

Conduct Problems and Depression among Unaccompanied Refugees: The Association with Pre-Migration Trauma and Acculturation

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Título: Problemas de Conducta y Depresión entre Refugiados no Acompañados: La asociación entre el impacto del trauma pre-migratorio y la aculturación

Resumen: Hay escaso conocimiento sobre la adaptación a largo plazo de los niños menores de edad que emigran sin ser acompañados por sus padres para pedir asilo en un país extranjero. El presente estudio investigó los efectos combinados del impacto de haber tenido experiencias traumáticas relacionadas con la guerra antes de emigrar y los índices del proceso de aculturación actual (competencia cultural y problemas con endogrupos / exogrupos) sobre la depresión y los problemas conductuales.

Los participantes fueron 566 refugiados menores no acompañados que habían llegado a Noruega buscando asilo y a los que se concedió la residencia y que estaban domiciliados por todo el país. Su estancia media en Noruega era de 3,7 años y su edad media era de 18,9 años. Se reunían en grupos en sus lugares de residencia y rellenaban cuestionarios con información acerca de sus experiencias pre y post- migratorias y de su salud mental.

Los resultados encontrados indican que, aunque este grupo de jóvenes refugiados informa de pocos problemas de conducta, el nivel de depresión es alto. Sin embargo, a pesar de los problemas de depresión, su proceso de aculturación hace progresos, ya que están adquiriendo la competencia cultural necesaria para integrarse en la sociedad mayoritaria y mantener el contacto con su cultura de origen. Un modelo para evaluar los efectos de la competencia cultural y de los problemas con endogrupos/exogrupos en combinación con el impacto de experiencias traumáticas relacionadas con la guerra no explicaba gran parte de las diferencias individuales en los problemas de conducta. En cambio, los índices de aculturación explicaban una variación sustancial de los problemas de depresión, por encima de los efectos del impacto de experiencias traumáticas relacionadas con la guerra. Se concluye que la competencia cultural étnica y de la sociedad de acogida debe ser el enfoque a seguir en las intervenciones para impulsar la integración socio-cultural y la salud mental.

Palabras clave: problemas de conducta; depresión; competencia cultural; problemas con endogrupo y exogrupos; experiencias traumáticas relacionadas con la guerra.

Abstract: There is scarce knowledge about the long term adaptation of children who migrate without the company of their legal guardians to apply for asylum in a foreign country. The present study investigated the combined effects of impact of premigratory war-related trauma, and indices of current acculturation (culture competence and ingroup / outgroup hassles) on conduct and depression problems.

Participants were 566 refugees who had arrived in Norway as unaccompanied minor asylumseekers, were granted residence and resettled all over the country. They had a mean length of stay in Norway of 3.7 years and a mean age of 18.9 years. They gathered in groups in their home towns, and filled in questionnaires with information about pre- and post-migration experiences and mental health.

The findings imply that while this group of young refugees reports few conduct problems, the level of depression is high. At the same time, their acculturation process is progressing, as they are achieving necessary culture competence to integrate into majority society and maintain contact with their culture of origin. A model assessing effects of culture competence and ingroup/outgroup hassles in combination with impact of war-related traumatic events, did not account for much of the individual differences in conduct problems. In contrast, when depressive problems were concerned, the included acculturation indices explained substantial variation in depression problems, over and above effects of impact of war-related traumatic events. It is concluded that ethnic and host culture competence should be the focus of interventions to promote socio-cultural integration and mental health.

Key words: conduct problems; depression; culture competence; ingroup and outgroup hassles; war-related traumatic events.

Introduction

The most vulnerable group of immigrant children are those who migrate without the company of their parents or other legal guardians to seek asylum in a foreign country, the so called unaccompanied minor asylumseekers, UMA¹ (Halvorsen, 2002). They all have in common the fact that they were separated from their parents and other family members at ages during which the love and support from one's caretakers are considered crucial to successful psychological developmental outcomes (Perris, Arrindell, & Eiseman, 1994). Moreover, a majority of them carry histories of painful losses, exposure to abuse and / or violence, and a variety of war or poverty related traumas (Bean, Derluyn, Eurelings-Bontekoe, Broekaert, & Spinhoven, 2007; Der-

luyn, Mels, & Broekaert, 2009). Typically, the large majority of them, between 65 and 80%, are young boys, but the proportion varies dependent on their national origin (cf above references).

Traumatic Events and Mental Health Problems in UMA

The close relations between exposure to life threatening traumatic events, depression, and Posttraumatic Stress Disorder, PTSD, are well documented both among children and adults (Dyregrov & Yule, 2006; Shalev et al., 1998; Steel, Chey, Silove, Marnane, Bryant, & van Ommeren, 2009; Thabet, Abed, & Vostanis, 2004). This has motivated a recent renewed small, but growing, body of scholarly literature

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¹ For the purpose of this study, we employ the Norwegian definition of the term "unaccompanied minor" which implies children who are separated from both parents, or from their previous legal or customary primary caregiver, but not necessarily from their relatives (See Huemer et al., 2009 for a precise distinction between "unaccompanied" and "separated" minors).

about UMA's psychiatric problems. These studies have consistently shown disquieting high levels of exposure to traumatic events, depression, and PTSD compared to refugees travelling with parents, other immigrants, and ethnic majority peers in their resettlement countries (Bean et al., 2007; Derluyn et al., 2009; Heumer, 2009; Seglem, Oppedal, & Roysamb, 2011). The few more comprehensive studies of the psychiatric problems of UMA that include information about conduct problems, inform of *lower* levels among UMA relative to their native peers. The number of traumatic events experienced is a significant predictor of conduct problems in these studies, even if they explain only low proportion of the variance (Bean et al., 2007; Derluyn et al., 2009).

Other studies of the mental health sequels following exposure to traumatic events have shown that both conduct problems and depression are common in trauma victims in addition to PTSD (Mazza & Reynolds, 1999; Reebye, Moretti, Wiebe, & Lessard, 2000; Yule et al., 2000). Further, remission of depression and conduct problems appears to be associated with remission of PTSD (Bolton, O'Ryan, Udwin, Boyle, & Yule, 2000). However, even if depression among refugees may be caused by traumatic events, depressive problems also have other sources, as e.g. ongoing everyday hassles in the resettlement country (Miller et al., 2006; Savin, Sack, Clarke, Meas, & Richart, 1996; Seglem, Oppedal & Idsoe, 2012).

High Prevalence of Mental Health Problems across Contexts

The high prevalence of mental health problems among UMA is documented across countries that differ with respect to asylum policies and the care and living arrangements offered to them, and for samples with different national group constellations (Bean et al., 2007; Derluyn et al., 2009; Seglem, Oppedal & Roysamb, 2012). Moreover elevated levels of mental health problems are also documented in various stages of the asylum process. The studies of Bean et al. and Derluyn et al. involved samples in which many participants did not know the outcome of their asylum application, and that had relatively recently arrived in the Netherlands and Belgium respectively. Studies of Geltman et al., (2005), and Seglem, Oppedal, & Raeder (2011), included participants that had their asylum applications approved, and had resided longer in the receiving countries.

Other important finding across the above mentioned studies are that the traditional gender and age variations in depression and conduct problems are either non-existent, or very small. Also, in spite of the logical assumption that mental health problems would wane off in the years following granted residence and resettlement, length of stay appears to play an insignificant role as a predictor of changes in mental health problems (Seglem, Oppedal & Idsoe, 2012). However, regarding gender differences, the question remains if gender *moderates* the associations between risk- and protec-

tive factors and mental health, i.e. if there are gender differences in the strength of the associations between e.g. exposure to trauma or indicators of acculturation and mental health.

Theoretical Framework of Studies of UMA

Most extant studies of the mental health problems of UMA are undertaken within a trauma framework, i.e., they focus on the number of traumatic events the participants have been exposed to, and the effects of such traumas on mental health problems (for a review, see Heumer et al., 2009). In contrast social workers and other researchers have underscored the resilience among UMA. They suggest that more attention should be paid to the factors that contribute to the adaptive functioning of many of the children in spite of the high number of adversities they have been exposed to (Kohli, 2003; Ni Raghallaigh & Gilligan, 2010; Rousseau, Said, Gagné, & Bibeau, 1998). The way that UMA acculturate has been proposed as one important area of research in this regard (Kohli, 2007). While there is a substantial scholarly literature on the effects of various aspects of acculturation on the mental health of immigrant children and youth (e.g. Berry, 1997; Liebkind & Jasinskaja-Lahti, 2000; Motti-Stefanidi, Pavlopoulos & Obradović, 2008; Oppedal, Roysamb & Heyerdahl, 2005; Phinney & Kohatsu, 1997; Sam, 2000), to date these studies do not include samples of UMA. Such information will increase current knowledge of how experiences after arrival in receiving countries contribute to individual variation in mental health among UMA beyond their pre-migratory traumatic experiences. Additionally, findings will complement the above described results by providing information about the way UMA negotiate being part of different cultures and what it means to their mental health.

The theoretical model of the present study assumes that there are effects of symptoms caused by pre-migration exposure to war-related trauma on conduct and depression problems. Moreover, the acculturation framework is implemented to account for experiences in the current everyday lives of unaccompanied refugees after resettlement, and how they may affect conduct and depression problems over and above the impact of pre-migration trauma.

UMA in Norway

Over the last ten years around 8000 children under the age of 18 have arrived without the company of a legal guardian to seek asylum in Norway, with a significant increase in arrivals in 2008 – 2009 (Norwegian Directorate of Immigration, 2010). It is likely that there will be a continuous influx of unaccompanied minor children seeking asylum in rich, Western countries like Norway also in the future, which will contribute to maintaining the number of such refugee children in need of care and protection in our countries at high levels.

Knowledge about the dynamics of the ways they adapt and integrate into the receiving societies after their asylum requests have been granted, can give direction to the endeavors of policy makers, mental health professionals, and case workers to promote their well-being in the resettlement process. Scientifically such knowledge can also deepen our understanding of resilience processes in high risk children in regards to the co-occurrence of positive functioning and mental health problems.

The overall aim of the present study is to investigate the combined effects of the impact of pre-migration war-related traumatic events, and indices of the acculturation process on self-reported conduct problems and depression. We investigate these associations among UMA who have been granted residence in Norway. As they are no longer asylumseekers and many of them have reached majority age (18 years) we use “unaccompanied refugees” to refer to our sample, and UMA to refer to this category of immigrant children in general.

Acculturation

Socio-cultural adaptation among ethnic minority children is often referred to as **acculturation**, and involves ways that ethnic minority children maintain ties to their heritage culture and integrate culturally, socially, and structurally into the majority society (Berry, 1997; Oppedal, 2006). Studies have shown that the vast majority of immigrant youth maintain contact to their own group as well as to the majority society (Berry & Sam, 1997).

Lack of consensus on the construct of acculturation

In spite of a fast increasing body of research on the psychology of acculturation over the last three decades, there is an unfortunate lack of consensus about its definition and measurement (Chirkov, 2009; Rudmin, 2009). In a critical review of 42 articles, Chirkov (2009) demonstrated that about 43% of the studies employed definitions representing variations of the formulation of Redfield, Linton & Herskovits (1936) about group level changes resulting from contact between different culture groups. Chirkov argues against this adaptation of Redfield et al.’s sociological / anthropological group level definition to accommodate to individuals’ psychological acculturation as suggested by for example Berry & Sam (1997). Other scholars have disputed the validity of this definition when children and adolescents are concerned (Oppedal, 2006; Oppedal, Roysamb & Heyerdahl, 2005; Oppedal, Roysamb & Sam, 2004; Sam & Oppedal, 2002). One issue is that the definition is static and does not take into account the reciprocal relationship between acculturation and children’s and youths’ bio-physical and psychosocial development. Another issue is that it is impossible to distinguish between the changes that are inherent to children’s ontogenetic development and changes that supposedly should result from “acculturation” (Sam & Oppedal,

2002). In response to these challenges, Oppedal et al., (2004) offered an alternative definition of acculturation as a developmental process towards gaining culture competence within the original (ethnic minority) cultural domain and that of the majority society.

Following this line of thought it is essential to successful socio-cultural adaptation that children develop the necessary culture competence to succeed within and feel that they belong to both the ethnic minority and majority culture of the bi- or multi-cultural contexts they are part of (Oppedal, 2006). Culture competence involves knowledge and skills about communication (both verbal and non-verbal) and about culturally embedded patterns of behavior and the values underlying these (Oppedal, Roysamb, & Sam, 2004; Oppedal, 2006). Earlier studies have shown associations between increasing levels of host (majority society) and ethnic (country of origin) culture competence and lower levels of internalizing and externalizing problems among adolescents with immigrant backgrounds beyond effects of socioeconomic status, length of stay and gender (Oppedal, Roysamb, & Sam, 2004; Oppedal, Roysamb, & Heyerdahl, 2005). Thus, they may be conceptualized as protective factors of mental health. However, to our knowledge, this is the first study to address the association between aspects of acculturation and mental health among unaccompanied minor asylumseekers and refugees.

Culture competence in the context of disruption and reconstruction of networks

The unaccompanied refugees left their home countries and families at a young age. The majority only had low levels of education before they migrated, and they received no schooling during their travel. These circumstances are potential challenges to maintenance and further development of their ethnic culture competence: Firstly, school is an important arena for acquisition and further development of both social and academic language, complementing and advancing natural learning in the family context. Secondly, the educational institutions are also vital in the establishing of peer networks where children can advance their social skills and behavioral culture competence. In face of the described disruption of their childhood’s ethnic networks, one of the first tasks the youngsters face when they have been granted residence in the country of asylum is to reconstruct connections to ethnic networks abroad and establish close relationships in the resettlement countries. Participation in various social networks is a prerequisite for achieving and increasing culture competence.

Acculturation risk factors

The acculturation process involves the development of competence that is central to successful adaptation and resilience, however, the process also entails several unique risk factors of which discrimination is the most frequently inves-

tigated (Berkel et al., 2010; Green, Way, & Pahl, 2006; Grossman & Liang, 2008; Huynh & Fuligni, 2010; Liebkind & Jasinskaja-Lahti, 2000; Oppedal, 2011). However, immigrant children and youth may also experience other contextual challenges both within their ethnic in-group networks and during social interaction with out-group majority peers (Lay & Nguyen, 1998; Vinokurov, Trickett, & Birman, 2002). In-groups may be demanding in terms of maintenance of cultural traditions, and criticize their members if they do not e.g. dress in the right ways or know the mother tongue language well enough. On the other hand, young immigrants may still experience problems in particular situations because they do not understand the culture codes, even if they have gained a certain level of the culture competence needed to succeed within and feel they belong to the majority society. Children and adolescents are likely to perceive these kinds of ingroup and outgroup hassles or interpersonal conflicts as stressful, and hampering their wishes to fit in and be accepted. Such risk factors may counter some of the ameliorating effects of culture competence by increasing levels of mental health problems. To expand on our knowledge of how the complexities of acculturation affect the mental health of young immigrant, we suggest integrating both risk (e.g. ingroup/outgroup hassles) and protective (e.g. ethnic/host culture competence) factors embedded in the process into the study designs.

Aims of the Present Study

The first aim of this study is to get knowledge about the levels of impact of pre-migration war-related trauma and acculturation indices such as host and ethnic culture competence and ingroup and outgroup acculturation hassles among unaccompanied refugees. The second aim is to investigate a hypothesized model of associations between impact of war-related pre-migration trauma, current ethnic and host culture competence and ingroup/outgroup hassles and conduct problems and depression, controlling for the demographic variables of age and length of stay (Figure 1).

In spite of the negligible gender differences in level of mental health problems, gender differences in the associations between the predictor and outcome variables of the model that could jeopardize the results cannot be ruled out. In Structural Equation Modeling procedures, this can be tested within a multiple-group design. Based on the literature review, we assume that impact of war-related trauma predicts increased levels of both conduct problems and depression. Likewise, ingroup and outgroup hassles should contribute to increases in both dimensions of mental health problems, whereas culture competence would reduce the level of mental health problems.

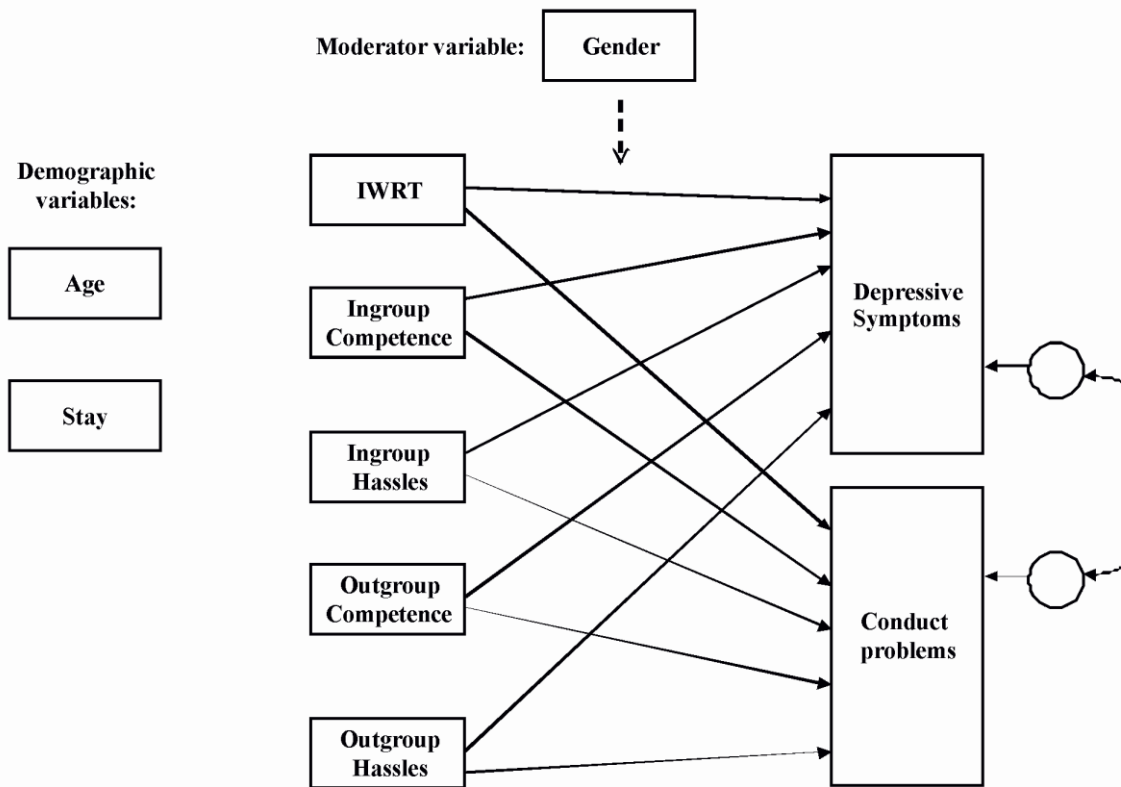


Figure 1. The conceptual model of effects of the impact of war-related trauma and acculturation on mental health problems

Method

Sample and Procedures

Data for the study were provided by participants in a subproject on the long term adaptation of unaccompanied minor asylum seekers within the research program “Youth, Culture, and Competence study” carried out by the Norwegian Institute of Public Health, NIPH (www.fhi.no/ungkul). The study has been approved by the Regional Committee for Medical and Health Research Ethics and by the Norwegian Data Inspectorate, and is carried out according to the Helsinki declaration. Recruitment of participants to this project, and follow-up data collection among them, is ongoing. The target group for this particular study was all unaccompanied refugees who had been granted residence in Norway between 2000 and 2009, who were more than 13 years when their applications were approved, and who were resettled in the 28 municipalities that had been recruited to the study between November 2006 and October 2010 ($N = 1641$). (Five 11 and 12 years old children has been included because they wanted to participate, their case workers who knew them well, judged them to be very mature, and they spoke Norwegian almost fluently).

Based on our obtained consent from the Data Inspectorate, the Norwegian Directorate of Immigration provided information about gender, country of origin, year of birth, year and place of resettlement of our target sample. We were able to localize and get in touch with 828 (51%) of the target group. Out of this group, 45 (5%) declined participation, however 217 (26%) youth accepted to participate but did not show up on the day of data collection (characteristics of participants vs. non-participants, including those we did not get in touch with are described in Seglem, Oppedal & Rader, 2011). The 566 youth that both agreed to participate and attended data collection represented 68% of the unaccompanied refugees we were able to get in contact with.

They were invited to participate in the study through an invitation letter sent to their home, or in cases when they were less than 16 years to their legal guardians. For participants below the age of 16 their legal guardians provided consent, while older participants gave the written consent themselves. When possible, local refugee or child protection service agents gave additional information about the study, and explained what participation involved. The youths who agreed to partake gathered in groups in locations in their local communities that were familiar to them where they filled in questionnaires about their well-being, acculturation, and other psychosocial risk and protective factors. Research assistants that had been trained at the NIPH were present to support and help them, and translators who could read the questions to the informants in their mother tongue were available when necessary (this applied to 15% of the sample). Upon completion of the questionnaire the participants were awarded a gift certificate of NOK 100 (12.5 Euros).

The participants represent 34 different nationalities with the largest groups originating from Afghanistan ($N = 213$) Somalia ($N = 92$), Iraq ($N = 52$) Sri Lanka ($N = 44$). In accordance with the fact that most children who migrate without the company of their caretakers are boys, 456 (80%) of the participants were male. They were on average 18.9 years of age (SD 2.64; range 13 – 27 years) when we met them for the first wave of data collection, and their mean length of stay in Norway at that time was 3.7 years (SD 2.49; range 0 – 11 years). While half of the sample had arrived in Norway within a year after leaving their families, the mean travel time was 1.5 years. Around 12% reported to have been travelling 5 years or more. Only 23% informed that both parents were alive, whereas 24% did not know whether their parents were alive or not.

Measures

Conduct problems were measured in terms of 9 items representing two dimensions of antisocial behavior (property delinquency and violence) that were selected from three existing scales based on their psychometric properties and relevance for children and youth (Bendixen & Olweus, 1999; Stattin & Kerr, 2000; Windle, 1990). The instrument is included in other large scale mental health studies of the NIPH (Kjeldsen, Jansson, Stoolmiller, Torgersen & Mathiesen, 2012). The respondents checked the frequency with which they had participated in petty or serious property delinquency or anti-social behaviors during the last year on a 5 point scale from 1 (never) to 5 (more than 10 times). Property offences were assessed by four items like “have you taken something from a mall, store, or newsstand without paying for it”. Violent behavior was assessed by 5 items like “have you threatened somebody to give you money or other things”. Cronbach’s alpha was .71. We computed a mean sum score ranging from 1 (low) to 5 (high) for the purpose of the analyses.

Depression was measured by the Center for Epidemiological Studies Depression Scale, CES-D for adolescents (Radloff, 1977). CES-D assesses depression in terms of how often during the last week the individual have experienced 20 symptoms along dimensions of depressed affect (6 items), positive affect (4 items), somatic activity (7 items), and interpersonal problems (2 items). The participants checked symptoms as. “I was bothered by things that usually don’t bother me”, “I did not feel like eating, my appetite was poor”. Response categories range from 0 (rarely/never) to 3 (most of the time/all the time) and a sum score ranging from 0 (no symptoms) to 60 (severely intense symptom level) was calculated. Cronbach’s alpha for the 20 items was .84.

Impact of War-Related Trauma, was measured by three items about exposure and resulting health sequels. The participants initially informed whether or not they had been exposed to war first hand and subsequently they were asked “do you still have troublesome memories related to the war

experiences”, and “do you still have nightmares concerning these experiences”. Such intrusive symptoms in terms of memories and nightmares are common in victims of trauma and they represent one of the three symptom dimensions included in PTSD (Dyregrov & Yule, 2006). Based on their responses they were given a score of 0 (no war or no symptoms) 1 (experienced war, 1 symptom) or 2 (experienced war, 2 symptoms). Cronbach’s alpha was .73.

Outgroup and Ingroup Acculturation Hassles were assessed by 3 items each indicating problems understanding Norwegian ways of behavior or conflicts with co-ethnics because they do not observe cultural codes (Lay & Ngyuen, 1998; Vinokurov et al., 2002). “You felt uncomfortable with Norwegian friends because you did not know how to behave” and “you have been criticized by co-ethnics because you don’t dress properly” are examples of outgroup and ingroup hassles respectively. Participants checked how often they had experienced each hassle during the last year, from 1 (never) to 4 (very frequently), from which mean sum scores indicating 1 (few & infrequent hassles) to 4 (many & frequent hassles) were calculated, with Cronbach’s alphas of .66 for both indices.

Host / Norwegian Culture Competence and Ethnic Culture Competence was measured by 9 parallel items each, indicating both knowledge and skills of language and culturally embedded patterns of behavior and interaction. The participants checked how easy each communication / behavioral dimension is for them from 1 (very difficult) to 4 (very easy). “How easy is it for you to speak Norwegian”, and “How easy is it for you to know how to behave when visiting friends and families from your culture”, are sample items from the Norwegian and ethnic competence indices respectively. Based on their responses we calculated mean sum scores ranging from 1 (little culture competence) to 4 (much culture competence). Cronbach’s alpha was .85 and .80 respectively.

Length of Stay was indicated in terms of years from arrival in Norway and *Age* indicated the participants’ reported age.

Analyses

We used SPSS for conventional analyses. Path analyses were used to estimate the hypothesized relations in the model. We applied a multiple group framework to test whether gender moderated the effects of acculturation risk and protective factors and impact of war-related trauma on the two mental health problem outcomes. Multiple group modeling was carried out by comparing the fit of a model with free parameters across the groups with a model where the parameters were constrained to remain equal. Since some variables exceeded recommended cutoff values for skewness, the statistical assumptions underlying parametric testing might be violated. For this reason the models were fitted to the data by means of the robust maximum likelihood procedure (MLR) of Mplus 6.1 (Muthén & Muthén, 2010).

To investigate goodness of fit of the estimated SEM models, Browne and Cudeck (1993) recommend using a cut-off value close to .08 for *the standardized root mean squared residual* (SRMR), supplementing it with indices *the Tucker-Lewis Index* (TLI) and *the Comparative Fit Index* (CFI) with cut-off values close to .95, but also, *the Root Mean Square Error of Approximation* (RMSEA) with a cut-off value about .06 or less. The RMSEA was supported by a 90% confidence interval (90% CI). Since we could not conduct a conventional chi-square difference test when comparing the two models as we applied the MLR estimator (Muthén, 2007) we employed an adjusted test following calculations suggested by Satorra and Bentler (1999).

Results

War-related Trauma and Acculturation Risk and Protective Factors

As much as 75% of the total sample reported that they had experienced war first hand, 81% of the boys and 68% of the girls, $\chi^2(1, N = 538) = 8.63, p < .01$. However, the gender distribution in proportion of participants who had been exposed to war and who also reported resulting intrusive symptoms was the same. Of the boys and girls who had experienced war, 23% and 21% respectively reported either intrusive memories or nightmares. As much as 44% and 39% reported that they still suffered from both, $\chi^2(2, N = 422) = .69, ns$.

Both boys and girls reported higher level of ethnic than host culture competence. Still, their mean scores on host culture competence are well above the midpoint of the index. Both groups also perceived higher levels of outgroup than ingroup acculturation hassles (Table 1).

Conduct Problems and Depression

The level of antisocial conduct problems was very low among this sample of unaccompanied refugees, with a mean of 1.13 (*SD* .31) and 1.09 (*SD* .22) for boys and girls respectively, and with 99.4% achieving a score of 3 or below. The least frequent antisocial behavior was “*theft from shopping malls, stores or newsstands*” in which only .4% of the participants had been involved four times or more. Even if fighting was more frequent among them, only 2.5% and 2% had “*been in a fight*” or “*hit or kicked somebody*” four times or more during the last year. There were no gender differences in the mean level of conduct problems among them (Table 1). In contrast, and in accordance with other research studies, the level of depression was high both in boys and girls, with a mean level close to the suggested clinical cut-off of 23 (Rushton, Forcier, & Schectman, 2002). The significant gender difference in mean level represented only a small effect size of .28 (Cohen’s *d*). (Table 1).

Table 1. Mean and Standard Deviation for Scores on Mental Health and Acculturation Variables as a Function of Gender and Level of Significance of Gender Differences.

	Boys	Girls
Conduct problems	1.13 (.31)	1.09 (.22)
Depression	19.66 (8.87)	22.39* (10.53)
Post Traumatic Stress Symptoms	.86 (.89)	.67* (.87)
Ethnic culture competence	3.27 (.50)	3.30 (.55)
Host culture competence	2.76 (.55)	2.55** (.66)
Ingroup acculturation stress	1.45 (.59)	1.55 (.72)
Outgroup acculturation stress	2.12 (.77)	2.16 (.81)

Note: * $p < .05$; ** $p \leq .01$; *** $p \leq .001$

The Structural Equation Models

Assessment of gender differences

As a first step we implemented the multiple group procedure for a simultaneous test of gender differences in all the effects of the hypothesized model (Figure 1). A “free” solution in which the regression coefficients were allowed to vary across gender was compared with a “fixed” solution in which the parameters were constrained to remain equal across gender. The free solution did not provide significant incremental goodness of fit over the constrained model ($\Delta\chi^2(10) = 11.82, p > .05$). Similar results occurred when we tested if there were gender differences for the effects of the demographic variables of age and length of stay on psychiatric problems ($\Delta\chi^2(24) = 27.68, p > .05$). These findings imply a lack of support in these data for potential gender moderation of the effects of war-related trauma and acculturation risk and protective factors on conduct problems and depression. Consequently we pooled the data to one group in order to increase power, and instead added gender to the demographic variables. In order to have a more parsimonious model, we removed the effects that were not significant in Figure 2 which portrays the final model that gave a close fit to the data ($\chi^2(21) = 21.18 (p > .05)$; SRMR = .029; RMSEA = .023, 90% CI (.000,.046); CFI = .98; TLI = .97).

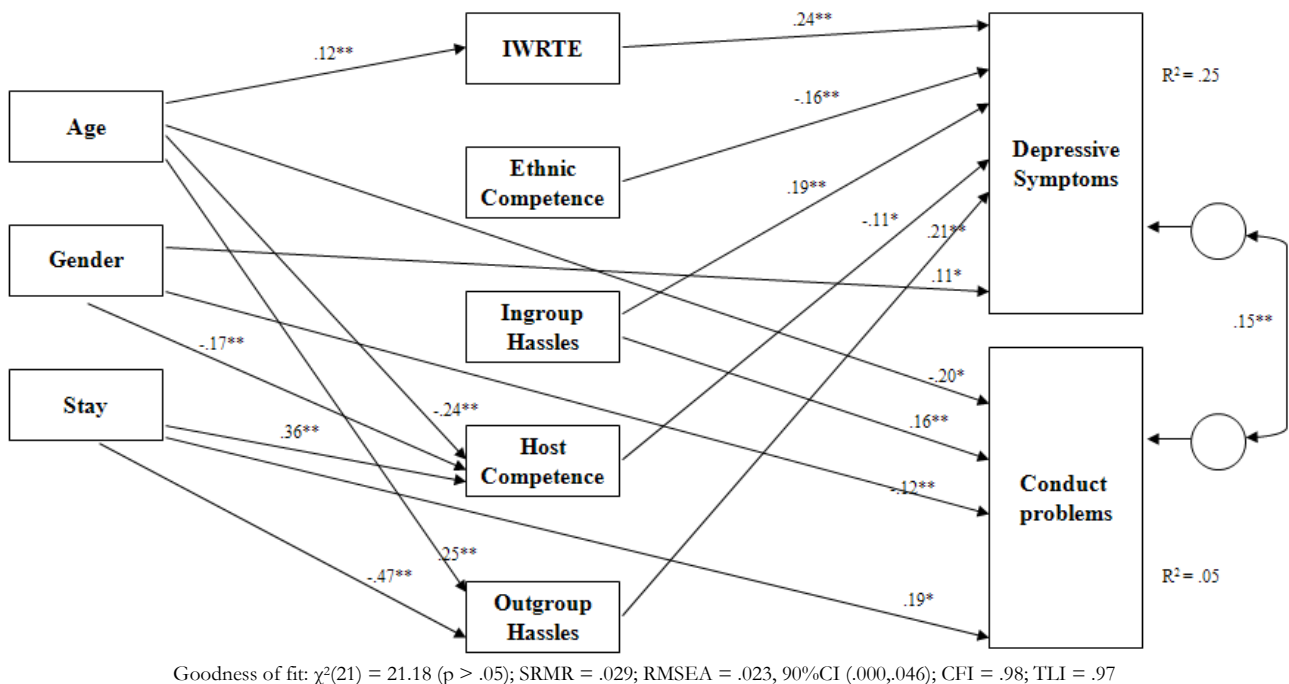


Figure 2. Structural equation model of effects of impact of war-related trauma, culture competence and acculturation hassles, on conduct problems and depressive symptoms.

Effects on depressive symptoms

As seen in Figure 2, depression received significant effects both from impact of war-related trauma, and from the four indices of acculturation risk and protective factors. Culture competence of both the ethnic minority and majority domains gave negative, although small effects on depression (beta = $-.16$, $p < .01$ and beta = $-.11$, $p < .05$ respectively) implying less depression with increasing levels of each individual domain of culture competence. In contrast ingroup and outgroup hassles had a positive effect of about the same magnitude (beta = $.19$, $p < .01$, and beta = $.21$, $p < .01$ respectively) indicating an increased risk of depressive symptoms with increasing level of acculturation risk. Altogether, the variables incorporated in the structural model, including effects of pre-migration trauma and acculturation indices, explained 25% ($p < .01$) of the variation in depressive symptoms.

Effects on conduct problems

In contrast to what was the case with depressive symptoms, conduct problems received minimal effects from the included variables: Notably, the effect of impact of war-related trauma was close to zero (insignificant path not shown in Figure 2). The only path that reached significance was a small effect of ingroup hassles (beta = $.16$, $p < .01$). Moreover, the included variables only explained 5% of the variance in conduct problems ($p < .05$).

The correlation between the residuals of the two dependent variables was weak ($r = .15$, $p < .01$). Our initial assessment of gender as moderator of the effects had shown that this correlation was also not significantly different for boys and girls ($\Delta\chi^2(1) = .46$, $p > .05$).

Demographic variables

We assessed the effects of the control variables on both the predictor and the outcome variables of the model. Figure 2 shows that there were small, but significant effects of gender both on depression (beta = $.11$, $p < .05$) and conduct problems (beta = $-.12$, $p < .01$).

Furthermore, when gender and length of stay were controlled for in the structural equation model, the effects of age showed that older participants reported less conduct problems (beta = $-.20$, $p < .05$). In addition, longer length of stay was associated with more conduct problems (beta = $.19$, $p < .05$). What regards depression, the effects of age and length of stay were indirect through host culture competence and outgroup acculturation stress. Again these effects were small, totaling $.11$ ($p < .001$) (age) and $-.14$ ($p < .001$) (length of stay).

Whereas variation in ethnic culture competence and ingroup acculturation hassles were independent of the participants' age and length of stay in Norway, these demographic factors had effect on host culture competence and

outgroup hassles: The longer the length of stay, the higher level of host culture competence and the less outgroup hassles. When length of stay was controlled for, older age was associated with less host culture competence and more outgroup hassles.

In summary, together, the impact of pre-migration war-related trauma and acculturation risk and protective factors had stronger effects on depression than on conduct problems. Gender, age, and length of stay had direct effects on conduct problems, but indirect effects on depression. All effect sizes in the SEM were, however, within the small range.

Discussion

This study has combined a trauma and an acculturation framework to investigate predictors of current depression and conduct problems among unaccompanied refugees in Norway. The findings show that the participating unaccompanied refugees hardly engage in anti-social behavior at all, while the level of depression continues to be high in the years after resettlement. Most noticeably, in spite of the high level of depression among them, they are in the process of achieving the necessary cultural competence to integrate into the majority society and maintain contact with their culture of origin.

Impact of war related trauma

In contrast to other projects on UMA that assessed exposure to a variety of traumatic events (Bean et al., 2007; Derlyun et al., 2009), this study included only exposure to trauma related to war experiences prior to migration. This may partly explain the lack of effect on conduct problems. The large majority – 75 % – of the participants informed that they had experienced war first hand. Of these as much as 2/3 reported that they still suffered from intrusive memories and/or nightmares. This presumably represents a heavy burden on their everyday activities in particular regarding school, work and peer relationships. While our mission with the present study was to investigate the impact of pre-migratory war-related experiences on current depression and conduct problems, future studies should look more fully into the prevalence of exposure to other traumatic events and the resulting psychosocial and mental health outcomes.

Culture competence

Despite the lack of access to contexts where ethnic culture competence develop naturally during childhood and adolescence, such as educational institutions, the participants on average perceived their ethnic culture competence as relatively high. One reason for this may be that even if they do not develop an academic language, they retain conversational language through interaction with friends with the same ethnic origin, and with family members abroad and / or in Norway. Through such interaction knowledge and skills

about behavior patterns may also be continued. This may give the young refugees a sense of effortlessness within their original cultural domain, compared with the challenges of learning the new culture's communication and interaction patterns, reflected also in the low levels of ingroup acculturation stress.

The average level of perceived *host* culture competence was substantially lower than ethnic. Still, the mean scores were well above the midpoint of the index, implying that the learning of knowledge and skills of language and patterns of behavior necessary for integration into the majority society was in good progress. It is noteworthy that the process of achieving Norwegian culture competence takes place in spite of the high level of depression among the participants, supporting other researchers' observations of resilience, i.e. adaptation in spite of adversity, among them (Kohli, 2003; Ni Raghallaighe & Gilligan, 2010; Rousseau, Said, Gagné, & Bibeau, 1998).

The Structural Equation Model

Conduct problems

The findings show that this vulnerable group of refugee children and youth rarely engage in conduct problems such as anti-social or criminal activities. Further, conduct problems does not receive any effects from impact of war-related trauma or culture competence. In fact, hassles related to interpersonal relations with ingroup members are the only acculturation predictor with significant effect. Furthermore, the included demographic and pre-and post migration variables all together explain a very small proportion of the variance in conduct problems. Thus, they do not constitute a good model to account for individual differences in this immigrant group. Previous research has shown that multiple traumatic events and other adversities are associated with increased levels of aggression which is a consistent predictor of criminal and antisocial behavior (Attar, Guerra, & Toaln, 1994; North, Smith, & Spitznagel, 1994; Shields & Cicchetti, 1998). It cannot be ruled out that this absence of effects in the present study is at least partly related to the minimal variance in the conduct problems construct.

On the other hand, this particular group of immigrant children and youth is distinguished from their immigrant peers first and foremost by the fact that they travel and settle without a familiar caretaker. Thus, in all stages of the migration process, they are self-reliant and dependent on the help and support of strangers to achieve their migration goals. One might speculate if this developmental context reinforces emotion regulation processes of importance to handle aggression to avoid getting into trouble that could jeopardize their asylum applications and future residence status. An investigation of emotion regulation processes associated with trauma and adverse life events of unaccompanied refugees in comparison to other children and adolescents, might contribute important information about the psycho-

social adaptation in vulnerable refugee and immigrant children.

Depression

All four included indices of acculturation risk and protective factors significantly predicted individual variation in depression, in contrast to what was the case with conduct problems. The more ingroup and outgroup acculturation hassles the participants perceived, the more depressive symptoms they reported. These acculturation specific hassles increase the risk of mental health problems among immigrant children and youth in addition to the risk of the general daily hassles related to family, friends, and school, that everybody, independent of immigrant status, may experience (Evan & Poole, 1987; Oppedal & Roysamb, 2004; Stark, Spirito, Williams, & Guevremont, 1989; Seglem, Oppedal, & Roysamb, 2012). Our results support findings from other studies that have shown associations between acculturation risk factors and mental health (Vinokurov, Trickett & Birman, 2002).

As predicted, ethnic and host culture competence is negatively and independently of each other associated with depression symptoms. Culture competence is a necessary tool to communicate and to establish relationship within the respective cultural domains. Perception of being competent is associated with self-esteem, self-efficacy, and feelings of mastery, and as such protects against development of depression. Over time and in a younger group of children of immigrants, host and ethnic culture competence increased self-esteem. Ethnic culture competence facilitated social support from family networks, whereas host culture competence increased social support from the school networks. In turn, the social network support mediated effects of culture competence on mental health (Oppedal, Roysamb, & Sam, 2004). The association between culture competence, interpersonal relationships and social integration should be focused in future studies also in this immigrant group. Such studies can provide more knowledge about the mechanisms underlying the adaptive outcomes of this developmental process. It is worth noticing that the effects of ingroup and outgroup hassles, and culture competence predict depression beyond the effects of the impact of war-related trauma.

The demographic variables

In preliminary analyses we explored if the effects of the impact of trauma and acculturation risk and protective factors differed by gender. Based on the negative results, gender was included among the distal demographic variables. The surprisingly small effects of gender, age and length of stay are nevertheless in accordance with findings from other studies (Bean et al., 2007; Derlyun et al., 2009). Substantial gender differences in depression and conduct problems are consistent findings in studies of native (majority) adolescents (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993;

Nolen-Hoeksema & Girgus, 1994; Thornberry & Krohn, 2003; Van Roy, Groholt, Heyerdahl, & Clench-Aas, 2006). But in some studies among children and youth with immigrant background, boys and girls reported similar levels of mental health problems (Hankin, et al., 1998; Nolen-Hoeksema & Girgus, 1994; Oppedal & Roysamb, 2004; Oppedal, Roysamb & Heyerdahl, 2005). Importantly, some of these studies have shown that the lack of gender variation is due to boys with immigrant background reporting high levels of symptoms compared to native boys, while the level is the same among girls (Oppedal & Roysamb, 2004). However, little is known about the causes underlying the different findings between ethnic majority and minority youth.

Future research studies should investigate assumptions about the mechanisms behind the contradictory results regarding effects of gender, age, and length of stay on depression and conduct problems among unaccompanied refugees.

Limitations

Our design is cross-sectional, and strictly speaking this allows no statements on effects, causality, or prediction. Despite the good fit indices for the SEM models, the results only allow for tentative suggestions based on theoretical formulations about the causal associations (MacCallum et al., 1993). It is therefore important to keep in mind that even though one model fits the data reasonably well, there could still be other equally good or better models (MacCallum et al., 1993). The tested model is designed based on certain theoretical assumptions and implications from prior empirical research; hence to test alternative models was beyond the scope of this study. The self-report also involves certain limitations associated with shared method variance that need to be taken into consideration. A design including observations, tests, and interviews would have added to the validity of the measures, but cost considerations excluded this option. Since it can be discussed if the sample size is sufficient to employ a latent variable framework that would partialize out measurement errors we decided to apply the observed variable framework, notwithstanding the possible deflated path effects.

The multi-ethnic composition of our sample may suppress national group variation both in the level of psychiatric problems and acculturation indices and in the strengths of the predicted paths. With a larger sample in the future, we will be able to investigate the cultural equivalence of the model. Within the same line of potential hazards to the validity of our findings is the possibility of culturally based

variation in response set, and in the understanding of concepts and response alternatives. A study in progress of the factor structure of the Center for Epidemiological Studies' Depression Scale, CES-D, have demonstrated structural equivalence across various groups including gender, 1st and 2nd generation immigrants, and unaccompanied refugees, other ethnic minority and ethnic majority youth (Oppedal & Idsoe, 2011). However, these findings are not a guarantee for similar equivalence in the other measures of this study.

Conclusions

The findings from this study on unaccompanied minor asylumseekers that have been granted residence in Norway show that they are depressed but do not engage in anti-social behavior in the years following their resettlement. A model combining effects of acculturation risk and protective factor and impact of war-related trauma does not account for much individual differences in conduct problems. In contrast, when depressive problems are concerned, the acculturation indices of both the ethnic and the host cultural domains explain substantial variation in depression problems, over and above the impact of war-related traumatic events. This underscores that it is important to the psychological well-being of unaccompanied refugees to maintain identification with and cultural links to their ethnic heritage group. However, equally important to their well-being is the culture competence they need to succeed and feel attached to the resettlement society. Ethnic and host culture competence appear to be important resilient factors in this group of immigrant youth.

Group based interventions to sensitize unaccompanied refugees to cultural patterns of communicating, thinking and behaving, may increase their perception of own competence and thus reduce depressive problems. Case workers and other professionals responsible for the care of unaccompanied refugees are often overwhelmed by the violent, traumatic and abusive experiences the refugees have been exposed to. However, equally important as acknowledging these past experiences, is the acknowledgement of the ongoing hassles this refugee group is dealing with in their everyday lives in the years after resettlement. Focusing on culture competence and acculturation hassles has a great potential for group based intervention programs to promote socio-cultural integration and mental health in this vulnerable, but with a great potential for resilience, group of adolescents and young adults.

References

- Attar, B. K., Guerra, N. G., & Toal, P. H. (1994). Neighborhood disadvantage, stressful life events, and adjustment in urban elementary-school children. *Journal of Clinical Child Psychology, 23*, 391-400
- Bean, T., Derluyn, I., Eurelings-Bontekoe, E., Broekaert, E., & Spinhoven, P. (2007). Comparing psychological distress, traumatic stress reactions, and experiences of unaccompanied refugee minors with experiences of adolescents accompanied by parents. *Journal of Nervous and Mental Disease, 195*, 288-297
- Bendixen, M. & Olweus, D. (1999). Measurement of antisocial behaviour in early adolescence and adolescence. Psychometric properties and substantive findings. *Criminal Behaviour and Mental Health, 9*, 323-354

- Berkel, C., Knight, G. P., Zeiders, K. H., Tein, J.-Y., Roosa, M. W., Gonzales, N. A. et al. (2010). Discrimination and adjustment for Mexican American adolescents: A prospective examination of the benefits of culturally related values. *Journal of Research on Adolescence*, 27. Retrieved on 08.30.2010 from [http://onlinelibrary.wiley.com/journal/101111/\(ISSN\)1532-7795/earlyview](http://onlinelibrary.wiley.com/journal/101111/(ISSN)1532-7795/earlyview)
- Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology: An International Review*, 46, 5-68
- Berry, J. W. & Sam, D. L. (1997). *Acculturation and adaptation*. In J. W. Berry, M. H. Segall & C. Kagitcibasi (Eds). *Handbook of Cross-Cultural Psychology, Vol 3: Social Behavior and Applications* 2nd ed., (291-326). Boston: Allyn & Bacon
- Bolton, D., O'Ryan, D., Udwin, O., Boyle, S., & Yule, W. (2000). The long term psychological effects of a disaster experienced in adolescence II: General psychopathology. *Journal of Child Psychology and Psychiatry*, 41, 513-523
- Chirkov, V. (2009). Critical psychology of acculturation: What do we study and how do we study it, when we investigate acculturation? *International Journal of Intercultural Relations*, 33, 94-105
- Derluyn, I., Mels, C., & Broekaert, E. (2009). Mental health problems in separated refugee adolescents. *Journal of Adolescent Health*, 44, 291-297
- Dyregrov, A. & Yule, W. (2006). A review of PTSD in children. *Child and Adolescent Mental Health*, 11, 176-184
- Evans, G. T. & Poole, M. E. (1987). Adolescent concerns: A classification for life skill areas. *Australian Journal of Education*, 31, 55-72.
- Geltman, P. L., Grant-Knight, W., Mehta, S. D., Lloyd-Travaglini, C., Lustig, S., Landgraf, M. et al. (2005). The "lost boys of Sudan". Functional and behavioral health of unaccompanied refugee minors resettled in the United States. *Archives of Paediatric Adolescent Medicine*, 159, 585-591
- Greene, M. L., Way, N., & Pahl, K. (2006). Trajectories of perceived adult and peer discrimination among Black, Latino, and Asian American Adolescents: Patterns and psychological correlates. *Developmental Psychology*, 42, 218-238.
- Halvorsen, K. (2002). Separated children seeking asylum: The most vulnerable of all. *Forced Migration Review*, 12, 34-36.
- Hankin, B. L., Abramson, L. Y., Moffitt, T. E., Silva, P. A., McGee, R., & Angell, K. E. (1998). Development of depression from preadolescence to young adulthood: Emerging gender differences in a 10-year longitudinal study. *Journal of Abnormal Psychology*, 107, 128-140.
- Huemer, J., Karnik, N. S., Voelkl-Kernstock, S., Granditsch, E., Dervic, K., Friedrich, M. H. et al. (2009). Mental health issues in unaccompanied refugee minors. *Child and Adolescent Psychiatry and Mental Health*, 3, 13; <http://www.capmh.com/content/3/1/13>
- Huynh, V. W. & Fuligni, A. J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on Adolescence*, 27. Retrieved on 08.30.2010 from [http://onlinelibrary.wiley.com/journal/101111/\(ISSN\)1532-7795/earlyview](http://onlinelibrary.wiley.com/journal/101111/(ISSN)1532-7795/earlyview)
- Kjeldsen, A., Janson, H., Stoolmiller, M., Torgersen, L. & Mathiesen, K. S. (2012). *Externalising behaviours from infancy to mid-adolescence: Latent profiles and early predictors*. Manuscript submitted for publication
- Kohli, R. (2007). *Social Work with Unaccompanied Asylum Seeking Children*. Hampshire: Palgrave MacMillan
- Kohli, R. & Mather, R. (2003). Promoting psychosocial well-being in unaccompanied asylum seeking young people in the United Kingdom. *Child and Family Social Work*, 8, 201-212
- Lay, C. & Nguyen, T. (1998). The role of acculturation-related and acculturation non-specific daily hassles: Vietnamese-Canadian students and psychological distress. *Canadian Journal of Behavioral Science*, 30, 172-181
- Lewinsohn, P. M., Hops, H., Roberts, R. E., Seeley, J. R., Andrews, J. A. (1993). Adolescent psychopathology: I. Prevalence and incidence of depression and other DSM-III-R disorders in high school students. *Journal of Abnormal Psychology*, 102, 133-144.
- Liebkind, K. & Jasinskaja-Lahti, I. (2000). Acculturation and psychological well-being among immigrant adolescents in Finland: A comparative study of adolescents from different cultural backgrounds. *Journal of Adolescent Research*, 15, 446-469.
- Mazza, J. J. & Reynolds, W. M. (1999). Exposure to violence in young inner city adolescents: Relationships with suicidal ideation, depression, and PTSD symptomatology. *Journal of Abnormal Child Psychology*, 27, 203-213
- MacCallum, R. C., Wegener, D. T., Uchino, B. N., Fabrigar, L. R. (1993). The problems of equivalent models in applications of covariance structure analysis. *Psychological Bulletin*, 114, 185-199
- Miller, K. E., Weine, S. M., Ramic, A., Brkic, N., Bjedic, Z. D., Smajkic, A. et al. (2002). The relative contribution of war experiences and exile-related stressors to levels of psychological distress among Bosnian refugees. *Journal of Traumatic Stress*, 15, 377-387
- Motti-Stefanidi, F., Pavlopoulos, V., & Obradović, J. (2008). Acculturation and adaptation of immigrant adolescents in Greek urban schools. *International Journal of Psychology*, 43, 45-58
- Muthén B. O. (2007). Chi-Square Difference Testing Using the Satorra-Bentler Scaled Chi-Square. From <http://www.statmodel.com/chidiff.shtml>
- Muthén, L. K., & Muthén, B. O. (2010). *Mplus 6.11*. Los Angeles: Muthén & Ni Raghallaigh, M., & Gilligan, R. (2010). Active survival in the lives of unaccompanied minors: coping strategies, resilience, and the relevance of religion. *Child & Family Social Work*, 15, 226-237.
- Nolen-Hoeksema, S. & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, 115, 424-443
- North, G. S., Smith, E. M., & Spitznagel, E. L. (1994). Violence and the homeless: An epidemiologic study of victimization and aggression. *Journal of Traumatic Stress*, 7, 95-110
- Norwegian Directorate of Immigration (2010). Annual Report. Retrieved from <http://www.udi.no/Oversiktssider/Statistikk-og-analyse/Statistikk-/Ars-og-periodestatistikk/Tidligere-arsrapporter-med-tall-og-fakta/>
- Oppedal, B. (2006). Acculturation development. In D. L. Sam & J. W. Berry (Eds). *Handbook of Acculturation Psychology* Cambridge: Cambridge University Press, pp97-112
- Oppedal, B. (2011). Social support in the link between perceived discrimination and mental health among young immigrants. *European Journal of Developmental Science*, 5, 85-99
- Oppedal, B. & Idsoe, T. (2011). *Gender and cultural equivalence of the factor structure of CES-D*. Manuscript in preparation.
- Oppedal, B. & Røysamb, E. (2004). "Mental health, life stress, and social support among young Norwegian adolescents with immigrant and host national background?". *Scandinavian Journal of Psychology*, 45, 131-144.
- Oppedal, B., Røysamb, E., & Sam, D. L. (2004). The effect of acculturation and social support on change in mental health among young immigrants. *International Journal of Behavioral Development*, 28, 481-494
- Oppedal, B., Røysamb, E., & Heyerdahl, S. (2005). Ethnic group, acculturation, and psychiatric problems in young immigrants. *Journal of Child Psychology and Psychiatry*, 46, 646-660
- Perris, C., Arrindell, W. A., & Eisemann, M. (1994). *Parenting and Psychopathology*. New York, NY: John Wiley & Sons
- Phinney, J. S., & Kohatsu, E. L. (1997). Ethnic and racial identity development and mental health. In J. Schulenberg, J. L. Mags et al. (Eds). *Health risks and developmental transitions during adolescence*, 420-443. New York, NY, Cambridge University Press
- Radloff, L. S. (1977). The CES-D Scale: A Self-Report Depression Scale for Research in the General Population. *Applied Psychological Measurement*, 1(3), 385-401.
- Redfield, R., Linton, R., & Herskovits, M. (1936). Memorandum on the study of acculturation. *American Anthropologist*, 38, 149-152.
- Reebye, P., Moretti, M. M., Wiebe, V. J., & Lessard, J. C. (2000). Symptoms of Posttraumatic stress disorder in adolescents with conduct disorder. Sex differences and onset patterns. *The Canadian Journal of Psychiatry / La Revue canadienne de psychiatrie*, 45, 746-751.
- Rousseau, C., Said, T. M., Gagné, M.-J., & Bibeau, G. (1998). Resilience in unaccompanied minors from the north of Somalia. *Psychoanalytic Review*, 85, 615-636
- Rudmin, F. (2009). Constructs, measurements, and models of acculturation and acculturative stress. *International Journal of Intercultural Relations*, 33, 106-123

- Rushton, J. L., Forcier, M., & Schectman, R. M. (2002). Epidemiology of depressive symptoms in the National Longitudinal Study of Adolescent Health. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(2), 199-205.
- Sam, D. L. (2000). Psychological adaptation of adolescents with immigrant backgrounds. *Journal of Social Psychology, 140*, 5-25
- Sam, D. L., & Oppedal, B. (2002). Acculturation as a developmental pathway. In W. J. Lonner, D. L. Dinnel, & S. A. Hayes (Eds.). *Online Readings in Psychology and Culture*. Bellingham, WA: Western Washington University, (www.ac.wvu.edu/~culture).
- Satorra A. & Bentler P. M. (1999). A scaled difference chi-square test statistic for moment structure analysis. From <http://www.stat.ucla.edu/papers/preprints/260/>.
- Savin, C., Sack, W. H., Clarke, G. N., Meas, N. & Richart, I. (1996). The Khmer adolescent project. III. A study of trauma from Thailand's site II refugee camp. *Journal of the American Academy of Child & Adolescent Psychiatry, 35*, 384-391
- Seglem, K. B., Oppedal, B., & Raeder, S. (2011). Predictors of Depressive Symptoms among Resettled Unaccompanied Refugee Minors. *Scandinavian Journal of Psychology, 52*, 457-464
- Seglem, K. B., Oppedal, B., & Roysamb, E. (2012). *Coping, depressive symptoms and life satisfaction: A comparative study of young unaccompanied refugees and youth in the resettlement country*. Manuscript submitted for publication
- Seglem, K. B., Oppedal, B., & Idsoe, T. (2012). *Longitudinal trajectories of depressive symptoms and daily hassles among young unaccompanied refugees resettled in Norway*. Manuscript submitted for publication
- Shalev, A. Y., Freedman, S., Peri, T., Brandes, et al. (1998). Prospective study of posttraumatic stress disorder and depression following trauma. *The American Journal of Psychiatry, 155*, 5; 630-637
- Stark, L. J., Spirito, A., Willians, C. A. & Guevremont, D. C. (1989). Common problems and coping strategies I: Findings with normal adolescents. *Journal of Abnormal Child Psychology, 17*, 203-212
- Stattin, H. & Kerr, M. (2000). Parental monitoring: A reinterpretation. *Child Development, 71*, 1072-1085
- Steel, Z., Chey, T., Silove, D., Marnane, C., Bryant, R. A., & van Ommeren, M. (2009). Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. *JAMA, 302*, 537-549
- Thabet, A. A. M., Abed, Y., & Vostanis, P. (2004). Comorbidity of PTSD and depression among refugee children during war conflict. *Journal of Child Psychology and Psychiatry, 45*, 533-542.
- Thornberry, T. P. & Krohn, M. D. (2003). *Taking stock of delinquency. An overview of findings from contemporary longitudinal studies*. New York, NY. Kluwer Academic / Plenum Publishers,
- Van Roy, B., Groholt, B., Heyerdahl, S., & Clench-Aas, J. (2006). Self-reported strengths and difficulties in a large Norwegian population 10-19 years: Age and gender specific results of the extended SDQ-questionnaire. *European Child & Adolescent Psychiatry 2006, 15*, 189-198.
- Vinokurov, A., Trickett, E. J., & Birman, D. (2002). Acculturative hassles and immigrant adolescents. A life-domain assessment for Soviet Jewish Refugees. *The Journal of Social Psychology, 142*, 425-445
- Windle, M. (1990). A longitudinal study of antisocial behaviour in early adolescence as predictors of late adolescence substance abuse. Gender and ethnic groups differences. *Journal of Abnormal Psychology, 99*, 86-91.
- Yule, W., Bolton, D., Udwin, O., Boyle, S., O'Ryan, D., & Nurish, J. (2000). The long-term psychological effects of a disaster experienced in adolescence: I: The incidence and course of PTSD. *Journal of Child Psychology and Psychiatry, 43*, 503-511

(Article received: 20-10-2011; reviewed: 15-5-2012; accepted: 21-5-2012)