

**The role of the Ethno-cultural identity conflict in the relation between  
traumatic experiences and PTSD symptoms in Syrian refugees**

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## Abstract

After the great influx of refugees from Syria, many questions were raised surrounding the problems refugees might face during their integration. This study investigated what the role is of the ethno-cultural identity conflict in the relation between traumatic experiences and Post-Traumatic Stress Disorder (PTSD) symptoms. One speaks of an ethno-cultural identity conflict when two or more identity components are perceived as incompatible. To measure traumatic experiences subscale one of the *Harvard Trauma Questionnaire* was used. To measure the ethno-cultural identity conflict the *Ethno-Cultural Identity Conflict Scale* was used and to measure PTSD symptoms subscale four of the *Harvard Trauma Questionnaire* was used. The questionnaires were filled in by 56 young adults of Syrian origin that recently sought refugee status in the Netherlands. This study did not find a significant association between traumatic experiences and PTSD symptoms and also no significant associations between traumatic experiences and ethno-cultural identity conflict. However, the ethno-cultural identity conflict was positively associated with PTSD symptoms. Because of the small sample size it is difficult to draw conclusions from the results. However, because the ethno-cultural identity does seem to play an important role in the wellbeing of refugees it is recommended that further research should focus on this concept. When it becomes more clear what determines the forming of the ethno-cultural identity conflict, alterations can be made to interventions and treatments to focus more on this issue.

## **Introduction**

Worldwide there are 68,5 million people fleeing from war and violence (UNHCR, 2018). The years 2015 and 2016 were centred around the great influx of refugees from Syria to Europe. In the Netherlands this resulted in great debates about where to put all these refugees and if all these refugees could stay. Since the deal with Turkey in March 2016 the influx of refugees has been reduced substantially (Kraniotis, 2018). Nevertheless, the debate about refugees is continuing in different forms. One of these debates is centred around what is needed for integration (Dagevos, Huijink, Maliepaard & Miltenburg, 2018). A lot of research has been done on this topic, showing that refugees experience a great deal of difficulties after migration (Ward, Stuart & Kus, 2011). One of the underlying causes of these difficulties are the traumatic events that refugees may have gone through in their home country. Experiencing traumatic events before migration may cause a range of different psychological problems after migration, such as Post-Traumatic Stress Disorder (PTSD; Tuomisto & Roche, 2018). PTSD can lead to social withdrawal and has a negative influence on cognitive abilities such as learning and memory. This has a negative effect on the quality of life and makes it harder to successfully integrate in a new culture (Beck et al., 2018). One speaks of successful integration when an individual maintains their ethnic culture as well adapts their behaviours, attitudes and values to the culture of the host society (Yohani, 2017; Phinney, Horenczyk, Liebkind, & Vedder, 2001). Successful integration in the new society is important, especially for young adults that are at the beginning of their career and family life. During this stage of life they have to make important decisions that will influence the course of their lives. The new society will give them new opportunities, for example career opportunities. However, it is important that they are able to seize these opportunities. Psychological problems can hinder this process and thus also hinder the participation in Dutch society (Dagevos et al., 2018). To improve the participation of refugees in Dutch society it is important to know what influences the psychological wellbeing

of refugees that recently migrated to the Netherlands. One of the constructs that has been found to be of influence is the integration of two cultural identities (Benet-Martínez and Haritatos, 2005; Schwartz et al., 2015).

When individuals simultaneously hold two cultural orientations in their identity, it is called a bicultural identity (Benet-Martínez, Leu, Lee, & Morris, 2002). The process of integrating cultural identities is highly variable with both the ethnic identity and the new adapted identity of the host country independently varying between secure and strong or undeveloped and weak (Bourhis, Moise, Perreault, & Senecal, 1997). Research of Benet-Martínez and Haritatos (2005) has focused on how people go about integrating two cultures through the construct of Bicultural Identity Integration. It has been proposed that people go about this in very different ways. The construct Bicultural Identity Integration refers to individual differences in the ability to connect two cultural identities successfully. This ability of Bicultural Identity Integration seems to be stable over time (Schwartz et al., 2015). The perception of how much two or more cultures can be integrated forms an important issue that bicultural individuals have to deal with (Benet-Martínez et al., 2002). Most bicultural individuals succeed in integrating two cultures. They develop a compatible bicultural identity and are able to adjust their behaviour to the cultural demands of the daily situations they encounter. However, for some biculturals it is impossible to integrate their two different cultural identities, because of great differences between the cultures (Benet-Martínez et al., 2002). Benet-Martínez and Haritatos (2005) describe that the variations in Bicultural Identity Integration depend on two constructs: cultural distance (perception that one's two cultures do not overlap and are very different from each other) and cultural conflict (the perception that culture of the host society and ethnic cultures clash). To deepen our understanding of the variations in Bicultural Identity Integration, this research will focus on the latter construct of

cultural conflict through the concept ethno-cultural identity conflict of Ward, Stuart and Kus (2011).

### **The ethno-cultural identity conflict**

The extent to which an individual is attached to both their ethnic identity and the national identity of the country they live in (which is primarily shaped and defined by the ethno-cultural majority) is called the ethno-cultural identity (Ward et al., 2011). One speaks of an identity conflict when there are two or more identity components or demands perceived as incompatible (Leong & Ward, 2000). The important difference between the ethno-cultural identity conflict of Ward et al. (2011) and the cultural conflict of Benet-Martinez and Haritatos (2005) is that the ethno-cultural identity conflict consists of an affective and a cognitive dimension, whereas the cultural conflict of Benet-Martinez and Haritatos (2005) only consists of an affective dimension (Ward et al., 2011). Ward et al. (2011) argue that the cultural conflict construct of Benet-Martinez and Haritatos (2005) is inadequate to capture the complex experiences of the process of negotiating multiple identities. They emphasize that cognitive processes form an important dimension, because individuals consistently have to make judgments about the compatibility of cultures. They have to make comparisons of situations and personal commitments, which determines whether an identity conflict emerges (Ward et al., 2011). Conflicting demands can arise from different situations involving family, friends or wider society (Leong & Ward, 2000). For example a Syrian woman that has migrated to the Netherlands may be accustomed to marry someone within their extended family, however in the Western society this is viewed as strange. This woman may find it difficult to choose between staying true to her culture of origin or to adjust to the Western culture and to marry someone outside their family. This woman may then experience a conflict between the personal commitments to her family and the customs of the new culture. Because these conflicts can

arise from different kinds of situations, it is important to not only take the individual, but also its context into account.

Besides this cognitive dimension Ward and colleagues (2011) acknowledge that the affective dimension also plays an important role in an ethno-cultural identity conflict. The affective dimension corresponds to the construct of cultural conflict of Benet-Martinez and Haritatos (2005) and is focused on feeling conflicted between two cultural identities. When developing a ethno-cultural identity, it is important that someone feels that they are both part of an ethnic group and part of larger society of the host country (Phinney et al., 2001). When experiencing an ethno-cultural identity conflict, someone can feel torn apart having to choose between cultures and identities. So the cognitive and affective dimensions together form the theoretical base of the ethnocultural identity conflict (Ward et al., 2011).

Ethno-cultural identity conflict has been linked to several negative outcomes in well-being, such as less life satisfaction, more sociocultural adaptation problems (e.g., difficulties making friends, getting used to local food) and more psychological symptoms (Ward et al., 2011). Because of this, it is important to clarify what determines its development and what can be done to prevent it. To uncover the predictors more research is needed into this topic. Because traumatic experiences play an important role in integration as well (Schick et al., 2016), this study will look further into what role traumatic experiences play in the development of ethno-cultural identity conflict.

### **Traumatic experiences and ethno-cultural identity conflict**

Little is known about the influence of circumstances in the home country before migration on forming an ethno-cultural identity. Research does show that extreme and enduring circumstances of armed conflict interfere with identity development in adolescence (Yohani,

2015), but does it also interfere with forming an ethno-cultural identity after migration to a different country? It is normal for young adults to experience some distress during the exploration and formation of their identity. However, adolescents and young adults who experience trauma may be susceptible to an impaired identity formation, including an early conclusion of the identity formation, which in turn can lead to a damaged sense of identity. (Wiley & Robinson-Kurpius, 2014). Moreover, continuity of identity, such as familiar routines, rituals and social roles, is linked to a better recovery trajectory after the experience of trauma (Mancini & Bonanno, 2006). However, when someone migrates to a different country, there might be no continuity at all, causing more distress and identity confusion (Wiley & Robinson-Kurpius, 2014). This weak identity makes it more difficult to reconcile conflicting expectations and adjust to new norms (Melucci, 1996), something that is seen as an important task in forming a clear ethno-cultural identity (Ward et al., 2011). Also, these disruptions in identity development caused by trauma are related to less identity commitments (Wiley & Robinson-Kurpius, 2014), which in turn is related to higher levels of ethno-cultural identity conflict (Szabo & Ward, 2015). So because of the detrimental effects of traumatic experiences on the formation of identity, it is expected that refugees will experience more difficulties in reconciling conflicting demands after migration. This will lead to higher levels of ethno-cultural identity conflict.

### **Ethno-cultural identity conflict and the development of PTSD symptoms**

The perception that someone cannot maintain their identity was found predictive of PTSD symptoms (Wiley & Robinson-Kurpius, 2014). Although these findings refer to a more general sense of identity, it is likely that they extend to ethno-cultural identity, because the inability to maintain important aspects of one's identity is also a central aspect of ethno-cultural identity conflict (Ward et al., 2011). Thus, someone with higher levels of ethno-cultural identity

conflict might be more likely to experience PTSD symptoms. Moreover, people who experienced trauma report that their traumatic memories become central to their identity. This causes them to struggle reconciling the old identity with the new, trauma-related identity (Wiley & Robinson-Kurpius, 2014). Facing this identity struggle might make it more difficult to successfully take on the additional challenge of also integrating a new culture into one's identity. This struggle and the identity distress that comes forth out of the ethno-cultural identity conflict is expected to result in an increase of PTSD symptoms (Wiley & Robinson-Kurpius, 2014).

### **Ethno-cultural identity as a mediator between traumatic experiences and PTSD symptoms**

From previous research it is clear that there is a link between traumatic experiences and the development of PTSD symptoms, with more exposure to traumatic experiences leading to more PTSD symptoms (Briere, Kaltman & Green, 2008). Because the ethno-cultural identity conflict can be linked to both these construct in literature, it should be considered that ethno-cultural identity conflict possibly functions as a mediator between these constructs. From previous literature it seems that traumatic experiences may play an important role in the experience of ethno-cultural identity conflict. Moreover, ethno-cultural conflict in turn seems to increase the likelihood of developing PTSD symptoms. To our knowledge, this mediation effect has not yet been investigated in empirical literature. The present study will address this gap in the literature regarding the role of ethno-cultural identity conflict as a possible mediator between traumatic experiences and PTSD symptoms. This is why the present study will investigate the following research questions:

- What is the influence of traumatic experiences in the home country before migration on ethno-cultural identity conflict after migration?

- Is ethno-cultural identity conflict related to higher levels of PTSD symptoms?
- Does ethno-cultural identity conflict mediate the relationship between traumatic experiences before migration and PTSD symptoms?

The hypotheses are as follows: 1. We expect that traumatic experiences will lead to a greater ethno-cultural identity conflict. 2. We expect that experiencing an ethno-cultural identity conflict will lead to higher levels of PTSD. 3. We expect that the ethno-cultural identity conflict will mediate the relationship between traumatic experiences before migration and PTSD symptoms.

## **Method**

### **Study design**

The research questions were answered through a cross-sectional research design. It is part of a greater prospective, longitudinal study, which contains 4 waves over 13 months. In the current study, the data from the first wave of this study were used.

### **Participants**

The participants of this study were 56 young adults between the ages of 19 and 35 of Syrian origin who seek or have a refugee status in the Netherlands. 21 women and 35 men participated in the study, with an average age of 27.7 (SD = 4.8). The participants have been in the Netherlands for at least 6 months, but no longer than five years prior to the start of the study, with an average stay of 31.4 months (SD = 16.2). 91.1% of the participants were status holders, 8.9% were asylum seekers. The participants were recruited through a Cultural Advisory Board, language centers, community centers, asylum seeker centers, social media and organisations such as VluchtelingenWerk Nederland. All participants had to be able to read and write in Arabic, participants that were not able to do so were excluded from participation. Other criteria

for exclusion were estimated low intelligence level and when it was expected that a participant would not be able to handle emotional reactions that may occur as a result of participation.

### **Procedure**

Measurements began with a presentation by members of the research team to inform the participants of the procedure of data collection. At each session there was a Arabic speaking member of the research team present.

Participants provided written informed consent prior to participation. The questionnaires were administered on electronic tablets. If a participant had the preference for a paper- and pencil questionnaire, this was also provided. Participants were encouraged to fill in the questionnaires honestly, by reminding them that the information will be processed anonymously.

### **Materials**

To answer these research questions, several questionnaires were conducted. To measure traumatic experiences, subscale one of the *Harvard Trauma Questionnaire* (Mollica et al., 1992) was used. This subscale measures the traumatic events someone has experienced. Participants have to judge 43 statements whether they have experienced these traumatic events Yes or No. An example of such a statement is 'Witnessed torture'. Previous studies showed a high internal consistency with a Cronbach's alpha of .90. Also, the Test-retest reliability (1-week interval) was found to be high,  $r = .89$  (Mollica et al., 1992). The internal consistency for this study was good with a Cronbach's alpha of .91.

The *Ethno-Cultural Identity Conflict Scale* (Ward et al., 2011) was used to measure the ethno-cultural identity conflict. This questionnaire measures a participants Ethno-cultural identity conflict. Participants have to judge 20 statements about their belonging to a culture and cultural identity on a 5-point agree-disagree scale. An example of such a statement is 'I am uncertain about my values and beliefs'. Analyses of Ward et al. (2011) show that the *Ethno-*

*Cultural Identity Conflict Scale* stands as a unifactorial measure that incorporates both the cognitive and the affective dimension of the construct. This is why this study did not look at differences between the cognitive dimension and the affective dimension. The ECIS has an acceptable to good internal consistency with a Cronbach's Alpha ranging from .72 to .92 (Ward et al., 2011). The internal consistency for this study was good with a Cronbach's alpha of .92.

PTSD symptoms were measured using the fourth subscale of the *Harvard Trauma Questionnaire* (Mollica et al., 1992). The fourth subscale consists of 45 statements of PTSD symptoms, such as 'Unable to feel emotions'. The participants had to judge these statements on a scale from 1 to 4, ranging from 'Not at all', to 'Extremely'. A previous study on a French adaptation of the subscale shows a high internal consistency with a Cronbach's Alpha of .96 (de Fouchier et al., 2012). Also there was a good criterion validity, when compared to diagnostics given by the SCID, sensitivity and specificity scores were 0.85 and 0.73. The internal consistency for this study was good with a Cronbach's alpha of .94.

All study materials were translated to Arabic using a back-translation methodology.

### **Analyses**

The data were analysed using SPSS Statistics version 22. The research questions were answered using a mediation analysis, using the PROCESS macro (Hayes, 2017). With the independent variable being traumatic experiences, the mediator being the ethno-cultural identity conflict and the dependent variable PTSD symptoms. Using the mediation analyses an estimation was made of the indirect effect of traumatic experiences on PTSD symptoms through the mediating variable the ethno-cultural identity conflict. Besides this indirect effect, the pathway of the direct effect of traumatic experiences on PTSD symptoms was determined as well. Consequently there are two equations (from the direct and from the indirect effect) that can be determined by conducting a regression analyses in SPSS.

## Results

### Descriptives

The means and standard deviations of the number of traumatic events, the ethno-cultural identity conflict and PTSD symptoms are presented in Table 1. Pearson correlations between all study variables are presented in Table 2.

Table 1.

#### *Means and standard deviations*

	<i>M</i>	<i>SD</i>	Range
Number of traumatic events	15.36	7.92	(2.0-41.0)
Ethno-cultural identity conflict	49.79	15.69	(24.0-95.0)
PTSD symptoms	81.59	21.12	(36.0-134.0)

Table 2.

#### *Correlations table*

	Number of traumatic events	Ethno-cultural identity conflict	PTSD Symptoms
Number of traumatic events		.095	.208
Ethno-cultural identity conflict			.425**
PTSD symptoms			

\*\*Correlation is significant at the 0.01 level (2-tailed).

### Testing the hypothesis

The research questions were answered using mediation analysis, using the PROCESS macro (Hayes, 2017) in SPSS Statistics version 22.

**Assumption Testing.** First the assumptions were checked. All variables were measured on a continuous scale and followed a normal distribution, as could be seen by histograms of the residuals of the three variables and Q-Q plots of the variables. To check if the errors associated with one variable were independent and not correlated with the errors of other observations a regression analysis was executed. The scatterplot of the standardized residuals of the dependent variable PTSD symptoms shows no correlation between the errors associated with one variable and errors of other observations. Relationships among variables were linear, as could be seen by the scatterplots of the number of traumatic events and PTSD symptoms, and ethno-cultural identity conflict and PTSD symptoms, respectively.

**Mediation.** Baron and Kenny (1986) state that there are four steps necessary to demonstrate mediation. The first condition is that the independent variable is significantly associated with the dependent variable. However, in this research there was no direct effect of the number of traumatic events on PTSD symptoms,  $b = .45$ ,  $t = 1,38$ ,  $p = .175$ . The second condition is that the independent variable significantly predicts the mediator. It was expected that the number of traumatic events would be associated with greater ethno-cultural identity conflict. No statistically significant effect to indicate this relationship was found,  $b = .19$ ,  $t = .70$ ,  $p = .486$ . The third condition is that the mediator in turn significantly predicts the dependent variable. It was expected that experiencing more ethno-cultural identity conflict would be associated with higher levels of PTSD symptoms. This hypothesis was confirmed. There was a statistically significant positive direct effect of Ethno-cultural identity conflict on PTSD symptoms,  $b = .55$ ,  $t = 3,34$ ,  $p = .002$ . The last condition is that the effect of the independent variable on the dependent variable diminishes or even disappears when the mediator is taken into account in the analyses. It was expected that the ethno-cultural identity conflict will mediate the relationship between the number of traumatic events before migration and PTSD symptoms. However, there was not a significant indirect effect of the number of trauma events

on PTSD symptoms through the ethno-cultural identity conflict,  $b = 0.104$ , 95% CI [-.21, .53].

Results are displayed in Figure 1.

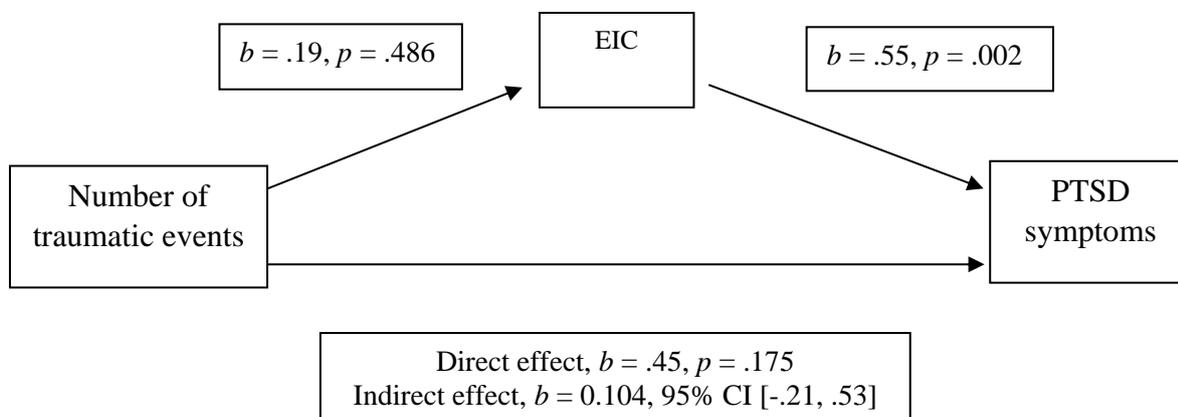


Figure 1. The results of the direct effect of number of traumatic events on PTSD symptoms and the indirect effect when mediated by ethno-cultural identity conflict

## Discussion

This study investigated whether traumatic experiences are associated with a greater ethno-cultural identity conflict after migration, whether a greater ethno-cultural identity conflict is associated with more PTSD symptoms and whether the relationship between traumatic experiences and PTSD symptoms is mediated by ethno-cultural identity conflict.

The first hypothesis of this study was that traumatic experiences would be associated with more PTSD symptoms. This could not be confirmed by this study, which is a peculiar result especially when compared to previous studies on this topic. From previous research the relation between traumatic experiences and PTSD symptoms seems like an established fact (Briere, Kaltman & Green, 2008; Powers, Cross, Fani & Bradley, 2015). First of all, it must be pointed out that this study has a somewhat small sample size with only 56 participants. With a larger sample size, the study would have had greater power which would improve the chances of finding significant results. Another possibility is that it seems that some traumatic experiences are more likely to result in PTSD symptoms than others. The study of Geltman and

colleagues (2005) showed that if children were separated from family during attacks or if they were a direct victim of violent acts they were more prone to develop PTSD. In comparison, witnessing violence directed to others was not associated with PTSD symptoms. Further research has to be done into this topic to bring more clarification to this question. A possible explanation given by Geltman and colleagues (2005) is that shared traumatic events such as witnessing violence can be more easily processed with others, which helps the recovery. If the participants in this study experienced more collective traumatic events, then perhaps this is less strongly related to PTSD.

The second hypothesis was that traumatic experiences before migration would lead to a greater ethno-cultural identity conflict. This hypothesis was not confirmed by the results of this study. The small sample size could also explain this result, but another possibility is that there is indeed no relationship between the traumatic experiences before migration and development of ethno-cultural identity conflict. However this research did not look at what the influences are of the experiences in the new country after migration on the ethno-cultural identity conflict. It has to be considered that this could possibly be of great importance, because the challenge in forming the ethno-cultural identity is integrating the new cultural identity of the host country with the identity that already existed from before migration. The context of the culture of the host country plays an important role in what difficulties one encounters during the integration of cultural identities, such as conflicting demands from friends, family and wider society (Ward et al., 2011; Leong & Ward, 2000). Research from Leong & Ward (2000) shows that the experiences of refugees in the host country after migration are indeed of influence on the formation the ethno-cultural identity conflict. Less discrimination and more contact with nationals of the host country were related to less ethno-cultural identity conflict. So, possibly it is the circumstances in the host country that make someone vulnerable for the development of the ethno-cultural identity conflict, rather than experience in the home country. This emphasizes

the importance of the way refugees are received and treated when they arrive in The Netherlands and apply for asylum. Research of Dagevos et al. (2018) already shows that Syrians have some negative experiences after they arrive in The Netherlands. Syrians have an average stay of nine months in asylum seekers centers and live on average in a little less than four different centers (Dagevos et al., 2018). If those negative experiences are of influence in the formation of ethno-cultural identity conflict, then this could be an important reason to improve the policy surrounding the treatment of refugees after they arrive in The Netherlands. However, more research has to be done to establish what determines the formation of the ethno-cultural identity conflict.

The third hypothesis was that the ethno-cultural identity conflict would be associated with PTSD symptoms. This hypothesis was confirmed: higher levels of ethno-cultural identity conflict were found to be related to more PTSD symptoms. This result corresponds to previous research on this topic (Ward et al., 2011). However, it could not be confirmed that the ethno-cultural identity conflict mediates a relationship between traumatic experiences and PTSD symptoms. Little is known about why there is a relationship between ethno-cultural identity conflict and PTSD symptoms. This result is especially difficult to interpret given the lack of a significant relationship between traumatic experiences and ethnocultural identity conflict. Perhaps it is the stress that someone cannot maintain his or her ethnic identity that aggravates PTSD symptoms. Another possibility is that refugees experience new traumas in the host country, which lead to a greater ethno-cultural identity conflict and more PTSD symptoms. The study of Montgomery (2008) emphasizes that the experiences in the host country, such as a stressful living conditions seem to predict psychological problems more than the traumatic experiences before arrival. This could have far-reaching consequences, because it would mean

that there is a possibility to prevent the development of serious PTSD symptoms with the right interventions in the host country.

Another possibility that has to be considered is that the relationship is the other way around with PTSD symptoms leading to a greater ethno-cultural identity conflict. PTSD symptoms can lead to social withdrawal and cognitive difficulties, which makes it harder for someone to successfully integrate in a new culture (Beck et al., 2018). Moreover, PTSD symptoms are linked to difficulties with emotion regulation, including low levels of reappraisal (Ehring & Quack, 2010). Reappraisal is when someone re-evaluates the stressful life events and the impact of the events on their life. Reappraisal most of the time leads to a more positive valuation of life events and a person's resources, which is related to a more strong and stable identity. So when someone is unable to reappraise a situation in a positive way, it could be more difficult to develop a strong identity (Kira, Shuwiekh, Al Ibraheem & Aljakoub, 2019). If this is the case, then treatment of the PTSD symptoms would help to minimize the ethno-cultural identity conflict.

Further research into these topics is needed to clarify and substantiate these results. An important limitation of this study was the small sample size. Because of the relatively small sample size, it is difficult to generalize the findings from this study. Also this study could not give any clarification of the causality between variables. Especially the connection between the ethno-cultural identity conflict and PTSD symptoms has to be studied further. It is important to determine whether one influences the other or perhaps whether they both influence each other, turning it into a vicious circle if no action is taken to intervene. Because it is difficult to prove a causal relationship, future research must have a longitudinal focus to determine in what way these variables influence each other over time.

However, it is important to note that a strength of this study is that this research was able to investigate these social relevant concepts in a cultural sensitive manner. With the use of questionnaires that were translated into Arabic and Syrian research assistants we were able to connect with the participants as well as possible. This way we were able to ensure a good reliability of the results. It is advised to take this into account for future research. Another strength of this research is the timely topic that has been investigated. Through this study some clarification could be given in the debate of what is needed for good integration of Syrian refugees.

In conclusion this research has confirmed that the ethno-cultural identity conflict and PTSD symptoms are related to each other and may play an important role in the integration of refugees in the Netherlands. Because these concepts seem to be of great importance to the well-being of refugees and a lot is still unknown, it is important to invest in research. Moreover, it is also important to consider the practical implications. Perhaps there are some changes that have to be made to treatment protocols for PTSD, with more attention for trauma and identity development. If it becomes clear in what way these variables can be affected, then alterations can be made to healthcare and social interventions to make sure that they are matched to the needs of the refugees.

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THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

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## THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

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THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

Syntax SPSS Statistics

```
DESCRIPTIVES VARIABLES=Q2 Q3 Q4
  /STATISTICS=MEAN STDDEV MIN MAX.
```

```
FREQUENCIES VARIABLES=Q13
  /STATISTICS=STDDEV MEAN
  /BARCHART FREQ
  /ORDER=ANALYSIS.
```

\* Chart Builder.

```
GGRAPH
  /GRAPHDATASET NAME="graphdataset" VARIABLES=Q3
  COUNT()[name="COUNT"] MISSING=LISTWISE
  REPORTMISSING=NO
  /GRAPHSPEC SOURCE=INLINE.
BEGIN GPL
  SOURCE: s=userSource(id("graphdataset"))
  DATA: Q3=col(source(s), name("Q3"), unit.category())
  DATA: COUNT=col(source(s), name("COUNT"))
  GUIDE: axis(dim(1), label("What is your gender? - Selected Choice"))
  GUIDE: axis(dim(2), label("Count"))
  SCALE: cat(dim(1), include("1", "2", "3"))
  SCALE: linear(dim(2), include(0))
  ELEMENT: interval(position(Q3*COUNT), shape.interior(shape.square))
END GPL.
```

```
DATASET ACTIVATE DataSet1.
COMPUTE Trauma_Events=SUM.22(Q15_1,
Q15_2,Q15_3,Q15_4,Q15_5,Q15_6,Q15_7,Q15_8,Q15_9,Q15_10,Q15_11,
Q15_12,Q15_13,Q15_14,Q15_15,Q15_16,Q15_17,Q15_18,Q15_19,Q15_20,Q15_21,Q15_2
2,Q15_23,Q15_24,Q15_25,
Q15_26,Q15_27,Q15_28,Q15_29,Q15_30,Q15_31,Q15_32,Q15_33,Q15_34,Q15_35,Q15_3
6,Q15_37,Q15_38,Q15_39,
  Q15_40,Q15_41,Q15_42,Q15_43).
EXECUTE.
```

```
COMPUTE
Trauma_Symptoms=SUM.23(Q16_1,Q16_2,Q16_3,Q16_4,Q16_5,Q16_6,Q16_7,Q16_8,Q16
_9,Q16_10,Q16_11,
```

THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

Q16\_12,Q16\_13,Q16\_14,Q16\_15,Q16\_16,Q16\_17,Q16\_18,Q16\_19,Q16\_20,Q16\_21,Q16\_22,Q16\_23,Q16\_24,Q16\_25,

Q16\_26,Q16\_27,Q16\_28,Q16\_29,Q16\_30,Q16\_31,Q16\_32,Q16\_33,Q16\_34,Q16\_35,Q16\_36,Q16\_37,Q16\_38,Q16\_39,

Q16\_40,Q16\_41,Q16\_42,Q16\_43,Q16\_44,Q16\_45).

EXECUTE.

RECODE Q39\_1 Q39\_11 Q39\_17 Q39\_18 (1=5) (2=4) (3=3) (4=2) (5=1) INTO Q39\_1R Q39\_11R Q39\_17R Q39\_18R.

EXECUTE.

COMPUTE EIC=SUM.10(Q39\_1R,Q39\_2,Q39\_3,Q39\_4,Q39\_5,Q39\_6,Q39\_7,Q39\_8, Q39\_9, Q39\_10, Q39\_11R,

Q39\_12, Q39\_13, Q39\_14, Q39\_15, Q39\_16, Q39\_17R, Q39\_18R, Q39\_19, Q39\_20).

EXECUTE.

CORRELATIONS

/VARIABLES=Trauma\_Events Trauma\_Symptoms EIC

/PRINT=TWOTAIL NOSIG

/STATISTICS DESCRIPTIVES

/MISSING=PAIRWISE.

DATASET ACTIVATE DataSet1.

DESCRIPTIVES VARIABLES=EIC Trauma\_Symptoms Trauma\_Events

/STATISTICS=MEAN STDDEV RANGE MIN MAX.

DATASET ACTIVATE DataSet1.

EXAMINE VARIABLES=Trauma\_Symptoms

/PLOT BOXPLOT STEMLEAF HISTOGRAM NPLOT

/COMPARE GROUPS

/STATISTICS DESCRIPTIVES

/CINTERVAL 95

/MISSING LISTWISE

/NOTOTAL.

EXAMINE VARIABLES=Trauma\_Events

/PLOT BOXPLOT HISTOGRAM NPLOT

/COMPARE GROUPS

/STATISTICS DESCRIPTIVES

/CINTERVAL 95

/MISSING LISTWISE

THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

/NOTOTAL.

EXAMINE VARIABLES=EIC

/PLOT BOXPLOT HISTOGRAM NPLOT

/COMPARE GROUPS

/STATISTICS DESCRIPTIVES

/CINTERVAL 95

/MISSING LISTWISE

/NOTOTAL.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS R ANOVA

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT Trauma\_Symptoms

/METHOD=ENTER Trauma\_Events EIC

/SAVE PRED ZPRED RESID ZRESID.

REGRESSION

/MISSING LISTWISE

/STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL ZPP

/CRITERIA=PIN(.05) POUT(.10)

/NOORIGIN

/DEPENDENT Trauma\_Symptoms

/METHOD=ENTER Trauma\_Events EIC

/SCATTERPLOT=(\*ZRESID ,\*ZPRED)

/RESIDUALS DURBIN NORMPROB(ZRESID)

/SAVE MAHAL COOK.

GRAPH

/SCATTERPLOT(BIVAR)=Trauma\_Events WITH EIC

/MISSING=LISTWISE.

GRAPH

/SCATTERPLOT(BIVAR)=Trauma\_Events WITH Trauma\_Symptoms

/MISSING=LISTWISE.

GRAPH

/SCATTERPLOT(BIVAR)=EIC WITH Trauma\_Symptoms

/MISSING=LISTWISE.

RELIABILITY

THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

```

/VARIABLES=Q15_1 Q15_2 Q15_3 Q15_4 Q15_5 Q15_6 Q15_7 Q15_8 Q15_9 Q15_10
Q15_11 Q15_12 Q15_13
Q15_14 Q15_15 Q15_16 Q15_17 Q15_18 Q15_19 Q15_20 Q15_21 Q15_22 Q15_23
Q15_24 Q15_25 Q15_26 Q15_27
Q15_28 Q15_29 Q15_30 Q15_31 Q15_32 Q15_33 Q15_34 Q15_35 Q15_36 Q15_37
Q15_38 Q15_39 Q15_40 Q15_41
Q15_42 Q15_43
/SCALE('Trauma_events') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

```

RELIABILITY

```

/VARIABLES=Q16_1 Q16_2 Q16_3 Q16_4 Q16_5 Q16_6 Q16_7 Q16_8 Q16_9 Q16_10
Q16_11 Q16_12 Q16_13
Q16_14 Q16_15 Q16_16 Q16_17 Q16_18 Q16_19 Q16_20 Q16_21 Q16_22 Q16_23
Q16_24 Q16_25 Q16_26 Q16_27
Q16_28 Q16_29 Q16_30 Q16_31 Q16_32 Q16_33 Q16_34 Q16_35 Q16_36 Q16_37
Q16_38 Q16_39 Q16_40 Q16_41
Q16_42 Q16_43 Q16_44 Q16_45
/SCALE('Trauma_symptoms') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

```

RELIABILITY

```

/VARIABLES=Q39_1R Q39_11R Q39_17R Q39_18R Q39_2 Q39_3 Q39_4 Q39_5 Q39_6
Q39_7 Q39_8 Q39_9 Q39_10
Q39_12 Q39_13 Q39_14 Q39_15 Q39_16 Q39_19 Q39_20
/SCALE('EIC') ALL
/MODEL=ALPHA
/STATISTICS=DESCRIPTIVE SCALE
/SUMMARY=TOTAL.

```

DATASET ACTIVATE DataSet1.

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT Trauma_Events
/METHOD=ENTER Trauma_Symptoms
/SAVE RESID ZRESID.

```

THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

\* Chart Builder.

GGRAPH

```
/GRAPHDATASET NAME="graphdataset" VARIABLES=Trauma_Events
Trauma_Symptoms MISSING=LISTWISE
REPORTMISSING=NO
/GRAPHSPEC SOURCE=INLINE.
```

BEGIN GPL

```
SOURCE: s=userSource(id("graphdataset"))
DATA: Trauma_Events=col(source(s), name("Trauma_Events"))
DATA: Trauma_Symptoms=col(source(s), name("Trauma_Symptoms"))
GUIDE: axis(dim(1), label("Trauma_Events"))
GUIDE: axis(dim(2), label("Trauma_Symptoms"))
ELEMENT: point(position(Trauma_Events*Trauma_Symptoms))
END GPL.
```

\* Chart Builder.

GGRAPH

```
/GRAPHDATASET NAME="graphdataset" VARIABLES=EIC Trauma_Symptoms
MISSING=LISTWISE REPORTMISSING=NO
/GRAPHSPEC SOURCE=INLINE.
```

BEGIN GPL

```
SOURCE: s=userSource(id("graphdataset"))
DATA: EIC=col(source(s), name("EIC"))
DATA: Trauma_Symptoms=col(source(s), name("Trauma_Symptoms"))
GUIDE: axis(dim(1), label("EIC"))
GUIDE: axis(dim(2), label("Trauma_Symptoms"))
ELEMENT: point(position(EIC*Trauma_Symptoms))
END GPL.
```

EXAMINE VARIABLES=Trauma\_Symptoms BY Trauma\_Events EIC

```
/PLOT BOXPLOT STEMLEAF SPREADLEVEL(1)
/COMPARE GROUPS
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.
```

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 3.3 \*\*\*\*\*

THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

Documentation available in Hayes (2018). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4  
Y : Trauma\_S  
X : Trauma\_E  
M : EIC

Sample  
Size: 56

\*\*\*\*\*

OUTCOME VARIABLE:  
EIC

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,0949	,0090	248,5092	,4906	1,0000	54,0000
	,4866					

Model

	coeff	se	t	p	LLCI	ULCI
constant	46,8973	4,6305	10,1280	,0000	37,6137	56,1809
Trauma_E	,1881	,2685	,7005	,4866	-,3503	,7264

Standardized coefficients

	coeff
Trauma_E	,0949

\*\*\*\*\*

OUTCOME VARIABLE:  
Trauma\_S

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,4574	,2092	366,1101	7,0112	2,0000	53,0000
	,0020					

Model

	coeff	se	t	p	LLCI	ULCI
constant	47,2361	9,5703	4,9357	,0000	28,0404	66,4318
Trauma_E	,4502	,3274	1,3753	,1748	-,2064	1,1069
EIC	,5511	,1652	3,3367	,0016	,2198	,8824

Standardized coefficients

	coeff
Trauma_E	,1687
EIC	,4094

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:  
Trauma\_S

Model Summary

	R	R-sq	MSE	F	df1	df2
p	,2076	,0431	434,8156	2,4321	1,0000	54,0000
	,1247					

THE RELATIONSHIP BETWEEN TRAUMATIC EXPERIENCES, ETHNO-CULTURAL IDENTITY CONFLICT AND PTSD SYMPTOMS IN SYRIAN REFUGEES

```

Model
      coeff      se      t      p      LLCI      ULCI
constant 73,0830  6,1250  11,9319  ,0000  60,8030  85,3629
Trauma_E  ,5539   ,3552   1,5595   ,1247  -,1582   1,2660

Standardized coefficients
      coeff
Trauma_E  ,2076

***** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y *****

Total effect of X on Y
      Effect      se      t      p      LLCI      ULCI
c_ps      c_cs
,5539     ,3552   1,5595   ,1247  -,1582   1,2660
,0262     ,2076

Direct effect of X on Y
      Effect      se      t      p      LLCI      ULCI
c'_ps     c'_cs
,4502     ,3274   1,3753   ,1748  -,2064   1,1069
,0213     ,1687

Indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
EIC      ,1037      ,1888      -,2145      ,5240

Partially standardized indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
EIC      ,0049      ,0088      -,0107      ,0237

Completely standardized indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
EIC      ,0389      ,0683      -,0774      ,1926

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
5000

NOTE: Variables names longer than eight characters can produce incorrect
output.
      Shorter variable names are recommended.

----- END MATRIX -----

```