

The Moderating Role of Individual Resilience in Refugee and Dutch Adolescents After Trauma

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Objective: Exposure to potentially traumatic events (PTEs) has been identified as a risk factor for various psychological problems in adolescents generally and in young refugees. The aim of this study was to examine whether individual resilience (assessed as a personality characteristic) can protect adolescents in diverse contexts from negative effects of trauma exposure. **Method:** A path model was used to assess whether individual resilience buffered the negative effects of exposure to PTEs in a cross-sectional study of adolescent refugees (aged 12–17 years; $n = 117$) and their Dutch peers ($n = 148$). Measurements included the Children's Revised Impact of Event Scale, Strengths and Difficulties Questionnaire, Satisfaction with Life Scale and the Resilience Scale. **Results:** The moderating effects of individual resilience on the relationship between PTEs and mental health problems and life satisfaction were mixed: In the nonrefugee group, but not in the refugee group most moderation effects reached significance. **Conclusion:** Findings suggest that not all groups benefit similarly from individual-level resilience. Consequently, adolescents, who differ with regard to the risks to which they are exposed, may need different forms of support. This study points to the interplay of factors that contributes to demonstration of individual resilience.

Clinical Impact Statement

This study demonstrates that not all groups benefit similarly from individual resilience (assessed as a personality characteristic); individual resilience appears to protect nonrefugee adolescents from the negative effects of exposure to potentially traumatic events, but seems not be sufficient to protect adolescent refugees from the negative effects of very high exposure to trauma.

Keywords: resilience, refugees, PTSD, adolescents

Epidemiological data show that many adolescents are exposed to one or more potentially traumatic events (PTEs), such as natural disasters, serious accidents, unexpected deaths of a loved one or sexual abuse (e.g., Kilpatrick et al., 2003). Reported prevalence

rates vary considerably in peacetime population studies, from 14% in Dutch youngsters (Alisic, van der Schoot, van Ginkel, & Kleber, 2008) to more than 75% in Danish adolescents (Elklit, 2002). Even the lower rates demonstrate that exposure to PTEs is not excep-

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tional for adolescents. Most studies of the consequences of PTEs focus on posttraumatic stress disorder (PTSD) and its symptoms. The reported prevalences of PTSD are quite variable. A comprehensive meta-analysis concluded that approximately 16% of children and adolescents who are confronted with a PTE develop PTSD (Alisic et al., 2014).

Adolescent refugees and asylum-seekers are particularly prone to a range of PTEs. In addition to the PTEs they face in their homeland or during their flight, they are exposed to postmigration stressors, such as the loss of social networks, difficult living conditions in Asylum Seeker Centres (ASCs) and the uncertainty surrounding their future (e.g., Bean, Derluyn, Eurelings-Bontekoe, Broekaert, & Spinhoven, 2007; Laban, Gernaat, Komproe, van der Tweel, & De Jong, 2005). Young refugees and asylum seekers are more vulnerable to PTSD symptoms and PTSD is more prevalent in this group than in youngsters in general (e.g., Lustig et al., 2004).

Many researchers have emphasized the importance of considering resilience in research on the mental health of young refugees (Betancourt & Khan, 2008; Montgomery, 2008; Rutter, 2013). Although there is little agreement on how resilience should be defined (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014), resilience has mostly been described as a dynamic developmental process involving positive adaptation to one's circumstances in the face of significant adversity (e.g., Luthar, Cicchetti, & Becker, 2000). This definition represents the relevance of a context driven approach that focuses on the interactions among various personal and environmental factors to understand resilience. It also raises the question what is meant by "significant adversity" and "positive adaptation" and whether these features can vary between contexts and cultures (Southwick et al., 2014).

Although the broad description of resilience as a dynamic process might encompass the complexities of the construct, it makes it difficult to measure it quantitatively. Several quantitative studies have used multiple indicators to assess resilience, including measures of self-esteem and optimism. Others have used longitudinal designs to explore adjustment trajectories (e.g., Bonanno, 2004) or specific quantitative instruments that measure individual resilience (Ahern, Kiehl, Sole, & Byers, 2006; Wagnild, 2009). Cross-sectional studies, that have used such a specific instrument, have shown that individual resilience is negatively associated with mental health problems (e.g., Connor, Davidson, & Lee, 2003; Ziaian, de Anstiss, Antoniou, Baghurst, & Sawyer, 2012) and positively associated with psychological well-being and life satisfaction in various risk groups (e.g., Christopher & Kulig, 2000; He, Cao, Feng, Guan, & Peng, 2013; Wagnild, 2009). Individual resilience has also been shown to buffer the negative impact of adversity in several cultures, for example in South African adolescents it counteracted the effects of childhood abuse and neglect on probability of developing PTSD (Fincham, Altes, Stein, & Seedat, 2009) and it has also been found to protect individuals with a history of childhood abuse or other traumas from depressive symptoms (Schulz et al., 2014; Wingo et al., 2010) and Korean firefighters exposed to PTEs from PTSD symptoms (Lee, Ahn, Jeong, Chae, & Choi, 2014).

However, not all the research findings are so clear-cut, for example Fincham, Altes, Stein, and Seedat (2009) found that in adolescents living in South Africa individual resilience buffered the negative effects of childhood abuse and neglect, but not the

negative effect of high levels of actual and perceived stress. Markovitz, Schrooten, Arntz, and Peters (2015) showed that in patients with cancer high individual resilience did not reduce negative emotions or regulate positive emotions. Still, it did protect cancer patients from developing psychological symptoms: Levels of anxiety and depression in cancer patients with high resilience were similar to those in healthy individuals. There is, in general, support for the effects of individual resilience on mental health and well-being (Bonanno, Brewin, Kaniasty, & Greca, 2010), but more research is needed to explore individual resilience in diverse contexts and at-risk populations, such as young refugees (Sleijpen, June Ter Heide, Mooren, Boeijs, & Kleber, 2013).

The aim of this study was to describe the relationships between exposure to PTEs, individual resilience, PTSD symptoms, emotional problems, and satisfaction with life in adolescent refugees and a comparison group of nonrefugee Dutch adolescents who had experienced at least one PTE. In the current study we used Wagnild and Young's Resilience Scale (RS; Wagnild & Young, 1993) to measure individual resilience. The authors of the RS defined resilience as "a positive personality characteristic that enhances individual adaptation in the aftermath of adversity" (Wagnild & Young, 1993, p. 167).

Furthermore, we included duration of stay as an asylum seeker in the Netherlands as a variable in our analyses as we thought spending a long time in an ASC with uncertain prospects might constitute a stress factor. During the asylum process asylum seekers are in fear of deportation and must cope with difficult living conditions (Robjant, Hassan, & Katona, 2009). The stresses associated with staying in an ASC may have a negative influence on adolescents' satisfaction with life by impeding the development of a sense of personal and social identity, which typically takes place during adolescence. The lack of stability and security impedes identity development. The hopes and expectations asylum seekers initially have of being able to make a fresh start in the host country might turn into disappointment and disillusionment during years of waiting during which they cannot be certain about what the future holds for them (Sleijpen, Mooren, Kleber, & Boeijs, 2017). We also analyzed whether individual resilience moderated the relationship between exposure to traumatic events (and duration of stay as an asylum seeker in the case of the refugee group) and PTSD symptoms, emotional problems, and satisfaction with life. Knowledge of factors that protect adolescents in diverse contexts can help to develop preventive and therapeutic interventions, and better targeted services.

Based on previous research we hypothesized that high exposure to PTEs and a longer stay as asylum seeker in the Netherlands would increase the risk of developing PTSD symptoms and emotional problems and decrease satisfaction with life. We also hypothesized that individual resilience would moderate the strength of these relationships.

Method

Participants

Our sample consisted of two groups with different levels of exposure to PTEs: adolescent refugees recruited from ASCs in the Netherlands and nonrefugee Dutch adolescents. The distribution of ages and genders was similar in the two groups (see Table 1). The

Table 1
Demographic Characteristics and Total Scores for the Sample as a Whole and as a Function of Group

Variables	Total sample	Nonrefugee adolescents	Refugee adolescents
Sample size	265	148	117
Gender: <i>n</i> (%) males	131 (49%)	71 (48%)	60 (51%)
Mean age in years (<i>SD</i>)	14.43 (1.39)	14.47 (1.05)	14.37 (1.73)
Country of origin	x	x	Iraq = 24 Syria = 16 Armenia = 15 Afghanistan = 13 Libya = 10 Somalia = 7 Other = 32
Asylum status: Holds a residence permit (%)	x	x	35 (30%)
Length (<i>SD</i>)	x	x	3.20 (2.67)
PTEs (<i>SD</i>)	5.18 (4.07)	2.91 (1.73)	8.04 (4.37)**
Resilience (<i>SD</i>)	74.68 (10.71)	73.96 (9.61)	75.60 (11.95)
Satisfaction (<i>SD</i>)	21.01 (7.47)	23.02 (6.68)	18.44 (7.67)**
Emotional (<i>SD</i>)	3.48 (2.44)	2.93 (2.30)	4.24 (2.43)**
PTSD (<i>SD</i>)	25.26 (15.15)	20.70 (14.52)	30.77 (14.07)**

Note. Age = age in years; Length = length of stay as an asylum seeker in Asylum Seeker Centres in the Netherlands in years; PTEs = number of potentially traumatic events; Resilience = individual resilience score (RS); Satisfaction = satisfaction with life score (SWLS); Emotional = emotional problems score (SDQ subscale); PTSD = posttraumatic stress disorder symptoms score (CRIES-13); x = not applicable.

** $p < .01$.

level of education of refugee participants varied and was difficult to determine in some cases (e.g., because they had fled from a country with an educational system that was difficult to compare with that of the Netherlands or because they followed languages training in the Netherlands instead of a regular and comparable school program). Various educational levels were represented in the nonrefugee group (preparatory middle-level applied education, higher general continued education, and preparatory scholarly education).

Refugee group. One-hundred and 36 refugees and asylum seekers living in ASCs were invited to participate in the study. Six declined because they were otherwise occupied (e.g., doctor's appointment) or preferred to take part in other activities (e.g., playing games). Seven adolescents could not take part in the study because an interpreter was not available. Three refugees were not granted permission to participate by their parents. Two adolescents felt physically unable to complete the questionnaires because they were fasting for Ramadan. One participant was excluded because this participant did not mention a PTE. Data from 117 participants were analyzed. Table 1 provides an overview of the demographic data.

Nonrefugee group. Two-hundred and 43 adolescents distributed over four secondary schools were invited to participate. The parents of 69 adolescents refused consent for their child's participation or did not respond to the request for consent. Ten adolescents were absent during testing. Sixteen participants were excluded from the dataset because they had not experienced a PTE. The final group comprised 148 participants. See Table 1 for a more complete presentation of the demographic data.

Measures

Sociodemographic characteristics. Participants reported their age, gender, and country of origin. Participants with a refugee

background were also asked to report their asylum status (whether or not they had been granted a residence permit) and length of stay as asylum seeker in the Netherlands.

Potentially traumatic events. We assessed exposure to PTEs using a 26-item questionnaire based on the UCLA PTSD Reaction Index *DSM-IV* (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998) and Part 1 (traumatic events) of the Harvard Trauma Questionnaire (Mollica et al., 1992). Respondents were asked to indicate whether they had experienced the PTEs which are listed in Table 2. A score was computed representing the total number of events the respondent reported having experienced (range: 0–26).

Posttraumatic stress disorder symptoms. We measured PTSD symptoms using the Dutch version (Olff, 2005) of the Children's Revised Impact of Event Scale (CRIES-13; Smith, Perrin, Dyregrov, & Yule, 2003). This is a 13-item instrument consisting of three subscales: intrusion (four items), avoidance (four items), and arousal (five items). The questions concern how frequently the respondent experiences various symptoms and responses are given on a 4-point Likert scale (0 = *not at all*; 1 = *rarely*; 3 = *sometimes*; 5 = *often*). PTSD score is computed by summing the scores for individual items (range: 0–65); higher scores indicate more severe PTSD symptoms. It has been shown that the best cut-off score for identifying PTSD in children is 30 (Perrin, Meiser-Stedman, & Smith, 2005). The CRIES-13 has been shown to be statistically reliable and valid across several cultures (Giannopoulou et al., 2006; Perrin et al., 2005; Smith et al., 2003). In this study the scale had good internal reliability in both groups (nonrefugees: $\alpha = .87$; refugees: $\alpha = .82$).

Emotional problems. We assessed emotional problems using the Dutch version (van Widenfelt, Goedhart, Treffers, & Goodman, 2003) of the emotional problems subscale from the Strengths and Difficulties Questionnaire (SDQ; Goodman, Meltzer, & Bailey, 2003). This reliable subscale comprises five items for which

Table 2
Potentially Traumatic Events Experienced by Refugee and Nonrefugee Adolescents

Type of potentially traumatic events	Total sample		Refugee adolescents		Nonrefugee adolescents	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Loss of a parent or sibling	28	11%	26	22%	2	1%
Loss of a close family member or friend	181	68%	68	58%	113	76%
Serious medical problems	80	30%	36	31%	44	30%
Serious medical problems of parent or sibling	49	19%	30	26%	19	13%
Psychiatric disorder of parent or sibling	37	14%	23	20%	14	10%
Parental divorce	64	24%	11	9%	53	36%
Physical abuse in primary care system	31	12%	14	12%	17	12%
Verbal abuse in primary care system	45	17%	26	22%	20	14%
(Threatened with) physical abuse outside primary care system	52	20%	31	27%	21	14%
Sexual abuse	17	6%	4	3%	13	9%
Serious traffic accident	34	13%	17	15%	17	12%
Witnessing serious injury or death	82	31%	50	43%	32	22%
Natural disaster	30	11%	19	16%	11	7%
War situation	78	30%	78	67%	0	0%
Lack of food or water	26	10%	26	22%	0	0%
Ill health without access to medical care	23	9%	23	20%	0	0%
Lack of shelter	28	11%	28	24%	0	0%
Captivity or kidnapped	17	6%	17	15%	0	0%
Forced separation from family members	31	12%	31	27%	0	0%
Combat situation	67	25%	67	57%	0	0%
Bomb attack	46	17%	46	40%	0	0%
Murder of family member	38	14%	38	33%	0	0%
Murder of friend or acquaintance	30	11%	30	26%	0	0%
Forced flight	117	44%	117	100%	0	0%
Physical torture	12	5%	12	10%	0	0%
Other stressful event causing serious fear, sadness, or injury	128	49%	73	62%	55	37%

there are three possible responses (not true; somewhat true; certainly true). Overall score was calculated as the sum of scores on the five items (range: 0–10); higher scores indicate more severe emotional problems. The SDQ has been widely used in several cultures and languages (Woerner et al., 2004). The Dutch translation of the SDQ has acceptable to good psychometric properties (van Widenfelt et al., 2003). In this study Cronbach's alpha for the emotional problems subscale was .68 and .65 in the nonrefugee and refugee groups, respectively.

Global life satisfaction. The Dutch version (Arrindell, Meeuwesen, & Huysse, 1991) of the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) consists of five items to which responses are given using a 7-point Likert scale (1 = *strongly disagree* to 7 = *strongly agree*). A satisfaction with life score is computed by summing the scores for individual items (range: 5–35); higher scores reflect greater satisfaction with life. The Dutch version of the SWLS has good reliability and high internal consistency (Arrindell et al., 1991). The questionnaire is suitable for use with a wide range of age groups (Diener et al., 1985) and appears to have potential as a cross-cultural instrument (Pavot & Diener, 1993). In this study the scale had good internal consistency in both groups (nonrefugees: $\alpha = .85$; refugees: $\alpha = .82$).

Individual resilience. The Dutch version (Portzky, 2008) of the RS (Wagnild & Young, 1993) consists of 25 items to which responses are given using a four-point Likert scale (1 = *strongly disagree* to 4 = *strongly agree*). Item 11 of the Dutch version is reverse-scored. A total score is computed by summing the scores for individual items (range: 25–100); higher scores reflect higher

individual resilience. The Dutch version of the RS has good reliability and validity (Portzky, Wagnild, De Bacquer, & Aude-naert, 2010). A review of direct measures of resilience concluded that the RS was the best instrument for assessing resilience in adolescent samples irrespective of ethnic background (Ahern et al., 2006). There is evidence that the RS shows partial scalar invariance across adolescent refugees and nonrefugee adolescents (Sleijpen, van der Aa, Mooren, Laban, & Kleber, 2016) and so meaningful comparison of these groups is possible. In this study the values of Cronbach's alpha were .86 and .89 for the nonrefugee and refugee groups, respectively.

Procedures

Refugee group. We visited seven ASCs distributed across the Netherlands. We spoke to adolescents and their parents about the purpose of the study and told them they could withdraw from the study at any time. Both the adolescents and their parents provided written, informed consent to participation. Participants were recruited from July 2014 until April 2015. Participants filled out the questionnaires in a quiet room where they could ask for assistance at any time. A psychologist and, if necessary, an interpreter were always available. Thirty-six adolescents needed the help of an interpreter to complete the questionnaires.

Nonrefugee group. We contacted six secondary schools distributed across the Netherlands and four agreed to participate in the study; two refused because they had already agreed to participate in other research projects. The researcher introduced the project to students in their classrooms, explaining its purpose that participa-

tion was voluntary and that data would be anonymous. To be eligible to participate adolescents had to have Dutch nationality, be aged between 12 and 17 years, not have refugee status and not have a history of forced flight. Both parents and adolescents received a letter giving them information about the project and were asked to provide written consent to participation. Participants were recruited from May 2013 until April 2014. This was after recruitment of the refugee sample, due to logistic reasons. Questionnaires were filled out in a classroom under the supervision of a professional psychologist, a research assistant and a teacher.

The Medical Ethics Committee of the University Medical Centre in Utrecht approved the study design (protocol number: 11–331/K). Explanations about the meaning of difficult words and Dutch expressions were added to the questionnaires in order to prevent misinterpretations and the SWLS was placed ahead of the questions measuring PTE exposure and PTSD symptoms to avoid biasing responses. When the study was complete participants received a debriefing letter and a small gift.

Statistical Analyses

We accepted a maximum of one missing item on the SWLS and the SDQ emotional problems subscale. In line with the recommendations in the questionnaire manuals we accepted a maximum of three missing items on the RS and on the CRIES-13 (maximum of one missing item on each subscale). Missing data were imputed as the mean of the available scores on the scale concerned. If the total number of missing responses exceeded the permitted maximum for a given scale the scale score was recoded as missing. Permitting a small number of missing values with mean imputations per scale results in minimal distortion of estimated variances and correlations (Schafer & Graham, 2002).

We assessed group differences using independent-samples *t* tests in SPSS (Version 20). We then fitted a multigroup path model to the data, using full information maximum likelihood estimation in MPlus Version 7.3 (Muthén & Muthén, 1998–2012). It was tested whether the number of PTEs experienced (in both groups) and length of stay as an asylum seeker (only in the refugee group) was associated with PTSD symptoms, emotional problems, and satisfaction with life in refugee and nonrefugee adolescents, and whether these associations were moderated by individual resilience. We estimated parameters freely across groups to reflect possible differences between refugees and nonrefugees. PTSD symptoms, emotional problems, and satisfaction with life were simultaneously regressed on the number of PTEs experienced and length of stay as an asylum seeker (only in the refugee group), individual resilience and the terms representing the interactions between individual resilience and number of PTEs experienced and length of stay as an asylum seeker. Interaction terms were computed by multiplying standardized individual resilience scores by standardized scores for number of PTEs experienced and length of stay as an asylum seeker. A significant regression coefficient representing an interaction term indicates that individual resilience moderates one of the associations involving the number of PTEs experienced or length of stay as asylum seeker on one hand and PTSD symptoms, emotional problems, or satisfaction with life on the other hand. We then use the Johnson-Neyman procedure (Johnson & Neyman, 1936; Preacher, Curran, & Bauer, 2006) to decompose the moderation effects by investigating at which values

of the moderator variable (i.e., individual resilience) there was a significant regression of PTSD symptoms, emotional problems, or satisfaction with life on the number of PTEs experienced or on length of stay as an asylum seeker.

Results

Descriptive Statistics

Table 1 reports total scores and standard deviations of variables for the sample as a whole and for the two groups. Adolescent refugees reported more PTEs, PTSD symptoms, and emotional problems and less satisfaction with life than their nonrefugee peers. The groups had similar total individual resilience scores. Table 2 presents the number of adolescents who experienced each of the individual PTEs. It can clearly be seen that with regard to most PTEs the endorsement rate was higher for adolescent refugees compared with their nonrefugee peers, and also that adolescent refugees experienced different PTEs compared with their nonrefugee peers. Parental divorce was the only PTE nonrefugee adolescents experienced more often compared with their refugee peers.

Path Model

In both groups, number of PTEs experienced was positively associated with PTSD symptoms and emotional problems and negatively associated with satisfaction with life (see Table 3). The number of PTEs experienced was not associated with individual resilience in either group. Individual resilience was positively associated with satisfaction with life in both groups. In the non-refugee group individual resilience was also negatively associated with PTSD symptoms and emotional problems, whereas in the refugee group individual resilience was not associated with either PTSD symptoms or emotional problems (see Table 3).

In refugee adolescents, individual resilience did not moderate the relationships between number of PTEs experienced and PTSD symptoms, emotional problems or satisfaction with life (see Table 3). Nor did individual resilience moderate the relationship between the number of PTEs experienced and PTSD symptoms in the nonrefugee group; however, in this group it did moderate the relationships between number of PTEs experienced and emotional problems and satisfaction with life (see Table 3). Figures 1A and 1B depict the decomposition of the moderation effects, representing the strength of the regressions of emotional problems and satisfaction with life on the number of PTEs experienced as a function of resilience among nonrefugee adolescents. The figure shows that at low to average levels of resilience exposure to PTEs was positively associated with emotional problems and negatively associated with satisfaction with life (95% confidence intervals did not include 0) and these relationships became stronger as resilience decreased. At average and high levels of resilience exposure to PTEs was not associated with emotional problems or satisfaction with life (the 95% confidence intervals included 0). In other words, for individuals with low to average resilience exposure to trauma was associated with having more emotional problems and lower satisfaction with life, whereas in individuals with average to higher resilience (from approximately 0.2 standard deviations above the

Table 3
Unstandardized and Standardized Regression Coefficients for the Path Model for the Prediction of Mental Health for Refugee (N = 117) and Nonrefugee (N = 148) Adolescents

	PTSD symptoms			Emotional problems			Satisfaction with life		
	B	SE B	β	B	SE B	β	B	SE B	β
Refugee adolescents									
PTEs	4.555**	1.128	.348	.629**	.201	.281	-1.694**	.604	-.237
Length of stay as asylum seekers in the NL	-1.042	1.372	-.074	-.161	.225	-.066	-2.858**	.647	-.372
Resilience	-1.844	1.272	-.146	-.395	.237	-.183	1.923**	.684	.280
Resilience × PTEs	1.461	1.070	.138	.147	.199	.081	.455	.576	.079
Resilience × Length of Stay as an Asylum Seeker	-.489	1.360	-.035	-.682**	.235	-.282	-.467	.641	-.061
Nonrefugee adolescents									
PTEs	17.118**	2.391	.503	1.053**	.386	.194	-3.297**	1.191	-.209
Resilience	-3.683*	1.691	-.229	-1.575**	.275	-.613	3.546**	.851	.476
Resilience × PTEs	-2.033	2.846	-.076	-1.021*	.456	-.239	2.935*	1.411	.237

Note. B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient.
 * $p < .05$. ** $p < .01$.

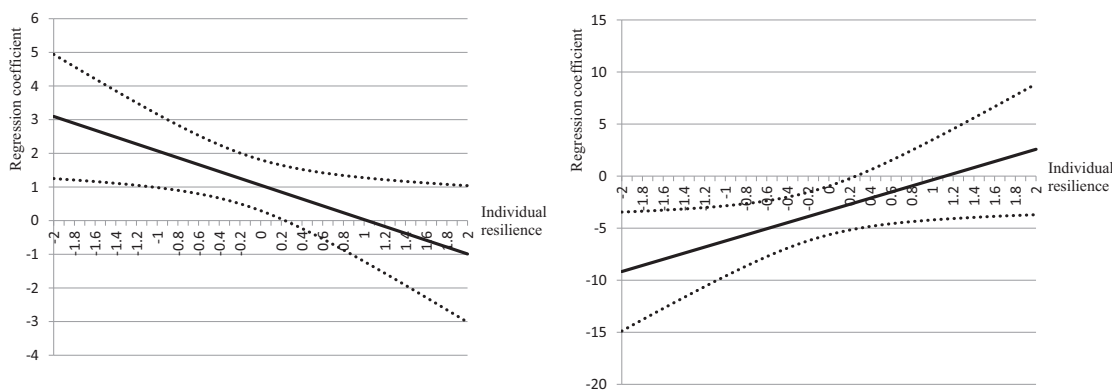
mean) exposure to trauma was not associated with emotional problems or satisfaction with life.

Length of stay as an asylum seeker was negatively associated with satisfaction with life (see Table 3); refugee participants who had spent longer as an asylum seeker tended to be less satisfied with life. Length of stay as an asylum seeker was not associated with PTSD symptoms or emotional problems. Length of stay as an asylum seeker was negatively associated with individual resilience; refugee participants who had spent longer as an asylum seeker reported lower individual resilience. Individual resilience did not moderate the relationships between length of stay as an asylum seeker and PTSD symptoms and satisfaction with life. Individual resilience did, however, moderate the relationship between length of stay as an asylum seeker and emotional problems (see Table 3). Figure 2 presents the strength of the regression of emotional problems on length of stay as an asylum seeker as a function of resilience. At low levels of resilience (1.5 to 2.0

standard deviations below the mean) there was a positive association between length of stay as an asylum seeker and emotional problems whereas at higher levels of resilience (0.5 to 2.0 standard deviations above the mean) this relationship was negative, as the 95% confidence intervals did not include 0 at these levels of resilience. In those who reported average resilience (from approximately 1.5 standard deviations below the mean to 0.5 standard deviations above the mean) length of stay as an asylum seeker was not related to emotional problems.

Discussion

This study examined the relationships between exposure to potential traumatic events, length of stay as an asylum seeker, well-being (e.g., PTSD symptoms, emotional problems, satisfaction with life) and individual resilience and whether individual resilience altered the strength of the relationships between expo-



A. Regression coefficient of emotional problems on number of PTEs experienced as a function of individual resilience.

B. Regression coefficient of satisfaction with life on number of PTEs experienced as a function of individual resilience.

Figure 1. Changes in the strength of the regression of emotional problems and satisfaction with life on the number of PTEs experienced as a function of the moderator variable individual resilience (standardized) in nonrefugee adolescents. Upper and lower bounds of the 95% confidence intervals around the regression coefficients are shown by the dashed lines. Values for the moderator variable resilience range between -2 and +2 standard deviations from the mean.

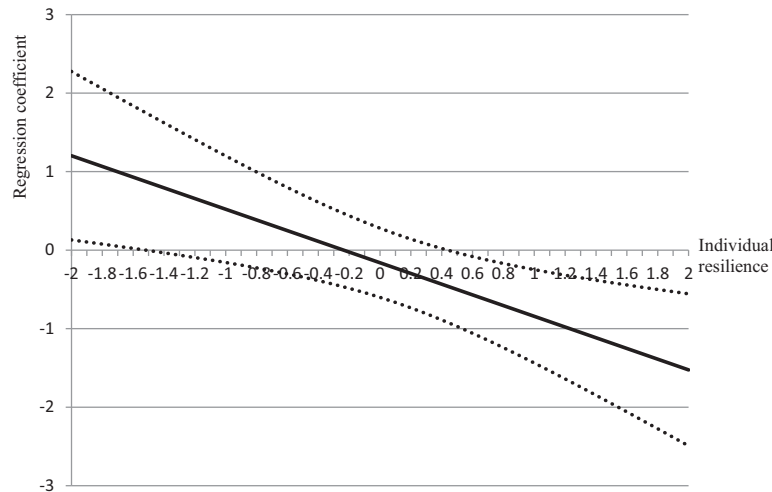


Figure 2. Changes in the strength of the regression of emotional problems on length of stay in asylum seeker centers in the Netherlands as a function of the moderator variable individual resilience (standardized) in refugee adolescents. Upper and lower bounds of the 95% confidence intervals around the regression coefficients are shown by the dashed lines. Values for the moderator variable resilience range between -2 and $+2$ standard deviations from the mean.

sure to trauma or length of stay as an asylum seeker and wellbeing in adolescent refugees and their nonrefugee Dutch peers who had experienced at least one PTE.

In both groups number of stressful experiences was positively associated with PTSD symptoms and emotional problems and negatively associated with satisfaction with life. These findings show that exposure to multiple PTEs constitutes a risk to adolescents' general mental health. This is congruent with previous research that indicated that the cumulative negative effect of exposure to trauma was one of the main predictors of development of psychiatric symptoms (e.g., Knipscheer, Sleijpen, Mooren, Ter Heide, & van der Aa, 2015). Highly resilient nonrefugee participants had fewer PTSD symptoms and fewer emotional problems and were more satisfied with life than nonrefugee participants with a low individual resilience level. In the case of refugee adolescents, the only association observed was a positive association between individual resilience and satisfaction with life. Although adolescent refugees reported more mental health problems than nonrefugee adolescents exposed to at least one PTE, the two groups had similar mean scores for individual resilience. This result supports the argument that individual resilience does not necessarily implies that there is an absence of PTSD symptoms or other mental health problems (Yehuda & Flory, 2007).

Besides, the number of PTEs experienced was not related to individual resilience in either group. This result is in line with the studies of Ziaian, de Anstiss, Antoniou, Baghurst, and Sawyer (2012) and Markovitz et al. (2015); they also did not find a significant relationship between trauma exposure and individual resilience. It suggests that, as the authors of the RS claim, individual resilience (as measured by the RS) is a relatively stable trait, rather than a state triggered by a stressful event. This result contrasts with the finding that in refugee adolescents, length of stay as an asylum seeker was negatively associated with individual resilience, which indicates that having to wait a long time for a

residence permit has negative impact on the expression of individual resilience. The latter result is in line with another study that demonstrated that if adolescents endured too long a period of uncertainty in an ASC they ceased to demonstrate resilience (Sleijpen et al., 2017). While experiences relating to waiting for a residence status may not necessarily classify as "traumatic," the insecurity and instability associated with this period of prolonged uncertainty has a negative impact on an individual's well-being, and therefore, his or her resilience (see Sleijpen et al., 2017; Zijlstra, 2012).

In addition, length of stay as an asylum seeker was negatively associated with satisfaction with life. This finding supports Laban's (2011) finding that spending a long time in an ASC in the Netherlands (sometimes asylum seekers wait years for a decision on their status) has an adverse effect on refugees' psychological wellbeing. Nevertheless, we found no evidence that spending longer in an ASC increased the severity of PTSD symptoms in adolescent refugees. In this group the severity of PTSD symptoms seems to be influenced predominantly by exposure to premigration traumatic experiences rather than by postmigration factors. This is in spite of evidence in the literature that adverse postmigration factors (e.g., discrimination) may increase PTSD symptom severity (e.g., Laban et al., 2005).

With regard to the question of whether individual resilience moderates the relationship between exposure to trauma and mental health problems and life satisfaction, we found that higher resilience protected the nonrefugee participants against emotional problems and dissatisfaction with life. This suggests that individual resilience plays a substantial role in counteracting the negative effects of exposure to trauma in nonrefugee adolescents; however, it did not moderate the effect of exposure to trauma on the development of PTSD in this group. This result is in line with Rutter's (1993) conceptualization of resilience as a quality which does not convey immunity to emotional distress, but does enable

individuals remain emotionally stable in the face of traumatic experiences.

Individual resilience did not soften the impact of PTE's on mental health in refugee adolescents. The only relationship moderated by individual resilience in refugee adolescents was the association between length of stay as an asylum seeker and emotional problems. In adolescent refugees with low individual resilience, length of time spent as an asylum seeker was positively associated with emotional problems, whereas in highly individual resilient adolescents the opposite association was observed. This indicates that adolescent refugees who have low resiliency are more vulnerable to developing emotional problems if they spend a long time in an ASC, compared with adolescent refugees with more resilience.

Compared with their nonrefugee age mates, in refugee adolescents individual resilience has less influence on the incidence of mental health problems or the level of satisfaction with life. This might be due to the nature and amount of stress experienced by the refugees as their experience of trauma was different from that of their nonrefugee counterparts. Fincham et al. (2009) revealed, for example, that in a sample of adolescents living in South Africa individual resilience buffered the negative effects of childhood abuse and neglect, but not the negative effect of high levels of stress. Also, in their reevaluation of resilience in the context of various levels of risk, Vanderbilt-Adriance and Shaw's (2008) concluded that individual resilience may not shield adolescent refugees from psychiatric problems because they are at too high a level of risk. As a refugee, and particularly as an asylum seeker, it is hard to maintain or build the resources needed to deal with stressors (Betancourt et al., 2015; Hobfoll, 2001). It is possible that the circumstances of life in an ASC do not give asylum seekers opportunities to build or rebuild their resilience. Moreover, they may be unable to make use of the physical, financial, and educational resources that are theoretically available to them due to loss or decline in their psychological resources. A longitudinal study of Palestinians (Hobfoll, Mancini, Hall, Canetti, & Bonanno, 2011) showed that recovery from PTSD can be limited due to ongoing stress.

Another possible explanation is that aspects of individual resilience are more valuable to Dutch adolescents because they are valued by Western culture (Triandis & Suh, 2002). Most of the refugees who participated in our study came from collectivist cultures where family and work group goals were emphasized above individual exploration and individual needs. Western definitions of resilience, however, tend to emphasize individual characteristics such as self-initiation or self-regulation (Heine & Hamamura, 2007). It is possible that young people who come to the Netherlands as refugees are more community-oriented than native Dutch young people. Thus resilience, as measured in accordance with Western definitions of this concept, might not fully capture resilience for this multicultural group (Wyman, 2003).

Resilience measures like the RS assume that resilience is predominantly a matter of personality; however personal characteristics such as individual resilience may be only one of the many factors that might contribute to the course and outcome of a person's recovery from trauma (Bonanno & Mancini, 2012). The results of this study confirm that resilience measured as a personality characteristic has some, albeit limited influence on how well an individual copes with trauma and support the argument that

resilience is more usefully considered as a dynamic process rather than a latent personality trait. Pathways to positive adaptive functioning are influenced by the complex interactions among for example an individual's biological organization, social context, the timing of adverse events and his or her history (Cicchetti & Tucker, 1994). Also, the cultural context might exert important influence on adaptive responses to trauma (Ungar, 2012).

Limitations

This study has several limitations. First, this was a cross-sectional study and so there is limited scope for inferences about the causal and temporal relationships among the variables. Second, it relied on self-report instruments and the validity of data obtained in this way depends partly on participants' comprehension of the questions. Misunderstanding of questions or socially desirable responding may have biased the results. Third, exposure to PTEs was measured simply as the number of events, without taken into account the perceived stress they caused, the type of event, or the duration of the trauma. Fourth, the instruments used in this study were developed in Western countries and cultural differences may have confounded the results. It should be noted, however, that we selected the questionnaires on the basis of their cross-cultural validity. Longitudinal research assessing psychological adjustment in different (cultural) groups and contexts at various time points is needed to improve our understanding of how pre- and postmigration factors influence adolescents' mental health and life satisfaction.

Implications for Practice

The adolescent refugees who participated in this study scored quite high on PTSD symptoms (mean CRIES-13 score was above the cut-off score for diagnosis of PTSD). Exposure to PTEs was the only investigated factor which was associated with PTSD symptom severity in adolescent refugees and nonrefugee adolescents. This result provides support for existing trauma-focused treatments when aiming to decrease the PTSD symptoms in this group (ter Heide et al., 2016). More research is needed into other factors which may buffer the negative effects of exposure to trauma and promote mental well-being in young refugees.

In addition, the negative effect of the postmigration factor length of stay as an asylum seeker on satisfaction with life in adolescent refugees has implications for asylum policy. Panter-Brick spoke clearly about this, stating "rather than tinker with individual-level capacities to cope, we must change the society-level odds stacked against individuals that block their opportunities to achieve a better future" (cited in Southwick et al., 2014, p. 6). The lengthy process for claiming asylum and transfers from one ASC to another during the process can hinder young asylum seekers from realizing a better future for themselves.

Conclusion

This study confirmed that adolescent refugees living in ASCs in the Netherlands are emotionally challenged. Most have experienced many PTEs, resulting in high overall PTSD symptom severity. Additionally, we found no evidence that individual resilience (assessed as a personality characteristic) reduced the

negative effect of exposure to trauma on adolescent refugees' emotional wellbeing. This contrasted with the protective effects of individual resilience in nonrefugee Dutch adolescents who had experienced at least one PTE. Although individual resilience did not protect nonrefugee adolescents against PTSD symptoms, in more resilient individuals, PTEs had less impact on satisfaction with life and were less likely to result in emotional problems. These specific findings on the moderating effect of individual resilience question the conceptualization of resilience as a personality characteristic and show that not everyone benefits similarly from the Western concept of individual resilience. Social and collective elements of resilience may be of more significance to refugees considering the fact that most refugees came from communities where the priorities of the collective are emphasized. Correspondently, adolescents in diverse contexts might profit from different forms of support.

References

- Ahern, N. R., Kiehl, E. M., Sole, M. L., & Byers, J. (2006). A review of instruments measuring resilience. *Issues in Comprehensive Pediatric Nursing, 29*, 103–125. <http://dx.doi.org/10.1080/01460860600677643>
- Alisic, E., van der Schoot, T. A., van Ginkel, J. R., & Kleber, R. J. (2008). Looking beyond posttraumatic stress disorder in children: Posttraumatic stress reactions, posttraumatic growth, and quality of life in a general population sample. *The Journal of Clinical Psychiatry, 69*, 1455–1461. <http://dx.doi.org/10.4088/JCP.v69n0913>
- Alisic, E., Zalta, A. K., van Wesel, F., Larsen, S. E., Hafstad, G. S., Hassanpour, K., & Smid, G. E. (2014). Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: Meta-analysis. *The British Journal of Psychiatry, 204*, 335–340. <http://dx.doi.org/10.1192/bjp.bp.113.131227>
- Arrindell, W., Meeuwesen, L., & Huysse, F. (1991). The Satisfaction With Life Scale (SWLS): Psychometric properties in a non-psychiatric medical outpatients sample. *Personality and Individual Differences, 12*, 117–123. [http://dx.doi.org/10.1016/0191-8869\(91\)90094-R](http://dx.doi.org/10.1016/0191-8869(91)90094-R)
- Bean, T., Derluyn, I., Eurelings-Bontekoe, E., Broekaert, E., & Spinhoven, P. (2007). Comparing psychological distress, traumatic stress reactions, and experiences of unaccompanied refugee minors with experiences of adolescents accompanied by parents. *Journal of Nervous and Mental Disease, 195*, 288–297. <http://dx.doi.org/10.1097/01.nmd.0000243751.49499.93>
- Betancourt, T. S., Abdi, S., Ito, B. S., Lilienthal, G. M., Agalab, N., & Ellis, H. (2015). We left one war and came to another: Resource loss, acculturative stress, and caregiver-child relationships in Somali refugee families. *Cultural Diversity & Ethnic Minority Psychology, 21*, 114–125. <http://dx.doi.org/10.1037/a0037538>
- Betancourt, T. S., & Khan, K. T. (2008). The mental health of children affected by armed conflict: Protective processes and pathways to resilience. *International Review of Psychiatry, 20*, 317–328. <http://dx.doi.org/10.1080/09540260802090363>
- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*, 20–28. <http://dx.doi.org/10.1037/0003-066X.59.1.20>
- Bonanno, G. A., Brewin, C. R., Kaniasty, K., & Greca, A. M. (2010). Weighing the costs of disaster: Consequences, risks, and resilience in individuals, families, and communities. *Psychological Science in the Public Interest, 11*, 1–49. <http://dx.doi.org/10.1177/1529100610387086>
- Bonanno, G. A., & Mancini, A. D. (2012). Beyond resilience and PTSD: Mapping the heterogeneity of responses to potential trauma. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*, 74–83. <http://dx.doi.org/10.1037/a0017829>
- Christopher, K. A., & Kulig, J. C. (2000). Determinants of psychological well-being in Irish immigrants. *Western Journal of Nursing Research, 22*, 123–140. <http://dx.doi.org/10.1177/019394590002200203>
- Cicchetti, D., & Tucker, D. (1994). Development and self-regulatory structures of the mind. *Development and Psychopathology, 6*, 533–549. <http://dx.doi.org/10.1017/S0954579400004673>
- Connor, K. M., Davidson, J. R. T., & Lee, L.-C. (2003). Spirituality, resilience, and anger in survivors of violent trauma: A community survey. *Journal of Traumatic Stress, 16*, 487–494.
- Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71–75.
- Elklit, A. (2002). Victimization and PTSD in a Danish national youth probability sample. *Journal of the American Academy of Child & Adolescent Psychiatry, 41*, 174–181. <http://dx.doi.org/10.1097/00004583-200202000-00011>
- Fincham, D. S., Altes, L. K., Stein, D. J., & Seedat, S. (2009). Posttraumatic stress disorder symptoms in adolescents: Risk factors versus resilience moderation. *Comprehensive Psychiatry, 50*, 193–199. <http://dx.doi.org/10.1016/j.comppsy.2008.09.001>
- Giannopoulou, I., Smith, P., Ecker, C., Strouthos, M., Dikaiakou, A., & Yule, W. (2006). Factor structure of the Children's Revised Impact of Event Scale (CRIES) with children exposed to earthquake. *Personality and Individual Differences, 40*, 1027–1037. <http://dx.doi.org/10.1016/j.paid.2005.11.002>
- Goodman, R., Meltzer, H., & Bailey, V. (2003). The Strengths and Difficulties Questionnaire: A pilot study on the validity of the self-report version. *International Review of Psychiatry, 15*, 173–177. <http://dx.doi.org/10.1080/0954026021000046137>
- He, F., Cao, R., Feng, Z., Guan, H., & Peng, J. (2013). The impacts of dispositional optimism and psychological resilience on the subjective well-being of burn patients: A structural equation modelling analysis. *PLoS ONE, 8*, e82939. <http://dx.doi.org/10.1371/journal.pone.0082939>
- Heine, S. J., & Hamamura, T. (2007). In search of East Asian self-enhancement. *Personality and Social Psychology Review, 11*, 4–27. <http://dx.doi.org/10.1177/1088868306294587>
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology, 50*, 337–370. <http://dx.doi.org/10.1111/1464-0597.00062>
- Hobfoll, S. E., Mancini, A. D., Hall, B. J., Canetti, D., & Bonanno, G. A. (2011). The limits of resilience: Distress following chronic political violence among Palestinians. *Social Science & Medicine, 72*, 1400–1408. <http://dx.doi.org/10.1016/j.socscimed.2011.02.022>
- Johnson, P. O., & Neyman, J. (1936). Tests of certain linear hypotheses and their application to some educational problems. *Statistical Research Memoirs, 1*, 57–93.
- Kilpatrick, D. G., Ruggiero, K. J., Acierio, R., Saunders, B. E., Resnick, H. S., & Best, C. L. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the National Survey of Adolescents. *Journal of Consulting and Clinical Psychology, 71*, 692–700. <http://dx.doi.org/10.1037/0022-006X.71.4.692>
- Knipscheer, J. W., Sleijpen, M., Mooren, T., Ter Heide, F. J. J., & van der Aa, N. (2015). Trauma exposure and refugee status as predictors of mental health outcomes in treatment-seeking refugees. *BJP Psych Bulletin, 39*, 178–182. <http://dx.doi.org/10.1192/pb.bp.114.047951>
- Laban, C. J., Gernaat, H. B., Komproe, I. H., van der Tweel, I., & De Jong, J. T. (2005). Postmigration living problems and common psychiatric disorders in Iraqi asylum seekers in the Netherlands. *Journal of Nervous and Mental Disease, 193*, 825–832. <http://dx.doi.org/10.1097/01.nmd.0000188977.44657.1d>
- Laban, K. (2011). Asylum seekers: Sick through traumas from far away or nearby? *Psychologie & Gezondheid, 39*, 132–137. <http://dx.doi.org/10.1007/s12483-011-0027-3>

- Lee, J.-S., Ahn, Y.-S., Jeong, K.-S., Chae, J.-H., & Choi, K.-S. (2014). Resilience buffers the impact of traumatic events on the development of PTSD symptoms in firefighters. *Journal of Affective Disorders, 162*, 128–133. <http://dx.doi.org/10.1016/j.jad.2014.02.031>
- Lustig, S. L., Kia-Keating, M., Knight, W. G., Geltman, P., Ellis, H., Kinzie, J. D., . . . Saxe, G. N. (2004). Review of child and adolescent refugee mental health. *Journal of the American Academy of Child & Adolescent Psychiatry, 43*, 24–36. <http://dx.doi.org/10.1097/00004583-200401000-00012>
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*, 543–562. <http://dx.doi.org/10.1111/1467-8624.00164>
- Markovitz, S. E., Schrooten, W., Arntz, A., & Peters, M. L. (2015). Resilience as a predictor for emotional response to the diagnosis and surgery in breast cancer patients. *Psycho-Oncology, 24*, 1639–1645. <http://dx.doi.org/10.1002/pon.3834>
- Mollica, R. F., Caspi-Yavin, Y., Bollini, P., Truong, T., Tor, S., & Lavelle, J. (1992). The Harvard Trauma Questionnaire. Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease, 180*, 111–116. <http://dx.doi.org/10.1097/00005053-199202000-00008>
- Montgomery, E. (2008). Long-term effects of organized violence on young Middle Eastern refugees' mental health. *Social Science & Medicine, 67*, 1596–1603. <http://dx.doi.org/10.1016/j.socscimed.2008.07.020>
- Muthén, L. K., & Muthén, B. O. (1998–2012). *MPlus user's guide, seventh Edition*. Los Angeles, CA: Muthén & Muthén.
- Oloff, M. (2005). *Herziene Kinder Schokverwerkingslijst* [Dutch version of the children's revised impact of event scale]. Amsterdam, the Netherlands: Academisch Medisch Centrum.
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment, 5*, 164–172. <http://dx.doi.org/10.1037/1040-3590.5.2.164>
- Perrin, S., Meiser-Stedman, R., & Smith, P. (2005). The children's revised impact of event scale (CRIES): Validity as a screening instrument for PTSD. *Behavioural and Cognitive Psychotherapy, 33*, 487–498. <http://dx.doi.org/10.1017/S1352465805002419>
- Portzky, M. (2008). *RS-nl: Resilience Scale*. Amsterdam, the Netherlands: Harcourt Test Publishers.
- Portzky, M., Wagnild, G., De Bacquer, D., & Audenaert, K. (2010). Psychometric evaluation of the Dutch Resilience Scale RS-nl on 3265 healthy participants: A confirmation of the association between age and resilience found with the Swedish version. *Scandinavian Journal of Caring Sciences, 24*, 86–92. <http://dx.doi.org/10.1111/j.1471-6712.2010.00841.x>
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics, 31*, 437–448. <http://dx.doi.org/10.3102/10769986031004437>
- Pynoos, R., Rodriguez, N., Steinberg, A., Stuber, M., & Frederick, C. (1998). *The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-PTSD RI) for DSM-IV (Revision 1)*. Los Angeles, CA: UCLA Trauma Psychiatry Program.
- Robjant, K., Hassan, R., & Katona, C. (2009). Mental health implications of detaining asylum seekers: Systematic review. *The British Journal of Psychiatry, 194*, 306–312. <http://dx.doi.org/10.1192/bjp.bp.108.053223>
- Rutter, M. (1993). Resilience: Some conceptual considerations. *The Journal of Adolescent Health, 14*, 626–631. [http://dx.doi.org/10.1016/1054-139X\(93\)90196-V](http://dx.doi.org/10.1016/1054-139X(93)90196-V)
- Rutter, M. (2013). Annual research review: Resilience—Clinical implications. *Journal of Child Psychology and Psychiatry, 54*, 474–487. <http://dx.doi.org/10.1111/j.1469-7610.2012.02615.x>
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*, 147–177. <http://dx.doi.org/10.1037/1082-989X.7.2.147>
- Schulz, A., Becker, M., Van der Auwera, S., Barnow, S., Appel, K., Mahler, J., . . . Grabe, H. J. (2014). The impact of childhood trauma on depression: Does resilience matter? Population-based results from the Study of Health in Pomerania. *Journal of Psychosomatic Research, 77*, 97–103. <http://dx.doi.org/10.1016/j.jpsychores.2014.06.008>
- Sleijpen, M., June Ter Heide, F. J., Mooren, T., Boeije, H. R., & Kleber, R. J. (2013). Bouncing forward of young refugees: A perspective on resilience research directions. *European Journal of Psychotraumatology, 4*, 20124. <http://dx.doi.org/10.3402/ejpt.v4i0.20124>
- Sleijpen, M., Mooren, T., Kleber, R. J., & Boeije, H. R. (2017). Lives on hold: A qualitative study of young refugees' resilience strategies. *Childhood, 24*, 348–365.
- Sleijpen, M., van der Aa, N., Mooren, T., Laban, K., & Kleber, R. J. (2016). *Assessment of resilience: Measurement invariance of the Resilience Scale across adolescent refugees and their Dutch peers*. Manuscript submitted for publication.
- Smith, P., Perrin, S., Dyregrov, A., & Yule, W. (2003). Principal components analysis of the Impact of Event Scale with children in war. *Personality and Individual Differences, 34*, 315–322. [http://dx.doi.org/10.1016/S0191-8869\(02\)00047-8](http://dx.doi.org/10.1016/S0191-8869(02)00047-8)
- Southwick, S. M., Bonanno, G. A., Masten, A. S., Panter-Brick, C., & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives. *European Journal of Psychotraumatology*. Advance online publication. <http://dx.doi.org/10.3402/ejpt.v5.25338>
- Ter Heide, F. J. J., Mooren, T. M., van de Schoot, R., de Jongh, A., & Kleber, R. J. (2016). Eye movement desensitisation and reprocessing therapy v. stabilisation as usual for refugees: Randomised controlled trial. *The British Journal of Psychiatry, 209*, 311–318. <http://dx.doi.org/10.1192/bjp.bp.115.167775>
- Triandis, H. C., & Suh, E. M. (2002). Cultural influences on personality. *Annual Review of Psychology, 53*, 133–160. <http://dx.doi.org/10.1146/annurev.psych.53.100901.135200>
- Ungar, M. (2012). Researching and theorizing resilience across cultures and contexts. *Preventive Medicine, 55*, 387–389. <http://dx.doi.org/10.1016/j.ypmed.2012.07.021>
- Vanderbilt-Adriance, E., & Shaw, D. S. (2008). Conceptualizing and re-evaluating resilience across levels of risk, time, and domains of competence. *Clinical Child and Family Psychology Review, 11*, 30–58. <http://dx.doi.org/10.1007/s10567-008-0031-2>
- van Widenfelt, B. M., Goedhart, A. W., Treffers, P. D., & Goodman, R. (2003). Dutch version of the Strengths and Difficulties Questionnaire (SDQ). *European Child & Adolescent Psychiatry, 12*, 281–289. <http://dx.doi.org/10.1007/s00787-003-0341-3>
- Wagnild, G. (2009). A review of the Resilience Scale. *Journal of Nursing Measurement, 17*, 105–113. <http://dx.doi.org/10.1891/1061-3749.17.2.105>
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1*, 165–178.
- Wingo, A. P., Wrenn, G., Pelletier, T., Gutman, A. R., Bradley, B., & Ressler, K. J. (2010). Moderating effects of resilience on depression in individuals with a history of childhood abuse or trauma exposure. *Journal of Affective Disorders, 126*, 411–414. <http://dx.doi.org/10.1016/j.jad.2010.04.009>
- Woerner, W., Fleitlich-Bilyk, B., Martinussen, R., Fletcher, J., Cucchiario, G., Dalgalarondo, P., . . . Tannock, R. (2004). The Strengths and Difficulties Questionnaire overseas: Evaluations and applications of the SDQ beyond Europe. *European Child & Adolescent Psychiatry, 13*, II47–II54. <http://dx.doi.org/10.1007/s00787-004-2008-0>
- Wyman, P. A. (2003). Emerging perspectives on context specificity of children's adaptation and resilience: Evidence from a decade of research with urban children in adversity. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp.

- 293–317). New York, NY: Cambridge University Press. <http://dx.doi.org/10.1017/CBO9780511615788.014>
- Yehuda, R., & Flory, J. D. (2007). Differentiating biological correlates of risk, PTSD, and resilience following trauma exposure. *Journal of Traumatic Stress, 20*, 435–447. <http://dx.doi.org/10.1002/jts.20260>
- Ziaian, T., de Anstiss, H., Antoniou, G., Baghurst, P., & Sawyer, M. (2012). Resilience and its association with depression, emotional and behavioural problems, and mental health service utilisation among refugee adolescents living in South Australia. *International Journal of Population Research*. Advance online publication. <http://dx.doi.org/10.1155/2012/485956>
- Zijlstra, A. E. (2012). *In the best interest of the child? A study into a decision-support tool validating asylum-seeking children's rights from a behavioural scientific perspective* (Doctoral dissertation). Groningen, the Netherlands: University of Groningen. Retrieved from http://www.rug.nl/research/portal/files/2448739/Proefschrift_Elianne_Zijlstra_2012.pdf!null

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