PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Understanding resilience among transition-age youth with serious mental illness: Protocol for a scoping review
AUTHORS	Nesbitt, Amy; Sabiston, Catherine; deJonge, Melissa; Barbic, Skye; Kozloff, Nicole; Nalder, Emily

VERSION 1 – REVIEW

REVIEWER	Subramaniam, Mythily Institute of Mental Health, Research
REVIEW RETURNED	16-Jan-2022

GENERAL COMMENTS	The authors aim to conduct a scoping review to understand the concept of resilience among transition-age youth with SMI, factors influencing it and examine outcomes in the context of transition-age youth's mental health recovery. It is a very well-written protocol and an important area of research. I have minimal comments for the authors consideration. 1. The authors have focused only on peer reviewed original research. This being a scoping review, the inclusion of reports should be considered. 2. While the authors have provide a statement on ethical requirements, it is not clear to me whether a verbal or written consent will be taken from the stakeholders. 3. The stakeholder involvement is an important aspect of the review and needs some more details. E.g., the authors state that (page 22, lines 15-16) that transition youths with SMI will be involved in all stages of the review but earlier they state that stakeholders will be asked about their views on the key result findings and their views will be sought in dissemination of the results (Page 22, lines 1-6). This needs to be clarified. As involvement in all stages would mean from development of key questions to synthesising the findings and their views on the findings. Secondly, the authors need to mention how the FGDs will be conducted. Will all stakeholders be part of the same FGD? It may be necessary to give a safe space for young people with SMI to discuss their opinions where other stakeholders are not involved.

REVIEWER	Wigman, Johanna University of Groningen, University Medical Center Groningen, Psychiatry
REVIEW RETURNED	28-Jan-2022

GENERAL COMMENTS	With much pleasure and interest I have read this protocol for a scoping review on resilience among youth with serious mental illness. The topic is timely and highly relevant, given the current high interest in but simultaneous lack of consensus regarding the

	resilience concept as well as the importance of youth mental health. The authors are very clear about their aims and approach. Decisions and steps seem logical and in line with the PRIMA checklist. I have some questions and thoughts that I hope will help the authors to improve their promising work even further. While I wrote down some suggestions for the research questions, I also realize that these questions may already be fixed earlier in the process and that alterations may not be possible anymore. If this is the case, perhaps my suggestions can assist the authors when they summarize and interpret their results. 1. On the definition of the target population: I understand the age range the authors have decided upon, given what is known about the onset on SMI. What I wondered was if using the population term 'young adult' (as listed in the Table in Appendix B) will also allow them to pick up, say, a study that includes individuals aged 25-29. Cultural norms may lead to certain authors/countries to define individuals older than 25 years as 'adult' rather than 'young adult'. It would be a shame if the authors would miss a proportion of their target population. 2. The authors clearly define their target population as 'young adults with SMI'. Do the authors intend to distinguish between individuals with a first episode of SMI, relapses/recurrences and chronic mental illness? For example, distinctions are often made between those with a first episode of psychosis and those with chronic schizophrenia. It seems likely to expect that resilience will also behave/impact differently in different stages of illness. How do the authors expect that this may impact their strategies/findings/conclusions? 4. The authors describe in the Introduction how resilience has been conceptualized in different ways, e.g., as a trait or as a process. They then write: "This scoping review will explore how the concept of resilience has been conceptualized and operationalized in the transition-age youth mental health literature' (p. 7). This seems to imply that they will map and compare multiple of these approaches (i.e., comparing trait and process definitions). Later on, in the description of the concept (p.10) they clearly state that they will focus specifically on resilience as a process and will exclude studies that define it otherwise (which I think is a very sensible choice). I think it might be beneficial for the paper if the authors are more explicit earlier on about their position (i.e., that they see resilience as a process). This helps the reader to set the correct parameters of the review while reading. Linked to this, it might be good to rephrase the aim of the paper to reflect this, so perhaps add the process-focus to the actual aim on page 7. 5. The authors write: "Serious mental illness (SMI) is defined as "a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities". " I noticed the absence of 'having a clinical diagnosis' in the definition. At the same time, specific mental disorders are mentioned as examples and also listed in Table 1 (e.g., MDD). Is this left out of the definition on purpose? 6. I was a bit puzzeled by their first research question: "What is the extent and breadth of the current scientific literature on resilience among transition-age youth diagnosed with SMI?" I wonder if this is the most optimal formulation. How can they actually answer this question; what is the kind of answer they expect here? 7. Regarding their third research question: "What factors influence resilience among transition-age youth with SMI, and what outcomes have been studied within the context of transition-age youth's mental health recovery?" I wondered if it not be better to split this question

	into two, as I think predictive factors and outcomes are two quite different concepts and also different areas of literature. Thus, is this question not too broad? 8. Related to my previous point about RQ 3: in the final part of the formulation of RQ 3, the authors mention 'recovery'. Do they mean 'resilience' here (as in: recovery is synonymous to being resilient), or do they see resilience and recovery as two different concepts? Specifically because the literature is not always very clear about these distinctions, it might be good if the authors are very explicit about how they see the different concepts (by themselves and in relation to one another). 9. Do the authors intend to include only empirical papers in their review (e.g., intervention studies)? Or also more theoretical studies? I would look forward to reading this review once it's finished!

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Dr. Mythily Subramaniam, Institute of Mental Health

Comments to the Author:
The authors aim to conduct a scoping review to understand the concept of resilience among transition-age youth with SMI, factors influencing it and examine outcomes in the context of transition-age youth's mental health recovery.
It is a very well-written protocol and an important area of research. I have minimal comments for the authors consideration.

1. The authors have focused only on peer reviewed original research. This being a scoping review, the inclusion of reports should be considered.

This is an important aspect of the inclusion criteria which we have given considerable thought to. For the purpose of this scoping review we will consider peer reviewed original research only based on several reasons. First, limiting the search to published empirical articles is an appropriate streamlining method used to support the feasibility and timeliness of the review (Ganann et al., 2010; Tricco et al., 2015). Second, grey literature sources (reports, position papers, commentaries, public documents) typically do not provide substantial detail on how resilience is conceptualized or operationalized (e.g., definition, relevant theoretical framework or model, seminal papers, measurement) which is essential for addressing our research question. As such, these reports may not give adequate information for the planned data extraction and analysis and peer reviewed evidence is best aligned for answering our research question and objectives. The exclusion of grey literature sources is a limitation to the current study which impacts the breadth of the search. This limitation has been reported in the "strengths and limitations" section of the protocol (Page 3, Lines 14-16).

Ganann, R., Ciliska, D., & Thomas, H. (2010). Expediting systematic reviews: methods and implications of rapid reviews. *Implementation Science*, *5*(1), 1-10.

Tricco, A. C., Antony, J., Zarin, W., Strifler, L., Ghassemi, M., Ivory, J., ... & Straus, S. E. (2015). A scoping review of rapid review methods. *BMC Medicine*, *13*(1), 1-15.

2. While the authors have provide a statement on ethical requirements, it is not clear to me whether a verbal or written consent will be taken from the stakeholders.

We appreciate the opportunity to improve the clarity on how consent will be obtained from community stakeholders. Additional information regarding our methods for stage 6 have been added, with detail on consent procedures on Page 20, Lines 3-6.

3. The stakeholder involvement is an important aspect of the review and needs some more details. E.g., the authors state that (page 22, lines 15-16) that transition youths with SMI will be involved in all stages of the review but earlier they state that stakeholders will be asked about their views on the key result findings and their views will be sought in dissemination of the results (Page 22, lines 1-6). This needs to be clarified. As involvement in all stages would mean from development of key questions to synthesising the findings and their views on the findings. Secondly, the authors need to mention how the FGDs will be conducted. Will all stakeholders be part of the same FGD? It may be necessary to give a safe space for young people with SMI to discuss their opinions where other stakeholders are not involved.

Thank you for your suggestions and comments regarding stakeholder involvement. For clarification on stakeholder involvement in informing the review process and how the focus group discussions will be conducted, please see Page 20, Lines 7-22 and Page 22, Lines 1-2. Particularly, we have stated the purpose of stakeholder consultation meetings more clearly to highlight how and when participants' feedback will be used to inform the research methods and the interpretation / reporting of results (but not the research question).

All stakeholders will be part of the same focus group discussions. We will aim for equal representation between youth with SMI, researchers and clinicians in each focus group (Page 20, Lines 22-23). Two members of the review team (AN, MD) will co-facilitate the focus groups and monitor participation and feedback to determine whether the protocol requires any amendments. Particularly, if we find there is a need for separate focus groups where young people with SMI can discuss their opinions we will amend our original plan. The current design is based on recent recommendations for stakeholder consultation and the research team's prior experience collaborating with community stakeholders.

Response to Reviewer 1: Thank you very much for your feedback on this manuscript. We appreciate the opportunity to make the above improvements.

Reviewer: 2
Dr. Johanna Wigman, University of Groningen, University Medical Center Groningen

Comments to the Author:
With much pleasure and interest I have read this protocol for a scoping review on resilience among youth with serious mental illness. The topic is timely and highly relevant, given the current high interest in but simultaneous lack of consensus regarding the resilience concept as well as the importance of youth mental health. The authors are very clear about their aims and approach. Decisions and steps seem logical and in line with the PRIMA checklist. I have some questions and thoughts that I hope will help the authors to improve their promising work even further. While I wrote down some suggestions for the research questions, I also realize that these questions may already be fixed earlier in the process and that alterations may not be possible anymore. If this is the case, perhaps my suggestions can assist the authors when they summarize and interpret their results.

1. On the definition of the target population: I understand the age range the authors have decided upon, given what is known about the onset on SMI. What I wondered was if using the

population term 'young adult' (as listed in the Table in Appendix B) will also allow them to pick up, say, a study that includes individuals aged 25-29. Cultural norms may lead to certain authors/countries to define individuals older than 25 years as 'adult' rather than 'young adult'. It would be a shame if the authors would miss a proportion of their target population.

Variability in the terms used to describe the age range and developmental period of young adulthood / "transition-age youth" across different cultures, geographic locations, and areas of research certainly contributes to the possibility of missing relevant literature. We tested the search strategy with and without the specified search terms related to population age (ex. young adult, adolescent, transition-age youth etc) during multiple meetings with a health sciences librarian. During this piloting stage we found that we were able to balance the search sensitivity and precision by using the population age terms (e.g., broad enough to capture a large variety of articles, while reducing the number of irrelevant sources). To improve the rigor and breadth of the search to avoid missing a proportion of the target population, the reference lists of included full-texts and similar reviews will be manually searched by two members of the review team responsible for screening (Page 11, Lines 9-11). Any additional sources identified will undergo the 2-stage screening procedures and will be included in our PRISMA flow diagram.

2. The authors clearly define their target population as 'young adults with SMI'. Do the authors intend to distinguish between individuals with a first episode of SMI, relapses/recurrences and chronic mental illness? For example, distinctions are often made between those with a first episode of psychosis and those with chronic schizophrenia. It seems likely to expect that resilience will also behave/impact differently in different stages of illness. How do the authors expect that this may impact their strategies/findings/conclusions?

Thank you for your comments and feedback. For the current review protocol we did not originally intend to extract / analyze information for distinguishing between different stages of illness. However, we believe this would be valuable information to add to the charting form (under subheading "study population") to describe the study sample in terms of their experience of a first episode, relapse/recurrences, and chronic mental illness (edits are on Page 16, Table 1).Depending on the objectives, methods, and level of detail reported across any included studies – it is quite possible that this would provide further insight into how processes of resilience look or unfold at different stages of illness for this population and potential similarities / differences (e.g., Luther et al., 2020). If few studies explicitly identify illness stage, this could also be considered within the findings and recommendations for future research.

Luther, L., Rosen, C., Cummins, J. S., & Sharma, R. P. (2020). The multidimensional construct of resilience across the psychosis spectrum: Evidence of alterations in people with early and prolonged psychosis. *Psychiatric rehabilitation journal*, *43*(3), 225.

4. The authors describe in the Introduction how resilience has been conceptualized in different ways, e.g., as a trait or as a process. They then write: "This scoping review will explore how the concept of resilience has been conceptualized and operationalized in the transition-age youth mental health literature' (p. 7). This seems to imply that they will map and compare multiple of these approaches (i.e., comparing trait and process definitions). Later on, in the description of the concept (p.10) they clearly state that they will focus specifically on resilience as a process and will exclude studies that define it otherwise (which I think is a very sensible choice). I think it might be beneficial for the paper if the authors are more explicit earlier on about their position (i.e., that they see resilience as a process). This helps the reader to set the correct parameters of the review while reading. Linked to this, it might be good to rephrase the aim of the paper to reflect this, so perhaps add the process-focus to the actual aim on page 7.

We have revised the introduction to better emphasize our position and focus on process-oriented perspectives of resilience early in the paper to orient the reader to the review purpose (Page 7, Lines 19-21).

5. The authors write: "Serious mental illness (SMI) is defined as "a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities". I noticed the absence of 'having a clinical diagnosis' in the definition. At the same time, specific mental disorders are mentioned as examples and also listed in Table 1 (e.g., MDD). Is this left out of the definitionn purpose?

The specific wording of "having a clinical diagnosis" was not omitted on purpose. We are using a more inclusive definition where individuals can have a formal clinical diagnosis or self-identify as living with SMI (see Page 13-14 Inclusion Criteria 'a' for title/abstract and full-text screening: "a) Population: Clearly defined clinical population in accordance with either: participant self-reported history of SMI; clinician confirmed diagnosis of SMI; or DSM-V / ICD-10 system diagnostic criteria"). In developing the protocol, we wanted to be inclusive of research studies that may not have access to and/or be able to report specific diagnostic information, as well as studies where participants have self-identified as living with SMI. This may be important for studies conducted outside of the clinical realm. Information related to diagnosed / self-identified SMI will be recorded within the charting form during data extraction (under subheading "study population"). These edits are on Page 16, Table 1.

6. I was a bit puzzled by their first research question: "What is the extent and breadth of the current scientific literature on resilience among transition-age youth diagnosed with SMI?" I wonder if this is the most optimal formulation. How can they actually answer this question; what is the kind of answer they expect here?

We appreciate you bringing this to our attention and agree that the current wording is not the most optimal formulation as a research question. What we are referring to is the potential for this review to explore the extent (amount / # of original peer reviewed articles) and breadth (range of research objectives, methodologies) of the available evidence on transition-age youth resilience. We have revised the protocol manuscript to phrase this as a general aim (Page 8, Lines 19-21) as it aligns with our rationale for selecting a scoping review design.

7. Regarding their third research question: "What factors influence resilience among transition-age youth with SMI, and what outcomes have been studied within the context of transition-age youth's mental health recovery?" I wondered if it not be better to split this question into two, as I think predictive factors and outcomes are two quite different concepts and also different areas of literature. Thus, is this question not too broad?

Thank you for providing feedback on the clarity of this research question. The decision to explore resilience factors and outcomes together was based on existing models and frameworks of resilience from a process-oriented perspective (e.g., Masten et al., 2021; Nadler et al., 2019). There are several core elements of resilience highlighted within this process: individual experiences of stress / adversity, "resiliency factors" – including risks, internal and external protective factors, and self-regulatory strategies, as well as positive adaptation and "resilience-related outcomes". These factors and outcomes are explicitly stated within the introduction (Page 6, Lines 1-3), objectives (Page 7, Lines 18-19), the research questions (Page 10, Lines 9-12), and the charting form (Page 17, Table 1 – heading "resilience factors and outcomes") for consistency and clarity throughout.

Importantly, while one researcher may evaluate a particular construct (e.g., self-esteem) as a resiliency factor among young people, another researcher may examine the same construct as a resilience-related outcome. As part of the scoping review protocol, we aim to carefully extract and analyze this information based on the unique information and operationalization provided in each

included study. This is outlined in Stage 4 and 5 (Page 16-19) of the protocol – “resiliency factors” and “outcomes” will be charted, and then coded separately using content analysis. Rudzinski et al (2017) utilized a similar approach where the resilience “factors” and “outcomes” are synthesized and discussed as different concepts.

For these reasons, it seems appropriate to explore resilience factors and outcomes within this broad research question. However, we will report our results using tables and narrative summaries that detail the resilience factors and outcomes as distinct concepts. We also expect community stakeholders will share valuable feedback on how these results can be communicated in a clear and meaningful way.

Masten, A. S., Lucke, C. M., Nelson, K. M., & Stallworthy, I. C. (2021). Resilience in development and psychopathology: Multisystem perspectives. *Annual Review of Clinical Psychology*, *17*, 521-549.

Nalder, E., Hartman, L., Hunt, A., & King, G. (2019). Traumatic brain injury resiliency model: a conceptual model to guide rehabilitation research and practice. *Disability and Rehabilitation*, *41*(22), 2708-2717.

Rudzinski, K., McDonough, P., Gartner, R., & Strike, C. (2017). Is there room for resilience? A scoping review and critique of substance use literature and its utilization of the concept of resilience. *Substance Abuse Treatment, Prevention, and Policy*, *12*(1), 1-35.

8. Related to my previous point about RQ 3: in the final part of the formulation of RQ 3, the authors mention ‘recovery’. Do they mean ‘resilience’ here (as in: recovery is synonymous to being resilient), or do they see resilience and recovery as two different concepts? Specifically because the literature is not always very clear about these distinctions, it might be good if the authors are very explicit about how they see the different concepts (by themselves and in relation to one another).

For the purpose of this review, and in line with recent literature on this topic (Echezarraga et al., 2019), resilience and recovery are considered two different concepts. In the current protocol, we used the PCC mnemonic to explicitly define resilience as our “concept” of interest, and to define personal recovery as a relevant “context”. These definitions are provided on Page 10 (Stage 1). Additionally, we have briefly introduced some of the parallels between resilience and recovery in youth mental health research within the introduction to position these as distinct concepts (Page 6). In the final reporting of this scoping review, findings will be discussed in relation to young people’s mental health recovery, and we plan to ensure there are clear distinctions between these highly related concepts.

Echezarraga A, Las Hayas C, López de Arroyabe E, Jones SH. Resilience and recovery in the context of psychological disorders. J Humanist Psychol. 2019;002216781985162. https://doi.org/10.1177/0022167819851623

9. Do the authors intend to include only empirical papers in their review (e.g., intervention studies)? Or also more theoretical studies?

Based on the inclusion criteria for this protocol (“peer reviewed original research - quantitative, qualitative, mixed method” Page 13, Lines 17-18) most sources will likely be empirical papers. However, theoretical studies that report original research findings and meet our inclusion criteria will be included. As per the exclusion criteria (Page 14, Lines 1-3), theoretical papers that fall under the following types of sources will be excluded: review articles, books / book chapters, and grey literature (e.g., editorials, commentaries / reports, clinical guidelines, conference proceedings, and theses / dissertations).

I would look forward to reading this review once it's finished!

Response to Reviewer 2: Thank you for your feedback on this manuscript. We hope that by addressing the above comments we can improve the clarity and quality of the protocol.

VERSION 2 – REVIEW

REVIEWER	Wigman, Johanna University of Groningen, University Medical Center Groningen, Psychiatry
REVIEW RETURNED	25-Apr-2022

GENERAL COMMENTS	The authors have addressed all comments adequately.