Recruitment and Sampling. It would be valuable to discuss any steps taken regarding the specific strategies to ensure the representation of diverse backgrounds and marginalized groups. How will the purposive sampling approach be implemented? Will it involve targeted recruitment within the schools or specific inclusion criteria for marginalized groups?</p>	<p>A clearer account of how our sample will be recruited and the strategy to recruit diversely has been added to the 'Participants' section.</p>	<p>12 (258-271)</p>
<p>Data Collection. The manuscript provides a clear description of the focus group schedule and procedure. However, it would be beneficial to elaborate on how the roles and responsibilities will be divided among the facilitators and the Young Researcher? Additionally, the manuscript mentions the availability of post-it notes for participants to write down additional thoughts. Will these post-it notes be collected at the end of the focus groups, and if so, how will they be incorporated into the analysis?</p>	<p>We have some of this information to the supplementary material, specifically:</p> <p>On the roles of the YRs:</p> <ul style="list-style-type: none"> • How they inputted in the development of the schedule • How they are supported to engage in the research • Their role in facilitating the focus groups <p>More detail has also been added around the use of the post-its in the 'focus groups procedure' section. Specifically, we have added the following:</p> <p style="text-align: center;"><i>The post-it notes are there for participants to use if there are things they want to share, but do not feel comfortable sharing in the group-setting. Post-its will be collected at the end and anything written down will be typed up and added to the end of the transcript to be included in the analysis.</i></p>	<p>14 (303-307)</p>
<p>Generalizability. Acknowledging the limitations of convenience sampling is crucial, including the potential for selection bias and limited generalizability of the findings. To address these limitations, the authors could consider implementing a process of "duplication" by collecting data from other cultural contexts. This approach would entail replicating the study procedure in different cultural settings, facilitating the diversification of the data. For more detailed information on this approach, refer to Karhulahti (2023) at the following link: [https://osf.io/ekm8x [osf.io]].</p>	<p>To clarify, we are not trying to develop a cross-cultural measure (our funding is currently only available for one population) and it is currently outside the scope of the project to concurrently develop the measure with other populations, however, we hope to work with international colleagues to adapt this in different cultures.</p> <p>We share your concerns over the convenience sample limitation and we plan to explicitly acknowledge the sample limitations in the Discussion of the final Stage 2 manuscript. We will add the following:</p>	

Comments	Responses	Pages (lines)
	<p><i>The number and composition of the focus groups is guided by practicalities and resourcing, which have introduced some limitations to the study. In particular, the convenience sampling approach has limitations in terms of generalisability and cultural transferability. Though it was beyond the scope of this study to collect data that is representative of all young people's social media experiences, we aim to capture a range of experiences that can be built upon in future studies (Figure 1). This will include the opportunity to gather the perspectives of adolescents with different backgrounds and experiences, and adult professionals who engage with groups of adolescents who may be harder to reach in a focus group setting (e.g. adolescents who have mental health diagnosis).</i></p>	
<p>Comments by Lisa Orchard</p>		
<p>Thank you for the opportunity to review this protocol. The authors propose a qualitative study, using a series of focus groups to explore adolescent social media experience. This will ultimately inform the creation of a social media experience measure.</p> <p>The authors present a clear rationale for the research, highlighting an accurate representation of the current contradictions founds within the field and the need to bring clarity to the topic. The field is sometimes led by scaremongering and assumptions, so I am very keen to see research that is adolescent-led. The authors make a good argument behind their decision to use focus groups to later inform a Delphi Study. I am pleased to see the research is situated within a larger plan of study and that decisions surrounding this process have been considered and discussed. Furthermore, it is excellent to see that young researchers have been invited on to the project as co-authors.</p>	<p>Thank you for your comments!</p>	
<p>Five research questions are proposed. These are logical, interesting and appropriate. I appreciate that qualitative hypotheses are provided to highlight prior expectations in line with bias. Given QH1, and expectations of heterogeneity, it may be worth thinking about management of such differences within the focus group itself. I wonder if it's worth providing opportunities for participants to further discuss any issues that they feel were pertinent but not discussed outside of the focus group?</p>	<p>We agree that there needs to be mechanisms for participants to share things that they do not feel comfortable discussing in the focus group setting. This was the rationale behind the use of post-it notes. We have clarified this in the manuscript. Specifically, we have added the following:</p> <p><i>The post-it notes are there for participants to use if there are things they want to share, but do not feel comfortable</i></p>	<p>14 (303-306)</p>

Comments	Responses	Pages (lines)
	<p><i>sharing in the group-setting. Post-its will be collected at the end and anything written down will be typed up and added to the end of the transcript to be included in the analysis.</i></p>	
<p>The overall method of recruitment and procedure is clear. From my understanding, focus groups will be made up of pupils from one year group within one school. I wonder whether the authors have considered what procedure to follow if a student is not comfortable talking in a focus group in front of another particular student? Could focus group names be circulated prior to the start of the focus groups to allow students to notify the researcher of any conflicts?</p>	<p>Yes correct, focus groups are made up of pupils from one year group within a school. Young people will be aware that will be talking in a group setting in advance and do not have to agree to take part. Additionally, in the focus group introduction (verbally, first 10-15mins with participants) we will make it very clear that a participant does not have to take part if they do not wish to and are able to go back to class if they wish. This detail has been included in the supplementary material.</p>	
<p>The interview procedure has been very well thought through. The use of flipcharts and post-it notes seem wise suggestions and I can see their use as being very valuable. I agree that RTA seems like a good analysis strategy. The authors note that an inductive approach will be used. Although I agree this suits the research aims of the paper, they need to be wary of prior biases as set out from expectations highlighted in QH2. I don't think this is problematic, but it would be useful to have some reflection on this following data collection. That being said, I like that the authors have decided a strong, explicit process for coding to ensure theme generation is grounded in the data.</p> <p>The authors have considered the importance of safeguarding surrounding the data, and I am pleased to see this reflected in their discussion and decisions to restrict access.</p>	<p>Thank you for the positive feedback on the design of the method and appropriateness of the analysis approach. Overall, we have added much more detail to our analysis approach to provide much more transparency about the inherent subjectivity in the analysis process and recognition that our biases will affect this. Specifically, we have made the following amendments:</p> <ul style="list-style-type: none"> • We have added a section on 'the research team' (p. 10, lines 208-217) to give more context on our positionalities as a team and how we approach this data. We have relocated the qualitative hypotheses to this section, as we feel they fit better here in stating our existing biases. • The analysis section has been split into 2 sections: 'analysis approach' and 'analysis procedure' to clearly justify our approach before giving practical details. <p>We agree that including a reflection on how our own reactions and considerations have led to discussions and influenced analysis would be beneficial to adding transparency to this study. We will include a section in our Stage 2 paper that captures our individual and collective responses to the data, and any conflicting interpretations or discussions that arise, in order to highlight how our own reactions and considerations influence the analysis process.</p>	

Comments	Responses	Pages (lines)
I have tried to view the interview schedule but unfortunately do not have access to see this.	Very sorry about this. We now realise it was not made public. This should now be available.	
Page 6: I am not keen on the following wording: “By conducting focus groups first, we are privileging the voices of young people in the research process and using their voices to give the critical ‘on-the-ground’ perspective (Fredricks et al., 2016).”. I understand the intent of the sentence but I do not feel that ‘privileging’ is the correct terminology here.	We have amended the word ‘privilege’ to ‘prioritising’	8 (165)
Page 10: It’s suggested that the focus groups will be run in June-July 2023. This will need updating to a more realistic timeframe.	As we mention above, this was guided by the School term days and the tight timeframes of the project.	
Comments by Elena Gordon-Petrovskaya		
<p>Thank you for the opportunity to review this registered report. It’s particularly great to see qualitative research being approached in this fashion. I think overall the plan is really good, although I do have a concern regarding tension between the reflexive TA method and the RR format. I’ve outlined my feedback according to the reviewer criteria provided by PCI.</p> <p>1A. The scientific validity of the research question(s)</p> <p>I think it would be nice if your introduction provided more of a direct link between consulting stakeholder groups about their experience and subsequent psychometric measure development to really situate these research questions and the need for this work. I’m of the opinion that stakeholders should really be involved in pretty much any work - but why in this specific study and why now? For instance, something like examples of this being done in other fields might be appropriate.</p> <p>Relatedly, the sentence “although recommended approaches exist for such conceptualisation work with user consultation and are considered fundamental to the quality of a given measure, this step is rarely carried out in psychological measurement more generally” reads oxymoronically: how can they be fundamental if they are rarely carried out?</p>	<p>Thank you for your comments!</p> <p>We agree spelling out the need for adolescent consultation more improves the manuscript. We now highlight further the lack of this and the implications of this gap.</p> <p>We agree about the sentence reading oddly. This has now been removed as part of our wider revisions.</p>	

Comments	Responses	Pages (lines)
<p>On a more minor note, RQ3 and RQ4 feel slightly too broad to me: this could be overcome by defining what you mean by ‘motivations’ and ‘experiences’, as these terms are often used in various theoretical contexts.</p>	<p>Thank you for your feedback on the phrasing of the research questions. We have decided to keep these terms in light of the research questions to enable broad interpretations of motivation and experience.</p>	
<p>1B. The logic, rationale, and plausibility of the proposed hypotheses (where a submission proposes hypotheses)</p> <p>It would be useful if you expanded more on what previous literature the hypotheses are based on, maybe split by hypothesis? I think it would also be more intuitive if the hypotheses mapped more clearly to the RQs and this was highlighted.</p>	<p>As we note above, the purpose of our qualitative hypotheses was not to be attached to our research questions, or specific past studies, rather to serve as pre-registered hypothetical biases. We have therefore moved these hypotheses under “The Research Team and Reflexive Statement” section. The study by van der Wal et al., 2022 was meant as an example of qualitative work that we engaged with. Our hypotheses were influenced by our overall engagement of the literature and our own work, and we have thus clarified this in the manuscript, as follows:</p> <p><i>Instead, they relate to the research team’s extant knowledge and experience and act as a mechanism for transparency (Karhulahti et al., 2023). We, therefore, use qualitative hypotheses in the current study to disclose and pre-register our hypothetical biases. Based on our own experiences and perceptions, and our overall engagement with previous literature (as part of this report, or through our own work; e.g., Panayiotou et al., 2023), we consider the following qualitative hypotheses, which have relevance for all three research questions:</i></p>	10 (221-227)
<p>1C. The soundness and feasibility of the methodology and analysis pipeline (including statistical power analysis or alternative sampling plans where applicable)</p> <p>Generally the description of the methods is great and there are a couple of particularly nice touches, like the inclusion of the young researchers and the process outlined for the anonymisation of the transcripts. My main concern with the methods is around your use of reflexive thematic analysis.</p> <p>By contrast to other TA approaches, like codebook TA, reflexive TA in particular highlights the role of the researcher and the way they perceive and interpret the data as shaped by their own experiences, and is the most flexible of the TA approaches. For</p>	<p>Thank you for your considered comments on the use and appropriateness of RTA in this RR context, and feedback on where explanation and reflexivity is lacking. All the comments from reviewers in this regard have been immeasurably helpful in focusing our approach to analysis.</p> <p>We have decided that we still intend to approach the data analysis using RTA. We feel it is the most appropriate for the data and the outcomes we seek, i.e. current conceptualisation is limited and we want to provide space for new themes to be developed through engagement with the data. The fact that this data will be built upon</p>	

Comments	Responses	Pages (lines)
<p>example, Braun & Clarke (2019) write “Assumptions and positionings are always part of qualitative research... reflexive practice is vital to understand and unpack these.” (www.doi.org/10.1080/2159676X.2019.1628806 In a different paper, the same authors say, “The analytic process involves immersion in the data, reading, reflecting, questioning, imagining, wondering, writing, retreating, returning. It is far from mechanical and is a process that requires ‘headspace’ and time for inspiration to strike and insight to develop.” www.doi.org/10.1080/14780887.2020.1769238</p> <p>If you are certain it is reflexive TA which is the right method for this work, please provide more detail around this. Why are you using reflexive TA for this work, and how does it align with your goals? How will your team accomplish this necessary reflexivity, and how will your shared experiences and biases mesh together to analyse the data? If you feel like this is difficult to achieve in a registered report format, consider changing your analytical strategy to a different type of TA - perhaps coding reliability or codebook TA? - both of which, primarily the former, would lend themselves better to replication and a benchmark assessment of goals met.</p>	<p>through other studies (the Delphi) and triangulated with other data (the EMA) to develop the draft measure rationalise this approach. This project data flow is now outlined ore clearly in an amended Figure 1.</p> <p>However, we recognise that manuscript requires a more open explanation of how our positionality impacts on the analysis and a repositioning of the outputs that acknowledges the inherent subjectivity involved. We have therefore made the following amendments:</p> <ol style="list-style-type: none"> 1) We have added a section on ‘the research team’ (p. 10, lines 208-) to give more context on our positionalities as a team and how we approach this data 2) We have justified our analytical approach (p. 14-16), outlining a slightly more nuanced (hybrid) approach to TA than purely inductive. 3) We have amended particular sentences / language highlighted as being too positivist/jarring with RTA: <p>We have also created a supplementary material that gives details on the practicalities of the analysis process in terms of how the team will work together to produce the analysis.</p> <p>We agree that including a reflection on how our own reactions and considerations have led to discussions and influenced analysis would be beneficial to adding transparency to this study. We will include a section in our Stage 2 paper that captures our individual and collective responses to the data, and any conflicting interpretations or discussions that arise, in order to highlight how our own reactions and considerations influence the analysis process.</p>	
<p>1D. Whether the clarity and degree of methodological detail is sufficient to closely replicate the proposed study procedures and analysis pipeline and to prevent undisclosed flexibility in the procedures and analyses.</p>	<p>As above, in the amended section on ‘analytical approach’ we have justified a collective coding approach to allow multiple view-points to be incorporated. We see this as a strength, and not at odds with RTA. We have made clearer that we do not seek coder reliability, but</p>	<p>14 (321-)</p>

Comments	Responses	Pages (lines)
<p>One to note specifically is that, in reflexive TA and in your outlined procedure with multiple coders it's difficult to set standards for replication in the same way that an inter-rater reliability coefficient might be beneficial for. Please also provide more concrete details on aspects of this process: how long will JHD and EB spend familiarising themselves with the data? What will be a stopping point when the team meets to discuss their codes? Is there a pipeline for how disagreements will be resolved? When you say the wider team will provide feedback, what does that mean practically and how will you ensure everyone's PoV is balanced? (My thoughts on this also largely tie into my above point about reflexive thematic analysis and possible mismatch with the RR format).</p>	<p>see value in making space for multiple view points to be incorporated into the analysis.</p> <p>We added further detail on the practicalities of the analysis process in the MS supplement, including:</p> <ul style="list-style-type: none"> • Anticipated time spent familiarising ourselves with the data • Anticipated number of coding review meetings • Guidance on how wider team feedback will be incorporated 	
<p>A more minor point: you mention in the focus group procedure that there will be safeguarding measures - what are they specifically?</p> <p>I hope my comments were useful. As I said above, I think this will be a great study. I think one of the beauties of qualitative research is its flexibility, so, if you are certain reflexive TA is the right methodology for this format, with a few more details everything will be great :)</p>	<p>We appreciate the comments and the kind words!</p> <p>More on our safeguarding procedures is also available in the supplementary material.</p>	
<p>Comments by Gaurav Saxena</p>		
<p>Thank you for conducting this important study to explore adolescents' experiences and perceptions of social media. The authors have outlined the relevance of this research and designed a good plan to collect data through focus groups. I appreciate the use of co-production in the initiation stage of the research and involving young researchers in designing and conceptualizing the study. I would like to offer some suggestions to further strengthen the study, mainly focusing on the methodology:</p>	<p>Thank you for your comments!</p>	
<p>While I understand the exploratory nature of the study and the intention to adopt a bottom-up approach, the specific focus of the measure being developed could benefit from further clarification. It would be helpful to specify what the measure will specifically gauge and how it could be used in practical applications. Though the research questions and interview schedule partially address this concern, the brief mention of social media addiction in the introduction might need more relevance to the study's overall scope.</p>	<p>We agree that this was not unpacked in the manuscript.</p> <p>We have therefore added a new section called "The Construct of Interest and its Conceptualisation" which places our current work within a conceptualisation framework.</p>	3 (65-)

Comments	Responses	Pages (lines)
<p>It's crucial for the authors to reflect on their philosophical/theoretical positions and acknowledge any potential biases (positionality, backgrounds, etc.) (in addition to the qualitative hypotheses). Such a practice is considered essential in qualitative research.</p>	<p>We agree that including a reflexivity statement regarding our own experiences and how these have led to discussions and influenced analysis would be beneficial to adding transparency to this study. We have included a reflexivity statement in the Methods section.</p> <p>We will also include a section in our Stage 2 report that captures our individual and collective responses to the data, and any conflicting interpretations or discussions that arise, in order to highlight how our own reactions and considerations influence the analysis process (with example extracts of our reflexive note-taking).</p>	10 (208)
<p>The authors plan to recruit adolescents who self-identify as social media users. For clarity, they should provide more specific criteria for social media users. For example, should participants have a social media account or engage in a certain number of hours per day on social media to be eligible for the study? Also, it would be helpful to state whether this criterion is consistent across all age groups.</p>	<p>We have added some clarification to this inclusion criteria. Specifically, we have added:</p> <p><i>This criterion is purposefully broad (e.g. not specifying a certain numbers of hours per day or week usage) to acknowledge that there will likely be variation across age groups in social media use behaviours.</i></p>	13 (250-253)
<p>The authors plan to use reflexive thematic analysis in the study. I suggest that they explicitly mention the ways in which they are and will be reflexive throughout the research process, including data collection and analysis. Additionally, it is not entirely clear how the coding will be done. Will the two coders (and YR) code separate transcripts, or will they code the same or different ones? Why/how are multiple researchers involved in the analysis process? Do the authors aim to establish coding reliability? These aspects might be inconsistent with Braun and Clarke's RTA. I would recommend the authors refer to the paper "Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis?. Qualitative research in psychology, 18(3), 328-352" and their recent book "Thematic analysis: A practical guide" by Braun and Clarke for additional guidance.</p>	<p>Thank you for your considered comments on where explanation and reflexivity is lacking around RTA, and for the suggested references. We recognise that manuscript requires a more open explanation of how our positionality impacts on the analysis, how we will be reflexive throughout the process, and a repositioning of the outputs that acknowledges the inherent subjectivity involved. To this end we have therefore made the following amendments:</p> <p>(1) The analysis section has now been split into 2 sections: 'analysis approach' and 'analysis procedure' to clearly justify our approach before giving practical details. The analysis approach section:</p> <ul style="list-style-type: none"> • outlines a slightly more nuanced (hybrid) approach to TA than purely inductive – recognising that there are broader themes we are interested in, as well as being open to new themes • recognises that we do not aim for coder reliability • justifies a collective coding approach to allow multiple view-points to be incorporated. We see this as a strength, and not at odds with RTA. 	

Comments	Responses	Pages (lines)
	(2) We have created a supplementary material that provides further details on the practicalities of the analysis process in terms of how the team will work together to produce the analysis.	
In the analysis, the authors also mention using content analysis to develop scale items. However, they do not elaborate on their plan for doing this.	We see this was confusing. We have removed the reference to content analysis, as this refers to analysis of data later down the project timeline, not as part of this specific study.	
It is great to see the authors' commitment to sampling participants from diverse backgrounds, considering the unique experiences they may have with social media. Anecdotally, given the rise of polarizing/extreme opinions on social media, some participants (e.g., LGBTQ+) might have extreme or difficult experiences (e.g., cyberbullying). I am curious about the safeguards the researchers have in place to protect participants if discussions become sensitive and how the participants will be debriefed after such situations.	We added this information to the our new supplementary material.	
It would be valuable for the authors to acknowledge the limitations of their research or the scale developed through this research. For instance, they could consider mentioning that the measure might not be valid for other cultures outside the UK.	<p>We agree and we plan to explicitly acknowledge the sample limitations in the Discussion of the final Stage 2 manuscript. We will add the following:</p> <p><i>The number and composition of the focus groups is guided by practicalities and resourcing, which have introduced some limitations to the study. In particular, the convenience sampling approach has limitations in terms of generalisability and cultural transferability. Though it was beyond the scope of this study to collect data that is representative of all young people's social media experiences, we aim to capture a range of experiences that can be built upon in future studies (Figure 1). This will include the opportunity to gather the perspectives of adolescents with different backgrounds and experiences, and adult professionals who engage with groups of adolescents who may be harder to reach in a focus group setting (e.g. adolescents who have mental health diagnosis).</i></p>	