Manuscript ID: ijerph-1218264 Resilience as a protective factor in Basic Military Training, a longitudinal study of the Swiss Armed Forces Sandra Sefidan, Maria Pramstaller, Roberto La Marca, Thomas Wyss, Dena Sadeghi Bahmani, Hubert Annen, Serge Brand Journal: International Journal of Environmental Research and Public Health	
Dear Dr. Brand, Thank you again for your manuscript submission: Manuscript ID: ijerph-1218264 Type of manuscript: Article Title: Resilience as a protective factor in Basic Military Training, a longitudinal study of the Swiss Armed Forces Authors: Sandra Sefidan, Maria Pramstaller, Roberto La Marca, Thomas Wyss, Dena Sadeghi Bahmani, Hubert Annen, Serge Brand * Received: 26 April 2021 E-mails: s.sefidan@hotmail.com, maria@pramstaller.org, Roberto.LaMarca@clinica-holistica.ch, thomas.wyss@baspo.admin.ch, dena.sadeghibahmani@upk.ch, hubert.annen@milak.ethz.ch, Serge.Brand@upk.ch Submitted to section: Mental Health, https://www.mdpi.com/journal/ijerph/sections/Mental_Health Your manuscript has now been reviewed by experts in the	We thank the Handling Editor for the opportunity to submit a revised manuscript. We also thank the three anonymous Reviewers for their careful and thoughtful comments and critiques. We believe the reviews helped us to improve the quality of the manuscript. Please find the detailed point-by-point-response below. The main changes are highlighted in **bold characters highlighted in yellow**. Other minor changes have been made to improve grammar, style and word choice and to correct punctuation. Again, we thank you, the Handling Editor and the anonymous reviewers for all your kind efforts. Of course, we are ready to do more work on the files, in the event that the revision and the answers are not yet entirely satisfactory.

field. Please find your manuscript with the referee reports at this link: https://susy.mdpi.com/user/manuscripts/resubmit/240e6aa0003f05b5ad453afdd6656118 Please revise the manuscript according to the referees' comments and upload the revised file within 10 days (by 28 May). Please use the version of your manuscript found at the above link for your revisions. (I) Any revisions to the manuscript should be marked up using the "Track Changes" function if you are using MS Word/LaTeX, such that any changes can be easily viewed by the editors and reviewers. (II) Please provide a cover letter to explain, point by point, the details of the revisions to the manuscript and your responses to the referees' comments. (III) If you found it impossible to address certain comments in the review reports, please include an explanation in your rebuttal. (IV) The revised version will be sent to the editors and reviewers. If one of the referees has suggested that your manuscript should undergo extensive English revisions, please address this issue during revision. We propose that you use one of the editing services listed at https://www.mdpi.com/authors/english or have your manuscript checked by a native English-speaking colleague.	

Do not hesitate to contact us if you have any questions regarding the revision of your manuscript. We look forward to hearing from you soon. Kind regards, Pavle Janic Assistant Editor, MDPI AG E-Mail: janic@mdpi.com Bulevar Mihajla Pupina 115, 11000 Belgrade, Serbia +381 11 414 75 49 MDPI St. Alban-Anlage 66, 4052 Basel, Switzerland Tel.: +41 61 683 77 34; Fax: +41 61 302 89 18	
Reviewer #1	
Does the introduction provide sufficient background and include all relevant references? – Yes Is the research design appropriate? – Can be improved Are the methods adequately described? – Can be improved Are the results clearly presented? – Yes Are the conclusions supported by the results? - Yes	We thank Reviewer #1 for the positive and encouraging feedback, which allowed us to substantively improve the quality of the manuscript.
Thank you for allowing me to review this manuscript. This manuscript entitled "Resilience as a protective factor in basic military training, a longitudinal study 2 of the Swiss Armed Forces". The present study examined whether resilience would act as a protective factor 24 during BMT in the Swiss Armed Forces.	

It is an interesting project, with a very current theme, although it has several limitations that make it susceptible to publication in this magazine. These limitations are detailed below:	
- In relation to the citation regulations, there are errors in the order of the citations. It is necessary to review the citations so that they comply with the regulations indicated by the journal.	Thank you very much for drawing the attention to this issue: We have carefully checked once again the referencing style and the reference list to meet the requirements of the MDPI publisher.
- At the end of the introduction, the objective of the article is not detailed. It would be important for them to be reflected in the last paragraph of the section.	We do fully agree with Reviewer #1; we have specified the aims of the study, and the text reads now as follows: **"Given this background, the aims of the present study were four-fold: First, to investigate the associations between resilience, perceived stress and mental distress at the beginning of the BMT; second, to calculate, if and to what extent resilience at baseline could predict perceived stress and mental distress at week 11 of the BMT; third, to investigate, if resilience, perceived stress and mental distress were associated with military performance, as rated by recruits' superiors; fourth and last, if recruits dropping prematurely from the BMT showed specific psychological profiles, compared to those completing the BMT at least until week 11."**
- The material and methods section is very complete, and the main data that should be included in this section are identified. However, the study design is not clearly specified.	Thank you for the valuable feedback. The text reads as follows: **"2.1 Procedure and study design"** And: **"The study design was as follows: The survey was completed at two time points, at the beginning of BMT (baseline) and again at week 11. At baseline, after signing a declaration of consent, participants completed questionnaires covering demographic information, resilience, perceived stress and metal distress (see**

	details below). Next, at week 13 recruits' instructing officers (superiors) rated their military performance (see details below). At week 11, some recruits left BMT for physical or psychological health reasons ("dropouts")."
- In the results section, the tables do not specify a footer for those used in them.	Thank you, there was a layout issue; this problem has been solved.
- The conclusions are clear and precise, but it would be interesting to include some future lines due to the importance and timeliness of the subject.	Thank you for this important comment. To address these issues, we amplified the discussion section; the text reads as follows: **"Future studies among BMT of Swiss armed forces might address resilience training programs (Dragonetti, 2020; Reivich 2011) and other important issues for the Army as bullying (Crowell-Williamson, 2019) or willingness to serve in military service (Sönmez, 2013). Other topics of interest could be the role of minorities, somatization levels and coping styles (Nakkas, 2016; 2019) as well as predictors and personal improvements."** And: **"As it was shown before, that online-CBT interventions have an positive impact on depression, anxiety (Thabrew, 2018; El Morr, 2020) and insomnia (Soh, 2020), further studies might include the survey of online-CBT interventions and its impact on diverse psychological variables in military context, for example during BMT."**
- As noted, the central theme of the manuscript is highly topical, which requires that the bibliography be from recent years. However, in the bibliographic references section, there are articles with more than 10 years. It would be necessary to review this aspect and eliminate those citations that are not up to date.	Thank you very much for drawing our attention to this issue: We have carefully checked all of the references, and we implemented new references where necessary.

	Again, we thank Reviewer #1 for the care devoted to review the present manuscript.
Reviewer #2	
Does the introduction provide sufficient background and include all relevant references? – Yes Is the research design appropriate? – Can be improved Are the methods adequately described? – Can be improved Are the results clearly presented? – Can be improved Are the conclusions supported by the results? – Must be improved	As for Reviewer #1, we thank Reviewer #2 for the positive and encouraging feedback, which allowed us to substantively improve the quality of the manuscript.
The overall small effect sizes are concerning, especially given the lack of adjusting for subject characteristics. In general, many prior studies have found that higher resilience is associated with better mental health, reduced stress, and greater well-being, hence the results are somewhat expected and lack novelty.	
Specific comments:	
1. Please change "As regards" to "With regard to".	Thank you for drawing our attention to this point; we changed “as regards” to “with regard to”.
2. There needs to be a better and more varied writing style. The authors keep using the same transition between paragraphs, "As regards...	Thank you for drawing our attention to this point; as often, the writing style is a matter of taste and judgment. So far, we made good experiences and got good feedback as regards the style in our papers (https://pubmed.ncbi.nlm.nih.gov/?term=brand+gerber; 145 papers). As requested and where appropriate, the decision was to improve the style and writing.
3. Based on my understanding, the Swiss government imposes the duty to serve in the military on every Swiss male, but allows conscientious objectors to enlist in a compulsory civil service?	This is correct! Military duty is compulsory for all male Swiss citizens. Under specific and restricted conditions, the individual may opt for civil service. In this case, the male Swiss citizen passes his military service in civil institutions such as hospitals, schools, daycare centers for small children and older people, centers for assisted living, or even in the Alps to help farmers to cope with their strenuous tasks. Please

	note that compared to the time lapse of Basic Military Training, civil service is 1.5-time longer. Further, civil service is not just an option to choose freely, but the male Swiss adult must convincingly justify, as to why he does not feel able or willing to do the "regular" military service. At this point, we were unsure whether to add such information in the text or not. The decision was not to include such information, as we had the impression that such information did not substantively add to the current text in an important way. Of course, we are ready to integrate and add such information in the event that Reviewers, the Handling Editor and the Editorial Board think that such information are essential to the understanding of the content of the present manuscript.
4. How was the sample size determined? There is currently no evidence of power calculation.	Thank you for this important comment; for the following reasons, we did not perform a sample size calculation: First, to our knowledge, this is the first study to investigate the associations and predictive value of resilience in the context of the Swiss Army. As such, we could not estimate the expected effect size to run a sample size calculation. Second, the study had a strong naturalistic and explorative character; this means that we assessed as many participants of a given Basic Military Training center. Third, we could not rely on previous studies on resilience among other armies, as most probably the methodological overlap as regards sample characteristics, measurements and statistics would have been too modest, such to allow a reliable sample size calculation. Given this, the sample size calculation was not based on previous findings. The text reads now: **"Preliminary information: Given the naturalistic and rather explorative character of the present study, which has been conducted for the first time in a Swiss Army setting, no sample size calculation was performed."**

5. Please provide the actual IRB study/approval number.	Thank you for this important issue. The text for *the Institutional Review Board Statement* reads as follows: **AGEK (Arbeitsgemeinschaft der Schweizerischen Forschungs-Ethikkommission für klinische Versuche, Aargau, protocol code 2011/008; date of approval: 08. April 2011**) approved the study, which was performed in accordance with the seventh and current [48] edition of the Declaration of Helsinki.
6. Was the study protocol prospectively registered?	The answer is no. Given that the study was not a randomized clinical trial, the Ethical committee did not impose us the task to register the study.
7. The effect sizes were all small. They were also unadjusted for potential covariates. More elaboration and exploration are necessary.	This is correct; we performed preliminary calculations with age, educational level and BMI as possible confounders; none of these variables did systematically change or bias scores of resilience, perceived stress, mental distress and military performance. Given this, the decision was to keep the current pattern of statistical procedure unaltered. The text reads now: **"We performed preliminary calculations with age, educational level and BMI as possible confounders; none of these variables did systematically change or bias scores of resilience, perceived stress, mental distress and military performance. Given this, the decision was to keep the current pattern of statistical procedure unaltered."** Further, in the limitation section, the following limitation was added: **"Specifically, given that military service is compulsory for all male Swiss adults, it is also highly conceivable, that motivational issues (willingness to serve) might have blurred the current pattern of results (Sönmez, T. (2013)."**

8. There were other study limitations, e.g. use of self-reported outcomes, and the lack of demographic diversity limits the generalizability of the study findings.	Thank you for drawing our attention to these issues. As requested, the following limitations were added: **"This further means that the results not generalizability is modest."** And: **"Likewise, it is conceivable, that further unassessed variables such as bullying (Crowell-Williamson, 2019), belonging to an ethnic minority (Nakkas, 2019) or the risk of unemployment after the military service might have unfavorably impacted on the present pattern of results. Fourth, we basically relied on self-reports; this might be the reason of the modest overlap between the self-reported dimensions and military performance, as ratted by their superiors."**
9. How can we encourage and support psychological resilience to stress for these servicemen? At least some comments are necessary.	Thank you for this important note. We considered this. The text reads now: **"Ninth, while for instance the US-Army offers specific resilience trainings programs (Dragonetti, 2020; Reivich 2011) to their service men with encouraging results, such specific interventions are still lacking in the Swiss Army."**
10. What were some of the reasons for dropout from the study?	This point was described in the section *2.2 participants*. The text reads as follows: **Exclusion criteria were: clicking through the items either only on the right or left side within a time lapse of some minutes, resulting in a standard deviation of zero on questionnaires with inverse items (called "click-throughs").**
11. The underlying data should be made publicly available. If this was not possible, please provide a reason why.	Thank you for this important issue. Given that data belong to the Swiss government, the data are not publicly available so far.

	Again, we thank Reviewer #2 for the care devoted to review the present manuscript.
Reviewer #3	
Does the introduction provide sufficient background and include all relevant references? – Can be improved Is the research design appropriate? – Yes Are the methods adequately described? – Yes Are the results clearly presented? – Yes Are the conclusions supported by the results? – Yes	As for Reviewer #1 and Reviewer #2, we thank Reviewer #3 for the positive and encouraging feedback, which allowed us to substantively improve the quality of the manuscript.
I have the following comments for the authors to address. I am happy to review this paper again.	
1) The authors stated " Swiss male recruits during their basic military training (BMT)" Can the authors provide more information. Is BMT compulsory in Switzerland? Are these men voluntary or involuntary?	Yes, BMT is compulsory for all Swiss male adults. The point was specified as follows: **In Switzerland, military service is compulsory for all men. Therefore, all male citizens become liable for conscription at the age of 18.**
2) The authors should state the duration of BMT.	Thank you. The text was specified as follows in section *2.1. Procedure and study design*: **"Basic military training lasts 21 weeks."**
3) Under the method, the authors should state the recruitment period. Was it during the COVID-19 pandemic?	Thank you for this important note. The study was performed before the Covid-19 outbreak. We have specified the time lapse as follows: **"The study was conducted during autumn 2011 and spring 2012."**
4) The authors should state the following limitations. There are other confounding factors that this study did not address. First, this study did not assess bullying that is very common in the army. Second, this study did not assess for physical fitness e.g BMI or obesity, the higher BMI, the higher stress level. Third, the authors should assess	Thank you for all of these important issues. We added to the limitation section as follows: **"Specifically, given that military service is compulsory for all male Swiss adults, it is also highly conceivable, that motivational issues (willingness to serve) might have blurred the current pattern of**

willingness to serve BMT. Lastly, the authors did not provide any information of chronic medical illness.	**results. Likewise, it is conceivable, that further unassessed variables such as bullying (Crowell-Williamson, 2019), belonging to an ethnic minority (Nakkas, 2019) or the risk of unemployment after the military service might have unfavorably impacted on the present pattern of results. Fourth, we basically relied on self-reports; this might be the reason of the modest overlap between the self-reported dimensions and military performance, as ratted by their superiors."** As BMI and obesity (Quertier; 2020) might be an issue in the Army as shown in previous studies, we calculated person's correlation coefficients with our study variables and BMI. The correlation coefficients remain all insignificant: Resilience (-.03); perceived stress at baseline (.03); mental distress (.00); perceived stress at week 11 (.03); mental distress at week 11 (.08); military performance (.01) We added in the text as follows: **"Participants were all males (N = 525; mean age: 20.3 years (SD = 1.16); BMI (mean BMI: 23.51 (SD = 3.06))."** And: **"We performed preliminary calculations with age, educational level and BMI as possible confounders; none of these variables did systematically change or bias scores of resilience, perceived stress, mental distress and military performance. Given this, the decision was to keep the current pattern of statistical procedure unaltered."** Swiss male adults with chronic medical illness are not abet to military service and accordingly the texts reads as follows: **"Specifically, individuals with chronic medical issues such as severe injuries of the musculoskeletal system, severe diabetes, vision impairment higher than 8 deportees, or severe deficiencies of immune system (e.g., HIV, multiple sclerosis) are not allowed to fulfil their military duties."**

5) The authors should discuss future study such as resilience and burnout of military personnel.	Thank you for this interesting issue. Given that recruits of BMT and the service men in higher positions complete their military service duty in a very short period of time, and given that recruits and their superiors are not professionals, the risk of developing a burnout is much lower, compared to professional soldiers (Bartkowiak et al, 2021). Bartkowiak, G.; Krugiełka, A.; Kostrzewa-Demczuk, P.; Dachowski, R.; Gałek, K. Styles of Coping with Stress as a Factor Influencing Professional Burnout among Professional Officers of the Polish Army in the Context of Their Age. Sustainability 2021, 13, 3953. The decision was not to mention this point in the manuscript.
6) The authors should propose psychological intervention. The authors should mention digital cognitive behavior therapy that can treat psychiatric symptoms such as insomnia that is common in military personnel. Please search Pubmed for the studies that state "Although cognitive behavioural therapy for insomnia (CBT-I) has been recommended the initial therapy for insomnia, its clinical usage remains limited due to the lack of therapists. Digital CBT-I (dCBT-I) can potentially circumvent this problem"	Thank you for this important and creative comment. The text reads like this: **"As it was shown before, that online-CBT interventions have an positive impact on depression, anxiety (Thabrew, 2018; El Morr, 2020) and insomnia (Soh, 2020), further studies might include the survey of online-CBT interventions and its impact on diverse psychological variables in military context, for example during BMT."**
	Again, thank Reviewer #3 very much for the valuable comments and suggestions.