The role of host national contact in the mental health of displaced Ukrainians in the Netherlands

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Abstract

Purpose - The Russian invasion of Ukraine in February 2022 has led to the displacement of many Ukrainians. The purpose of this study is to investigate the relationship between their contact with Dutch society and their mental health. To this end, 136 adult, mostly female, displaced Ukrainians in the Netherlands participated in an online survey to investigate the relationship between quality of host national contact and mental health, as moderated by quantity of host national contact. The survey had a Ukrainian, Russian and English version, and it consisted of single questions assessing various variables, including quality of host national contact, quantity of host national contact, amount of discrimination/ prejudice as well as five questions assessing mental health (Mental Health Inventory 5 [MHI-5]; Berwick et al., 1991). Contrary to the hypotheses, no interaction was found between quality of host national contact and quantity of host national contact, and quality of host national contact did not have a significant main effect on mental health. However, there is a significant, yet nonlinear main effect of quantity of host national contact on mental health. Moreover, there is a significant correlation between quality of host national contact and quantity of host national contact. Finally, and interestingly, there is a positive relationship between the amount of discrimination/prejudice and mental health among people who chose to fill out the Ukrainian version of the survey. These results provide a nuanced view of the relationship between the host environment and mental health, and governmental policies should take into account the complexity of this relationship.

Design/methodology/approach – A total of 161 displaced, mostly female (90.40%), Ukrainians in the Netherlands with the average age of 35 agreed to participate in this online survey. The main variables measured were mental health (dependent variable), quality of host national contact (independent variable 1) and quantity of host national contact (independent variable 2/moderator). Additional variables, such as the level of perceived discrimination/prejudice, have been included in the analyses. The survey was available in three different languages: Ukrainian, Russian and English.

Findings - In this study, the role of host national contact in the mental health of displaced Ukrainians in the Netherlands was investigated. The results showed that there was no interaction between quality of host national contact and quantity of host national contact in the prediction of mental health. Moreover, quality of host national contact did not predict mental health. Thus, both of the (preregistered) hypotheses of this study were refuted. However, the amount of perceived discrimination/prejudice turned out to be linked to mental health. Surprisingly, the amount of perceived discrimination/prejudice predicted higher mental health scores among participants who chose to fill out the survey in Ukrainian. Moreover, of the respondents included in the analysis, 94.85% gave reason for mental health concerns, as expressed by a converted MHI-5 score below 60.

Research limitations/implications – Even though this study does show a positive relationship between the level of discrimination/prejudice and mental health among displaced Ukrainians who filled out the Ukrainian version of the survey, it does not offer a definite explanation for why this seemingly unexpected result occurred. No causal conclusions can be drawn based on this study regarding the relationship between host national contact and mental health.

Practical implications - The results of this study show that certain occurrences in the contact with host society members relate to mental health in unexpected and seemingly complex ways. This might mean that this study has potential for nuancing the current scientific knowledge regarding the relationship between host national contact and mental health. Such nuances might be quite important, as scientific research often

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forms the basis for governmental policies aimed at improving the mental health of displaced people. Therefore, governmental policymakers should be aware of the fact that there is no easy, clear-cut answer yet to the complex host society factors that play a role in the mental health of various displaced groups. Moreover, an investigation of the role of host national contact might lead to valuable knowledge about factors that contribute to the mental health of refugees. As has been said, refugees are at risk of developing various mental health issues, so they might need help managing their mental health. To this end, policymakers might need evidence-based information to develop interventions targeted at specific refugee groups. By investigating the mental health of displaced Ukrainians in the Netherlands, new insights will be gained to optimize mental health care for this particular refugee group.

Social implications – This study yields important information regarding the degree of participation and inclusion of displaced Ukrainians in Dutch society, which can inform policies targeted at improving the experiences of this new displaced group. Because displaced Ukrainians have to deal with the mental health consequences of war and displacement, they might be particularly in need of a safe haven in which they feel included.

Originality/value — To the best of the author's knowledge, this is the first study in which the role of the host society context in the mental health of displaced Ukrainians in the Netherlands is assessed. The results are quite unexpected and can nuance the current research on the link between discrimination and mental health. Moreover, this study can inspire future research to be conducted in the reasons behind this nuance, by researching the role of identity and uncertainty. Also, the author believes that this study is particularly suitable for this journal because it really looks at the link between social inclusion in the Dutch context and mental health outcomes.

Keywords Displacement, Mental health, Discrimination, Refugees, Host society **Paper type** Research paper

n February 2022, Russia invaded Ukraine, leading to an escalation of the Russia–Ukraine war. This invasion led to 6.70 million displaced Ukrainians across Europe on August 20, 2022 (UNHCR, 2022). In a statement, the UNHCR revealed that this is the fastest-growing refugee crisis since the Second World War (UNHCR Hong Kong, 2022). Thus, millions of people have been affected by the recent escalations in the Russia–Ukraine war.

This is worrisome, as refugees have significantly higher rates of post-traumatic stress disorder (PTSD) and depression compared with the general population, according to a large meta-analysis (Blackmore *et al.*, 2020). This can be explained by the fact that war is an event that is associated with trauma (Murthy and Lakshminarayana, 2006). Thus, war has detrimental consequences for the mental health of people who have experienced it.

This means that people who have experienced war are at risk of health problems. Indeed, mental health is a crucial component of health, as health is defined as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organisation Interim Commission, 1948, p. 100). Thus, one cannot be healthy if their mental health is impaired. Thus, refugees' mental health is a public health issue, especially because they have dealt with traumatic experiences such as war and displacement.

These traumatic experiences can put refugees at risk of developing serious mental health problems. Indeed, according to a study conducted at several universities within Ukraine, most students and personnel reported that their psycho-emotional status has deteriorated because of the war (Kurapov *et al.*, 2022). In another study by Konstantinov *et al.* (2022), the mental health of displaced Ukrainians who fled to Russia has been investigated. In this study, the displaced Ukrainians also reported that their psycho-emotional status had deteriorated because of the war (Konstantinov *et al.*, 2022). So, Ukrainians who were displaced within Ukraine and Ukrainians who fled to Russia seem to suffer from mental health problems.

However, within the Netherlands, the mental health of displaced Ukrainians has barely been studied [1], even though about 74,000 Ukrainians (both adults and minors) have relocated to the Netherlands by August 2022 (Rijksoverheid, 2022) and Ukrainians currently make up 55% of all non-EU immigrants in the Netherlands (Centraal Bureau voor de Statistiek, 2022a). Because 63% (Centraal Bureau voor de Statistiek, 2022b) of the incoming Ukrainian

refugees are adults, there is a growing number of displaced people in the Netherlands who might have impaired mental health.

In addition, displaced Ukrainians within the Netherlands do not speak the language of their host society. Evidence suggests that people with lower host language proficiency feel less connected to the host society, which in turn predicts worse psychological outcomes (Bethel et al., 2020). Thus, because displaced Ukrainians do not speak the language yet, they might be at risk of feeling isolated from the host society, which can have detrimental effects for their mental health.

Along with a lack of host language skills, there are other stressors related to host national contact. For example, conflict with immigration officials, loneliness and boredom predict worse mental health outcomes, such as anxiety and depression (Silove *et al.*, 1997). Loneliness and boredom in particular can be risk factors for people who are displaced to a new country, as the previous social network is lost. This might mean that displaced Ukrainians are in need of new social contacts in the host country.

Therefore, the goal of the current research is to investigate the host national contact of displaced Ukrainians in the Netherlands. Host national contact is defined as "interactions with people from the host culture" (IGI global, n.d.), and it can yield important information regarding the degree of participation and inclusion of displaced Ukrainians in Dutch society, which can inform policies targeted at improving the experiences of this new displaced group. Because displaced Ukrainians have to deal with the mental health consequences of war and displacement, they might be particularly in need of a safe haven in which they feel included. Indeed, a high satisfaction with the quality of contact with host society members predicts diminished mood disturbance (Ward and Rana-Deuba, 2000). Thus, high-quality host national contact is related to better mental health.

Moreover, an investigation of the role of host national contact might lead to valuable knowledge about factors that contribute to the mental health of refugees. As has been said, refugees are at risk of developing various mental health issues, so they might need help managing their mental health. To this end, policymakers might need evidence-based information to develop interventions targeted at specific refugee groups. By investigating the mental health of displaced Ukrainians in the Netherlands, new insights will be gained to optimize mental health care for this particular refugee group.

To this end, the role of host national contact in the mental health of displaced Ukrainians in the Netherlands will be investigated. When doing this, it might be important to not only take the quality of the host national contact into account, but also the quantity of the host national contact. Even though the quantity of host national contact does not predict mental health outcomes in itself (Ward and Rana-Deuba, 2000), having a certain amount of contact with the host society members might be a prerequisite to reap the full benefits of high-quality host national contact. To test whether this is true or not, the research question of this study is:

RQ1. What is the relationship between quality of host national contact and mental health, as moderated by quantity of host national contact?

The reasoning is that high-quantity host national contact might be required to obtain the positive effects of high-quality host national contact. In other words, someone might not be able to fully reap the benefits of good contact with host nationals, if there is little contact to begin with. Moreover, when the quality of host national contact is good but there is a low quantity of host national contact, refugees might have positive attitudes toward host society members while thinking it is too hard to make contact with them. So, a positive attitude resulting from high-quality contact might not automatically go together with high-quantity contact, whereas both high-quality and high-quantity host national contact might be needed.

Indeed, evidence suggests that foreigners desire both a high quality and a high quantity of host national contact (Choo and Singh, 2013), which means that when both of these are

present, some of the social desires of foreigners regarding host national contact tend to be met. Because fulfilled social needs are associated with positive mental health outcomes (Van Lente *et al.*, 2012), the existence of both high-quality and high-quantity host national contact might predict better mental health outcomes.

Therefore, the main hypothesis is that a higher quantity of host national contact positively moderates the relationship between quality of host national contact and mental health, and the second hypothesis is that there is a positive relationship between the quality of host national contact and mental health (see Figure 1).

These hypotheses will be tested by assessing the quantity and quality of host national contact as independent variables and mental health as dependent variable. These variables will be measured with a questionnaire, which will be presented to displaced Ukrainian adults who reside in the Netherlands when they fill out the survey. The prediction is that participants who score higher on quality of host national contact also have higher mental health scores, and that this relationship is stronger among people who score higher on quantity of host national contact.

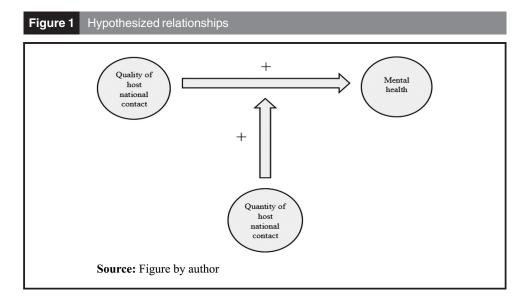
Method

Participants

A total of 161 respondents agreed to participate in this survey, none of whom was reimbursed for the participation. To be able to fill out the survey, the respondents had to be 16 years or older and they had to answer "yes" to each of three questions, inquiring whether they have a Ukrainian passport, whether they have fled the war in Ukraine (to assess whether they were displaced) and whether they were staying in the Netherlands (see the Appendix).

The item that inquired whether they had fled the war in Ukraine was a replacement of the question "Are you a refugee?" as two Ukrainian natives said that the word "refugee" can be stigmatizing for Ukrainians. The version that inquired about their refugee status was only shown to the first 18 respondents.

A total of 25 respondents were excluded from the analysis. The most common reason for exclusion was failure to complete the survey. Moreover, there was one outlier and because of a mistake in the survey, the data of three respondents had to be deleted from the analysis. The mistake was only present in the English version. Therefore, all respondents



who filled out the English version of the survey before that mistake was detected were excluded from the analysis.

This has led to a final sample of N=136. In this sample, 90.40% were female and 9.60% were male. The average age was 35, with a minimum of 16 and a maximum of 60. Regarding education, 77.20% had completed institute [2] or university. Regarding residence, 44.90% lived in a refugee shelter, 30.90% lived in a private home and 24.30% indicated that they lived in a place that was categorized as "Other." Moreover, 43.40% of the respondents were employed and 56.60% were not employed.

Materials

An anonymous Qualtrics survey was made with 19 items. Participants were offered to choose in which of three languages they wanted to respond: Ukrainian, Russian or English. The Ukrainian version and the Russian version have been checked and adapted by native speakers of the Russian and the Ukrainian language.

The main variables that were measured were mental health, quantity of host national contact and quality of host national contact. Mental health was measured using the questions of the Mental Health Inventory 5 (MHI-5; Berwick *et al.*, 1991), which is a five-item questionnaire that inquires about the respondents' mental state (see the Appendix). This questionnaire contains positively formulated questions (calm and peaceful, and happy) as well as negatively formulated questions (nervous; down in the dumps; and downhearted and blue). The answer options had the form of a six-point Likert scale. The positively formulated questions were scored from 1 point for the answer option "none of the time" to six points for "all of the time." The negatively formulated questions were reverse scored, with the answer option "all of the time" equating to one point and "none of the time" equating to six points.

The quantity of host national contact was measured with one question, namely, "How much contact do you currently have with Dutch citizens?" The answer options had the form of a five-point Likert scale, ranging from very little (1 point) to very much (5 points); see the Appendix. The quality of host national contact was also measured with one question, namely, "How positive or negative has your contact with Dutch citizens been so far?" The answer options of this item also had a five-point Likert Scale, ranging from very negative (one point) to very positive (five points); see Appendix. The other variables were assessed by one question each (see the Appendix).

Procedure

The hypotheses were pre-registered before the start of data collection. The following is the link to the pre-registration: https://aspredicted.org/ud9hn.pdf. The data were collected from September 28, 2022, until October 13, 2022. The survey was distributed with a recruitment text in Ukrainian, Russian and English, stating the purpose of the study as well as the requirements to participate mentioned above, along with a link to the survey. The recruitment text with the link was distributed through Facebook groups centering around the topic of displaced Ukrainians in the Netherlands, as well as Telegram groups about the same topic. Moreover, participants were recruited through Whatsapp, LinkedIn and e-mail.

After clicking on the link, the respondents were presented with an information letter, and a button to select one of the languages to fill out the survey. The information letter contained information about the goal and the procedure of the study, as well as the fact that participation would be anonymous (see the Appendix). Then, the respondents were presented with a consent form. Only those who indicated they agreed to participate were able to proceed to the survey. Then, the respondents were presented with three questions which asked about the requirements (having a Ukrainian passport, having fled from the war

and staying in the Netherlands). If the answer to any of these three questions was a "no," the respondent was automatically sent to the end of the survey.

After these first questions were asked, the respondents received the instruction to read each question and tick the box by the statement that best described how they had felt during the past month. Then, some additional questions were asked, including demographical data. After they had filled out all of the items, they were told that the survey had ended, and they were thanked for their participation.

Data analysis

The software SPSS version 29 has been used for all of the analyses of this study. The scores on the items of the MHI-5 have been totaled to obtain a raw total score on the MHI-5. Then, an ANOVA was performed with quantity of host national contact and quality of host national contact as predictors and the total raw score on mental health as dependent variable. The predictors were analyzed as between-subject factors instead of quantitative independent variables. The total raw score on mental health was analyzed as a quantitative dependent variable. The reason that no multiple linear regression with quantitative independent variables was chosen, was that the assumption of linearity was violated.

After performing this analysis, the total raw score on the MHI-5 has been converted to obtain scores on a scale from 0 (very poor mental health) to 100 (very good mental health) for each respondent, using the formula $100 \times (\text{total raw score MHI-5} - 5)/25$. Anyone who scored below 60 was classified as "giving reason for mental health concerns." Indeed, evidence suggests that 60 is the optimal cutoff point (Thorsen *et al.*, 2013).

Additional analyses have been performed with amount of perceived discrimination/prejudice, user language, length of stay, employment, intention of staying/going back and type of residence as predictors and the total raw score on mental health as dependent variable. Moreover, the answers to the last question of the survey, namely, "Is there anything regarding your current experience and/or mental well-being that we have not asked, and that you would like to share?" has been inspected for striking or common answers. All of the answers to this question were inspected, including those of the people who have been excluded from the analysis, as exclusion from the quantitative analysis might not automatically mean that the qualitative data cannot be useful. Note that answering to the last question was optional.

Results

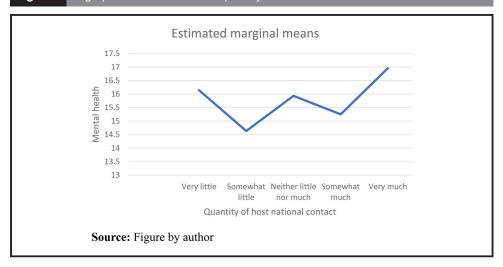
Main analysis

A two-way ANOVA was conducted to investigate the interaction and the correlation between the predictors quantity of host national contact and quality of host national contact, as well as their main effects on mental health. Contrary to predictions, there was no interaction between the quality of host national contact and the quantity of host national contact in the prediction of mental health [F(12, 116) = 1.12, p = 0.36, observed power = 0.56]. Moreover, the quality of host national contact did not have a significant main effect on the mental health raw score [F(3, 116) = 0.94, p = 0.43, observed power = 0.25], which also contradicted predictions.

Secondary analyses

The correlational analysis revealed that there was a significant correlation (r = 0.24, p < 0.01) between the quality of host national contact (M = 4.13, SD = 0.81) and the quantity of host national contact (M = 3.38, SD = 1.24). Moreover, the quantity of host national contact had a significant main effect on mental health raw score [F(4, 116) = 2.56, p = 0.04, $\eta_p^2 = 0.08$, observed power = 0.71]. This main effect was not linear, as can be seen in Figure 2.

Figure 2 A graph of the main effect of quantity of host national contact on mental health



Moreover, several Kruskal–Wallis tests were performed, which showed that the mental health raw scores were not significantly predicted by employment [H(1) = 0.31, p = 0.58], education [H(4) = 4.13, p = 0.39], intention of staying or going back [H(2) = 1.77, p = 0.41] and length of stay [H(4) = 1.222, p = 0.87]. Moreover, of the respondents included in the analysis, 94.85% gave reason for mental health concerns, as expressed by a converted MHI-5 score below 60.

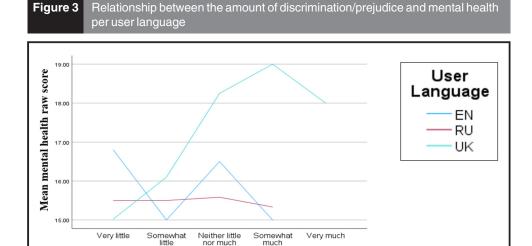
Then, a linear regression analysis with perceived discrimination/prejudice as predictors and mental health raw score as dependent variable showed that the amount of perceived discrimination/prejudice (M=1.57, SD=0.91) positively predicted mental health raw score [$F(1, 1.34)=4.44, p=0.04, \beta=0.18$]. To further investigate this effect, a moderation analysis was performed to investigate the interaction between discrimination/prejudice and user language in the prediction of mental health raw scores. This analysis revealed that there was a significant interaction between the amount of perceived discrimination/prejudice and user language in the prediction of mental health raw score [$F(2, 1.30)=5.19, p<0.01, \Delta F^2=0.071$]. More specifically, the amount of perceived discrimination/prejudice only significantly predicted mental health raw score among people who chose to fill in the Ukrainian version of the survey (p<0.001), and not among people who chose to fill out the survey in Russian (p=0.99) or English (p=0.47). Thus, the relationship between the amount of perceived discrimination/prejudice and mental health raw score depended on the user language. This is illustrated in Figure 3.

In addition, several Mann–Whitney U-tests [3] were performed to investigate whether the use of the word "refugee" in the initial version of the survey had affected the responses. The results indicated that the presence of the question "Are you a refugee" vs "Have you fled the war in Ukraine?" was not significantly related to the variables quantity of host national contact (p = 0.26), quality of host national contact (p = 0.34), perceived discrimination/prejudice (p = 0.88) and mental health raw score (p = 0.53).

Then, common method bias was assessed using a Harmon's single-factor test with all of the items of the MHI-5, as well as the items assessing quality of contact, quantity of contact and perceived discrimination/prejudice. No common method bias was present, as the total variance that was explained by one factor was 42.16%, which was below the cutoff point of 50%.

Qualitative analysis

Some of the answers to the last question of the survey included expressions of gratitude or positivity toward Dutch people and/or the Netherlands. However, several people indicated



Amount of discrimination/prejudice

Source: Figure by author

that they experienced problems and needs, such as a language barrier, need for help with integrating into Dutch society, need for employment and a need for a passport for people from developmentally challenged regions in Ukraine, among others. Some participants also reported problems in the social domain, such as a lack of understanding and communication, a lack of help, a lack of care and feelings of abandonment. In addition, some people have expressed their mental health concerns, such as feelings of uprootedness, fear for the future, confusion because of the unknown, loneliness, sadness, depression and an impossibility to stay calm after getting bad news from Ukraine.

Discussion

Summary of main findings

In this study, the role of host national contact in the mental health of displaced Ukrainians in the Netherlands was investigated. The results showed that there was no interaction between quality of host national contact and quantity of host national contact in the prediction of mental health. Moreover, quality of host national contact did not predict mental health. Thus, both hypotheses of this study were refuted.

In contrast, quantity of host national contact did predict mental health. However, this effect was nonlinear, and because quantity of host national contact was treated as a categorical variable, it can only be stated that the various levels of quantity of host national contact did not predict equal levels of mental health. Moreover, the participants who reported a higher quality of host national contact tended to also report a higher quantity of host national contact. Finally, a larger amount of perceived discrimination/prejudice predicted a higher mental health score among participants who chose to fill out the Ukrainian version of the survey.

Possible explanations

These results provide evidence for the importance of host national contact, yet not in expected ways. The fact that the quantity of host national contact did not matter for the relationship between quality of host national contact and mental health was contrary to the

assumption that to fully reap the benefits of good contact with host nationals, there should be enough host national contact to begin with. Moreover, the quality of host national contact did not matter for mental health scores and the quantity of host national contact was not linearly related to mental health.

These violations of expectations are conspicuous but should be put into context. Displaced Ukrainians have fled from war, and they might want to associate more with people who are going through the same experiences. Therefore, their contact with co-nationals might matter more than their contact with Dutch citizens at this point. Indeed, evidence suggests that among female refugees, a higher level of contact with co-nationals predicts lower levels of distress (Walther *et al.*, 2020). The reason why this is mostly the case among female refugees is not clear, but it might very well apply to the current sample, as it mostly consists of females. Moreover, not all displaced Ukrainians are planning to stay in the Netherlands: some are not sure whether they will stay, and others intend to go back. Therefore, forming ties with the host society might not be equally important for all displaced Ukrainians, as not everyone is planning to build a future in the Netherlands.

In addition, the amount of perceived discrimination/prejudice turned out to be linked to mental health. Surprisingly, the amount of perceived discrimination/prejudice predicted higher mental health scores among participants who chose to fill out the survey in Ukrainian. This finding contradicts several existing meta-analyses, which show that a higher level of perceived discrimination tends to predict diminished mental health/greater distress among other ethnic minorities, such as Asians (Lee and Ahn, 2011), Latinos/Latinas (Lee and Ahn, 2012) and various ethnic minorities in Europe (de Freitas et al., 2018).

However, a meta-analysis by Schmitt *et al.* (2014) showed that perceptions of pervasiveness play a crucial role in the effect of perceived discrimination on psychological well-being. More specifically, when people are led to believe that an instance of discrimination against their in-group reflects a pervasive problem in society, they report having worse psychological well-being. However, when people are led to believe that an instance of discrimination is a single, isolated event, there is no effect on their psychological well-being. Thus, the relationship between discrimination and mental health is nuanced.

Especially among displaced Ukrainians in the Netherlands, this relationship might be complex. Maybe Ukrainians in the Netherlands perceive an occurrence of discrimination as a single, isolated event. Because most Ukrainians are white, just like most Dutch people, they might not be immediately recognized as being racially different, which might diminish the likelihood of being othered and discriminated against. Indeed, the mean score on perceived discrimination/prejudice was relatively low in the current study. This might mean that discrimination/prejudice is experienced sporadically by displaced Ukrainians in the Netherlands, which might weaken the effect on mental health.

However, in the current study, there was a positive relationship between amount of perceived discrimination/prejudice and mental health among people who chose to fill out the Ukrainian version of the survey, where either a negative relationship is expected when discrimination is perceived as pervasive, or no relationship is expected when discrimination is perceived as a single event. An explanation for the positive relationship in this study is yet hard to find, but it might be because of ethnic identification in times of uncertainty. More specifically, people are motivated to identify with their social group to reduce uncertainty (Mullin and Hogg, 1999). Because war and displacement create uncertainty, displaced Ukrainians might feel a strong need to identify with their own in-group.

The choice to fill out the survey in Ukrainian might already reflect a strong identification with the in-group, and discrimination might have further reminded these people of the fact that they are Ukrainians. At the same time, the possible perception of discrimination as a single event might have canceled out the negative effects on mental health, leaving only the positive effects of reduced uncertainty. So, during times of uncertainty, a positive relationship between single

discriminatory events and mental health might be expected, as such events might remind people of their own ethnic identity, which might reduce feelings of uncertainty.

Limitations and future research

It might be important to note, however, that the above explanation for the interaction between amount of discrimination/prejudice and user language in the prediction of mental health is one of a rather speculative nature. First of all, it cannot be concluded that identity plays a role, as this study does not provide evidence for the role of Ukrainian language as a proxy measure for the Ukrainian identity. Second, it cannot be boldly stated that displaced Ukrainians in the Netherlands do not view discrimination/prejudice as a pervasive problem in Dutch society.

Therefore, future research should test the above link between perceptions of uncertainty, pervasiveness, in-group identification and mental health. The recommendation is to ask displaced Ukrainians whether they experience discrimination, and if so, whether they view it as a pervasive problem or as a single occurrence. Moreover, they should be asked directly about their in-group identification.

In addition to the lack of evidence on the role of in-group identification and perceived pervasiveness, a further limitation of this study is that no causal conclusions can be drawn. Indeed, it is unknown what causal factors might contribute to the concerning levels of mental health among displaced Ukrainians in the Netherlands. To establish a causal connection, an experiment is needed. However, it might be ethically challenging to manipulate the mental health of displaced Ukrainians in the Netherlands. The recommendation for future experiments is to positively manipulate mental health, rather than negatively. In other words, future studies should measure the effect of psychological treatment on the mental health of displaced Ukrainians in the Netherlands.

This might be especially necessary, as almost all participants in the current study had concerning low levels of mental health. Indeed, war and displacement can have quite negative psychological effects, which might explain the low mental health levels in the current sample. However, it should be noted that self-selection bias cannot be ruled out in this sample. Indeed, the recruitment text of this study included information about the fact that this study was about mental health, which might have caused a biased sample. Maybe people who wanted to share their mental health struggles felt especially attracted to the survey. Even though it cannot be stated whether self-selection bias did or did not occur, it might be prudent to not disclose the nature of mental health surveys in future recruitment texts. Rather, make sure that the nature of the study is only stated in the information letter, so people can only learn about it after they have clicked on the survey link.

Another limitation pertaining to the sample is that there was a relatively low number of participants. Indeed, the observed power probabilities were relatively low, which might or might not play a role in the fact that both hypotheses were refuted. To test hypotheses more confidently, one might need a larger sample size, as this increases the power of the study. However, it should be noted that the current sample contained a relatively narrow demographic, as only displaced Ukrainians in the Netherlands who were older than 16 were targeted, which might have made recruitment more difficult. Therefore, the recommendation for future research is to reimburse people for participation, as evidence suggests that monetary rewards improve participation rates in health-related psychology surveys (Robb et al., 2017).

Implications

Despite the above limitations, it might be important to note that this is the first study, to the best of the author's knowledge, in which the role of host national contact in the mental health

of displaced Ukrainians in the Netherlands was assessed. The results of the current study show that certain occurrences in the contact with host society members relate to mental health in unexpected and seemingly complex ways. This might mean that the current study has potential for nuancing the current scientific knowledge regarding the relationship between host national contact and mental health. Such nuances might be quite important, as scientific research often forms the basis for governmental policies aimed at improving the mental health of displaced people. Therefore, governmental policymakers should be aware of the fact that there is no easy, clear-cut answer yet to the complex host society factors that play a role in the mental health of various displaced groups. If the current study creates such awareness, this might already be a step into the right direction.

Notes

- 1. By now, some studies have also investigated several aspects of the mental health of displaced Ukrainians in The Netherlands, but this was not yet the case when the hypotheses were formulated.
- 2. In Russian, the word institute ("институт") is commonly used as a synonym for university.
- 3. Multiple testing does not pose a problem in this case, as a Type I error cannot be made because of insignificant results.

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