



# Associations among migration risk factors, cultural identity conflict, and psychological symptoms among Syrian emerging adults with refugee backgrounds in the Netherlands

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## Funding information

John Templeton Foundation

## Abstract

**Objectives:** In the present study, we examined relations between premigration, perimigration, and postmigration risk factors (i.e., potentially traumatic events [PTEs], postmigration living problems [PMLPs], stressful life events) and psychological symptoms (i.e., anxiety/depression, posttraumatic stress) in Syrian emerging adults with refugee backgrounds; we also tested cultural identity conflict as a possible mediator of these relations. We expected that greater exposure to migration risk factors was associated with more psychological symptoms and that higher cultural identity conflict would contribute to these associations.

**Methods:** We used data from the first wave of Karakter, a longitudinal study of 158 Syrians with refugee backgrounds (69.0% men, age range 18–35). Participants completed a questionnaire assessing PTEs, PMLPs, stressful life events, cultural identity conflict, and symptoms of anxiety/depression and posttraumatic stress.

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**Results:** Correlational analyses indicated that more PTEs and stressful life events were related to higher levels of cultural identity conflict and more psychological symptoms. Furthermore, greater cultural identity conflict was associated with more psychological symptoms. We did not observe indirect effects of cultural identity conflict in the mediation analyses.

**Conclusions:** Results suggest that postmigration stressors and cultural identity conflict are associated with psychological symptoms among Syrian emerging adults who have resettled in the Netherlands.

#### KEYWORDS

cultural identity conflict, mental health, postmigration, refugee, Syrian

## 1 | INTRODUCTION

The conflict in Syria has resulted in the largest number of people seeking refuge worldwide since World War II. By the end of 2018, at least 6.6 million Syrian people had been forced to flee from their country (UNHCR, 2021). This influx of people to Syria's neighboring countries and Europe has increased migration related psychopathology in the Syrian refugee population, and in turn, the need for mental health care. For example, research by Bogic et al. (2012) on mental health disorders among people with refugee backgrounds in Europe indicated that 54.9% met criteria for at least one mental health disorder according to the DSM-5 (American Psychiatric Association, 2013). For people from the Syrian population posttraumatic stress disorder (11.4%–29.9%), anxiety (13.5%–36.1%), and depression (14.5%–40.2%) symptoms have been documented (Acarturk et al., 2020; Georgiadou et al., 2018; Hassan et al., 2016; Sijbrandij et al., 2020; Tinghög et al., 2017).

Vulnerability for developing mental health symptoms in the refugee population has been associated with *premigration*, *perimigration*, and *postmigration* stress factors (Fazel, 2018). Premigration stress factors include potentially traumatic events (PTEs) that are experienced while enduring war in the home country, which can result in forced migration (Bhugra & Jones, 2001). During flight, people who seek refuge can also experience PTEs (Fazel, 2018), which are referred to as perimigratory stress factors. Postmigration stress factors occur during the process of resettlement and acculturation in a host country (Carswell et al., 2011). Common postmigration factors are related to the process of building a new life and associated challenges, such as living difficulties (e.g., housing and finances), education and work-related problems, and challenges adapting to a new culture (e.g., language barriers). Studies have shown that premigration and perimigration factors are important predictors of mental health problems in people after resettlement (Bhugra & Jones, 2001; Carswell et al., 2011; Fazel, 2018; Laban et al., 2005). However, recently, the impact of postmigration difficulties has been also shown to make an equal or substantially greater contribution to such problems (Chen et al., 2017; Garcini et al., 2016; Hassan et al., 2016). For instance, postmigration living problems (PMLPs) such as finding a suitable job, loneliness, and adapting to new cultural norms, may contribute to mental health problems, even

years after arrival when challenges experienced in building a new life are not coped with adequately (Chen et al., 2017; Hassan et al., 2016; Phinney et al., 2001; Porter & Haslam, 2005). In a study of asylum seekers in the Netherlands (Groen et al., 2018), premigration PTEs were not significantly associated with psychopathology when controlling for PMLPs, but a strong link between PMLPs and psychopathology was observed. In another study, resettlement-related postmigration stressors were identified as the most important contributors to mental health problems in immigrant and refugee populations (Chen et al., 2017). Growing evidence for the significance of postmigration difficulties in relation to mental health makes it socially and clinically relevant to gain a better understanding of psychosocial changes that occur following migration in the Syrian refugee population.

PMLPs typically involve practical and daily hassles (e.g., finding a suitable job). However, postmigration, there are also challenges that touch upon individuals' identities, such as acculturation (Berry, 2005). Acculturation is a process in which individuals with a migration background identify with and adapt to the cultural values of the host culture (i.e., the larger society in which they currently reside), while also maintaining the cultural values and traditions of the culture of origin (Groen et al., 2018). During this acculturation process, individuals reflect on and evaluate aspects of their identity (e.g., norms and values, social status, belonging to a cultural group), presumably due to change and adaptation (Bhugra & Becker, 2005). In other words, because the migration process has resulted in changes in the cultural environment, the cultural identity of people with refugee backgrounds is also subject to change (Groen et al., 2018). Cultural identity is the framework of norms and values that determine appropriate behaviors and rules of conduct, and can facilitate feelings of belongingness to a cultural group (Bhugra & Becker, 2005; Groen et al., 2018). When settling in a new country, the need to belong to a cultural group may be especially strong for Syrian people with refugee backgrounds, causing them to question their own cultural identity. Cultural identity conflict is likely to occur when faced with the challenge of negotiating an identity that incorporates elements of both the heritage and host culture (e.g., cultural traditions, rules of conduct) that are seemingly oppositional and difficult to integrate (Mann et al., 2017; Stein & Polo, 2014). Cultural identity conflict involves the perception of incompatible cultural dimensions within oneself (Phinney et al., 2001; Ward et al., 2011), and may develop in people with refugee backgrounds who are experiencing a wide gap in norms and values between heritage and host cultures (e.g., individualistic vs. collectivistic rules of conduct). For example, a Syrian woman who migrated to the Netherlands may have learned to depend on family for support and make collective decisions in her home country, while observing assertiveness and independence as important values in the host country. She may find it challenging to choose between staying loyal to the Syrian cultural values and adjusting to the values of the new culture.

In itself, a change in one's cultural environment forms a potential risk factor for developing cultural identity conflict. This conflict may additionally be affected by premigration, perimigration, and postmigration stress factors (Groen et al., 2018), including stressful life events occurring postmigration (e.g., financial difficulties or illness). Although little research has been done on PTEs and stressful life events in relation to cultural identity conflict specifically, previous research has shown that stressful events that disrupt someone's life (e.g., forced migration) may be linked to identity changes (e.g., feelings of uncertainty about one's identity) (Fadjukoff et al., 2019; Maehler, 2022), suggesting a potential association between PTEs and stressful life events and cultural identity conflict in newcomers. Furthermore, identity changes and conflict may also be related to role transitions, commonly experienced in people from immigrant and refugee populations when resettling in another culture (Maehler, 2022; Szabo & Ward, 2015). For example, gaining social and work status can add meaning to an individual's identity and role in society, while losing one's social and work status and facing difficulties in rebuilding it postmigration, may trigger conflict in one's cultural identity. Research among Syrian people with refugee backgrounds has supported these links and additionally demonstrated that perceived disruption and change in one's identity may yield mental health issues (Kira et al., 2017). From a theoretical point of view, the link between cultural identity conflict and mental health problems can be

explained by self-determination theory (Ryan et al., 2015). Bicultural young adults may experience challenges in meeting the three psychological basic needs that are important for psychological wellbeing—autonomy, competence, and sense of belonging (Chen et al., 2015). Experiencing internal conflicts during the process of navigating different cultural contexts may induce a low sense of autonomy, feelings of incompetence, and in particular, a low sense of belonging with a cultural group for bicultural young adults (Rahim et al., 2021). This suggests that cultural identity conflict is a potential risk factor for mental health problems in Syrian young adults during the resettlement process. Other research regarding the mental health of people with refugee backgrounds has also shown links between cultural identity conflicts and psychological symptoms (Bhugra & Becker, 2005; Bhugra, 2005). Experiences of loss, trauma, cultural bereavement, a loss of sense of self in society, and living problems, can all increase cultural identity conflict which, in turn, may lead to increased psychopathology (Bhugra & Becker, 2005; Groen et al., 2018), especially in young people with immigrant backgrounds (Ndengeyongoma et al., 2014). Some (e.g., Mezzich et al., 2009) even consider cultural identity conflict as a core element in the development and maintenance of psychopathology among people with refugee backgrounds in the postmigration process. Yet, the role of cultural identity conflict is understudied.

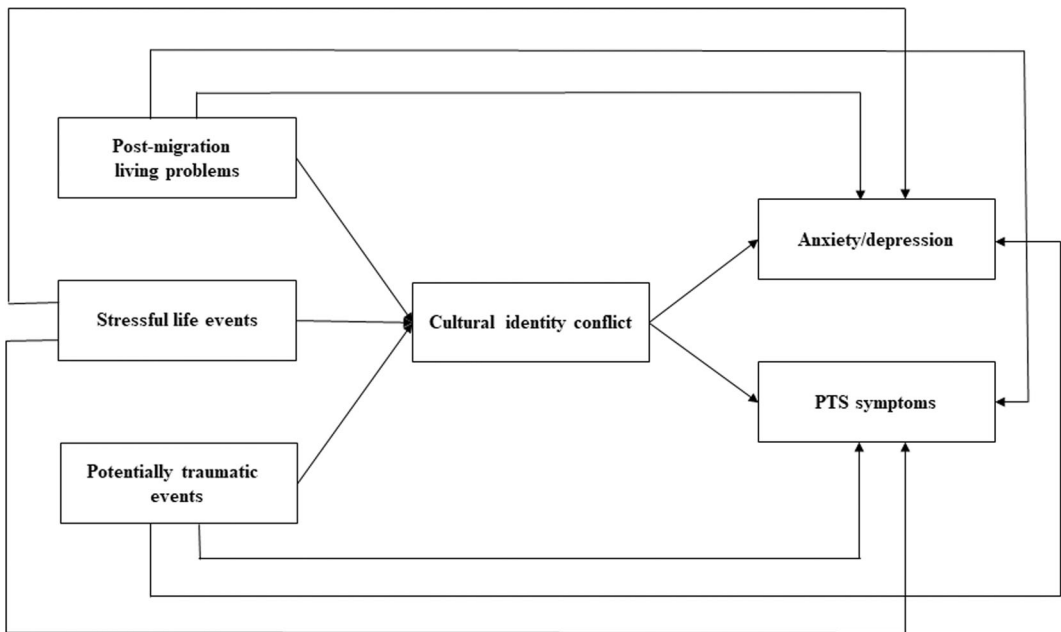
## 1.1 | Current study

There is little extant research regarding the way in which PTEs, PMLPs, and stressful life events are related to cultural identity conflict, and how cultural identity conflict may contribute to the association between premigration and postmigration stress factors and psychopathology, especially among Syrian young adults with refugee backgrounds. As the number of Syrian individuals with forced migration backgrounds increases around the world (UNHCR, 2021), it is important to obtain knowledge about postmigration adaptation and risk-factors for psychopathology, as it is relevant for more adequately addressing mental healthcare needs of individuals who have recently resettled in a new country.

In the current study, it was expected that various premigration (PTEs) and postmigration (PMLPs, stressful life events) risk factors for psychopathology may be associated with the experience of cultural identity conflict, and that cultural identity conflict may be associated with mental health issues in the Syrian refugee population. Therefore, the aim of this study was twofold. The first aim was to examine the relations between PTEs, PMLPs, stressful life events, and the presence of psychological symptoms (i.e., anxiety/depression and posttraumatic stress symptoms). Based on prior research, it was expected that more PTEs (e.g., Carswell et al., 2011; Laban et al., 2005), more PMLPs, and more stressful life events (Garcini et al., 2016; Hassan et al., 2016; Porter & Haslam, 2005) would be associated with increased psychological symptoms for the participants in our sample.

The second aim was to increase our understanding of the role of cultural identity conflict to the associations described above. Specifically, it was expected that more PTEs, more PMLPs, and more stressful life events would be associated with elevated levels of cultural identity conflict (Fadjukoff et al., 2019; Groen et al., 2018; Kira et al., 2017). Furthermore, based on prior research (Bhugra, 2005; Groen et al., 2018; Kira et al., 2017; Mezzich et al., 2009), it was expected that elevated levels of cultural identity conflict would be associated with increased psychological symptoms for the participants in the current sample.

Finally, in accordance with previous research (Bhugra & Becker, 2005; Groen et al., 2018; Kira et al., 2017; Mezzich et al., 2009), it was predicted that elevated levels of cultural identity conflict would mediate the relations between the extent to which people experienced different stressor events (PTEs, PMLPs, and stressful life events) and increased psychological symptoms. The hypotheses are shown in Figure 1.



**FIGURE 1** Schematic depiction of the hypothesized links between the study variables.

## 2 | METHOD

### 2.1 | Participants and procedure

This study is part of the Karakter project (Chung et al., 2022) (<https://www.karakterproject.nl/>), a 13-month longitudinal study funded by the John Templeton Foundation. Participants were primarily recruited through organizations that serve people with refugee backgrounds (e.g., asylum seeker centers, refugee support organizations, language centers, and community groups) and through announcements on social media in Arabic and Dutch that included a link to the project website. Members of the data collection team also visited centers and community events, gave presentations about the research, and handed out flyers to inform potential participants about the study. A small proportion of the participants was collected via snowball sampling, where participants in the study shared information about the study with their network. Criteria for participation were: (1) being of Syrian-origin (having Syrian nationality and having lived in Syria), (2) having fluency in reading and writing Arabic (the questionnaires were presented in Arabic, the official language of Syria), (3) being between the ages of 18- and 35-year old, and (4) having entered the Netherlands between 6 and 60 months before participation in the study.<sup>1</sup>

After signing up for the study, participants were contacted by the research team to arrange a data collection appointment. Research team members completed an online training course on how to interact with and support people who have experienced trauma (i.e., Psychological First Aid Online from the National Child Traumatic Stress Network; <https://www.nctsn.org/resources/psychological-first-aid-pfa-online>). Members of the research team met participants at their home or in a public location such as a library. A buddy system during appointments was used to ensure that the well-being of both the participant and the research team member was monitored. Members of the research team—with at least one Arabic speaking researcher—were present at the data collection appointment. During the data collection appointment, information about the objectives and procedure of the study, privacy issues, and compensation was provided in Arabic, followed by the signation of an informed consent form. The participants completed the questionnaire in Qualtrics on a computer tablet. The participants' privacy was appropriately monitored during this process by observing

whether the room in which the study took place was still suitable and the participants were not being disturbed. It took up to 60 min to complete the questionnaire. The study was approved by the Medical Ethics Review Committee of Utrecht University (METC Protocol ID: NL66459.041.18), and was monitored in all phases by a cultural advisory board. This board included young adult representatives, including those with Syrian backgrounds, researchers in this field, and staff from relevant organizations and networks with expertise of psychology; board members provided advice (e.g., by giving feedback on materials, suggesting Arabic translations, and discussing sensitive topics) to enhance the cultural sensitivity of the study.

Sample size calculations (Faul et al., 2007; Schoemann et al., 2017) revealed that 146 participants would be required to detect small to medium (indirect) effects (Cohen, 1988) with 80% power and a Type I error rate of 5%. The estimated effect size was based on effects found in past research with similar variables (Groen et al., 2018; Ward et al., 2011).

A total of 158 participants fully completed the questionnaire. Participants' age ranged from 18 to 35 years ( $M = 27.82$ ,  $SD = 4.71$  years); 109 (69.0%) were men, and 49 (31.0%) were women). Participants had been living in the Netherlands between 6 and 60 months with a mean length of stay of 37.82 months ( $SD = 14.47$ ). The majority of participants self-identified with the Arabic ethnicity ( $n = 125$ ; 79.1%) and affiliated with the Islamic religion ( $n = 90$ ; 57.0%). Most participants ( $n = 145$ ; 91.8%) had been granted residency. Participants' highest level of education completed varied and included: 6.4% ( $n = 10$ ) primary and secondary school, 19.6% ( $n = 31$ ) high school, 12% ( $n = 19$ ) vocational school, 4.4% ( $n = 7$ ) university of applied sciences, 55.7% ( $n = 88$ ) university, and 0.6% ( $n = 1$ ) postmaster/PhD; 1.3% ( $n = 2$ ) did not respond to this question.

## 2.2 | Measures

All measures, with the exception of the Harvard Trauma Questionnaire (HTQ; Mollica et al., 1992), were translated from English to the Arabic language via a forward and back-translation procedure (Brislin, 1970) to meet the goal of presenting versions of the questionnaires in the native language of the participants within the study. The Arabic version of the HTQ was already available and was therefore used in this study.

### 2.2.1 | Demographic variables

Participants were asked to answer various demographic questions (19 items in total). Items were administered regarding the participants' ethnicity, age, gender, religious affiliation, highest completed educational level, refugee status, and length of stay in the Netherlands. A detailed overview of the demographic variables is provided in Chung et al. (2022).

### 2.2.2 | Stressful life events

Experiences of stressful life events were measured using the List of Threatening Experiences (LTE; Brugha et al., 1985). The original scale consists of 12 items representing different stressful life events (e.g., "Big change in the people, duties or responsibilities at work"). For the current study, the number of stressful life events was supplemented by the researchers with 17 more stressful events relevant for this population, such as "started a job" and "moved house", resulting in a total number of 29 items. Participants were asked to select the events that have happened to them in the last three months by indicating "yes" or "no". The number of events checked with yes (possible range 0–29) was used as an index of experienced stressful life events. The original scale was reported to have good psychometric properties (Motrico et al., 2013) and cross-cultural validity (Abreu et al., 2017). Because experiencing a specific life event is not necessarily connected to experiencing other life events on the inventory, coefficient alpha was not computed for this checklist measure.

### 2.2.3 | Potentially traumatic events

Experiences of PTEs over the participant's lifetime was assessed with the HTQ Part I (Mollica et al., 1992). Participants were asked to indicate whether they had experienced any of the 42 presented events (e.g., "Oppressed because of ethnicity, religion or sect") by answering "yes" or "no". The number of events answered with yes was taken as an index of PTE exposure. Research conducted on the Arabic translated version of this questionnaire supported the reliability and cross-cultural validity of the scale for at least Arabic speaking populations (Mollica et al., 1992; Shoeb et al., 2007). Because experiencing a specific traumatic event is not necessarily connected to experiencing other traumatic events on the inventory, coefficient alpha was not computed for this checklist measure.

### 2.2.4 | Postmigration living problems

PMLPs were measured using the Post-Migration Living Problems Checklist constructed by Silove et al. (1997). The scale lists 24 postmigration difficulties (e.g., "Not being able to find work") participants may have experienced since immigrating to the Netherlands. Response options ranged from 1 (*no problem at all*) to 5 (*a very serious problem*). Higher total scores indicated higher degrees of PMLPs in the migration process. In the current sample, coefficient alpha was 0.89.

### 2.2.5 | Cultural identity conflict

The degree to which participants experienced cultural identity conflict was measured by the Ethno-Cultural Identity Conflict Scale developed by Ward et al. (2011). The scale consists of 20 items (e.g., "In general, I do not think that people from my ethnic group know the real me") rated on 5-point scales with response categories 1 (*strongly disagree*) to 5 (*strongly agree*). Higher total scores indicate higher degrees of cultural identity conflict. Ward et al. (2011) found support for the reliability and construct validity within samples from minoritized groups. In the current sample, coefficient alpha was 0.92.

### 2.2.6 | Psychological symptoms

#### *Anxiety and depression*

The Patient Health Questionnaire-4 (PHQ-4; Kroenke et al., 2009) was used to measure the degree of anxiety and depression experienced within the past 2 weeks, with higher scores indicating greater anxiety and depression symptoms. The scale consists of four items (e.g., "Little interest or pleasure in your activities") rated on 4-point scales ranging from 1 (*not at all*) to 4 (*almost every day*). Research conducted among people from refugee and migrant populations has shown evidence for reliability and cross-cultural validity of the scale (Tibubos & Kröger, 2020). In the current sample, coefficient alpha was 0.85.

#### *PTS symptoms*

Posttraumatic stress symptoms were assessed using the first 16 items of the 45-item HTQ Part IV (Mollica et al., 1992). Participants were asked to indicate the extent to which symptoms have bothered them in the past week. Items (e.g., "Sudden emotional or physical reaction when reminded of the most hurtful events") referred to PTS symptoms, the presence of which was measured on 5-point scales with response categories 1 (*not at all*) to 5 (*extremely*). Item scores were summed such that a higher total score indicated more severe PTS symptomatology. Research has shown that the scale has good psychometric properties in different cultural samples (Mollica et al., 1992; Shoeb et al., 2007). Coefficient alpha in the current sample was 0.89.

## 2.3 | Statistical analyses

All statistical analyses were performed with IBM SPSS Statistics Version 25. First, we calculated descriptive statistics. Next, we computed bivariate Pearson correlations between stressful life events, PMLPs, PTEs, cultural identity conflict, and psychological symptoms. Finally, we conducted mediation analyses where we entered PTEs, PMLPs, and stressful life events as independent variables, cultural identity conflict as a mediating variable, and psychological symptoms as the dependent variable. It is important to note that these analyses were conducted at one point in time, therefore we can infer the possibility of mediation, but we cannot assume causality due to the cross-sectional nature of the data. A separate mediation analysis was conducted for each type of psychological symptom (i.e., anxiety/depression and PTS). Both mediation analyses consisted of a number of subanalyses (Hayes, 2018). First, to estimate the associations among PTEs, PMLPs, stressful life events and cultural identity conflict, we conducted a multiple regression analysis in which we entered PTEs, PMLPs, and stressful life events simultaneously. Second, we conducted a hierarchical regression analysis, entering PTEs, PMLPs, and stressful life events in Step 1, and entering cultural identity conflict in Step 2 to estimate the total (Step 1) and direct effects of the different stressor events, and the effect of cultural identity conflict as it related to psychological symptoms (Step 2). Third, as recommended by Hayes (2013), we examined indirect effects of the different stressor events on psychological symptoms through cultural identity conflict using 5000 bootstrap samples and 95% confidence intervals (CIs) that were bias corrected and accelerated. Here, we used the PROCESS macro for SPSS (Hayes, 2013). All coefficients are reported in standardized form.

In addition, we also ran the analyses including four covariates. Higher educational levels may be related to more psychological symptoms in people with refugee backgrounds (Das-Munshi et al., 2012); thus, educational level was added as a covariate. Because previous research indicated that age (Balidemaj & Small, 2019) and gender (Hollander et al., 2011) are also relevant when exploring identity-related conflicts and psychological symptoms, those two variables were entered as covariates as well. In addition, because length of stay in the host culture has also been identified as an indicator for psychological symptoms among people with refugee backgrounds (Uribe Guajardo et al., 2016), length of stay was added as the fourth covariate. The results of the analyses with covariates are shown in the additional analyses section in the Results and in Supporting Information Material.

Missing values were handled by calculating means for all subscales on which participants gave at least 75% complete data (Parent, 2013). We also repeated the analyses using multiple imputation. The inferences for our analyses did not change. For reasons of simplicity we have decided to report the results using listwise deletion.

## 3 | RESULTS

### 3.1 | Descriptive statistics

Table 1 shows the mean scores and standard deviations for the study variables. 28.5% of the participants scored above the cut-off point for clinically relevant levels of anxiety/depression (Löwe et al., 2010) as assessed by the PHQ-4. Based on the HTQ IV, 20.9% of the participants scored above the cut-off point for clinically relevant levels of PTS symptoms (Mollica et al., 1992). Table 2 shows the most common PTEs (i.e., forced to flee the country), stressful life events (i.e., studied for or completed important exams), and PMLPs (i.e., worries about family back at home) for our sample.

### 3.2 | Bivariate associations between study variables

Correlations between the study variables are presented in Table 1. Our results indicated that more PTEs and more stressful life events were significantly correlated with higher levels of cultural identity conflict, but there was not a



**TABLE 1** Means, standard deviations, minimum and maximum scores, and bivariate Pearson correlations between study variables.

	M	SD	Scale range	1	2	3	4	5	6
1. Potentially traumatic events	15.96	7.67	0–42	–					
2. Postmigration living problems	10.26	5.69	0–24	0.35***	–				
3. Stressful life events	7.29	4.56	0–29	0.46***	0.32***	–			
4. Cultural identity conflict	2.47	0.73	1–5	0.22**	0.13	0.24**	–		
5. Anxiety/depression	2.40	0.75	1–4	0.24**	0.30***	0.24**	0.40***	–	
6. Posttraumatic stress symptoms	2.02	0.57	1–4	0.41***	0.44***	0.39***	0.44***	0.61***	–
7. Educational level	5.81	1.56	1–8	0.06	0.05	–0.03	0.07	0.01	–0.02
8. Gender <sup>a</sup>	–	–	1–2	–0.37***	–0.22**	–0.18*	–0.16*	0.02	–0.00
9. Age	27.82	4.71	18–35	0.17*	0.11	0.03	–0.01	0.02	0.10
10. Length of stay in the Netherlands (in months)	37.82	14.47	6–60	0.08	–0.06	0.18*	0.11	0.14	0.12

<sup>a</sup>1 = Male, 2 = female.

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

statistically significant correlation observed between PMLPs and cultural identity conflict. In addition, more PTEs, more PMLPs, and more stressful life events were significantly associated with higher levels of anxiety/depression and PTS symptoms. Higher levels of cultural identity conflict were also related to higher levels of anxiety/depression and PTS symptoms. All correlations between study variables were small to medium in magnitude (i.e.,  $r_{\text{range}} = 0.17\text{--}0.61$ ) according to Cohen's (1988) guidelines.

### 3.3 | Total, direct, and indirect effects of PTEs, PMLPs, and stressful life events on psychological symptoms through cultural identity conflict

We tested assumptions of multiple regression analysis (i.e., linearity, normality, and homoscedasticity) and observed that none were violated. The multiple regression analysis with cultural identity conflict as a dependent variable and PTEs, PMLPs, and stressful life events as independent variables did not indicate significant associations of PTEs ( $\beta = 0.13$ ,  $p = 0.173$ ), PMLPs ( $\beta = 0.03$ ,  $p = 0.724$ ), and stressful life events ( $\beta = 0.17$ ,  $p = 0.061$ ) with cultural identity conflict. A total of 6% of the variance in cultural identity conflict could be explained by PTEs, PMLPs, and stressful life events, adjusted  $R^2 = 0.06$ ,  $F(3, 148) = 3.95$ ,  $p = 0.010$ .

The results of the hierarchical regression analyses are shown in Table 3. Regarding anxiety/depression symptoms, we observed a significant total effect (Step 1) and a significant direct effect (Step 2) of PMLPs on anxiety/depression symptoms. This indicates that more PMLPs were related to higher levels of anxiety/depression. In addition, we observed a significant direct effect (Step 2) of cultural identity conflict on anxiety/depression symptoms, indicating that higher levels of cultural identity conflict were associated with higher levels of anxiety/depression. A total of 20% of the variance in anxiety/depression symptoms could be explained by PTEs, PMLPs, stressful life events, and cultural identity conflict.

Contrary to our hypothesis, the bootstrap analyses did not show significant indirect effects of PTEs (0.043, BC 95% CI:  $-0.020, 0.119$ ), PMLPs (0.010, BC 95% CI:  $-0.051, 0.076$ ), and stressful life events (0.059, BC 95% CI:  $-0.010, 0.137$ ) on anxiety/depression symptoms via cultural identity conflict.

**TABLE 2** Description of the most common potentially traumatic events, stressful life events, and post-migration living problems in the study sample.

Potentially traumatic events	N	%
Forced to flee your country	152	96.2
Confined to home because of chaos and violence outside	140	88.6
Witnessed shelling, burning, or razing of residential areas or marshlands	134	84.8
Witnessed someone being physically harmed (beating, knifing, etc.)	113	71.5
Exposed to combat situation (explosions, artillery fire, shelling) or landmine	105	66.5
Oppressed because of ethnicity, religion, or sect	99	62.7
Searched	98	62.0
Murder or violent death of friend	96	60.8
Disappearance of a friend	96	60.8
Stressful life events	N	%
Studied for or completed important exams	99	62.7
Had moderate financial difficulties	91	57.6
Began a course or training	72	45.6
A marked improvement in the way you get on with someone else who is close to you	71	44.9
Death of close family friend or second-degree relative	65	41.1
Postmigration living problems	N	%
Worries about family back at home	131	82.9
Fears of being sent home	117	74.1
Loneliness and boredom	104	65.8
Separation from family	100	63.3
Isolation	96	60.8
Unable to return home in emergency	93	58.9

With respect to PTS symptoms, we observed significant total effects (Step 1) of PTEs, PMLPs, and stressful life events and significant direct effects (Step 2) of PTEs and PMLPs on PTS symptoms. In addition, we also observed a significant direct effect (Step 2) of cultural identity conflict on PTS symptoms. A total of 38% of the variance in PTS symptoms could be explained by PTEs, PMLPs, stressful life events, and cultural identity conflict.

Contrary to our hypothesis, the bootstrap analyses did not show significant indirect effects of PTEs (0.042, BC 95% CI: -0.023, 0.116), PMLPs (0.010, BC 95% CI: -0.047, 0.073), and stressful life events (0.057, BC 95% CI: -0.012, 0.132) on PTS symptoms via cultural identity conflict.

### 3.4 | Additional analyses

In addition to our primary analyses, we conducted hierarchical regression analyses and bootstrap analyses including four covariates (i.e., educational level, gender, age, and length of stay).

**TABLE 3** Results of the hierarchical regression analyses with psychological symptoms (anxiety/depression and PTS) specified as outcome variable.

<b>Anxiety/depression symptoms</b>		
<b>Independent variables</b>	<b><math>\beta</math> Step 1</b>	<b><math>\beta</math> Step 2</b>
Step 1: Adjusted $R^2 = 0.10$ , $F(3, 148) = 6.56^{***}$		
Potentially traumatic events	0.10	0.06
Postmigration living problems	0.22*	0.21**
Stressful life events	0.12	0.06
Step 2: Adjusted $R^2 = 0.20$ , $F(4, 147) = 10.62^{***}$		
Cultural identity conflict		0.34***
<b>PTS symptoms</b>		
<b>Independent variables</b>	<b><math>\beta</math> Step 1</b>	<b><math>\beta</math> Step 2</b>
Step 1: Adjusted $R^2 = 0.29$ , $F(3, 148) = 21.02^{***}$		
Potentially traumatic events	0.22**	0.18*
Postmigration living problems	0.30***	0.29***
Stressful life events	0.20*	0.14
Step 2: Adjusted $R^2 = 0.38$ , $F(4, 147) = 24.50^{***}$		
Cultural identity conflict		0.33***

Note:  $\beta$ 's in Step 1 represent total effects of potentially traumatic events, postmigration living problems, and stressful life events on psychological symptoms.  $\beta$ 's in Step 2 represent direct effects of potentially traumatic events, postmigration living problems, stressful life events, and cultural identity conflict on psychological symptoms.

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

Sample size calculations (Faul et al., 2007; Schoemann et al., 2017) revealed that 185 participants would be required to detect small to medium (indirect) effects (Cohen, 1988) with 80% power and a type I error rate of 5% when the four additional variables (covariates) were taken into account. The estimated effect size was based on effects found in past research with similar variables (Groen et al., 2018; Ward et al., 2011). These calculations indicate that we do not have enough power to perform these additional analyses.

We did not observe any significant associations between PTEs, PMLPs, stressful life events, and cultural identity conflict in the multiple regression analysis with PTEs, PMLPs, and stressful life events as independent variables and cultural identity conflict as a dependent variable ( $\beta = 0.07$ ,  $p = 0.460$ ;  $\beta = 0.03$ ,  $p = 0.716$ ; and  $\beta = 0.16$ ,  $p = 0.101$ , respectively). A total of 6% of the variance in cultural identity conflict could be explained by PTEs, PMLPs, stressful life events, and the covariates (i.e., educational level, gender, age, and length of stay), adjusted  $R^2 = 0.06$ ,  $F(7, 139) = 2.25$ ,  $p = 0.034$ . The results of the hierarchical regression analyses are presented in the Supporting Information Material.

Similar to our primary analyses, the bootstrap analyses did not show significant indirect effects of PTE's (0.027, BC 95% CI: -0.052, 0.114), PMLPs (0.012, BC 95% CI: -0.053, 0.078), and stressful life events (0.056, BC 95% CI: -0.023, 0.144) on anxiety/depression symptoms via cultural identity conflict. In addition, there were no indirect effects of PTE's (0.028, BC 95% CI: -0.054, 0.119), PMLPs (0.012, BC 95% CI: -0.056, 0.075), and stressful life events (0.058, BC 95% CI: -0.020, 0.144) on PTS symptoms via cultural identity conflict.

## 4 | DISCUSSION

The current study examined the relations between migration risk factors and psychological well-being, as well as the potentially mediating role of cultural identity conflict in these relations in a sample of young adults of Syrian origin who have recently resettled in the Netherlands. Our data indicated the presence of clinically relevant anxiety/depression symptoms in 28.5% of our participants; this corresponds to prior research reporting the presence of mental health problems in Syrian people with refugee backgrounds (i.e., Hassan et al., 2016; Löwe et al., 2010; Tinghög et al., 2017). The prevalence rate is higher than in nonclinical European general populations (3.1%–7.4%; World Health Organization, 2017). Many Syrian people with refugee backgrounds have been, directly or indirectly, exposed to several (war-related) events, such as experiencing bombing, losing close others, losing housing, and being persecuted, all factors that could trigger feelings of loss, grief and uncertainty about the future, and resulting in anxiety/depression related symptoms later on. Our data also indicated clinically relevant PTS symptoms in 20.9% of our participants which aligns with research among Syrian people with a forced migration background (Acarturk et al., 2020; Georgiadou et al., 2018; Hassan et al., 2016); notably, this is a higher prevalence rate when compared with those observed in nonclinical European general populations (0.56%–6.67%; Burri & Maercker, 2014). These findings highlight that Syrian people with refugee backgrounds who have recently migrated may be a mentally vulnerable population and underline the importance of studying migration related risk factors for elevated psychological symptoms.

In line with previous findings (i.e., Carswell et al., 2011; Hassan et al., 2016), our results revealed that the amount of PTEs, PMLPs, and stressful life events were positively associated with levels of anxiety/depression, and PTS symptoms. The results revealed that, when PTEs, PMLPs, stressful life events were considered simultaneously, only PMLPs were found to be associated with anxiety/depression symptoms, whereas PTEs PMLPs as well as stressful life events were found to be uniquely associated with PTS symptoms. These results extend previous research by demonstrating the importance of postmigration stress factors as significant contributors to psychopathology in people with a forced migration background (i.e., Groen et al., 2018; Hassan et al., 2016).

As expected, and in line with former research (Groen et al., 2018; Kira et al., 2017), the number of PTEs and stressful life events were also positively associated with levels of cultural identity conflict. However, no relation between PMLPs and cultural identity conflict was observed. When PTEs, PMLPs, and stressful life events were considered simultaneously in a regression with cultural identity conflict entered as a dependent variable, no unique associations with cultural identity conflict were found. Given the cross-sectional nature of the data, we speculate on the possibility that factors such as coping with stressful and PTEs, adapting to a new culture and experiencing living problems postmigration may not operate independently. There is a possibility that the simultaneous occurrence of these processes stimulate the evaluation of one's identity and position within a new culture, but may not increase the risk for conflict over one's cultural identity. Relatedly, other factors may be more uniquely associated with cultural identity conflict, such as not feeling welcomed in a new country, and experiencing racism and discrimination (Fadhli et al., 2022). In addition, as expected, elevated cultural identity conflict was associated with more psychological symptoms. This is in line with research among Syrian people with refugee backgrounds that has found a link between changes and disruption in cultural identity and psychological symptoms (e.g., negative affect, psychological maladjustment) (Kira et al., 2017).

When PTEs, PMLPs, stressful life events, and cultural identity conflict were considered simultaneously, only PMLPs and cultural identity conflict were found to be associated with anxiety/depression symptoms, whereas PTEs, PMLPs, and cultural identity conflict were associated with PTS symptoms. Cultural identity conflict was the strongest correlate of both anxiety/depression and PTS symptom severity, supporting the notion that cultural identity is an important determinant of psychopathology among people with refugee backgrounds in the post-migration process (Mezzich et al., 2009). These findings also indicate that negative stressful life changes occurring premigration, and permigration may contribute to mental health issues among Syrian people who seek refuge, but

that stress factors in the postmigration process affect anxiety/depression and PTS symptoms even more strongly. While trying to build a new life in a host country, people can experience living problems (such as not being able to find a suitable job, challenges with learning a new language, not feeling welcomed) that may cause distress, in turn, increasing vulnerability for mental health problems. In addition, by experiencing migration related stress, such as loss of family, social status, and one's social network, people who seek refuge may experience bereavement for aspects of their lives and identities that can negatively affect their sense of belonging, which is an important part of the cultural identity (Groen et al., 2018) and a basic psychological need for wellbeing (Ryan et al., 2015).

Finally, the present findings extend previous research by exploring the potentially mediating role of cultural identity conflict in the relations between PTEs, PMLP, stressful life events and psychological symptoms. We did not find indirect relations between the experience of more PTEs, PMPLs, stressful life events and more psychological symptoms via elevated cultural identity conflict. Our findings suggest that, for Syrian people with refugee backgrounds, the experience of migration related risk factors may increase the vulnerability for poor mental health more directly. Although cultural identity conflict may not mediate the relationships of PTEs, PMPLs, and stressful life events with psychological symptoms, it might affect the postmigration process of refugees. Recent research (Fadhli et al., 2022) has shown that maintaining a stable cultural identity is an important factor in building resilience in times of transition. Thus, retaining parts of the Syrian cultural identity, while adapting to a new culture at the same time, may buffer the impact of PTEs, PMLPs, and stressful life events and, subsequently, decrease vulnerability for psychological symptoms.

#### 4.1 | Directions for future research

Future research should examine how cultural identity conflict develops in the context of external factors from the host society, with regard to factors such as feelings of inclusion and exclusion, having a sense of belonging, and experiencing discrimination, and how cultural identity conflict is manifested through a sense of autonomy to have agency over one's life. In addition, a suggestion for further research is to determine which factors are involved in building a clear cultural identity, that in turn can promote psychological well-being for people with refugee backgrounds over the long haul. Finally, because the duration of residency in the host culture has also been identified as an indicator for increased psychological symptoms among people who seek refuge (Uribe Guajardo et al., 2016), studies with a longitudinal design are recommended to gain further insight in the role of cultural identity conflict in the development of mental health issues over time.

#### 4.2 | Strengths and limitations

Some strengths of this study including the use of face-to-face data collection by trained members of the research team, the use of carefully translated instruments, and the involvement of a cultural advisory board during all phases of the study. This study had also some limitations. First, given the cross-sectional nature of the data that was used in the current study, we are not able to make claims about causality or any temporal relations among the variables (Maxwell et al., 2011). Longitudinal research is needed to study the extent to which cultural identity conflict decreases mental health over time. A second limitation is that the majority of the participants were highly educated (56.3%) men (69.0%), which might not be representative for the greater population of people with refugee backgrounds. Highly educated people with a forced migration background might experience greater discrepancies between the former self and the current self, because of the potential loss of social status and a sense of meaningfulness following resettlement, which can be a potential indicator for experiencing cultural identity conflict and higher levels of anxiety and depression (Das-Munshi et al., 2012). Relatedly, caution should be applied in generalizing the current findings to the Syrian refugee population in general, considering that individuals with

severe mental health problems are less likely to participate in studies about psychological wellbeing (Woodall et al., 2010). Third, all the variables in the present study were measured by self-report, which suggests a response bias, for instance with respect to the psychological well-being measures. Participants may have underreported the severity of their mental health issues due to social desirability and feelings of shame, resulting in biased prevalence rates, especially in mood symptoms (Bardwell & Dimsdale, 2001). Finally, the additional analyses with the covariates included, indicated the importance of educational level, age, length of stay, and in particular, gender in the associations between the study variables. However, the performed power analysis indicated that the study was underpowered for detecting effects of interest. Possibly, the small effects could not have been found due to the sample size. Further research in larger samples is needed to increase knowledge of the role of these covariates in the interrelations between stressful life events, cultural identity conflicts, and psychological symptoms.

### 4.3 | Potential clinical implications

The findings of the current study suggest potential implications for the promotion of the psychological well-being in Syrian people who recently have resettled in a new country. After experiencing adversities, one's ability to regain material as well as psychosocial resources becomes important to cope with difficulties during the resettlement stage. Therefore, it could be beneficial for health and social services to work together by providing guidance during the acculturation process and offering interventions that are effective in developing skills to enhance this ability. Two significant and dynamic psychological resources that are associated with the ability to face difficulties are resilience and positive feelings of self-worth (Bonanno, 2005). Health and social services could focus on strengthening resilience (the ability to bounce back) and self-worth in Syrian people with refugee backgrounds, who might be vulnerable to feelings of powerlessness and negative feelings of self-worth after experiencing adversity related to the loss of many important life resources. Although the ability to bounce back includes several factors, such as context, time, and personal factors (Sleijpen et al., 2017), working on effective strategies to build resilience (e.g., using the Mind-Spring program; Uitterhaegen, 2005) could be beneficial. The specific challenges of coping with all the changes resulting from forced migration should be the focus of mental health interventions (e.g., psychoeducation).

In addition, prior research (Garcini et al., 2016) has identified protective factors relevant for the period of resettlement (e.g., building social support and sense of community, developing job skills, having an optimistic view of the future), reducing the negative effects of stress and trauma in people with a forced migration background. Working on one's sources of meaning and role(s) in a new society (e.g., being involved in societal activities or work) could enhance one's sense of purposefulness and possibly, connectedness with the host culture, and reduce the vulnerability for cultural identity conflict, which in turn, may lead to psychological wellbeing. Clinicians can also support Syrian young adults in exploring their own basic values (e.g., making decisions with family or on one's own) and developing awareness of different norms and values across multiple cultural settings. In addition, it is critical to focus on the role of the host society. For example, immigrants' experiences of discrimination in their host country are not only one of the major stressors for adaptive adjustment in the acculturation process, it also is a potential risk factor for identity conflicts and poor mental health among immigrants (Giuliani et al., 2018). Therefore, promoting awareness of the consequences of discrimination and exclusion of newcomers, and enhancing positive attitudes towards a diverse society could be useful in addressing influential factors from host societies. This can be achieved by, for example, organizing educational programs at schools and workplaces that highlight the benefits of a diverse society. In addition, providing trainee programs for employers that offer insight regarding the value of having a culturally diverse team and providing tools for training newcomers could be beneficial for the integration of people with refugee backgrounds in a host country.

Finally, enhancing accessibilities to education and suitable jobs, and providing meaningful daily activities (e.g., volunteer work) in the recent postmigration phase (e.g., while waiting for asylum), could be a societal implication to

establish a firm base for people with refugee backgrounds that provides stability and a foundation for addressing mental health problems.

## 5 | CONCLUSION

With the increasing influx of Syrian people with refugee backgrounds to countries like the Netherlands, it is important to enhance our understanding of mental health trajectories of people from this population. The current study extends previous research by examining the importance of postmigration risk factors, such as living problems, in relation to mental health problems among Syrian people with refugee backgrounds. In addition, this study adds to the literature by probing the role of cultural identity conflict in relation to psychological symptoms experienced after resettling within a new culture. By paying more attention to cultural identity changes in people with a forced migration background, we may more adequately address the mental healthcare needs of individuals who have recently resettled in a new country, ultimately supporting people with refugee backgrounds in negotiating a stronger sense of self and purpose, and flourishing in the host society.

## ACKNOWLEDGMENTS

The authors are grateful to all of the people who participated in the *Karakter* project. Special thanks to Kinan Alajak for his thoughtful comments on the paper. This research was supported by a grant from the John Templeton Foundation's Pathways to Character Initiative awarded to Joanne M. Chung and Odilia M. Laceulle.

## CONFLICTS OF INTEREST STATEMENT

The authors declare no conflict of interest.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## PEER REVIEW

The peer review history for this article is available at <https://www.webofscience.com/api/gateway/wos/peer-review/10.1002/jclp.23492>.

## ENDNOTE

<sup>1</sup> Ten participants did not meet the inclusion criteria of the study. For that reason, they were excluded from all the analyses.

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Rahim, H. F., Mooren, T. T. M., Knipscheer, J. W., van den Brink, F., Chung, J. M., Laceulle, O. M., & Boelen, P. A. (2023). Associations among migration risk factors, cultural identity conflict, and psychological symptoms among Syrian emerging adults with refugee backgrounds in the Netherlands. *Journal of Clinical Psychology*, 79, 1434–1451. <https://doi.org/10.1002/jclp.23492>