

# Victimization, immigration status, and psychosocial well-being: A representative study among finnish adolescents

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## ABSTRACT

**Background:** Immigrant adolescents seem to be at risk for victimization and being victimized in adolescence is related to risk factors regarding mental health.

**Objective:** This study compared the frequency and type of victimization experiences among immigrant and native Finnish adolescents and tested whether these experiences mediate the relationship between immigration status and psychosocial well-being. Additionally, willingness to disclose victimization experiences in anonymous questionnaires was compared between the groups.

**Participants and setting:** In this computer-based study a population-based sample of 5607 Finnish adolescents was used ( $M_{age} = 15.23$ ,  $SD_{age} = 0.42$ , Range 15 to 16 years; 49.8 % girls, 48.5 % boys), of which 11.7 % were immigrants. Twelve lifetime victimization experiences were assessed, and psychosocial well-being was measured with Strengths and Difficulties Questionnaire.

**Methods:** Descriptive statistics, crosstabulation and *t*-tests were used to report victimization experiences and participants' willingness to share them in an anonymous questionnaire. The relationship between immigration status and psychosocial well-being was investigated with mediation analysis, victimization experiences as mediator.

**Results:** Findings revealed that immigrant adolescents experienced more victimization, particularly in the form of property crimes, hate crimes, and physical and sexual abuse, than native adolescents. Victimization experiences were found to mediate the impact of immigration status on psychosocial well-being. Moreover, immigrant adolescents were less likely to disclose victimization experiences.

**Conclusions:** The results suggest a potential underestimation of the prevalence of victimization experiences in immigrant adolescents, which warrants further investigation. As these experiences play an important role in the relationship between immigrant status and psychosocial well-being, the findings endorse assessing adverse experiences, as well as safe disclosure when planning psychosocial support and treatment for immigrant adolescents.

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## 1. Introduction

Adolescent victimization is a rather common phenomenon, with most adolescents experiencing one or more potentially traumatizing events during childhood or adolescence (Finkelhor et al., 2009; McLaughlin et al., 2013; Turner et al., 2016). Victimization includes events such as physical or sexual abuse or violence, threat of or witnessing violence, war, accidents, or natural disasters. Experiencing potentially traumatizing events in childhood and adolescence can have broad short- and long-term consequences for the individual, including mental health disorders, cognitive problems, substance abuse, and somatic disorders (Hughes et al., 2017; Waehrer et al., 2020). For children and adolescents, prevalence rates of posttraumatic stress disorder (PTSD) in a meta-analysis varied from 0.5 % to 67.3 %, overall being 15.9 % (CI 11.5–21.5) (Alisic et al., 2014), depending on the event characteristics and type of measure. According to these numbers, while most individuals face at least some potentially traumatizing events during their lifetime, only a minority develop PTSD. However, symptoms of many other mental health disorders as well as somatic disorders can be linked to experiencing adverse events during formative years (Hughes et al., 2017; Schonkoff & Garner, 2012; Waehrer et al., 2020).

### 1.1. Victimization in immigrant adolescents

According to a study using data from 1995 comparing 13- to 15-year-old adolescents of 11 racial and ethnic backgrounds living in the United States, the likelihood of being violently victimized (assault or robbery) seems to be linked to the racial and ethnic background of youth (Taylor et al., 2007). Specifically, Native American, African American, White, and Hispanic adolescents were more likely to be violently victimized than Asian adolescents. These differences prevailed in both general and serious victimization, although the differences were less pronounced when the community of residence was considered. Nevertheless, findings from other American studies have been inconsistent, with some studies suggesting that foreign-born status may serve as a protective factor against criminal victimization for individuals older than 12 years, however, this effect did not extend to individuals with ambiguous citizenship status such as undocumented immigrants (Xie & Baumer, 2020).

Besides the prevalence rates, there are several general risk factors regarding life circumstances and adverse behavior that immigrant children and adolescents face more often than the native population. For example, immigrant children and adolescents are more likely to grow up in a family with a lower socioeconomic status, to receive child protection services, and to not be living with their parents in Finland (Eid & Castaneda, 2023). In a recent study about race-based bullying victimization at school, victimization was associated with different types of risk behavior, such as aggressive behavior in Asian, Black, and Latinx adolescents born in the United States and elsewhere (Hong et al., 2022). Furthermore, connections between some of the ethnic backgrounds and alcohol and marijuana use, smoking, having deviant friends, and carrying a weapon were noted. In their study, most of these relationships were found regardless of the country of birth of these adolescents with immigration background. In other studies, violent victimization has generally been linked to male gender (Taylor et al., 2007; Tillyer & Tillyer, 2016), violent offending, peer deviance, gang membership, and low self-control in White, Black, and Hispanic youth (Tillyer & Tillyer, 2016).

However, some studies have found that immigrants demonstrate a unique capability to overcome hardships and challenges, which may reduce the likelihood of adverse outcomes following these experiences - a phenomenon referred to as the “immigrant paradox” (Marks et al., 2014; Saunders et al., 2020). Kuper and Turanovic (2022) found that adolescent victimization had no associations with long-term negative outcomes among immigrant adolescents. In their study, 17 % of immigrant adolescents reported having experienced victimization (holding at knife- or gunpoint, shooting, jumping, cutting, or stabbing). These experiences had a significant but low correlation with alcohol problems and property and violent offending, but the results did not reach significance in regression analysis, with victimization as a predictor for these poor outcomes. Furthermore, there was no association with poor health, depressive symptoms, low self-esteem, suicidality, or drug use. The authors highlighted the immigrant paradox phenomenon and concluded that the psychological and physiological consequences of youth victimization in immigrants may not be extensive or long-lasting. A recent meta-analysis (Tilley et al., 2021) evaluated 91 studies assessing foreign-born and native-born adolescents’ (mean age under 18 years) general rate of internalizing and externalizing problems to determine whether it supports the immigrant paradox theory. The results revealed mixed support for the theory, with foreign-born youth having more internalizing problems and native-born youth having more externalizing problems. In addition, girls were shown to be at increased risk for internalizing symptoms, while boys were at increased risk for externalizing symptoms.

### 1.2. Specific victimization types among immigrant adolescents

Immigrant children and adolescents might be especially vulnerable to specific types of victimization such as hate crimes and bullying. In a recent study, being an adult immigrant was associated with heightened odds of becoming a victim of a hate crime (McCann & Boateng, 2022). In addition, results of another study indicated that adolescents from immigrant families are more likely to report being victimized by their peers because of their race, religion, or family income than adolescents without immigration background (Sulkowski et al., 2014).

In addition to hate crime, immigrant adolescents seem to be more prone to general bullying, a widely studied phenomenon (Hong et al., 2021; Iannello et al., 2024; Maynard et al., 2016). According to a systematic review, the generation of immigration is associated with the risk of bullying and peer violence, as 1st generation immigrants not speaking the dominant language have been found to experience more bullying than 3rd generation immigrants and native adolescents (Pottie et al., 2015). By contrast, in an Italian study with primary school students the association of immigrant status and bullying victimization was higher for 2nd generation immigrants

than for 1st generation immigrants, and no difference was found between 1st generation immigrants and native students (Alivernini et al., 2019). Similar results have been reported in a large study using nationally representative data from 26 European countries (Stevens et al., 2020). There is also conflicting evidence showing no differences in bullying victimization between immigrant and native adolescents, but with immigrant adolescents engaging more often in bullying others (Fandrem et al., 2009).

Some research suggests that corporal punishment is more prevalent among families with immigration background (e.g. Fréchette & Romano, 2015). There is also evidence of a declining trend in parental corporal punishment among children and adolescents in Western countries (Fréchette & Romano, 2015; Kaakinen & Näsi, 2021; Mehus & Patrick, 2020; Sariola & Ellonen, 2008). For instance, the Finnish Self-Report Delinquency (FSRD) study, conducted every four years, indicates stable rates of experienced corporal punishment from 2004 to 2012, followed by a reduction in rates (Kaakinen, 2021). However, studies have shown differences in use of corporal punishment among ethnic backgrounds, as higher rates of use have been reported in African American families than in Hispanic or non-Hispanic families (MacKenzie et al., 2011; Regalado et al., 2004), although discrepant results also exist (Lee & Altschul, 2015). Likewise, among Finnish children and adolescents of immigrant backgrounds, more severe forms of corporal punishment by parents are observed than among the native population (Kääriäinen et al., 2010). This disparity in experienced corporal punishment between immigrant and native children and adolescents may partly stem from the diverse cultural backgrounds of immigrant families, as corporal punishment might not be criminalized in their origin countries. Furthermore, these differences in use of corporal punishment between parents of different ethnic backgrounds have been explained by differences in parenting practices and attitudes such as support for authoritarian parenting (Friedman, 2016) and positive attitudes towards corporal punishment (Lorber et al., 2011).

### 1.3. Disclosure of victimization in surveys

Self-report questionnaires are commonly utilized in studying various behaviors among adolescents. Compared with official crime statistics, they offer a more comprehensive understanding of juvenile involvement in different activities, however, the accuracy of the data depends on the respondents' willingness to disclose personal data. Therefore, when using self-report questionnaires to assess behavior or experiences likely to evoke feelings of guilt and shame or that are illegal, the validity of the measure is of concern and can lead to invalid responses (Jia et al., 2018). The respondents might, regardless of declared anonymity, be worried about their anonymity and the consequences of their answers. These concerns are likely to affect their tendency to report their experiences truthfully, but this phenomenon remains poorly investigated.

One approach to assessing the validity of self-reported data involves directly querying respondents about their willingness to disclose information. Johnston et al. (1994) first applied direct response integrity questions when examining the feasibility of an international youth drug survey. Their question was: "If you had ever used marijuana or hashish, do you think you would have said so in this questionnaire?" They reasoned that students would have little motivation to lie when responding to such a question as they would not be admitting any punishable behavior. They found out that a relatively small segment of the respondents manifested low willingness to be truthful. Direct meta-questions on response integrity have subsequently been routinely used in the European School Survey Project on Alcohol and Other Drugs (ESPAD) (Hibell et al., 2012) as well as in other youth surveys on sensitive topics (Kivivuori et al., 2013; Laajasalo et al., 2016).

Some studies have indicated that immigrant youth are more likely to admit to withholding information related to delinquency in survey settings (Laajasalo et al., 2016; Lehti et al., 2014). A Dutch study (van Batenburg-Eddes et al., 2012) examining self-report measures and police data on delinquency among adolescents aged 11–16 years ( $n = 23,914$ ) revealed that adolescents overall were relatively truthful (62 %) in admitting police contact. Notably, Dutch participants were less likely to underreport police contact, while Moroccan adolescents were more likely to underreport these contacts, suggesting a tendency among Moroccan youth to provide inaccurate responses about police interactions. Similar patterns were not significant for other ethnic groups; however, sample sizes were small. The authors suggested that Moroccan residents in the Netherlands may harbor mistrust towards authorities, potentially explaining these findings. This distrust might extend to closer relationships, limiting immigrant adolescents' willingness to share personal information. In regard to victimization, a study focusing on middle school youth revealed that immigrant, particularly female, students were least likely to disclose their experiences of bullying to anyone in person (Miller et al., 2022). Overall, these findings suggest that attitudes towards authorities, fears about stigmatization, and concerns about exposure may influence response tendencies among different ethnic groups in self-report questionnaires assessing victimization experiences. Further research in this area is crucial for a deeper understanding of these dynamics.

### 1.4. Study aims and hypotheses

Given these mixed findings about the prevalence rates and the potential culture-related reporting tendencies of sensitive experiences, more studies on how and to what extent the victimization is associated with psychological well-being among adolescents with and without immigration background are required in different national contexts. Here, we elaborate on the connection between these factors among adolescents using representative data from Finland. Recent studies have described differences between immigrant and native adolescents especially in peer-related victimization (Alivernini et al., 2019; Hong et al., 2021; Iannello et al., 2024; Stevens et al., 2020). This study explored a wide variety of victimization experiences, including more recent forms of victimization such as cyberbullying. First, the amount and type of victimization among immigrant and native Finnish adolescents in a population-based sample were compared. Second, the mediating role of victimization in the relationship between immigration status and psychological well-being was studied. Lastly, the response tendencies were reported to receive information about the adolescents' willingness to disclose personal information in both immigrant and native Finnish adolescent groups. To our knowledge, this is the first attempt to

assess the validity of victimization experience reports in youth using response integrity questions.

We stated the following hypotheses:

H1: We expect that immigrant adolescents experience higher rates of lifetime victimization than native Finnish adolescents.

H2: We expect specific victimization types (hate crime, bullying, and parental corporal violence) to be more common among immigrant adolescents than among native Finnish adolescents.

H3: We expect victimization during the lifetime to have a mediating effect on the impact of immigration status on psychosocial well-being.

H4: We expect immigrant adolescents to be less willing to share their experiences in an anonymous questionnaire-based study.

## 2. Methods

### 2.1. Participants and procedure

Data were collected by the Institute of Criminology and Legal Policy at the University of Helsinki in the Finnish Self-Report Delinquency (FSRD) study during 2020. The FSRD study is repeated every four years and aims to gain knowledge about adolescents' criminal behavior, victimization experiences, and background variables related to these topics (Kaakinen et al., 2022). The study has undergone the pre-review by the Research Ethics Committee in the Humanities and Social and Behavioral Sciences of the University of Helsinki and was approved as compliant with the research ethics guidelines (statement no. 33/2019). The data were collected in randomly chosen schools in Finland, and the participants were 9th grade students aged 15–16 years.

The FSRD study is a computer-based questionnaire that was filled in during a regular school day and class, supervised by a trained teacher. All adolescents provided an informed consent. The sample size in 2020 was 5674 adolescents from 74 schools, the overall response rate being 78 %. The school selection was based on stratified sampling method considering the school size (probability proportional to size sampling) and location (city or rural) to achieve representativeness of the sample. No other inclusion or exclusion criteria were applied.

### 2.2. Measures

#### Victimization

Victimization was measured by asking whether the participant had ever experienced the 12 types of victimization included in the study (categorical variable: yes or no). Sum variables over the lifetime were calculated (range 0–12). Internal consistency of the scale was calculated, and it was acceptable (Cronbach's  $\alpha = 0.78$ ).

#### Immigration status

The immigration status variable was constructed using questions about participants' and their parents' country of birth. All participants not born in Finland were classified as immigrants (1st generation immigrant), whereas Finnish-born adolescents, whose both parents were born in Finland, are referred to as native Finnish adolescents in the current study. Furthermore, if one or both of parents were not born in Finland, the participating adolescent was classified as an immigrant (2nd generation immigrant) (European Commission, Migration and Home Affairs, 2024). The definition of 2nd generation immigrant is complex, and this term refers to a very heterogeneous population. However, for clarity, the immigrant group including both immigrant generations were processed as a single immigrant group in this study.

#### Psychosocial well-being

Adolescents' psychosocial well-being was measured using the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001), a 25-item questionnaire covering adolescents' externalizing symptoms (conduct problems, hyperactivity, and inattention) and internalizing symptoms (emotional symptoms and peer relationship problems) as well as prosocial behavior. SDQ is used for children and adolescents aged 3–16 years and can be self-reported by youths from 11 years onwards. In the current study, the total sum variable (Cronbach's  $\alpha = 0.79$ ), calculated with the subscales excluding prosocial behavior subscale, with a maximum score of 40, was used to reflect the total difficulties and adjustment. In addition, variables for externalizing (Cronbach's  $\alpha = 0.73$ ) and internalizing (Cronbach's  $\alpha = 0.75$ ) symptoms with a maximum score of 20 were formed. A factor analysis and assessment of the suitability of SDQ in the Finnish population were conducted by Peltonen et al. (2010).

#### Response integrity index

The current study used three direct meta-questions about physical abuse, parental corporal punishment, and sexual abuse to assess respondents' response style (truthful or untruthful). The exact phrasing of the meta-questions was: "If someone had ever attacked you physically, such as hit, kicked, or used a gun against you, do you think you would have reported it in this questionnaire?", with similar phrasing for the two further meta-questions about parental corporal punishment and sexual abuse. These questions were presented to every respondent during the questionnaire, unrelated to their earlier answers about their victimization experiences. In this study, the participants who had denied (by answering no) the target victimization question were included in further analyses. For example, if the respondent had answered the question about physical abuse, the corresponding meta-question was presented later in the questionnaire. These questions were answered dichotomously (yes or no).

### 2.3. Statistical analysis

The analyses were conducted using the IBM SPSS version 29 software package. The mediation analyses were calculated using SPSS modification, PROCESS macro (Hayes, 2022). The number of victimization experiences over the lifetime was presented in a table and the differences between the means of immigrant and native Finnish adolescents were assessed using *t*-test for independent samples. Furthermore, the proportions of experienced victimization types and the response tendencies in immigrant and native Finnish adolescents were presented using crosstabulation, and the group differences were assessed using Chi-square test.

In the mediation analysis, mediation model 4 with one mediator from SPSS PROCESS macro was used. In this model, the lifetime victimization variable was used as a mediator, mediating the relationship of immigration status (independent variable) to psychosocial well-being (dependent variable) measured with SDQ. The assumptions for the mediation model were tested before running the model. The correlations of other categorical variables were tested with Pearson correlation matrix before the analysis. The normal distribution of the residuals for the continuous SDQ measure for psychosocial well-being was tested. For the categorical variable immigration status and the lifetime victimization variable, normal distribution was not assumed since the range is too small. In our mediation analysis, paths to the binary lifetime victimization were estimated with linear probability modeling. Paths to continuous SDQ measure were estimated with linear regression, and the normality of the residuals' distribution was tested. For our models we report regression coefficients and corresponding standard errors (SE), *p*-values, and 95 % confidence intervals. For the indirect effect, we report only 95 % confidence intervals instead of a *p*-value as suggested elsewhere (e.g. in Twisk, 2024).

### Missing data

Altogether 5674 participants took part in the survey. For the purposes of this study, some of the respondents were excluded due to clearly implausible responses considering some of the variables of interest (e.g. age over 20 years and very high outlier values for the given range in other variables, such as school grades), leaving 5607 participants. All of these participants had answered the questions about victimization experiences and immigration status, and these are reported in the results section.

Of these 5607 participants, 5567 had answered the questions related to SDQ (number of missing values: 40, 0.7 %) and were used for the mediation analysis. Participants who dropped out before completing the SDQ (*n* = 40) showed no gender differences. While immigrants were slightly more likely to drop out (1.5 % vs. 0.6 % for native Finns, Chi-square *p* < 0.01), the difference was small. Dropouts reported significantly more victimization experiences (*M* = 5.13, *SD* = 3.07) than continuing participants (*M* = 2.75, *SD* = 2.61), according to the Mann-Whitney *U* test (*U* = 62,092.00, *z*-value: -4.89, *p* < 0.001).

The variables considering the response tendency were responded by 5402 participants (number of missing values: 205, 3.7 %) and were reported in the current study. Of those dropping out before the Response Integrity Index questions (*n* = 205), boys (4.8 % vs. 2.4 % for girls, Chi-square *p* < 0.01) and immigrants (6.1 % vs. 3.3 % for native Finns, Chi-square *p* < 0.001) were more likely to drop out. Dropouts also experienced more victimization (*M* = 3.72, *SD* = 3.05) than continuing participants (*M* = 2.73, *SD* = 2.60), according to the independent sample *t*-test (*t*-value: 4.66, *p* < 0.001). Missing data were not imputed due to the small group size differences.

## 3. Results

### 3.1. Sample characteristics

Of the participants, 49.8 % were girls and 48.5 % boys. A further 1.7 % of participants had stated their gender as "other". Due to the

**Table 1**  
Lifetime victimization type frequencies related to immigration status.

Lifetime victimization % yes	No immigration background (All <i>n</i> = 655, Boys <i>n</i> = 316, Girls <i>n</i> = 324)			Immigration background (All <i>n</i> = 4952, Boys <i>n</i> = 2401, Girls <i>n</i> = 2468)		
	All	Boys	Girls	All	Boys	Girls
Destruction of personal property	33.2 %	36.9 %	29.3 %	40.3 %***	44.6 %**	36.1 %*
Violent robbery	8.2 %	12.0 %	4.4 %	13.0 %***	19.0 %***	6.8 % ns
Theft of personal property	39.0 %	41.7 %	36.1 %	48.9 %***	53.2 %***	45.1 %**
Bullying	40.4 %	34.9 %	45.4 %	41.4 % ns	37.0 % ns	45.1 % ns
Threats of violence	31.1 %	36.5 %	25.4 %	36.3 %**	43.0 %*	29.9 % ns
Physical abuse	24.6 %	32.0 %	16.9 %	28.6 %*	34.8 % ns	22.2 %*
Hate crime	8.5 %	9.3 %	7.0 %	27.5 %***	30.4 %***	23.5 %***
Parental corporal punishment	21.9 %	18.9 %	24.8 %	24.4 % ns	21.5 % ns	27.2 % ns
Cyberbullying	27.4 %	21.5 %	32.5 %	30.8 % ns	28.2 %**	32.4 % ns
Sexual abuse (adult)	6.9 %	1.5 %	12.2 %	11.6 %***	4.4 %***	17.6 %**
Sexual abuse (peer)	13.3 %	5.1 %	21.4 %	15.9 % ns	7.0 % ns	24.1 % ns
Internet crime	14.5 %	11.1 %	17.5 %	14.8 % ns	13.0 % ns	16.0 % ns

*Note.* The significances of mean differences (Chi-square test) reported in the "No immigration background" columns were calculated between immigration groups and for each gender.

\*\*\* *p* < 0.001.

\*\* *p* < 0.01.

\* *p* < 0.05.



small group size, the group “other” was not included in the analyses. Participants’ mean age was 15.23 (SD = 0.42, range 15–16) years, and by the time of the survey they were all in the 9th grade in elementary school. Two-thirds (66.7 %) of the participants lived in a nuclear family. Of the 5607 participants, 216 were not born in Finland. Furthermore, the mother or father of 507 participants was not born in Finland. Altogether 655 participants (11.7 %) met the criteria of at least one of the parents or the participant himself/herself not being born in Finland, thus representing the immigration status group “yes”. The immigrant and native adolescent groups did not differ from each other regarding age or gender.

### 3.2. Descriptive statistics of victimization and psychosocial well-being in the samples

In the whole sample, the mean number of lifetime victimization experiences was 2.77 (SD = 2.63, range 0–12). The differences in the number of experienced victimization experiences between native Finnish adolescents and immigrant adolescents are presented in Table 1. Of the 12 types of victimization experiences in the questionnaire, immigrant adolescents had experienced significantly more victimization types ( $M = 3.34$ ,  $SD = 2.88$ ;  $p < 0.001$ ,  $t$ -value:  $-5.45$ ) than the native Finnish adolescents ( $M = 2.69$ ,  $SD = 2.58$ ). The same patterns were found and were statistically significant when comparing immigrant and native Finnish groups within both genders. Boys with immigrant background had experienced a mean number of 3.36 victimization experiences ( $SD = 2.80$ ), whereas boys native Finnish background had experienced a mean number of 2.61 victimization experiences ( $SD = 2.53$ ), this difference being significant ( $p < 0.001$ ,  $t$ -value:  $-4.49$ ). For girls, the corresponding numbers were 3.26 ( $SD = 2.91$ ) and 2.73 ( $SD = 2.60$ ) ( $p = 0.002$ ,  $t$ -value:  $-3.12$ ). Within both immigrant adolescent and native Finnish adolescent groups, the differences in the number of victimization experiences between boys and girls did not reach significance.

The differences between the exposure to the different victimization experiences during the life course between immigrant and Finnish native adolescents are presented in Table 1. Immigrant adolescents, both boys and girls, have experienced most of the events more often than the native youth, this result being significant considering property crimes, threats of and experiencing violence, hate crime and sexual abuse by an adult perpetrator.

Regarding psychosocial well-being, the mean of the SDQ total difficulties score was 11.02 ( $SD = 5.59$ , range 0–33) among all participants. Furthermore, in the whole sample, the mean for the externalizing symptoms subscale was 5.71 ( $SD = 3.56$ ) and for the internalizing symptoms subscale 5.31 ( $SD = 3.26$ ). Immigrant adolescents and Finnish native adolescents had significantly different scores in SDQ total difficulties and internalizing symptoms (Table 2).

### 3.3. Mediation model

First, regarding the assumptions for the mediation model, the correlations between the variables were tested and the continuous variables lifetime victimization and psychosocial well-being correlated positively ( $0.44^{**}$ ), immigration status being a categorical variable, the correlation is not reported. Second, when the mediator was added, the association between immigration status X and psychosocial well-being Y diminished. Lastly, the residuals of the continuous variable psychosocial well-being measured with SDQ total score were normally distributed. The mediation model was run to test the mediating role of lifetime victimization experiences in the relationship between immigration status X and psychosocial well-being Y (Fig. 1).

The results of the analysis revealed a significant total effect of immigration status on psychosocial well-being ( $c = 0.48$ ). Furthermore, a significant indirect effect ( $a*b = 0.57$ ) of immigration status on psychosocial well-being mediated through victimization experiences was found. In the presence of lifetime victimization as mediator M, the direct effect of immigration status on psychosocial well-being is low and not significant ( $c' = -0.09$ ). Therefore, lifetime victimization experiences fully mediated the relationship between immigration status and psychosocial well-being. A summary of the results of mediation analysis is provided in Table 3.

### 3.4. Differences in response tendencies

The self-reported response tendencies of participants were assessed with the Response Integrity Index through three meta-questions considering victimization experiences: physical abuse, parental corporal punishment, and sexual abuse by an adult perpetrator. The respondents were asked whether they would reveal in the current questionnaire if they had experienced specific victimization experiences. The answers from participants who had denied having experienced the target victimization experiences (physical abuse,

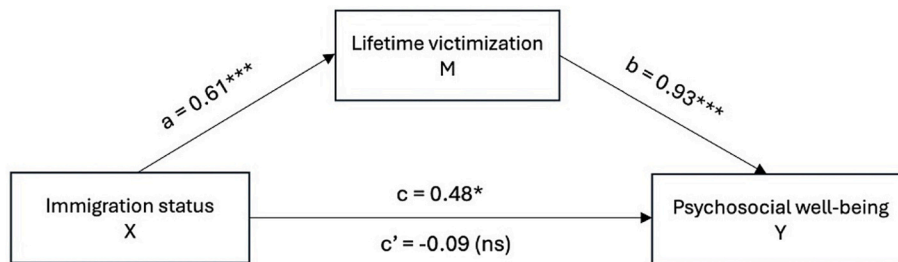
**Table 2**  
Differences in SDQ mean scores between immigrant and Finnish native adolescents.

	No immigration background ( $n = 4922$ )	Immigration background ( $n = 645$ )			
	Mean (SD)	Mean (SD)	t-value	95 % CI	p-value
SDQ total difficulties score	10.94 (5.57)	11.55 (5.72)	-2.60	-1.07 to -1.50	**
Externalizing symptoms	5.68 (3.55)	5.94 (3.36)	-1.79	-0.56-0.25	ns
Internalizing symptoms	5.27 (3.25)	5.61 (3.29)	-2.50	-0.61 to -0.07	*

Note. In all scales, Levene’s test for equality of variances was not significant, and equal variances were assumed. Degrees of freedom = 5565.

\*\*  $p < 0.01$ .

\*  $p < 0.05$ .



**Fig. 1.** Mediation model with immigration status (yes or no) as an independent variable, psychosocial well-being (measured with SDQ total score) as a dependent variable, and lifetime victimization (range 0–12) as a mediator variable.

**Table 3**

Mediation analysis relationships between variables ( $n = 5567$ ).

Total effect c	Estimate	SE	p-value	95 % CI
Immigration status → Psychosocial well-being	0.48	0.23	0.04*	0.03–0.93
<b>Indirect effect a*b</b>	Estimate	SE	p-value	95 % CI
Immigration status → Lifetime Victimization → Psychosocial well-being	0.57	0.11	See CI	0.36–0.80
<b>Direct effect c'</b>	Estimate	SE	p-value	95 % CI
Immigration status → Psychosocial well-being	−0.09	0.21	0.65 (ns)	−0.50–0.31

*Note.* Gender was used as a covariate.

parental corporal punishment, and sexual abuse by an adult) were reported. Table 4 presents the response tendencies among immigrant and native Finnish adolescents. Compared with native adolescents, a larger number of immigrant adolescents who had denied having these victimization experiences reported that they would not have disclosed them in the questionnaire.

#### 4. Discussion

This study aimed to compare the number and type of victimization experiences, the psychosocial well-being, and the mediating effect of lifetime victimization experiences between immigrant and native Finnish adolescents in a large population-based sample. In addition, an analysis of adolescents' response tendencies was performed for the first time to develop a preliminary understanding of response bias in both immigrant and native Finnish adolescents.

In 2022, there were approximately 476,900 residents in Finland with a foreign background (1st and 2nd generation immigrants), accounting for nearly 9 % of the Finnish population (total population 5.6 million). The most common foreign origin countries were the former Soviet Union, Iraq, and Somalia (Official Statistics of Finland, 2024). Approximately one-fourth of these individuals with a foreign background are children and adolescents, and conversely, 11 % of the 12- to 19-year-olds in Finland have an immigrant background (Eid & Castaneda, 2023).

##### 4.1. Immigration status was related to the number and type of victimization

A significant (albeit modest) difference in the total number of victimization experiences between immigrant and Finnish native adolescents emerged. When examining variations in the extent of experienced victimization across specific types, immigrant adolescents reported encountering a higher frequency of all 12 victimization types included in the questionnaire. The differences were

**Table 4**

Response Integrity Index item answers in different immigration status groups.

Response Integrity Index item	No immigration background			Immigration background		
	All	Boys	Girl	All	Boys	Girls
Physical abuse: % no	6.2 %	8.4 %	4.2 %	12.4 %***	15.6 %**	8.2 %**
Parental corporal punishment: % no	10.2 %	11.1 %	9.0 %	18.2 %***	21.1 %***	14.0 %*
Sexual abuse (adult): % no	9.1 %	10.6 %	7.5 %	12.7 %*	9.3 %*	15.5 % ns

*Note.* The response tendencies are reported among participants who denied experiencing the target event (physical abuse  $n = 4201$ , parental corporal punishment  $n = 4363$ , sexual abuse (adult)  $n = 5188$ ) during their lifetime. The reported percentage represents the number of no-answers to the question of whether the respondent would disclose if he or she had experienced this kind of victimization. The significances of mean differences (Chi-square test) in the “No immigration background” columns were calculated between immigration groups and for both genders.

\*\*\*  $p < 0.001$ .

\*\*  $p < 0.01$ .

\*  $p < 0.05$ .

particularly pronounced and significant for destruction or theft of personal property, violent robbery, hate crime, and physical and sexual abuse.

In some studies, differences in experienced victimization have been found between immigrant and native populations (Kääriäinen et al., 2010), whereas in others the results have suggested no difference (Xie & Baumer, 2020). These findings underscore the importance of conducting additional research to explore the relationship between immigration status and victimization. Previous studies have suggested that foreign-born status may serve as a protective factor against criminal victimization (Xie & Baumer, 2020), while other reports have indicated that certain ethnic backgrounds may be more vulnerable to victimization (Taylor et al., 2007).

The high numbers in experienced hate crimes are in line with earlier research confirming adolescents with immigrant background to report more bullying experiences related to their race or religion (Sulkowski et al., 2014). Surprisingly, no significant difference emerged in experienced bullying (or cyberbullying), which has been repeatedly found elsewhere (Alivernini et al., 2019; Finnish Institute of Health and Welfare, 2021; Hong et al., 2021; Iannello et al., 2024; Stevens et al., 2020; Strohmeier et al., 2011). This might be due to the different framing of the questions in these studies, as in the current study, hate crime was assessed separately from bullying, whereas in other studies, such as those focusing on the racist or discriminatory aspects of bullying, these elements have often been included in questions about general bullying. In this study, there were two questions about bullying and cyberbullying (“Has anyone ever bullied you at school or on your way to school?” and “Has anyone ever threatened or deliberately insulted you via e-mail, text message, on internet forums or elsewhere on social media?”). Hate crime was assessed with one question: “Has anyone ever threatened you with violence or committed physical violence against you because of your language, race, religion, your opinions or for similar reasons?”

Results of the current study did not reveal differences in the prevalence of corporal punishment between native Finnish and immigrant adolescents, even though there is some support for corporal punishment being more prevalent in families with immigration background (e.g. Fréchette & Romano, 2015). Higher rates of use of corporal punishment have been reported in African American families than in Hispanic or non-Hispanic families (MacKenzie et al., 2011; Regalado et al., 2004), although there is conflicting evidence in some studies (Lee & Altschul, 2015).

In the Finnish School Health Promotion Survey (Finnish Institute of Health and Welfare, 2021), immigrant adolescents in the 8th and 9th grades also more often reported being sexual harassed than adolescents of Finnish background, which is in line with the results here. Furthermore, in the study of Strohmeier et al. (2011) Finnish schoolchildren with an immigrant background had experienced more peer victimization that included sexual victimization, but this finding was not replicated in this study when asking about the experiences of sexual victimization by peers.

#### 4.2. *Victimization experiences mediated the relationship of immigration status to psychosocial well-being*

In the mediation analysis, lifetime victimization experiences fully mediated the relationship between immigrant status and psychosocial well-being. Initially, the total effect was significant, but upon adding the mediator, the direct effect lost significance. Instead, a significant indirect effect, mediated through lifetime victimization experiences, was found. When comparing the psychosocial well-being in both groups, immigrant adolescents had slightly, but significantly, more psychosocial distress. According to the results of this mediation analysis, victimization experiences have an important role in the relationship between immigration status and psychosocial well-being.

#### 4.3. *Immigrant adolescents were less likely to disclose their victimization experiences*

This study utilized the Response Integrity Index (Hibell et al., 2012; Johnston et al., 1994; Kivivuori et al., 2013; Laajasalo et al., 2016) questions to compare response styles and willingness to disclose victimization experiences in immigrant and native Finnish adolescent groups. Across the three questions reflecting specific abuse types, immigrant participants were more likely to report that they would not have disclosed these experiences, even had they experienced this kind of victimization. These results are consistent with earlier research on response styles of immigrant adolescents to delinquent behavior (van Batenburg-Eddes et al., 2012). As there are many stressors inherent to the migration and integration process, the issue of trust is particularly relevant in this population, and distrust of research has been identified as one barrier to participating in research among immigrant populations (Zeisler et al., 2020). Despite the anonymity of the survey, our results might reflect immigrant adolescents' fear of exposure and consequences, mistrust of authorities, and other cultural issues. This might lead to underestimation of victimization experiences and other sensitive topics assessed through surveys in the vulnerable group of immigrant adolescents. Further, incomplete reporting may obscure the true extent of the effects of victimization, leading to skewed or underestimated conclusions about the relationship between victimization and well-being outcomes.

#### 4.4. *Strengths and limitations*

This study has several major strengths, including the large population-based sample, representing 9th grade Finnish adolescents aged 15–16 years. This age range offers limited possibilities for generalizing the results to a wider spectrum of adolescents. The anonymity of the questionnaire provides an opportunity to report sensitive topics without consequences.

Some limitations of the study must also be addressed. The data were drawn from a cross-sectional study, where information had been gathered from a specific time point in adolescents' lives. This requires even more caution when interpreting the results and when considering the relationships between study variables. Cross-sectional studies have several limitations such as their vulnerability to



response bias and the difficulty for participants to recall target events in the questionnaire. In this study, it might be especially troublesome for participants when trying to recall victimization experiences. Therefore, longitudinal studies assessing victimization experiences and psychosocial well-being in immigrant adolescents are warranted. In addition to the cross-sectional nature of the current study, the responses of participants were based on a self-evaluation questionnaire, as the participants themselves reported, among other sensitive topics in the survey, their victimization experiences. Although the survey was anonymous, some bias might still appear, and these response tendencies, especially among immigrant adolescents, have been discussed earlier in the paper. These difficulties might alter participants' willingness to answer the questions truthfully, therefore affecting the reliability of the study.

Considering the core variables measured in this study, victimization experiences were evaluated based on the types of victimization encountered rather than the frequency of individual events. Consequently, participants reporting the same number of different victimization types may vary in the potential trauma and burden associated with these events. Based on these data, the seriousness and intensity of the experiences were not assessed. Further, comparisons with other studies sharing similar interests are complicated by variations in how victimization experiences were queried. In some studies, for example, the questions about hate crime are presented separately, and in other studies they are included in the questions about bullying in the form of religion- or racial-related bullying (Maynard et al., 2016). These questions, in turn, might in some cases also encompass the description of a hate crime. Furthermore, the assessment of number, intensity, and seriousness of the victimization experiences varies among studies, and therefore, the victimization rates are not directly comparable. Regarding the measurement of psychosocial well-being, a recent study with nationally representative data of Finnish adolescents suggested the revision of the SDQ and advised caution when using it in research (Kankaanpää et al., 2023).

In addition, the classification of immigrants is not consistent among the studies, and especially in the current study, knowledge about the more detailed backgrounds of immigrants is lacking, and therefore, the situations of the adolescents and their families may differ greatly from each other. In this study, we decided to combine the 1st and 2nd generation immigrants to provide us with a larger number of participants in the immigrant adolescent group. Therefore, we did not distinguish between 1st and 2nd generation immigrants or consider various ethnic backgrounds, limiting the potential to obtain more detailed information regarding victimization rates within specific immigrant populations. Yet, according to Eid and Castaneda (2023), most of the children and adolescents of immigrant background (78 %) were born in Finland and represent 2nd generation immigrants, while only 22 % were not born in Finland, being 1st generation immigrants. They emphasize the vast heterogeneity within adolescent immigrants and their families, cautioning against oversimplified generalizations due to the diverse reasons for immigration. In addition, the subjective feeling of belongingness to a specific ethnic group, the reason for immigration to Finland, and the level of Finnish language skills were not assessed in the current study, and all of these factors might have had an impact on the prejudices the participants face. From a trauma perspective, it very likely makes a difference whether a person comes to Finland as a refugee from a war zone or because of labor immigration (Lindert et al., 2009). Future studies assessing immigrant victimization are invited to conquer the limitations identified here.

#### 4.5. Implications

This study reveals that both native Finnish adolescents and those with an immigrant background continue to face adverse events in Finland, a finding consistent with previous research (Kaakinen & Näsi, 2021; Mielityinen et al., 2023). It appears that immigrant adolescents are more likely to experience several types of adverse events compared to their native Finnish peers and according to the current study, it applies for both native Finnish adolescents and adolescents with an immigrant background. This highlights the need for both preventive and interventive efforts, including raising awareness on reporting and support systems as well as children's rights, for immigrant adolescents and their social environment – such as parents, teachers, and healthcare professionals – to better identify and support at-risk adolescents.

Unfortunately, interventions specifically targeted at immigrant adolescents at risk for victimization are rare. Most existing interventions, such as trauma-focused cognitive behavioral therapy, are designed for use after victimization has occurred. A systematic review revealed a lack of immigrant inclusive interventions and found no interventions adapted for immigrants addressing especially domestic violence or childhood mental health (Finno-Velasquez et al., 2022). However, culturally sensitive early interventions and information – for families (e.g. Osman et al., 2019) and youth, for example on children's rights, as well as for healthcare and social workers, teachers, and other professionals working with these individuals – may prove beneficial. In the Scandinavian context, recent attempts aim to support immigrant families through interventions, such as peer support for immigrant mothers in Sweden (Kåks et al., 2024). In addition to supporting parents, the psychosocial support involving immigrant adolescents directly should be enhanced and the attainment of cultural sensitivity skills of health care and social workers strengthened. Finally, our findings suggest victimization experiences may be underreported in self-report studies, particularly among vulnerable youth, emphasizing the need for a sophisticated approach to gathering and interpreting self-report survey data. For immigrant youth, this underlines the importance of the possibility to answer the self-report surveys in their own, native language, and paying attention to the culturally valid instructions when using self-report surveys.

#### 4.6. Conclusion

This study contributes to adolescent victimization research with a focus on immigrant adolescents. According to our results, immigrant adolescents experience more victimization than native adolescents especially in specific victimization types such as property crimes, hate crimes, and physical and sexual abuse. Furthermore, they are more unwilling to disclose their experiences even

in an anonymous questionnaire, which means that their victimization experiences might be underestimated. As victimization experiences play a crucial role in explaining the relationship between immigrant status and psychosocial well-being, the findings underscore the importance of addressing and mitigating the impact of these experiences on the psychosocial well-being of immigrant adolescents via clinical interventions and policies.

### CRediT authorship contribution statement

**Katri Lahti:** Writing – review & editing, Writing – original draft, Project administration, Methodology, Formal analysis, Conceptualization. **Taina Laajasalo:** Writing – review & editing, Writing – original draft, Supervision, Formal analysis, Conceptualization. **Heidi Backman:** Writing – review & editing, Writing – original draft, Supervision, Formal analysis, Conceptualization. **Kirsi Peltonen:** Writing – review & editing, Conceptualization. **Markus Kaakinen:** Writing – review & editing, Project administration, Methodology, Funding acquisition, Data curation, Conceptualization. **Eeva T. Aronen:** Writing – review & editing, Writing – original draft, Supervision, Conceptualization.

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### Declaration of competing interest

The authors report there are no competing interests to declare.

### Data availability

The data that has been used is confidential.

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