The Associations Between Data Sharing and Reusing Behaviours, Perceived Career Risk, and Research Experience Among Traumatic Stress Researchers

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Abstract

Background. Data sharing (releasing primary research data) and data reusing (acquiring this dataset for reusage) are both actions of great importance in traumatic stress research which deals with highly vulnerable victims. Therefore, reusing trauma victims' data to gain new insights can minimise the burden experienced through requestioning. Whereas previous studies indicated that perceived career risks hinder researchers across domains from sharing and reusing data, this study targeted traumatic stress researchers directly. Thereby, the associations between data sharing and perceived career risk, on the one hand, and data reusing and perceived career risk, on the other hand, were investigated. Additionally, research experience was included as a moderator.

Method. Traumatic stress researchers ($N = 190$) completed a cross-sectional online survey tapping data sharing (6 items) and data reusing (4 items) using a 3-point Likert scale and perceived career risk (4 items) using a 7-point Likert scale. To test the main associations a simple linear regression analysis was conducted. To analyse the moderation, the interaction of research experience (measured in years) and perceived career risk was included as an additional independent variable in a multiple regression analysis.

Results. This research found that perceived career risk is weakly and negatively associated with traumatic stress researcher's data sharing and reusing behaviour. Moreover, the results indicated a strong negative moderation effect between perceived career risk and research experience on data reuse. The moderation of perceived career risk and research experience on data sharing was not significant.

Discussion. Findings suggest that higher perceived career risks are associated with less data sharing and reusing behaviours in traumatic stress researchers. Additionally, it was found that fewer years spent researching are highly negatively related with the association between perceived career risk and data reuse. Promoting and educating more scientists about data sharing and reusing and its benefits could increase the frequency of both behaviours.

Keywords. data sharing, data reusing, perceived career risk, traumatic stress researchers, years of research experience, cross-sectional online survey

The Associations Between Data Sharing and Reusing Behaviours, Perceived Career Risk, and Research Experience Among Traumatic Stress Researchers

Over the last decades, the Open Science movement inspired scientists of STEM (science, technology, engineering, and mathematics) to make their research practices transparent and accessible to all levels of society (Woelfle et al., 2011). This includes publications, physical samples, collected data as well as software to be shared and developed through collaborative networks (Vicente-Saez & Martinez-Fuentes, 2018). Along with the Open Science movement, social sciences started to encourage free access to research data as it was perceived to be essential and valued by other scientists (Kim & Yoon, 2017). However, researchers experience the preparation it takes to make a dataset assessable as too burdensome because they do not receive any recognition for doing so (Kidwell et al., 2016).

The online journal *Psychological Science* tried to promote Open Science by introducing a digital badge in 2014 (Kidwell et al., 2016). It was placed on publications and used to reward all scientists who made their data accessible. One and a half years later, an increase from 3% to 39% in data sharing was reported. Kidwell et al. (2016) proposed that the badge signalled colleagues that practising open science is respected, leading to a change in community norms. In order to achieve open science, data sharing and data reusing must become a standard practice by scientists across domains.

Data sharing is a behaviour followed by scientists individually when providing their raw or reprocessed data to other scientists by making it accessible through data repositories, via formal data usage agreements, or by sending the data through personal communication methods upon request (Kim, 2013). However, purely sharing one's raw data is not necessarily helpful as it cannot always be processed properly. In order to actually reuse the uploaded data, it has to be Findable, Accessible, Interoperable, and Reusable (FAIR). Therefore, the Go FAIR movement was brought to life in 2016 to provide guidelines and make published data more FAIR.

According to the Go FAIR website (https://www.go-fair.org), data is findable when individuals and computers can locate the desired data in a database. This step is followed by the accessibility of data which is ensured through possible authentication and authorization processes. Often primary and secondary data are being merged. Therefore, it should be interoperable concerning analysis, storage, and processing applications. To achieve their final goal of making data reusable, a description of metadata should be given. Metadata describes information about the original research data, including the identifiers of the dataset and the

way it was collected (Go FAIR, n.d.). Thus, when all conditions are met, it becomes easier for scientists to reuse pre-collected data. Data reuse refers to the usage of unprocessed data that has been collected by other scientists and provided for secondary analyses, or the replication of the previous study. This dataset can be used independently or in combination with other datasets to answer new research questions (Kim, 2013).

One research area that particularly benefits from data sharing and data reuse is the field of traumatic stress which deals with victims who experienced or witnessed a traumatic event. It can be distinguished between incidents on a larger scale, such as natural disasters, wars, and personal events, e.g., physical, or mental abuse, homelessness, or an accident (American Psychiatric Association, 2013). To become an object of research in the field of traumatic stress, the disturbing experience does not necessarily have to influence one's mental health. Nevertheless, it was found that one in three people develop post-traumatic stress disorder (PTSD) after being exposed to a traumatic event (National Health Service, 2022). Most common symptoms include flashbacks, nausea, headaches, or unpredictable emotional changes which are often influencing the individual's day-to-day life (American Psychiatric Association, 2013). In order to alleviate these consequences or even prevent traumas from occurring, research in traumatic stress is being conducted.

Besides the collection of primary research data, the reuse of this data has many benefits for individuals who experienced traumatic stress (Kassam-Adams & Olff, 2020). First, if the victim already participated in a study, their data can be used to test new hypotheses (Kassam-Adams & Olff, 2020). Secondly, by combining or comparing existing data, the burden participants experience through requestioning can be minimised. Thirdly, individuals who encountered impactful events in their lives can become hard to reach, either emotionally as they detach, or geographically, e.g., refugees who fled to a different country. Additionally, the sample sizes are comparably small due to the rarity of incidents that cause trauma as well as the limited willingness to participate after experiencing such an event (Kassam-Adams & Olff, 2020). When combining existing data, a larger sample can be drawn which increases the validity of the findings (Fried et al., 2018). Hence, the already collected traumatic stress data is full of largely untapped potential (Kassam-Adams & Olff, 2020).

Despite the numerous benefits, a study by Zhu (2019) found that only 21% (n = 1695) of the surveyed British academics across various disciplines reported having deposited their data online, even though almost 86% reported having a positive attitude towards the importance of making data available for reuse. According to Kim and Zhang (2015), this lack of action can be attributed, among other factors, to the perceived concerns of the scientists.

Kim (2013) reports three negative outcomes that can arise when sharing one's data, namely, the loss of control regarding one's data, the loss of publication opportunities, and losing a priority race. Moreover, researchers fear that the transparency of their data could uncover possible errors made in the analysis and report of their original work (Liotta et al., 2005). According to Kim and Yoon (2017), scientists' concerns about misinterpretation and infringement also cause researchers to reuse less data. Additionally, the lack of resources, such as time or money may become additional barriers (Campbell & Bendavid, 2003). As a result, scientists who believe that data sharing might jeopardise their careers are found to be less likely to share their data (Kim & Zhang, 2015).

Besides the concerns scientists have regarding their career, experience in conducting research can moderate the scientists' data sharing and reusing behaviour. Zhu (2019) proposed that younger academics share less of their primary research data because it could jeopardise their chances of publication before their opponents which is essential to advance their careers (Zhu, 2019). Similarly, a positive association between the experience academics have acquired over the years when self-archiving and the deposition of their research data was identified (Zhu, 2019). Additionally, scientists with experience in data reusing reported fewer concerns about others misusing their data (Yoon, 2015). Hence, the experience scientists have collected over the years when conducting research might be an underlying factor in the willingness to share and reuse data.

Since prior research focused on academics across disciplines, this study aimed to investigate the associations between data sharing, data reusing, perceived career risk, and research experience among traumatic stress researchers. Thus, the present study's objectives were to confirm and extend prior research findings by targeting traumatic stress researchers as our population of interest. Regarding *perceived career risk*, this study focused on the three negative outcomes mentioned above by Kim (2013) as well as on the fear that shared data may be misused or misinterpreted (Featherman & Pavlou, 2003).

This study integrated the years a traumatic stress researcher has worked in research, including research conducted during their training, e.g., masters or doctoral research as a moderator variable, further referred to as *research experience*. Since the interaction between *perceived career risk* and *research experience* on *data sharing* and *data reusing* was not addressed in previous studies, it was examined in an exploratory manner. To address the objectives of the current study, the following research questions with corresponding hypotheses were positioned.

The first research question tested was: To what extent is *perceived career risk* related to *data sharing* behaviour in traumatic stress researchers and to what extent is this relation moderated by *research experience*? Two hypotheses arise from this research question. First, it was hypothesised that *perceived career risk* is negatively associated with *data sharing* behaviour in traumatic stress researchers (H1). Additionally, it was proposed that the relationship between *perceived career risk* and *data sharing* is weaker for people who have more *research experience* (H2). The second research question tested was: To what extent is *perceived career risk* related to *data reusing* behaviour in traumatic stress researchers and to what extent is that moderated by *research experience*? Again, two hypotheses arise from this research question. It was expected that *perceived career risk* is negatively related to *data reusing* (H3). Additionally, we expected that the relationship between *perceived career risk* and *data reusing* is weaker for traumatic stress researchers who have more *research experience* (H4).

Method

Study Design and Participants

This study included a cross-sectional online survey with 190 participants. The main inclusion criterion that had to be met was being a researcher in the field of traumatic stress. Moreover, the questionnaire was available in seven languages, including Arabic, Brazilian Portuguese, English, French, Japanese, Korean, and Spanish. As a result, only people proficient in one of these languages were able to complete the survey. Since the questionnaire was online, participants were expected to have access to a computer and the internet.

Materials and Procedure

Before the recruitment of participants, this study received ethical approval from The Committee for the Protection of Human Subjects (IRB) of the Children's Hospital of Philadelphia. Data were collected between May 2021 and April 2022. Traumatic research scientists were approached via email, using a purposive sampling method. The email addresses were found by searching traumatic stress-related online journal articles to ensure that the possible subjects matched our research criteria. A recruitment message (see Appendix A) was developed and used as email content to gain participants. The email contained a short description of the aim of the study, plus a hyperlink to the survey. Moreover, announcements were spread during international psychotrauma-conferences and were posted on social media.

Additionally, a snowball sampling method was applied as research teams invited colleagues to participate and share the link to the questionnaire.

This study used an implicit informed consent where the participants indirectly agreed to be part of this study by pressing the hyperlink plus filling out the questionnaire. Participants completed the survey (see Appendix B) within 10 to 15 min. At the beginning of the questionnaire, the aim of the research was given, followed by questions about demographic characteristics. Besides sociodemographic questions, participants were asked about their academic background, such as academic discipline, current job title, research population, and types of data collection. Additionally, it was asked how many years participants spent conducting research. This question was crucial for this paper as it was proposed to act as a moderator variable. Before participants were presented with relevant items for this research, definitions of data sharing, data reusing, and metadata were provided. In the end, participants were thanked for their contribution and the possibility of providing feedback or comments about their own views or experiences regarding data sharing and data reuse was offered.

Overall, the survey included 48 items while only 14 items were investigated in this paper. Most items used in this study were developed by N. Kassam-Adams and her team from existing questionnaires about data sharing and reusing (Kim, 2013; Kim & Stanton, 2016; Kim & Yoon, 2017). Their choices to include or exclude items were based on expert consensus.

Measures

Data Sharing

To assess *data sharing*, six items were newly created by N. Kassam-Adams and colleagues. Two example items are ‘How often have you uploaded your data, RELATED TO AN ARTICLE YOU PUBLISHED, into a “public” web space (e.g., PsyArxiv, MedArxiv, OSF)?’ and ‘How often have you been personally asked to share data for an article you published?’. Additional items were provided in Appendix B. The frequency of data sharing was measured using a 3-point Likert scale ranging from 1 (*never*) to 2 (*1 or 2 times*) to 3 (*more than 2 times*). For the analysis, participants’ responses were summarised, ranging from 6 to 18. By using this sample, a Cronbach’s alpha of .75 was reached, indicating that the measure is considered reliable.

Data Reusing

N. Kassam-Adams and colleagues created four items which were summed to assess *data reusing* behaviour in this survey. The items 'How often have you downloaded or requested data from a repository for your own analyses/ research?' and 'How often have you published results of work that included use of other's data?' are examples of such items. Further items were provided in Appendix B. Participants' data reusing frequency was measured using a 3-point Likert scale ranging from 1 (*never*) to 2 (*1 or 2 times*) to 3 (*more than 2 times*). For the analysis, participants' responses were summarised, ranging from 4 to 12. By using this sample, a Cronbach's alpha of .77 was calculated which is considered high.

Perceived Career Risk

The subscale *perceived career risk* was validated before in a study by Featherman and Pavlou (2003). Four items were used to measure perceived career risk, such as 'There is a high probability of losing publication opportunities if I share data' and 'Data sharing may cause my research ideas to be stolen by other researchers' (Featherman & Pavlou, 2003). Additional items were provided in Appendix B. The participants were able to respond to these items on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). For the analysis, their responses were summarised, ranging from 4 to 28. Featherman and Pavlou's (2003) overall risk subscale indicated strong internal reliability ($\alpha = .85$). In addition, our sample reached a Cronbach's alpha of .82 which is considered high.

Data Analysis

The statistical programme IBM SPSS Statistics version 25 (IBM Corp., 2017) was used to tabulate and analyse the data. First, the data were screened. Next, the data were explored regarding the descriptives and frequencies. Moreover, a Shapiro Wilk test was executed to inspect the variables data sharing, data reusing, and perceived career risk for normality which indicated a significant deviation from normality. Nonetheless, no significant deviations were found after visually inspecting the QQ plots (see Appendix C). Therefore, to test the hypothesis, parametric tests were employed.

In order to test the first hypothesis, a linear regression analysis was conducted to explore the relationship between *perceived career risk* and *data sharing*. The same analysis was used to investigate the third hypothesis with *perceived career risk* as the independent variable and *data reusing* as the dependent variable. In order to explore the moderation effect, the interaction effect of both independent variables was added next to the main effect of *perceived career risk* and *data sharing.* Therefore, *research experience* and *perceived career*

risk were multiplied and saved as a new variable, further referred to as moderator variable. Next, a multiple linear regression analysis was conducted to test the second hypothesis with *perceived career risk* as independent variable, *data sharing* as dependent variable, and *research experience* as moderator. Regarding the last hypothesis, a multiple regression analysis was executed with *perceived career risk* as independent variable, *data reusing* as dependent variable, and *research experience* as moderator.

Power Analysis

The software application G*Power version 3.1.9.6 (Faul et al., 2007) was used to conduct a power analysis. It was estimated that 55 participants are sufficient to find a medium effect size of 0.15, with 80% power, and $\alpha = .05$ using a linear multiple regression analysis with three independent variables. These findings indicate that our sample size ($N = 190$) is more than satisfactory.

Results

Demographic Information of the Sample

After excluding one participant who reported unrealistic data (having worked in a specific field for more years than their age), our sample included 189 participants. Most of the respondents were female, living and working in Europe with a mean age of 42.55 years. The experience in conducting research was measured in years spent researching indicating a mean of 14.12 years. Additionally, participants' scores in data sharing ($M = 8.4$, $SD = 2.54$) and data reusing ($M = 6.39$, $SD = 2.26$) were in the lower 50% of all possible scores. The perceived career risk scores ($M = 14.40$, $SD = 5.06$) were in the upper 50% of all possible scores. Participants' demographics were displayed in Appendix C.

The Association Between Perceived Career Risk and Data Sharing (H1)

The results of the simple linear regression indicated that the model explained 3% of the variance and that the model was significant, $F(1,186) = 4.75$, $p = .031$. Moreover, *perceived career risk* was significantly and negatively related with *data sharing* ($\beta = -.16$, $SE = .04$, $p = .031$). Hence, the first hypothesis was accepted.

The Associations Between Perceived Career Risk, Data Sharing, and Research Experience (H2)

The results of the multiple regression analysis demonstrated that the three predictors explained 20% of the variance, $F(3,177) = 14.33$, $p<.001$. It was found that *research*

experience was significantly and positively related with *data sharing* (β = .64, *SE* = .05, *p* = .002). However, *perceived career risk* was not significantly associated with *data sharing* (β = -.02, *SE* = .06, *p* = .872), neither was the interaction between the two independent variables (β = -.27, *SE* = <.01, *p* = .227). Concludingly, the third hypothesis was rejected.

The Association Between Perceived Career Risk and Data Reusing (H3)

The results of the simple linear regression indicated that the model explained 4% of the variance and that the model was significant, $F(1,183) = 7.04$, $p = .009$. Moreover, *perceived career risk* was significantly and negatively related with *data reusing* (β = -.19, *SE* = .03, *p* = .009). Therefore, the second hypothesis was accepted.

The Associations Between Perceived Career Risk, Data Reusing, and Research Experience (H4)

The results of the multiple regression analysis indicated that the three predictors explained 15% of the variance $F(3,174) = 10.07$, $p<.001$. The fourth hypothesis was accepted since the interaction between *research experience* and *perceived career risk* was significantly related with *data reusing* (β = -.59, *SE* = <.01, *p* = .014), as was *research experience* (β = .78, *SE* = .05, *p*<.001). However, *perceived career risk* was not significantly associated with *data reusing* (β = .08, *SE* = .06, *p* = .527).

Discussion

Previous studies examined the relationship between perceived career risk, data sharing and data reusing among scientists across disciplines (Kim, 2013; Kim & Zhang, 2015; Kim & Yoon, 2017; Zhu, 2019). As the very first, we investigated how perceived career risk is associated with traumatic stress researchers' data sharing and data reuse behaviours. Since traumatic stress researchers are researching victims who are extremely vulnerable, sharing and reusing their data is profitable to gain new insights without causing additional stress to the victims. The aim of this study was to investigate the associations between data sharing, data reusing, perceived career risk, and years of research experience among traumatic stress researchers.

Regarding the first hypothesis, it was found that perceived career risk was weakly and negatively associated with data sharing. This implies a relation between more perceived career risk and less data sharing among researchers in the field of traumatic stress. The findings are in line with the outcomes of Kim and Zhang (2015), who found that perceived career risk negatively affects attitudes towards data sharing among researchers of STEM.

Additionally, they found a positive correlation between the attitude towards data sharing and the actual data sharing behaviour (Kim & Zhang, 2015). Our study added that the findings of Kim and Zhang (2015) are generalisable to the field of traumatic stress. Also, higher perceived career risks are not only associated with negative attitudes as found by Kim and Zhang (2015) but are directly related with less data sharing behaviour.

Surprisingly, our second hypothesis must be rejected as no significant relation between the interaction of perceived career risk and research experience and data sharing in traumatic stress researchers was found. As this hypothesis was conducted in an exploratory manner, this finding added that the years spent in conducting research do not associate with the relationship between perceived career risk and data sharing in traumatic stress researchers. One explanation for our findings could be the low representativeness of data sharing in our sample (the mean of data sharing was in the lower 50% of all possible scores) which would have made measuring a significant effect more difficult. Thus, further research is needed to validate our findings.

As expected, perceived career risk was weakly negatively related with data reusing behaviour among traumatic stress researchers. This is denoting a relationship between higher perceived career risk and less secondary data reuse among traumatic stress researchers. These results support prior findings by Kim and Yoon (2017), who reported that more concerns regarding misinterpretation and infringement also cause researchers to reuse less data. Kim and Yoon (2017) researched scientists across disciplines ($N = 1.237$), including merely 6 % of academics in the field of psychology. Since this is not a representative outcome for the discipline of psychology, let alone traumatic stress research, our study added that perceived risks to their career are negatively associated with the reuse of secondary data among traumatic stress researchers.

Finally, the interaction between perceived career risk and research experience was strongly and negatively associated with data reusing behaviour in traumatic stress researchers. Thus, the fourth hypothesis can be accepted. Since this hypothesis was executed in an exploratory manner, this research adds that more years spent researching are associated with the relation between more perceived career risk and less data reusing behaviour among traumatic stress researchers. Interestingly, the significant association between perceived career risk and data reusing that was found when executing a simple linear regression analysis was not found when conducting the moderation analysis. Further research is needed to investigate the absence of the significant main relation between perceived career risk and data reusing when using research experience as a moderator.

Directions for Further Research

Additional considerations must be paid when interpreting the results of this study. We found that more years spent researching were associated with the relation between more perceived career risk and less data reusing behaviour among traumatic stress researchers. Since the main relationship between perceived career risk and data reusing in the moderation analysis was not significant, but a significant negative association between data sharing and perceived career risk was found, a mediation effect can be proposed. Therefore, further research is needed to investigate whether years spent researching are working as a mediator on the relation between perceived career risk and data reusing instead of a moderator as proposed in this study.

Implementation of Findings

Our research findings can be utilised as a basis for working on the potential barriers that might arise when sharing and reusing data. Thus, our findings propose that perceived career risks hinder traumatic stress researchers from sharing and reusing data. With this information, the Open Science or the Go FAIR movement could tailor their campaigns to the worries of the scientists (e.g., fear concerning privacy issues, fear of misuse, or the fear of exposure of missed errors in previous research). Zhu (2019) proposed that these fears can be overcome by paying more attention to the career benefits of data sharing and reuse behaviours, such as the increase in readership and the citation impact. Interventions promoting data sharing and reusing, such as the digital badge of the online journal *Psychological Science* sufficiently demonstrated that signalling colleagues about the benefits of Open Science is profitable (Kidwell et al., 2016). Moreover, Zhu (2019) states that scientists need to have a uniform citation and sharing practice before it can become a standardised practice. Hence, a tool kit must be created to prepare for and create data sharing databases. Concludingly, this tool kit could accelerate scientific progress.

According to Kassam-Adams and Olff (2020), more attention should be drawn to the importance of FAIR research in the field of traumatic stress. They argue that this field has an immense, generally undiscovered asset in the tremendous number of reusable datasets that are currently locked from distribution. There are barriers to data sharing which can be overcome with the right strategies (Kassam-Adams & Olff, 2020). The first barrier they mention is the concern that their career can be harmed due to data stewardship issues. This can be solved by rewarding and keeping track of the reusable data resources as well as honouring the contribution they made to their research field. Secondly, the perception that the scientists

'own' the data could be minimised by implementing incentives, or by appealing to their scholarly altruism and the contribution they could make to their research community.

Thirdly, by implementing training in data stewardship, the lack of experience in data preparation can be overcome. Moreover, by encouraging funders to acknowledge the time and money scientists have to spend when sharing data, the willingness to share data could increase. Finally, the problem that data sharing was not included in the participants' informed consent can be addressed by working closely with the ethics boards to allow sharing of past research and pay attention to appropriate restrictions. For future research, the consent could be adjusted with a sentence about the willingness to incorporate in anonymised data sharing for research purposes only (Kassam-Adams & Olff, 2020). The authors stress the importance to act now in order to not lose more seminal traumatic stress data by encouraging more scientists to follow the Go FAIR movement (Kassam-Adams & Olff, 2020). By proposing these strategies, challenges can be overcome by scientists whose data sharing and reuse behaviour could increase and the possibility to create a database in the field of traumatic stress becomes more likely.

Strengths and Limitations

A strength of this research were the good psychometric properties of the subscales included in the questionnaire. Even though the items assessing data sharing and data reusing were newly created by Kassam-Adams and colleagues, the measures indicated good reliability, yielding a Cronbach's alpha above .75. Additionally, the perceived career risk scale was validated before in previous research by Featherman and Pavlou (2003), also indicating high reliability.

Moreover, the large sample size of this study can be identified as an additional strength. The execution of a power analysis revealed that our sample of 190 participants is more than sufficient to identify a significant effect. Additionally, the great variability of participants' characteristics (e.g., age, nationality, experience in conducting research) is increasing the representativeness of the results. This might be due to the internationality of the survey that was available in seven languages.

Still, several limitations are noteworthy regarding this study. First, the items measuring data sharing were summed to create a new scale tapping a general impression of data sharing. Even though a high Cronbach's alpha was found when summing the items, the construct could have measured different subscales of data sharing. Three subscales could be identified, namely, data sharing in institutional repositories (2 items), data sharing in a public

web space (2 items), and sharing data after being asked personally to do it (1 item). Further research is needed to investigate whether these distinctions might affect traumatic stress researchers' data sharing or reusing behaviours.

Additionally, since the survey was mostly self-developed by Kassam-Adams and adapted from prior research (Featherman & Pavlou, 2003) it was not validated before its usage. This can be problematic because linguistic validation is necessary to explore the equivalence of the concept as well as cultural validation to see whether an item can be misinterpreted. Hence, language knowledge can be identified as a possible bias in this study as it was available in different languages without previous validation of the measures.

Moreover, the questionnaire only measured self-reported data sharing and reuse instead of the actual behaviours which are sometimes inadequate (Howard, 1994). Possible contaminations of self-reported measures, such as selective memory or social desirability are leading participants to exaggerate their behaviours (Howard, 1994). Hence, different biases (e.g., social desirability bias) might affect the results of this study.

Moreover, a sampling bias can be identified as the utmost priority of participants are female and live and work in Western countries. This is often caused by the implementation of a snowball sampling method (Parker et al., 2019). Causing initial subjects to recruit people who share the same characteristics (e.g., gender, country of working and living, language). One characteristic that was over-represented was the female gender. It might be that more women work in the field of traumatic stress. However, it is argued that women are more likely to participate in research after being approached because they are more cooperative and more prone to listen to authorities (Noy, 2008, as cited in Parker et al., 2019). Consequently, the representativeness of this sample is not guaranteed.

Conclusion

As far as we are aware, this was the first and only survey study examining the associations between data sharing and reusing behaviour, perceived career risk, and research experience among traumatic stress researchers. This research demonstrated that traumatic stress researchers' data sharing as well as reusing behaviour is weakly and negatively related to perceived career concerns. In addition, fewer years spent in conducting research was strongly related to less secondary data reuse among traumatic stress researchers. Further research is needed to explore the possibility that research experience acts as a mediator instead of a moderator.

Still, this information can be valuable while changing traumatic stress researchers' data sharing and reusing behaviours. By accordingly addressing the perceived career risks of scientists and using the strategies mentioned by Kassam-Adams and Olff (2020), a tool kit can be built to promote data sharing and reusing behaviours. To encourage more scientists to share their primary research data, we will share the collective survey results on the website of the Global Collaboration for Traumatic Stress for all to be accessed. Moreover, the final dataset will be available upon request. By doing so, we would like to lead by example and express the significance of data sharing and reusing.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Campbell, E. G., & Bendavid, E. (2003). Data-sharing and data withholding in genetics and the life sciences: Results of a national survey of technology transfer officers. *Journal of Health Care Law & Policy*, *6*(2), 241-255. https://digitalcommons.law.umaryland.edu/jhclp/vol6/iss2/5/

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. (2009). *G*power* (Version 3.1.9.6) [Computer software]. Department of Psychology of Heinrich Heine University Düsseldorf. https://www.psychologie.hhu.de/arbeitsgruppen/allgemeine-psychologie-und-arbeitspsychologie/gpower

Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceive risk facets perspective. *International Journal of Human Computer Studies, 59*(4), 451-474. https://doi.org/10.1016/S1071-5819(03)00111-3

Fried, E. I., Eidhof, M. B., Palic, S., Costantini, G., Huisman-van Dijk, H. M., Bockting, C. L. H., Engelhard, I., Armour, C., Nielsen, A. B. S., & Karstoft, K-I. (2018). Replicability and generalizability of posttraumatic stress disorder (PTSD) networks: A cross-cultural multisite study of PTSD symptoms in four trauma patient samples. *Clinical Psychological Science*, *6*(3), 335-351. https://doi.org/10.1177/2167702617745092

GO FAIR. (n.d.). *FAIR Principles*. Retrieved May 22, 2022, from https://www.go-fair.org/fair-principles/

Howard, G. S. (1994). Why do people say nasty things about self-reports? *Journal of Organizational Behavior*, *15*(5), 399-404. http://www.jstor.org/stable/2488212

IBM Corp. (2017). *IBM SPSS Statistics for Macintosh* (Version 25) [Computer software]. https://www.ibm.com/analytics/spss-statistics-software

Kassam-Adams, N., & Olff, M. (2020). Embracing data preservation, sharing, and re-use in traumatic stress research. *European Journal of Psychotraumatology*, *11*(1). https://doi.org/10.1080/20008198.2020.1739885

Kidwell, M. C., Lazarević, L. B., Baranski, E., Hardwicke, T. E., Piechowski, S., Falkenberg, L.-S., Kennett, C., Slowik, A., Sonnleitner, C., Hess-Holden, C., Errington, T. M., Fiedler, S., & Nosek, B. A. (2016). Badges to acknowledge open practices: A simple, low-cost, effective method for increasing transparency. *PLOS Biology*, *14*(5). https://doi.org/10.1371/journal.pbio.1002456

Kim, Y. (2013). *Institutional and individual influences on scientists' data sharing behaviors*. [Doctoral dissertation, Syracuse University]. School of Informational Studies - dissertations. https://surface.syr.edu/it_etd/85

Kim, Y., & Stanton, J. M. (2016). Institutional and individual factors affecting scientists' data-sharing behaviors: A multilevel analysis. *Journal of the Association for Information Science and Technology*, *67*(4), 776-799. https://doi.org/10.1002/meet.14505001093

Kim, Y., & Yoon, A. (2017). Scientist's data reuse behaviors: A multilevel analysis. *Journal of the Association for Information Science and Technology*, *68*(12), 2709-2719. https://doi.org/10.1002/asi.23892

Kim, Y., & Zhang, P. (2015). Understanding data sharing behaviors of STEM researchers: The roles of attitudes, norms, and data repositories. *Library & Information Science Research*, *37*(3), 189-200. https://doi.org/10.1016/j.lisr.2015.04.006

Liotta, L. A., Lowenthal, M., Mehta, A., Conrads, T. P., Veenstra, T. D., Fishman, D. A., & Petricoin III, E. F. (2005). Importance of communication between producers and consumers of publicly available experimental data. *Journal of the National Cancer Institute*, *97*(4), 310-314. https://doi.org/10.1093/jnci/dji053

National Health Service. (2022, May 13). *Overview: Post-traumatic stress disorder*. Retrieved June 18, 2022, from https://www.nhs.uk/mental-health/conditions/post-traumatic-stress-disorder-ptsd/overview/

Parker, C., Scott, S., & Geddes, A., (2019). Snowball sampling, In P. Atkinson, S. Delamont, A. Cernat, J.W. Sakshaug, & R.A. Williams (Eds.), *SAGE Research Methods Foundations*. https://dx.doi.org/10.4135/9781526421036831710

Vicente-Saez, R., & Martinez-Fuentes, C. (2018). Open Science now: A systematic literature review for an integrated definition. *Journal of Business Research*, *88*(1), 428-436. https://doi.org/10.1016/j.jbusres.2017.12.043

Woelfle, M., Olliaro, P., & Todd, M. H. (2011). Open science is a research accelerator. *Nature Chemistry*, *3*(10), 745-748. https://doi.org/10.1038/nchem.1149

Yoon, A. (2015). *Data reuse and users' trust judgments: Toward trusted data curation* (Publication No. 3719920) [Doctoral dissertation, The University of North Carolina at Chapel Hill]. ProQuest Dissertations and Theses Global.

Zhu, Y. (2019). Open-access policy and data-sharing practice in UK academia. *Journal of Information Science*, *46*(1), 41-52. https://doi.org/10.1177/0165551518823174

Appendix A

Recruitment Message

Dear *name**,

my name is *name**,* and I am a psychology student at the University of Twente and currently working on my Bachelor thesis. In cooperation with Lonneke Lenferink, Nancy Kassam-Adams, and the Global Collaboration on Traumatic Stress, we are conducting an international survey to better understand traumatic stress researchers' opinions and experiences regarding data sharing and data re-use. Therefore, we are recruiting traumatic stress researchers at any career stage (including trainees) to share opinions and experiences by participating in the following survey. The survey will take approximately 10 min to complete.

The results of this global survey will be shared on the Global Collaboration website (https://www.global-psychotrauma.net/) and in scientific publications and it will help us to create tools and resources for traumatic stress researchers. The final dataset from this survey will be available upon request for use by other researchers.

Participation is voluntary and there are no known risks or personal benefits to you from participating in this study.

As the survey is available in multiple languages (English, Japanese, Spanish, French, Portuguese, Korean, and Arabic), we would kindly ask to participate if you are proficient in one of the available languages.

If you have questions about the survey, the study, or the study dataset, please contact the study team at childtraumadata@chop.edu.

Follow this link to the survey:

https://www.global-psychotrauma.net/data-sharing

Thank you for your participation.

Regards,

*Name**

University of Twente, NL

*Depending on who sent them email, *names* were added

Appendix B

Survey

Description of Research and Demographic Questions

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Page 1

International Survey on Data Sharing and Re-use in Traumatic Stress Research

The Global Collaboration on Traumatic Stress, a coalition of 11 scientific societies in the field of traumatic stress, is conducting a survey to better understand traumatic stress researchers' opinions and experiences regarding data sharing and data re-use.

Results of this global survey will be shared on the Global Collaboration website (https://www.global-psychotrauma.net/), and will help us create tools and resources for traumatic stress researchers. The final dataset from this survey will be available upon request for use by other researchers. If you are a traumatic stress researcher at any career stage (including trainees) we invite you to share your opinions and experiences by participating in this survey.

The survey is anonymous, and your participation is voluntary. There are no known risks or personal benefits to you from participating in this study. If you have questions about the survey, the study, or the study dataset, please contact the study team at childtraumadata@chop.edu. By continuing to the survey, you are consenting to participate in this study.

THANK YOU for your participation.

What is your academic / research discipline?	☐ Psychology ☐ Psychiatry ☐ Medicine - other than psychiatry ☐ Nursing ☐ Social Work ☐ Public Health ☐ Education ☐ Other (CHECK ALL THAT APPLY)
If Medicine, other than psychiatry, please specify	_____
If Other, please specify	_____
How many years have you been conducting research in this discipline? (include research conducted during your training, e.g., masters, doctoral, or any post-graduate/professional research)	_____

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What is your current job title / academic rank / trainee status? If multiple apply, select highest rank.	◯ Full Professor ◯ Associate Professor ◯ Assistant Professor / Lecturer ◯ Instructor ◯ Research scientist ◯ Post-doctoral trainee ◯ Doctoral/PhD student ◯ Masters student ◯ Other
If Other, please specify	_____
In the last 5 years, how many publications involving research data have you published (including those as first author or co-author)?	_____
How many of these publications involved analyses of research data collected by others outside you / your research team / your co-authors?	_____
Is trauma / traumatic stress your primary research focus?	◯ Yes ◯ No
What is your primary research area or topic?	_____
What types of trauma have been included in your research?	☐ Acute/Single trauma ☐ Child Abuse/Maltreatment ☐ Chronic/Repeated Trauma ☐ Community Violence ☐ Death/Bereavement ☐ Disaster ☐ Intimate Partner Violence ☐ Medical Trauma ☐ Racism / Historical Trauma ☐ Rape/Sexual Assault ☐ Refugee/Displacement Experiences ☐ Secondary / Vicarious Traumatization in Professionals / Helpers ☐ Terrorism ☐ Torture ☐ War / Post-Conflict Settings - Civilians ☐ War - Military/Peacekeepers/Veterans ☐ Other(s) (CHECK ALL THAT APPLY)
If Other, please specify	_____
What populations have been included in your research?	☐ Adults ☐ Adolescents ☐ Children (CHECK ALL THAT APPLY)

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What types of data have you collected?	☐ Data from surveys / questionnaires ☐ Data from standard interviews ☐ Qualitative data ☐ Intensive longitudinal (EMA / ESM) data ☐ Experimental task performance data ☐ Genetic data ☐ Biological / physiological data (other than genetic) ☐ Data retrieved from health / medical records ☐ Data from other non-research records or sources (administrative data, online / social media data) ☐ Other (CHECK ALL THAT APPLY)
If Other, please specify	_____
What is your age in years?	_____
How do you identify your gender?	◯ Male ◯ Female ◯ Non-binary ◯ Other ◯ Prefer not to say
Do you consider yourself to be of an ethnic / cultural background that is under-represented amongst researchers in the discipline / research community in which you work?	◯ Yes ◯ No ◯ Prefer not to say

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Page 4

In what country do you live and work?

- ◯ Afghanistan
- ◯ Albania
- ◯ Algeria
- ◯ Andorra
- ◯ Angola
- ◯ Antigua and Barbuda
- ◯ Argentina
- ◯ Armenia
- ◯ Australia
- ◯ Austria
- ◯ Azerbaijan
- ◯ The Bahamas
- ◯ Bahrain
- ◯ Bangladesh
- ◯ Barbados
- ◯ Belarus
- ◯ Belgium
- ◯ Belize
- ◯ Benin
- ◯ Bhutan
- ◯ Bolivia
- ◯ Bosnia and Herzegovina
- ◯ Botswana
- ◯ Brazil
- ◯ Brunei
- ◯ Bulgaria
- ◯ Burkina Faso
- ◯ Burundi
- ◯ Cambodia
- ◯ Cameroon
- ◯ Canada
- ◯ Cape Verde
- ◯ Central African Republic
- ◯ Chad
- ◯ Chile
- ◯ China
- ◯ Colombia
- ◯ Comoros
- ◯ Republic of the Congo
- ◯ Democratic Republic of the Congo
- ◯ Costa Rica
- ◯ Cote d'Ivoire
- ◯ Croatia
- ◯ Cuba
- ◯ Cyprus
- ◯ Czech Republic
- ◯ Denmark
- ◯ Djibouti
- ◯ Dominica
- ◯ Dominican Republic
- ◯ East Timor (Timor-Leste)
- ◯ Ecuador
- ◯ Egypt
- ◯ El Salvador
- ◯ Equatorial Guinea
- ◯ Eritrea
- ◯ Estonia
- ◯ Ethiopia
- ◯ Fiji
- ◯ Finland
- ◯ France
- ◯ Gabon
- ◯ The Gambia
- ◯ Georgia
- ◯ Germany
- ◯ Ghana
- ◯ Greece
- ◯ Grenada
- ◯ Guatemala

- ◯ Guinea
- ◯ Guinea-Bissau
- ◯ Guyana
- ◯ Haiti
- ◯ Honduras
- ◯ Hungary
- ◯ Iceland
- ◯ India
- ◯ Indonesia
- ◯ Iran
- ◯ Iraq
- ◯ Ireland
- ◯ Israel
- ◯ Italy
- ◯ Jamaica
- ◯ Japan
- ◯ Jordan
- ◯ Kazakhstan
- ◯ Kenya
- ◯ Kiribati
- ◯ North Korea
- ◯ South Korea
- ◯ Kosovo
- ◯ Kuwait
- ◯ Kyrgyzstan
- ◯ Laos
- ◯ Latvia
- ◯ Lebanon
- ◯ Lesotho
- ◯ Liberia
- ◯ Libya
- ◯ Liechtenstein
- ◯ Lithuania
- ◯ Luxembourg
- ◯ Macedonia
- ◯ Madagascar
- ◯ Malawi
- ◯ Malaysia
- ◯ Maldives
- ◯ Mali
- ◯ Malta
- ◯ Marshall Islands
- ◯ Mauritania
- ◯ Mauritius
- ◯ Mexico
- ◯ Federated States of Micronesia
- ◯ Moldova
- ◯ Monaco
- ◯ Mongolia
- ◯ Montenegro
- ◯ Morocco
- ◯ Mozambique
- ◯ Myanmar (Burma)
- ◯ Namibia
- ◯ Nauru
- ◯ Nepal
- ◯ Netherlands
- ◯ New Zealand
- ◯ Nicaragua
- ◯ Niger
- ◯ Nigeria
- ◯ Norway
- ◯ Oman
- ◯ Pakistan
- ◯ Palau
- ◯ Panama
- ◯ Papua New Guinea
- ◯ Paraguay
- ◯ Peru
- ◯ Philippines
- ◯ Poland

- ◯ Portugal
- ◯ Qatar
- ◯ Romania
- ◯ Russia
- ◯ Rwanda
- ◯ Saint Kitts and Nevis
- ◯ Saint Lucia
- ◯ Saint Vincent and the Grenadines
- ◯ Samoa
- ◯ San Marino
- ◯ Sao Tome and Principe
- ◯ Saudi Arabia
- ◯ Senegal
- ◯ Serbia
- ◯ Seychelles
- ◯ Sierra Leone
- ◯ Singapore
- ◯ Slovakia
- ◯ Slovenia
- ◯ Solomon Islands
- ◯ Somalia
- ◯ South Africa
- ◯ South Sudan
- ◯ Spain
- ◯ Sri Lanka
- ◯ Sudan
- ◯ Suriname
- ◯ Swaziland
- ◯ Sweden
- ◯ Switzerland
- ◯ Syria
- ◯ Taiwan
- ◯ Tajikistan
- ◯ Tanzania
- ◯ Thailand
- ◯ Togo
- ◯ Tonga
- ◯ Trinidad and Tobago
- ◯ Tunisia
- ◯ Turkey
- ◯ Turkmenistan
- ◯ Tuvalu
- ◯ Uganda
- ◯ Ukraine
- ◯ United Arab Emirates
- ◯ United Kingdom
- ◯ United States of America
- ◯ Uruguay
- ◯ Uzbekistan
- ◯ Vanuatu
- ◯ Vatican City (Holy See)
- ◯ Venezuela
- ◯ Vietnam
- ◯ Yemen
- ◯ Zambia
- ◯ Zimbabwe

DEFINITIONS FOR THIS SURVEY

Data sharing: Providing the raw, participant-level data from your research to investigators outside your research group(s) - by making it accessible through data repositories, via formal data use agreements, or by sending the data via personal communication methods upon request.

Data re-use: Using raw, participant-level data that has been collected by others for new secondary analyses, or for replication studies. It may involve using a single dataset, or may involve combining data from multiple datasets/studies.

Metadata: "Data about data", i.e., information about the original research data, such as how it was collected, what variable names and values mean.

Measurement Items for Data Sharing and Data Reusing

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Thinking about YOUR OWN VIEWS AND EXPERIENCES, please indicate the extent to which you agree with the following statements.

RESPONSES FOR THIS SECTION: 1, Strongly Disagree | 2, Moderately Disagree | 3, Slightly Disagree | 4, Neutral | 5, Slightly Agree | 6, Moderately Agree | 7, Strongly Agree

	Strongly Disagree (1)	(2)	(3)	Neutral (4)	(5)	(6)	Strongly Agree (7)
I am willing to help other researchers within my institution / research community by sharing data.	○	○	○	○	○	○	○
I am willing to help other researchers outside my institution / research community by sharing data.	○	○	○	○	○	○	○
I can earn academic 'credit' such as more citations by sharing data.	○	○	○	○	○	○	○
Data sharing would be helpful in my academic career.	○	○	○	○	○	○	○
Sharing data is an ethical obligation as a researcher.	○	○	○	○	○	○	○
Sharing data honors the contributions of research participants.	○	○	○	○	○	○	○
Sharing data has a high risk of violating the rights of research participants.	○	○	○	○	○	○	○
There is a high probability of losing publication opportunities if I share data.	○	○	○	○	○	○	○
Data sharing may cause my research ideas to be stolen by other researchers.	○	○	○	○	○	○	○
My shared data may be misused or misinterpreted by other researchers.	○	○	○	○	○	○	○
I believe that the overall riskiness of sharing data is high.	○	○	○	○	○	○	○
Sharing data involves too much time for me (e.g. to organize / annotate).	○	○	○	○	○	○	○

Perceived career risk items

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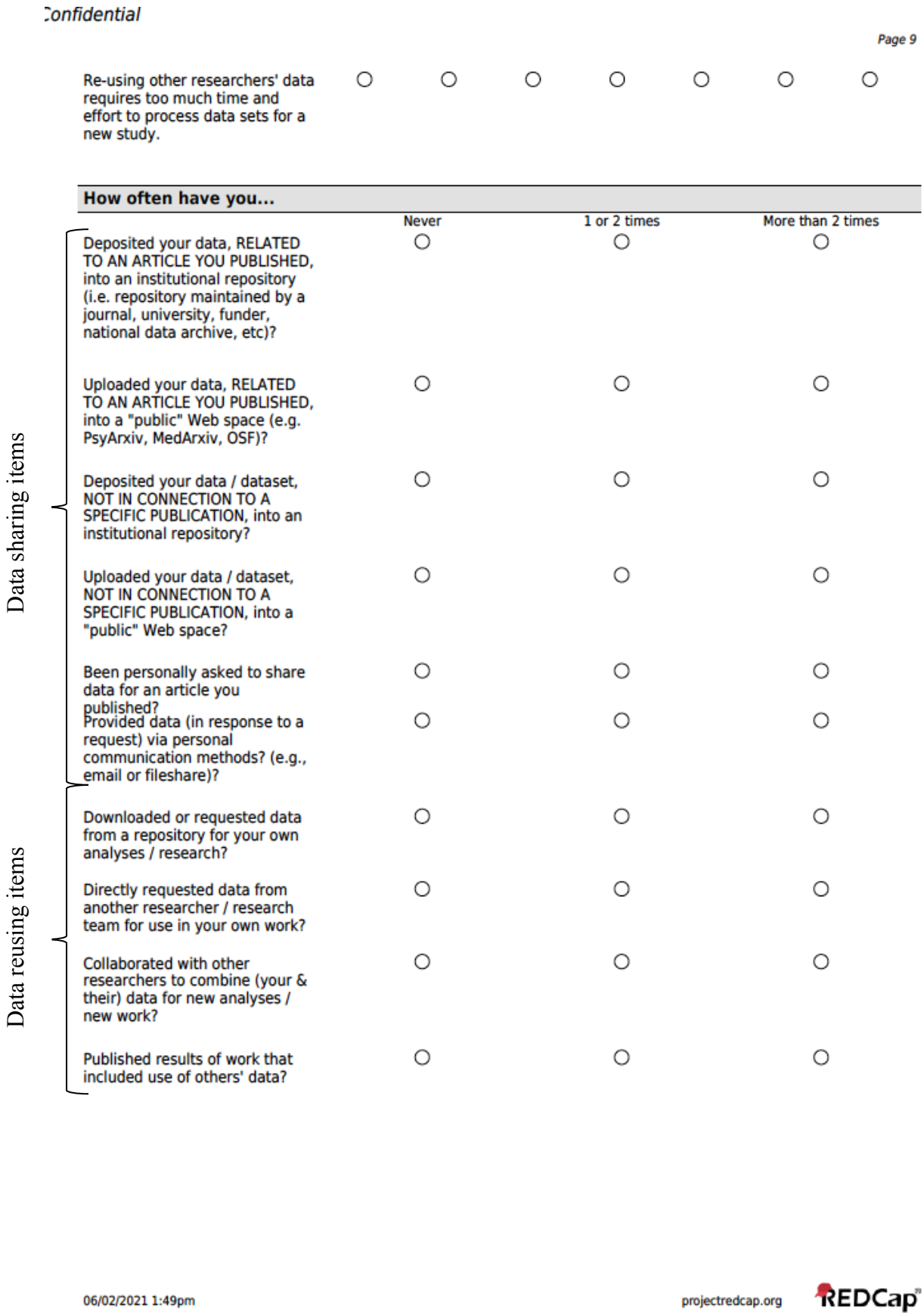
I would find data sharing difficult to do.	○	○	○	○	○	○	○
I have adequate time and funding for any effort that may be required in sharing my data.	○	○	○	○	○	○	○
I include statements about data sharing in my participant consent forms.	○	○	○	○	○	○	○
My institution's ethics committee / IRB makes it hard for me to share research data gathered in IRB approved studies.	○	○	○	○	○	○	○
When I begin a project, I organize the data to enable later data re-use and sharing.	○	○	○	○	○	○	○
I feel prepared (via training or experience) to manage my data in a way that facilitates re-use and sharing.	○	○	○	○	○	○	○
I know how to de-identify / anonymize my data so that it can be shared.	○	○	○	○	○	○	○
I know how to clearly document how my raw data was processed / cleaned for analysis.	○	○	○	○	○	○	○
Re-using other researchers' data can improve the quality of my overall program of research.	○	○	○	○	○	○	○
Re-using other researchers' data reduces the time/cost/effort I spend on my research.	○	○	○	○	○	○	○
If I re-use other researchers' data, I worry that I might misinterpret the data.	○	○	○	○	○	○	○
If I re-use other researchers' data, I worry that I might not be able to publish with that data.	○	○	○	○	○	○	○
Re-using other researchers' data requires too much time and effort to locate data sets.	○	○	○	○	○	○	○
Re-using other researchers' data requires too much time and effort to access (or get permission to use) data sets.	○	○	○	○	○	○	○



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Re-using other researchers' data requires too much time and effort to process data sets for a new study.	○	○	○	○	○	○	○

How often have you...	Never	1 or 2 times	More than 2 times
Deposited your data, RELATED TO AN ARTICLE YOU PUBLISHED, into an institutional repository (i.e. repository maintained by a journal, university, funder, national data archive, etc)?	○	○	○
Uploaded your data, RELATED TO AN ARTICLE YOU PUBLISHED, into a "public" Web space (e.g. PsyArxiv, MedArxiv, OSF)?	○	○	○
Deposited your data / dataset, NOT IN CONNECTION TO A SPECIFIC PUBLICATION, into an institutional repository?	○	○	○
Uploaded your data / dataset, NOT IN CONNECTION TO A SPECIFIC PUBLICATION, into a "public" Web space?	○	○	○
Been personally asked to share data for an article you published?	○	○	○
Provided data (in response to a request) via personal communication methods? (e.g., email or fileshare)?	○	○	○
Downloaded or requested data from a repository for your own analyses / research?	○	○	○
Directly requested data from another researcher / research team for use in your own work?	○	○	○
Collaborated with other researchers to combine (your & their) data for new analyses / new work?	○	○	○
Published results of work that included use of others' data?	○	○	○

Data sharing items

Data reusing items

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Please indicate to what extent you agree with the following statements, thinking about the institutions and research communities that you are part of.

IN MY RESEARCH COMMUNITY ....

RESPONSES FOR THIS SECTION: 1, Strongly Disagree | 2, Moderately Disagree | 3, Slightly Disagree | 4, Neutral | 5, Slightly Agree | 6, Moderately Agree | 7, Strongly Agree

	Strongly Disagree (1)	(2)	(3)	Neutral (4)	(5)	(6)	Strongly Agree (7)
It is expected that researchers would share data.	○	○	○	○	○	○	○
Researchers share data even if not required by policies.	○	○	○	○	○	○	○
Many researchers are currently participating in data sharing.	○	○	○	○	○	○	○
Public funding agencies require researchers to share data.	○	○	○	○	○	○	○
Journals require researchers to share data.	○	○	○	○	○	○	○
Researchers can easily access metadata about existing data sources.	○	○	○	○	○	○	○
Researchers have the tools they need to share appropriate metadata along with their data.	○	○	○	○	○	○	○
Data repositories are available for researchers to deposit / share their data.	○	○	○	○	○	○	○
Researchers can easily access data repositories to request / acquire data for re-use.	○	○	○	○	○	○	○
It is difficult to publish work that is based in data re-use, i.e. new analyses of data collected by others.	○	○	○	○	○	○	○
Re-using data for new / secondary analyses has led to advances in the field.	○	○	○	○	○	○	○

Please share any additional comments about your views or experiences regarding data sharing or data re-use

Portions of this survey were adapted from the following studies:

Kim, Y. (2013). Institutional and Individual Influences on Scientists' Data Sharing Behaviors (Doctoral Dissertation). surface.syr.edu/it_etd/85/.

Kim, Y., & Stanton, J. M. (2016). Institutional and Individual Factors Affecting Scientists' Data-Sharing Behaviors: A Multilevel Analysis. Journal of the Association for Information Science and Technology, 67(4), 776–799. https://doi.org/10.1002/asi.23424 Kim, Y., & Yoon, A. (2017). Scientists' data reuse behaviors: A multilevel analysis. Journal of the Association for Information Science and Technology, 68(12), 2709–2719. https://doi.org/10.1002/asi.23892

Appendix C

Participants' Demographics

Table 1

Demographics of participating traumatic stress researchers (N = 190)

Characteristics	*n*	%	*M*	*SD*	Min	Max
Gender	186					
Female	112	60				
Male	71	38				
Prefer not to say	2	1				
Non-binary	1	<1				
Age	176		42.55	12.86	23	83
Region of living and working	190					
Europe	68	36				
North America	49	26				
Asia	29	15				
South America	22	12				
Australia	11	6				
Middle East	6	3				
Africa	5	2				
Language of survey	190					
English	123	65				
Japanese	28	15				
Brazilian Portuguese	19	10				
French	12	6				
Spanish	8	4				
Academic/ Research discipline						
Psychology	141	74				
Psychiatry	47	25				
Public health	15	8				
Other	9	5				
Medicine (other than psychiatry)	8	4				
Nursing	6	3				
Social Work	6	3				

Education	6	3				
Research career stage	188					
Junior	76	40				
Senior	57	30				
Trainee	55	30				
Trauma/ Traumatic stress as primary research	189					
Yes	156	83				
No	33	17				
Years spent researching	183		14.12	10.38	1	47
Publications in the last 5 years	182		15.99	21.21	0	150
Publications involving analyses of research data collected by others outside research team	151		3.40	8.35	0	70
Trauma type						
Child Abuse/ Maltreatment	95	50				
Acute/ Single trauma	89	47				
Chronic/ Repeated trauma	86	45				
Rape/ sexual assault	77	41				
Intimate partner violence	60	32				
Disaster	49	26				
War – military/ peacekeepers/ veterans	42	22				
Secondary/ vicarious traumatization in professionals/ helpers	37	20				
Death/ Bereavement	34	18				
Community Violence	33	17				
Medical Trauma	32	17				
Refugee/ displacement experiences	31	16				
War/ post-conflict settings – civilians	22	12				
Terrorism	22	12				
Torture	19	10				
Others	17	9				
Racism/ Historical Trauma	13	7				
Research population						
Adults	175	92				

Adolescents	79	42
Children	67	35
Type of data collected		
Surveys/ questionnaire	174	92
Standard interviews	116	61
Qualitative data	103	54
Biological/ physiological data (other than genetic)	58	31
Experimental task performance data	47	25
Intensive longitudinal (EMA/ESM) data	30	16
Data from other than non-research records or sources (administrative data, online/ social media data)	30	16
Genetic data	24	13
Other	6	3
Part of under-represented ethnic/ cultural in the discipline/research community worked in	187	
No	152	80
Yes	30	16
Prefer not to say	5	3

Appendix D

QQ Graphs for Normality Testing

Figure 1

Normality Testing of the Dependent Variable Data Sharing

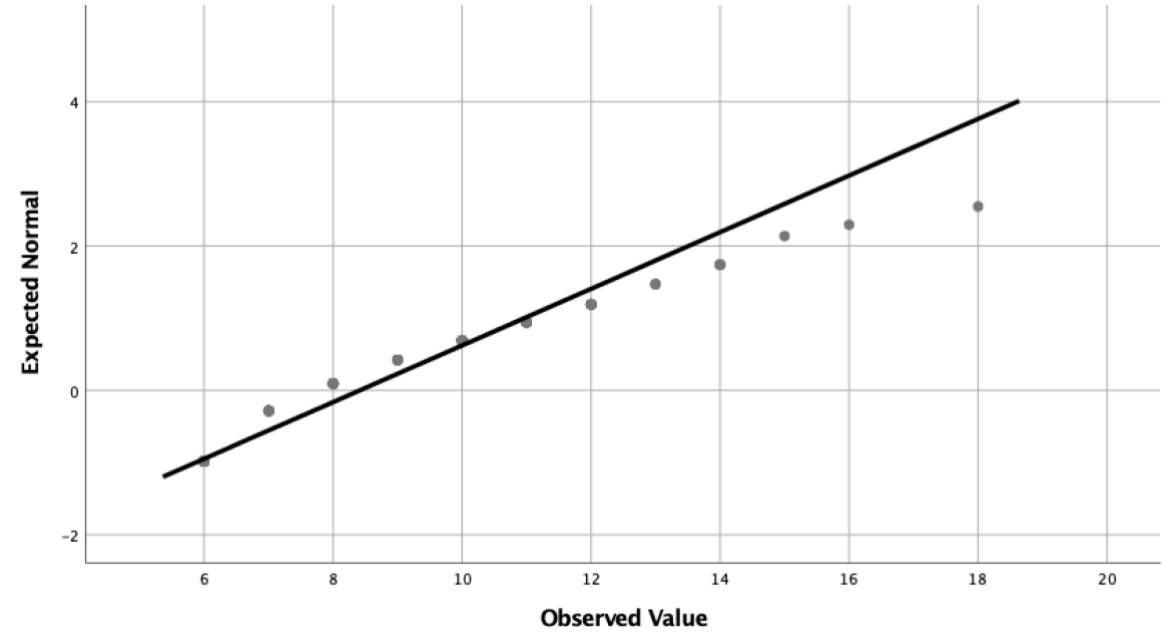

Figure 2

Normality Testing of the Dependent Variable Data Reusing

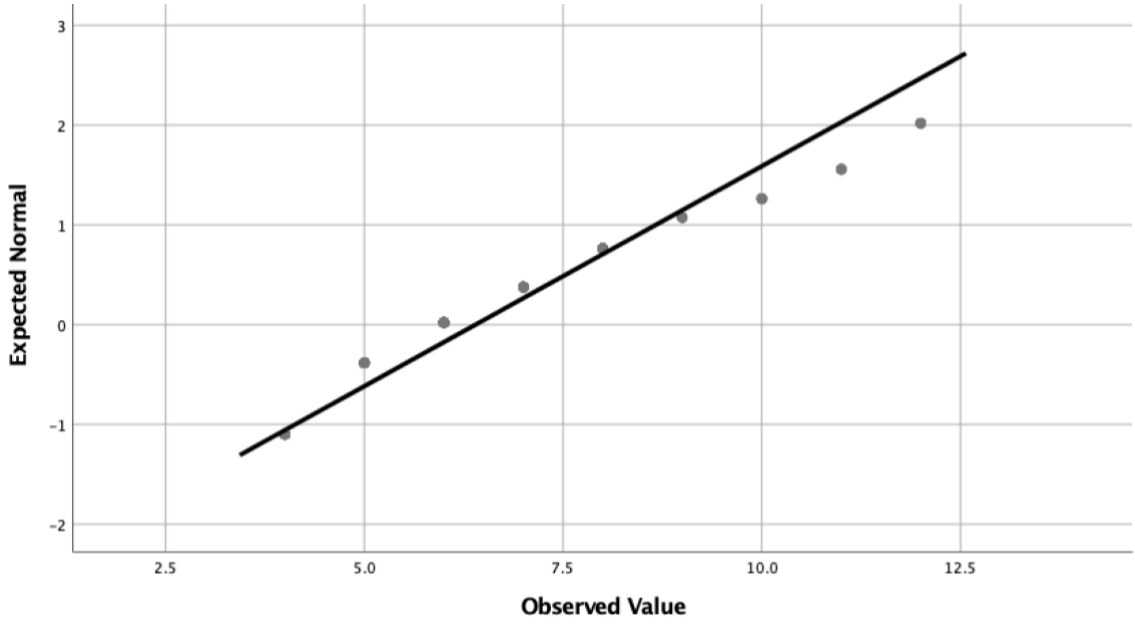

Figure 3

Normality Testing of the Independent Variable Perceived Career Risk