

Reviewer 1 comment	Author response	Changes manuscript
<p>Please give more information on the Bavarian study region, such as number of residents and settlement structure. Particularly if the respondents live in small groups of houses, which lie within the borders of the same township but are dispersed hamlets/villages, then community level ("people in my community", p. 11, line 254) and interpersonal level ("people close to me", p. 11, line 259; "family, friends, etc.", p. 16, line 396) may overlap and may encompass the same persons. The correlation of .22 between the two social support factors does not suggest this is a major problem, though.</p>	<p>Thank you for raising this point! We will add a more detailed description of the study region. However, the settlement structure (one town and two villages) as well as the modest correlation between the two variables does not suggest too much overlap between collective-level and interpersonal-level social support.</p>	<p>Added more detailed description of the study region.</p>
<p>However, the findings on perceived consequences and perceived social support are interpreted as if they actually took place (for instance, in the opening sentence of the Discussion). I fully acknowledge the limits in data collection when putting together a questionnaire on very short notice and when approaching residents who are more concerned about rebuilding their home than participating in a survey. Nonetheless, I would very much welcome if the authors could add any validation how well subjective consequences and support conform with objective damages and assistance.</p>	<p>As social psychologists, we often work with self-reports/subjective measures as an individual's perceptions are psychologically relevant (so called Thomas-Theorem). Furthermore, our measure of physical distress, albeit a self-report, might more closely resemble a measure of "objective" stress. Nevertheless, we agree that a combination of subjective and objective measures (such as amount of financial damage in €) would be desirable. Unfortunately, objective data on (financial) damages are - to the best of our knowledge - only available at an aggregate level, but not for more disaggregated levels (e.g. street-level). However, we will add a sentence on the use of subjective measures to the limitation section of the General Discussion to clarify this point.</p>	<p>Added note to General Discussion to clarify that only self-reported measures were used (add this aspect to limitations in the General Discussion).</p>
<p>Judging from the exemplary items given in the Measures section, both collective and interpersonal social support were measured (1) referring</p>	<p>Very good point! We applied the CART measure to increase consistency with (the measures used in) other surveys. Furthermore, our</p>	<p>Added note to General Discussion to address this issue.</p>

to potential not received support ("My community has resources it needs..." not "My community employed it resources to..."; "... if I need someone to talk to" not "I talked with somebody"); taken literally, the measures capture whether support COULD have been provided, but the authors assume that it WAS provided; and (2) referring to any situation not the particular June-2016-flood; although the CART inventory seems to refer to catastrophic events (p. 15, line 377), natural hazards (p. 17, line 412) or disasters (p. 19, line 470). This might mean weak congruence between independent and dependent variables, and could point to even stronger associations if more congruent measures were used.

In light of the particular situation when the questionnaire was distributed and the response rate of 20%, I am concerned about a potential self-selection bias in the sample, for instance that particularly those least (because they had already rebuilt their livelihoods, and had no other more pressing concerns) or those most affected by the June-2016-flood (because they wanted to share their plight) were willing to participate. Could the authors compare the damages suffered in the sample households (as for instance reported in claims to insurances or public support funds) to the distribution of damages in the entire study region? Do you have anecdotal evidence from handing out the survey materials to prospective respondents? This could be helpful advice for future post-disaster studies how to improve survey compliance.

research focused on perceived support (in contrast to received support) as we surveyed respondents immediately after the flood event (received support is often used when investigating the longer-term effects of social support; e.g. social support deterioration model). As pointed out, restricted correspondence between independent and dependent measures usually weakens the effect sizes. Application of more focused measures of social support (i.e. focused more directly on the recent flood event) might thus have even strengthened these associations, thereby corroborating our assumptions. We will add a note on this to the General Discussion section.

Thank you for this suggestion. We agree that some degree of self-selection bias might have occurred, albeit we do not expect our survey to be more affected by such bias than other field surveys. In other words, we have no strong expectations that the respondents of our survey were different in terms of flood-related damage or distress from other (local) people affected by the 2016-flood event. This assumption is based on two aspects: First, during the dissemination of the (paper-&-pencil) questionnaires we were not aware of such a self-selection bias; sometimes people who were hit hard by the flood were willing to participate in the survey and sometimes persons who - seemingly - were less affected by the flood agreed to fill in the questionnaire. Second, this observation is corroborated by the mean value and distribution of our measure of flood-related consequences (i.e. perceived damage). The mean value

No action

<p>The authors already caution against inferring causality from cross-sectional data in the Conclusions, however, considering the strong causal assumptions underlying the entire manuscript, I suggest to direct the reader to this essential caveat much earlier in the manuscript. I find the issue of causal direction most critical between mental health and life satisfaction, both measured at the same point in time. Yet, life satisfaction is presented as "a long-term subjective resilience indicator" (p. 13, line 311). Even if respondents were instructed to state flood consequences and social support in reference to the first few weeks after the flood event (Were they indeed instructed to do that? The Method section is not so clear on that.), their view on consequences at the time of completing the survey some weeks later might easily be coloured by damages that became apparent only after some weeks (e.g. to foundation walls) or by assets that initially appeared destroyed but could be repaired or salvaged or sold, or their view on support might be coloured by more recent experiences of willing or hesitant neighbourly help. The more blurry the temporal sequence from consequences to life satisfaction, the more the assumed causal chain is put into question.</p>	<p>amounts to 2.62 (0 = not affected, 1 = not very severe, 5 = very severe) and inspection of the distribution indicated only low levels of skewness (< 0.2). On average, people thus reported medium levels of flood-related consequences.</p> <p>Thank you for raising this point. Indeed, the respondents were instructed to report their level of psychological and physical distress experienced in the weeks following the flood event. Thus, this measure reflects a retrospective self-report of psycho-psychological distress. In contrast, the measure of life satisfaction referred to their current satisfaction. Furthermore, previous research has shown that flood experience can (negatively) affect life satisfaction for some years after the event took place (von Möllendorff and Hirschfeld, 2016). Thus, there is some justification to run the proposed mediation model (or moderated mediation model). Nevertheless, we are aware of the limitations of cross-sectional data, not allowing causal inferences. We also concede that perceptions of consequences or support might be biased (as a kind of motivated cognition), depending on the post-disaster recovery process. However, we do not expect that perceptions of consequences and support are the mere result of experienced distress. Furthermore, as we are not primarily interested in total explained variance but rather conduct a test of the relative predictive power of two different models of social support (main-effect vs. stress buffering model) such bias should apply to both models. Notwithstanding this, we agree with the reviewer to address the</p>	<p>Added note to section "The present research" addressing the issue of limited causal inference.</p>
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	issue of limited causal inference earlier in the manuscript (i.e. in the section "The present research").	
Technical corrections and typos		
Provide a full list of all questionnaire items in an Appendix	Thank you for your comments / careful reading of our manuscript	We have provided a full list of measures / items in the Appendix
Abstract, line 25: might has underestimated		We have corrected these errors
p. 4, line 81: Stein etal.		
p.4, line 84: one bracket too much		
p. 4, line 86: Clarify whether this sentence refers to Sekulova & van den Bergh or Möllendorff & Hirschfeld		We have reformulated this
p. 5, line 103: one bracket too much		We have corrected these errors
p. 5, line 107: one bracket too much		
p. 8, line 181: one bracket too much		
p. 9, line 214: perceived negative consequences flooding		
p. 12, lines 283-286: coefficients differ from Table 2		
p. 13, line 313: effect of negative consequences on interpersonal social support does not appear in any Table or Figure (unless I overlooked this)		We omitted interpersonal support (not significant) from the figure to streamline presentation. We have added a note on this to the figure
p. 18, line 458: resources of social and social life.		We have corrected these errors
p. 31, Figures 3 and 4: use "collective social support" instead of "community resilience"		

References

Von Möllendorff, C. and Hirschfeld, J.: Measuring impacts of extreme weather events using the life satisfaction approach, *Ecol Econ.*, 121, 108-116, <https://doi.org/10.1016/j.ecolecon.2015.11.013>, 2016.

Reviewer 2 comment	Author response	Changes manuscript
<p>In the introduction section, community resilience and its role as a social support mechanism should be given more emphasis as this is the very critical topic of the study.</p>	<p>Thank you for this comment. We will add a short description of community resilience to the introduction.</p>	<p>Added short description of community resilience to the introduction</p>
<p>p.5, lines 110-112: protective role of social support on mental health is not an assumption - it has been validated by many research findings. This sentence should be revised so that it does not frame this role as an assumption.</p>	<p>Agreed! We will drop "assumption" from the sentence (rephrase the sentence).</p>	<p>Rephrased the sentence</p>
<p>Use of "provide support" or "support" where the word "corroborated" is used throughout the manuscript - a suggestion.</p>	<p>Thank you for this comment. We will conduct a language edit (native speaker) to resolve any language issues.</p>	<p>Performed language edit</p>
<p>p.8, lines 189-190: The rationale for expecting "the buffering effect of social support to be more pronounced when applying measures of collective (vs. interpersonal) social support." needs to be more clearly explained.</p>	<p>Thank you for this comment. As natural hazards usually are collective challenges, we reasoned that collective-level variables might be better predictors of mental health outcomes than individual-level variables. Similarly, previous research on global environmental problems has found that collective efficacy was a better predictor than personal self-efficacy for pro-environmental action. Furthermore, our measure of collective social support is more in line with a functional measure of support (vs. structural measure) - which in turn would suggest a moderating effect. We added some text on this to clarify our assumption</p>	<p>Added text to clarify rationale</p>
<p>The study is based on a specific case study (flooding in Bavaria, 2016), but the case study context is not explained. Sociodemographic and cultural characteristics as well as disaster risk and governance information should be given briefly so that readers know the case site better to make sense of the findings.</p>	<p>Thank you for raising this point! We will add a more detailed description of the study region.</p>	<p>Added a more detailed description of the study region.</p>
<p>Data was collected in two mediums: paper-pencil and online - N for each should be</p>	<p>Thank you for this comment. We will provide separate Ns for the offline and online</p>	<p>Provided separate Ns for online and</p>

<p>given. Also, did the researchers check whether there were significant differences in main study variables between these two groups? If not, this should also be indicated as a rationale for analyzing the two data sets together.</p>	<p>questionnaires. We also controlled for differences regarding survey method but found no significant effects.</p>	<p>paper-&-pencil surveys</p>
<p>Method section could be revised and rearranged to include each variable (or set of variables) as separate subtopics and give more detailed information under each. In the current version of method, it can be hard to read and follow the variables and how they were assessed. It would also be nice to have each measure in the appendix - it is important to make sense of the results.</p>	<p>Thank you for this comment. We would like to keep the method section as streamlined as possible. However, we could present a table to summarize the core measures of the study and to provide a more comprehensive overview of our scales. We will also provide a full list of measures/items in an appendix.</p>	<p>Provided a full list of measures/items in an appendix</p>
<p>Did the researchers analyze the correlations between main study variables and disaster-related sociodemographic variables (property ownership and previous flood experience)? Were there any significant correlations? If so, this should be indicated and the analyses should be repeated to see if the results change or not, and reported accordingly.</p>	<p>Thank you for this comment. We analysed the correlations between sociodemographic variables (property ownership and previous flood experience) and core variables (perceived consequences, collective social support, interpersonal social support, post-disaster mental health). Results showed no significant correlations (one exception: respondents with previous flood experience reported lower levels of interpersonal social support; $r = .32$). However, including previous flood experience as a covariate in our main analyses did not change the significance of our results.</p>	<p>No action</p>
<p>Community resilience items seem to reflect a description of community characteristics - they do not reflect whether respondents consider and/or use these characteristics as a means of collective social support themselves. Thus, there seems to be an assumption here. The researchers should explain this in the method section and also discuss its possible influence on the findings.</p>	<p>Thank you for raising this point! The CART measure was developed by Pfefferbaum et al. specifically to measure community resilience and has been applied by subsequent research across different hazard contexts. The measure distinguishes between different dimensions of community resilience such as connecting and caring (e.g. "People in my community help each other"; "People in my community are committed to the well-being of the community"), resources (e.g. "My community has the resources it needs to take care of community problems"),</p>	<p>Added notes to the method section and the General Discussion to address this issue</p>

	<p>transformative potential (e.g. "People in my community work together on solutions so that the community can improve.") or disaster management (e.g. "My community actively prepares for future disasters."). From our perspective, especially the CART items on connecting and caring are similar to items used in other measures of social support. We therefore argue that CART goes beyond a mere description of the community but captures the potential of the community to provide social support. Nevertheless, we concede that for some of the items the reference to social support might be less pronounced and that the CART measure <u>might</u> be a somewhat indirect measure of collective-level social support. However, even if this limitation is valid, it should weaken the effects, due to restricted correspondence between independent and dependent measures. Thus, our results would probably underestimate the buffering effect of community resilience on mental health. We agree with your suggestion to add notes to the method section and the General Discussion to address this issue.</p>	
<p>More information about the adaptation of CART scale into German should be given in the method section</p>	<p>Thank you for this comment. The scale was translated from English to German (by German native speaker) and then back English (by English native speaker). Issues were resolved among the two translators. We will provide a full list of CART items used in the survey in an appendix.</p>	<p>Provided a full list of measures/items in an appendix</p>
<p>The rationale for selecting the particular items from the original scales should be given for each variable.</p>	<p>Thank you for this comment. To fit the requirements of a field study in a very sensitive situation (surveying people only few weeks after flooding), we had to discuss our draft questionnaire with local representatives and persons helping us to disseminate the questionnaire (e.g. representatives from emergency organizations). The final item selection was based on these discussions. We will add a note on this to the method section.</p>	<p>Added note to method section</p>

I suggest the readers to refer to findings of the emBRACE project where community resilience was the main study topic, in different disaster contexts and from different theoretical and methodological perspectives.

* Overall output of the project; the community disaster resilience framework (book): <https://www.wiley.com/engf/Framing+Community+Disaster+Resilience-p-9781119165965>

* Particular case study finding on perceptions of community resilience in earthquake context (article): <https://www.sciencedirect.com/science/article/pii/S2212420915301849>

* Particular case study finding on psychological resilience in earthquake context (article): <https://www.tandfonline.com/doi/abs/10.1080/15325024.2015.1108794>

Thank you for this helpful references! We will incorporate them into our theory section.

Updated theory section (incorporated references)

Technical corrections and typos

use of "&" between authors of end-text references with 2 or 3 authors (not "and")

use of "," after "e.g." – that is, "e.g., word"

use of apostrophes with Times New Roman font (there are ones who are no written with this font)

Use of comma before "and" for cases like "aaa, bbb, and ccc" (when there are three or more factors listed)

Statistical values in the Results section should be checked as some of them are different from the values indicated in the tables.

p. 2, line 25: "might have" (HAVE instead of HAS)

p.3, line 42: "people's health" apostrophe is not written with the font Times New Roman.

p.3, line 42: "people's" (apostrophe should be used before the letter s)

p.3, line 50: "exposure" can be preferred instead of

Thank you for your comments / careful reading of our manuscript

We have corrected these errors / conducted a language edit

<p>"exposition"</p> <p>p.3, line 42: "e.g., social support" (comma after the letter g.)</p> <p>p.4, line 61: parenthesis before "Pfefferbaum" should be deleted.</p> <p>p. 4, lines 64-71: Presentation of the article structure seems to be too mechanically written. This can be distracting for the research aim mentioned just before. It would be better to elaborate on the research aim, specifying the variables of interest - instead of giving the article structure (article structure is as expected, no need to mention that!). Still, if deemed necessary, at the end of this paragraph a short sentence outlining the introduction subtopics can be used.</p>		<p>We have rephrased this paragraph to incorporate central variables / analyses</p>
<p>p.4, line 73: "flooding losses (both financial and non-financial)" (place of parenthesis information can be changed as indicated)</p> <p>p.4, line 76: " pain), and " (comma after parenthesis)</p>		<p>We have corrected these errors</p>
<p>p.4, line 78: "negatively affected" (adverb before the verb)</p> <p>p.4, line 78: "well-being" (not wellbeing)</p> <p>p.4, line 81: "Stein et al., " (space after "et")</p> <p>p.4, lines 82-84: (e.g.,... [references]; for a review, see Ohl & Tapsell, 2000)</p>		
<p>p.4, line 86: "(, 2016)." (dot after the parenthesis)</p> <p>p.5, lines 87-88: the first sentence of a paragraph should not start with "although". It can be revised not to include "although" in the beginning.</p> <p>p.5, lines 94-96: no need to give definition of ego-resilience with direct quotation, paraphrasing would be enough and also better.</p>		<p>We have rephrased the sentence</p> <p>We changed the text (paraphrasing)</p>

<p>p.5, line 99: "relocation need" (instead of "the need to relocation")</p>		<p>Rephrased to "need to relocate"</p>
<p>p.5, line 101: "...; Mason et al., 2010)." (dot after the parenthesis)</p> <p>p.5., line 103: no need for parenthesis before "Dittrich"</p> <p>p.5., lines 107-109: (e.g., aaa, bbb, ccc, and ddd; author1 & author 2, year). – this is a more accurate way of giving examples with references at the end. I will not specifically write this correction in the following cases.</p> <p>p.6, line 119: "do not" (instead of cannot)</p> <p>p.6., line 135: "In flood context, empirical evidence for " (omission of the's)</p> <p>p.7, line 147: "They first provided "</p> <p>p.7, line 161: ", these findings need further replications to reach firm conclusions."</p> <p>p.7, line 162: "Taken together" (instead of "In sum")</p> <p>p.8, line 182: "but also to society" (adding "also")</p> <p>p.8, line 187: "Resilience communities are described as being able to "... " (...)."</p>		<p>We have corrected these errors</p> <p>We would like to keep it separately to clarify which references are linked to specific findings</p> <p>We have corrected these errors</p>
<p>p.8, line 191: "To further explore the topic, the present research : : :" (instead of "more exploratory")</p> <p>p.8, line 191-192: It would be better to revise this sentence to more clearly indicate what it is meant to say so that hypotheses 6 & 7 can be better understood.</p> <p>p.9, lines 195-196: No need to start a new paragraph for "Extending this work..." – two sentences should be in the same paragraph.</p> <p>p.9, line 198: "contribute" instead of "complement"</p>		<p>We have rephrased the sentence</p> <p>We have restructured the text</p> <p>We have corrected these errors</p>
<p>p.9, lines 201-202: suggestion "Particularly, our</p>		

<p>research focuses on the following hypotheses:"</p> <p>p.9, lines 214-215: "consequences of flooding"</p> <p>p.10, line 224: "consists of" (instead of "contains")</p> <p>p.10, line 224: "aged between 18 and 80"</p>		
<p>p.10, line 243: "e.g., ..." instead of "example item" (same suggestion in other cases where this phrase is used in the method section)</p> <p>p.10, lines 261-263: Why egoresilience was used as a covariate? The rationale needs to be clearly stated.</p> <p>p.12, line 296: "psychological and physical distress" ("and" instead of "&")</p> <p>p.12, line 298: "distress and sense of coherence" ("and" instead of "&")</p>	<p>We used it as a covariate as it reflects people's capacity to deal with stress in an adaptive manner, thus affecting post-disaster mental health (over and above social support). We will add the last point to the description of the measure.</p>	<p>We have rephrased it</p> <p>We have added an extend description of measure</p> <p>We have corrected these errors</p>
<p>p.13, line 319: ".. explained 35% of the variance ..."</p> <p>p.17, line 427-428: "... for improving our understanding of ..."</p> <p>p.18, line 456: semicolon should be used between references</p> <p>p.18, line 459: "social and social life" - there seems to be sth wrong here</p> <p>p.19, line 470-474: CARTrelated sentences seem to be very similar with those in the method section. There is need for paraphrasing here.</p>		<p>We have rephrased it</p>