Nordic Journal of Criminology | Scandinavian University Press

RESEARCH PUBLICATION

Volume 26, No. 2, pp. 1–17
ISSN online: 2578-9821
DOI: https://doi.org/10.18261/njc.26.2.5
Received: 27 September 2024
Accepted: 15 January 2025

Victimization in youth living in foster family care: Gender-specific prevalence and trends 2002-2022

Lars Brännström
Professor, Department of Social Work, Stockholm University
lars.brannstrom@socarb.su.se

Olof Bäckman
Professor, Department of Criminology, Stockholm University
olof.backman@criminology.su.se

Abstract
Prior literature has linked experiences of out-of-home care (OHC, foster family care, and residential care) to numerous negative outcomes. However, less is known about the relationship between OHC experience and victimization, particularly compared to same-aged adolescents from the majority population. This study addresses this gap using Swedish repeated cross-sectional data from the Stockholm School Survey (n>140,000), of which approximately 1% report living in foster family care (FFC), to explore the prevalence of victimization and changes over time among youth in FFC compared to their non-FFC peers. Results from multivariable regression analyses indicate that FFC youth, especially girls, have substantially higher risks of various types of victimization, although at higher levels, FFC-experienced youth generally followed trends observed in peers. However, care-experienced girls showed an upward trend in threats and at least one type of victimization, contrary to a downward trend among peers. Implications for research and ongoing debates are discussed.

Keywords
adolescents, foster care, longitudinal, victimization, Sweden

Introduction
Despite the fact that victimization tends to coincide with other indicators of disadvantage such as family disruption (Erera, 2002; Wasserman, 2020), unemployment and poverty (Nilsson & Estrada, 2006), research on victimization among children and adolescents placed in out-of-home care (OHC; foster family care and residential care) is relatively sparse (Lutman & Barter, 2017). This is especially true for studies that focus on children placed in foster family care (FFC) and which enable comparisons with same-aged peers in other family settings. Although it may seem evident that FFC-experienced children – often placed due to maltreatment (e.g., Khoo et al., 2012) – face heightened risks of victimization (Brodie & Pearce, 2017), particularly since experiences of abuse and neglect are associated with revictimization (e.g., Finkelhor et al., 2007a), it remains crucial to investigate how these risks evolve over time. This study addresses this issue by utilizing Swedish data from several waves of the Stockholm School Survey (SSS), in which children

living in FFC can be identified. These data are hitherto unexploited for investigating victimization among care-experienced children and youths.

In Sweden, as well as in most other Western countries, OHC is among the most extensive interventions targeting abused or neglected children or adolescents with severe conduct problems and delinquency (Font & Gershoff, 2020). Although OHC in these countries (albeit to a varying degree) is intended to provide a safe and nurturing environment that improves children's development and life chances, a range of studies has linked OHC experience (often without distinguishing between types of placement) to numerous negative life-course outcomes, including poor health, premature death, criminal involvement, poor employment prospects and difficulties making ends meet (Baidawi et al., 2024; Batty et al., 2022; Goemans et al., 2015; Gypen et al., 2017; Kääriälä & Hiilamo, 2017).

Since the 1990s, many countries have seen declining crime levels. Substantial reductions in crime were first noted in the United States (Blumstein & Wallman, 2006), and subsequently also in a number of countries in Western Europe, including Sweden (Bäckman et al., 2021; Tonry, 2014). Mirroring the decline in criminal offending, the victimization rate in Sweden has, according to most studies, declined as well, not only according to self-reported data such as level-of-living surveys (ULF/EU-SILC) and the Swedish Crime Survey (NTU), but also according to hospital data (Estrada, 2022). The decline in violent crime among youth since 2010 is particularly salient (Estrada, 2022). As far as threats are concerned, the share exposed in the population increased slightly during the latter half of the 2010s, whereafter it has stabilized at a slightly higher level than before the increase (Brå, 2024). A similar pattern is observed for sex crimes (Brå, 2024). Although we know that there is a socio-economic gradient in victimization (Nilsson & Estrada, 2006), we have not been able to find any recent studies addressing potentially divergent trends in the development of victimization. However, considering the development in criminal offending (Nilsson et al., 2017), there are good reasons to expect that divergent trends are present also with respect to victimization.

Since OHC youth and children are a particularly vulnerable group (Stein, 2006) and previous research has shown divergent trends in criminal offending to the disadvantage of less resourced social strata (Nilsson et al., 2017), this study aims to shed light on the extent to which this particular group deviates from others with respect to the development of reported victimization. More specifically, we ask how prevalent victimization is among adolescents living in FFC and to what extent it differs from that of same-aged adolescents without such experience. We also examine how victimization changes over time and whether this change differs between adolescents living in FFC and those without such experience. Throughout, we pay special attention to gender differences by running all analyses separately for girls and boys. Doing so, this study represents the first attempt to document the prevalence and trends in victimization among youth with and without experience of societal care.

Theoretical and empirical framework

Children and youth often face victimization in multiple environments, such as family and school, where one instance may lead to others. This pattern, known as poly-victimization, involves exposure to various types of victimization across time and different settings (Finkelhor et al., 2007a, 2007b). The concept of poly-victimization, among others, emphasizes the cumulative and interconnected nature of victimization, thereby directing attention to the broader and more complex dynamics of repeated and diverse victimization

experiences. However, while its strength lies in highlighting these relationships, it often falls short in offering an explanatory approach.

To understand the mechanisms underlying the prevalence and trends of victimization in children placed in FFC, we may therefore turn to mainstream criminological theories such as routine activity theory and lifestyle-exposure theory, both of which claim that victimization risk is a function of daily routines and the context in which these take place (Cohen & Felson, 1979; Meier & Miethe, 1993), which in turn suggests that more publicly active people are more exposed to victimization risks. In the context of diverging crime trends, explanations have been advocated referring to the fact that youths from less affluent families tend to spend more time outdoors as compared to their more affluent peers, which makes them more exposed to criminogenic environments, and that such differences have increased over time (Estrada et al., 2022). Similar mechanisms are most likely present with respect to victimization risks as well.

However, theories referring to lifestyle and routine activities are more apt to explain the risk for incidences away from home, thus more or less ignoring domestic abuse and violence. There is a rich body of theories on the causes and consequences of domestic violence in general and of child abuse and neglect in particular (Hyde-Nolan & Juliao, 2012). Perhaps most relevant in the context of OHC youths is control theory (Goode, 1971), which maintains that the abuser's behavior is motivated by the power and control exerted over other household members. This power and control are used to prevent or prohibit other family members from engaging in behavior that is unwanted by the perpetrator. Threats, force and violence are means for achieving this aim. Particularly in the case of OHC placement due to behavioral problems, the risk of these types of victimization may be elevated.

As noted above, research on victimization in care-experienced children and youths is relatively sparse. Moreover, available studies often lack a comparison group of children and youths in other family types (Baker et al., 2013; Bennett et al., 2024; Loomis et al., 2020), and are thus unable to estimate the relative prevalence of victimization in the group. When comparison groups do exist (Ellonen & Pösö, 2011; Euser et al., 2014; Tordön et al., 2019), results typically suggest that youth in care have elevated risks compared to same-aged majority populations peers. However, analyses do not distinguish between FFC and residential care. The cross-sectional nature of data moreover seldom allows for anything but bivariate analyses, let alone demonstrating any changes over time. Instead, this research tends to be focused on the consequences of victimization and of sexual abuse in particular. In addition, these studies do not necessarily focus on victimization during the placement, but rather before placement. In general, the results from these analyses reveal the same types of negative outcomes as research on the outcomes of OHC placements in general has indicated, i.e., mental health problems, premature death, delinquent behavior, etc. (Loomis et al., 2020).

Studies examining the links between victimization and family types more broadly are, on the other hand, more frequent. This research tends to show how children growing up in non-nuclear families (e.g., having a stepfather, living in a single-parent household) run elevated risks of victimization, and sexual abuse in particular (Assink et al., 2019; Jablonska & Lindberg, 2007; Turner et al., 2013).

Gender differences in victimization are well known (e.g., Fohring, 2022). Although trends have been converging over recent decades (Lauritsen & Rezey, 2018), among younger age groups males are still in general more exposed to violent crime than females (Lauritsen & Rezey, 2018; Estrada, 2022), while females tend to report being victims of

sexual abuse more often than males (Brå, 2024; Lauritsen & Rezey, 2018). Thus, both the extent of exposure and the type of exposure that males and females experience differ. Such patterns prevail also in the literature on victimization and family types (Turner et al., 2013). The need for gender-separated analyses is therefore obvious.

Although this research on the link between non-nuclear family types and victimization gives clues, we actually know very little about the prevalence of victimization among OHC children and youths as compared to children without OHC experience. This holds both when we discuss difference in the cross-section and with regard to development over time. The analyses below thus fill an important knowledge gap in both child welfare research and in victimization research. Existing evidence of the negative long-term consequences of child abuse further strengthens this argument.

Method

Data and population

The repeated cross-sectional data analyzed in this study are from the SSS spanning the period between 2002 and 2022. Conducted biennially by the City of Stockholm, the survey comprises 11 waves during this period. It includes all Year 9 (ages 15-16) and second-year upper-secondary school students (ages 17-18) in schools managed by the municipality of Stockholm. Additionally, a large proportion of independent schools in the municipality also voluntarily participate. Average response rate during this period was around 78% (min-max: 72-82%) with no clear trend observed (Stockholms stad, 2022). Since participation in the SSS is anonymous, the Regional Ethical Review Board of Stockholm has determined that studies using the SSS are exempt from ethical approval (ref. no. 2010/241-31/5).

The current sample includes 140,168 individuals. Due to incomplete data (with an internal dropout rate of around 10%/n=13,861), the analytical sample consists of 126,307 individuals (boys: n=60,858/48%; girls: n=65,449/52%) nested within 634 schools. Missing value analyses suggest that the distribution of characteristics such as sex, age, grade, and year when the survey was conducted in the analytical sample was virtually the same as in the initial sample without incomplete data (not shown).

Dependent variables

The present paper departs from a general understanding of victimization as being the result of criminal acts, causing harm to either person or property (e.g., Truman & Planty, 2012). That being said, in practice we rely on the subjective perception of the respondents in surveys. The implications of this are discussed further below.

Six binary (0/1) variables were created to indicate the following experiences of victimization: 1) threatened, 2) robbed, 3) stolen from, 4) beaten, 5) sexually abused, and 6) any victimization. Respondents were asked whether they had experienced any of these situations within the previous twelve months: 1) feeling severely threatened, 2) being robbed, 3) being stolen from, 4) being beaten, or 5) being forced to have sex/been raped. Each question offered the response options 'yes' and 'no'. In this study, 'yes' was assigned the value of 1 (indicating prevalence), and 'no' was assigned the value of 0 (indicating non-prevalence), resulting in five outcomes. The sixth outcome was established to indicate the experience of at least one of these situations.

Independent variables

The main exposure, a binary variable indicating living in FFC, was created from a family-type variable, which was based on the question 'Which persons do you live with?', with the following set of non-mutually exclusive response categories: 'Mother'; 'Father'; 'Stepmother/stepfather'; 'Siblings'; 'Alternating residence with mother and father'; 'Other relatives'; 'Foster parents'; 'Other'; 'I live alone'. Based on an established operationalization of various family types (Låftman et al., 2014), the following five mutually exclusive family types were identified: 1) Nuclear family, 2) Joint physical custody, 3) Reconstituted family, 4) Single parent, and 5) Foster parents. Those who belonged to the fifth category were coded as 1 while the other alternatives were coded as 0. Due to data limitations, youth living in residential care cannot be identified, leaving their inclusion in the SSS uncertain. While the goal for children in residential care is to attend regular schools alongside peers not in care, the prevalence of this practice is unclear. Children in small-scale residential care may be more likely to attend mainstream schools, while those in institutional care, often placed due to behavioral challenges or severe needs, typically receive education on-site.

The year when the survey was conducted (survey year), which is reported by those who administer the survey, constitutes the base for a trend variable used to examine whether there was a change over time.

Control variables

Given the strong selection into OHC, where, e.g., antisocial behaviors, foreign background and low socio-economic status are robust markers of placement (Simkiss et al., 2013), various confounding factors related to both the respondents and their parents were included in the analysis.

In addition to a binary variable which takes the value of 1 for respondents in Year 9 (and 0 for those in the second year of upper secondary school, Year 11), an ordinal variable indicating the respondent's age was derived from the question 'How old are you?' with the following response alternatives: '15 years or younger'; '16 years'; '17 years'; '18 years'; and '19 years or older'. The variable was entered as categorical. Born abroad, which is a proxy for foreign background, is a binary variable derived from the question: 'How long have you lived in Sweden?' with the response alternatives a) 'All my life'; b) '10 years or more'; c) '5–9 years'; and d) 'Less than 5 years'. Those who chose options b/c/d were coded as 1, while those who chose option a) were coded as 0 (indicating born in Sweden). Risk behaviors was measured by means of dichotomized index of those respondents who stated that, at least once during the last 12 months, they had: forced someone to give them money, a mobile phone or something else valuable; stolen a moped or motorbike; stolen a car; broken into a shop, newsstand or some other building; sold something that had been stolen; bought something that had been stolen; stolen a bicycle; fare evasion in public transport; intentionally hit someone so that they think or know that the person needed medical attention; stolen something from somebody's pocket; forced someone to have sex with them; or carried a weapon (e.g. knife, brass knuckles). Respondents who stated having engaged in one or more of these acts during the past year were assigned the value 1, while the remainder were assigned the value 0. Due to the high internal dropout rate, a code for missing data was included, thereby rendering the variable categorical (see Table 1).

Table 1. Descriptive statistics (%), by sex.

Variable/Sample	Boys (n=60,858)	Girls (n=65,449)	|RD|
Victimization outcomes			
Threatened	13.0	8.8	4.2 (p<0.001)
Robbed	4.7	2.6	2.1 (p<0.001)
Stolen from	10.3	11.0	0.7 (p<0.001)
Beaten	5.4	3.2	2.2 (p<0.001)
Sexually abused	1.6	3.7	2.1 (p<0.001)
Any victimization	22.9	20.9	2.0 (p<0.001)
Main exposure			
Foster family care	1.1	0.7	0.4 (p<0.001)
Survey year			
2002	7.2	7.0	0.2 (p=0.167)
2004	7.8	7.4	0.4 (p=0.007)
2006	9.0	8.9	0.1 (p=0.534)
2008	10.2	10.2	0.0
2010	11.1	11.1	0.0
2012	9.2	9.6	0.4 (p=0.015)
2014	7.7	8.2	0.5 (p=0.001)
2016	9.6	9.5	0.1 (p=0.546)
2018	8.2	8.1	0.1 (p=0.516)
2020	9.1	9.1	0.0
2022	10.8	10.8	0.0
Control variables			
Year 9	50.4	47.1	3.3 (p<0.001)
Year 11	49.6	52.9	3.3 (p<0.001)
≤Age 15	32.9	30.9	2.0 (p<0.001)
Age 16	17.7	17.0	0.7 (p=0.001)
Age 17	33.0	36.0	3.0 (p<0.001)
Age 18	14.0	14.2	0.2 (p=0.307)
≥Age 19	2.4	2.0	0.4 (p<0.001)
Born abroad	14.2	13.9	0.3 (p=0.125)
Born in Sweden	85.5	85.8	0.3 (p=0.129)
Missing	0.4	0.3	0.1 (p=0.003)
Risk behaviors	53.1	51.0	2.1 (p<0.001)
No risk behaviors	24.3	28.7	4.4 (p<0.001)
Missing	22.7	20.3	2.4 (p<0.001)
Mother: ≤9 years education	4.3	5.4	1.1 (p<0.001)
Mother: Upper secondary school	14.2	15.5	1.3 (p<0.001)
Mother: University	45.8	48.3	2.5 (p<0.001)
Mother: Do not know her education	17.6	13.1	4.5 (p<0.001)
Mother: Missing	18.1	17.7	0.4 (p=0.064)
Father: ≤9 years education	5.2	5.8	0.6 (p<0.001)

Table 1. (*Continued*)

Variable/Sample	Boys (n=60,858)	Girls (n=65,449)	|RD|
Father: Upper secondary school	14.9	15.8	0.9 (p<0.001)
Father: University	42.3	43.1	0.8 (p=0.004)
Father: Do not know his education	18.0	16.1	1.9 (p<0.001)
Father: Missing	19.7	19.3	0.4 (p=0.073)
Mother unemployed	3.1	3.3	0.2 (p=0.044)
Father unemployed	2.1	2.4	0.3 (p<0.001)

Note: |RD| = Absolute risk difference (percentage units).

Confounding factors related to the parents were also incorporated. Parents' educational level is measured by two categorical variables (one for each parent) and was constructed from the question: 'What education (or equivalent) in the list below do your parents have?' with the following response options to be ticked separately for the mother and the father: 'Less than 9 years of schooling'; 'Compulsory school'; 'Upper secondary school'; 'University'; and 'Don't know'. Parents' employment status is measured by two binary variables (one for each parent) and was derived from the question: 'What do your parents do?' Those who marked the alternative 'Unemployed' for mother and father respectively were coded as 1, and all the others were coded as 0. Since the internal dropout was high (see Table 1), a code for missing data was included for these parental indicators.

Statistical analyses

Sample characteristics are reported as percentages (%), and differences in various characteristics between subsamples are reported as risk differences (RDs). A two-sample test of proportions was utilized to evaluate whether RDs differ between subgroups.

Since the dependent variables were binary, and the conceptual framework is largely grounded in the assessment of risk, univariable and multivariable modified Poisson regression models were estimated to obtain the relative risk (risk ratio, RR) and its corresponding 95% confidence interval (CI) between FFC experience and the addressed outcomes. Cluster-robust standard errors were used to account for the clustering of respondents in schools. Moderation analysis (effect modification), involving an interaction term for FFC and trend, was conducted to determine whether FFC-experienced individuals as a group exhibited a different development over time compared to those without such experience. All analyses were stratified by sex and performed using Stata 18/SE-version.

Results

General descriptive statistics of this metropolitan sample of 15-16/17-18-year-old youth are reported in Table 1. The most prevalent types of victimization in boys are being threatened (13%) and being stolen from (10%). This also applies to girls, albeit

with the order reversed (being stolen from at 9% and being threatened at 11%). The least prevalent types of victimization in boys refer to being beaten, being robbed (both at roughly 5%), and being sexually abused (around 2%). A similar pattern could also be found in girls, although being sexually abused is more prevalent (nearly 4%) and the other types are less prevalent (both roughly at 3%). Around 20% of both boys and girls have experienced some form of victimization. In boys, just over 1% report that they live in FFC. The corresponding figure for the girls is 0.7%. With some exceptions (e.g., more boys than

girls are in Year 9 and vice versa in Year 11, and more boys exhibit risk behaviors than girls), the distribution of background factors is fairly similar across the sexes.

Table 2 reports the prevalence of various types of victimization among boys and girls with and without FFC experience. As seen on the left-hand side of the table, victimization is more prevalent among boys with FFC experience compared to their non-FFC counterparts (RD=2.3-8.5). Similarly, as evident on the right-hand side of the table, a comparable but more pronounced pattern can be observed among FFC girls (RD=3.4-16.1). The observation that the risks for being threatened and being beaten are lower for girls than for boys in the No FFC group is exactly what we would expect. The fact that the opposite is true when we look within the FFC group is thus worth highlighting. This deviation is particularly salient when it comes to violent offending where non-FFC girls are 34% less likely to be beaten as compared to non-FFC boys, whereas in the FFC groups girls are 50% more likely than boys to be victims of violence.

Table 2. Sex-stratified prevalence of various types of victimization (%), by care experience.

Variable/ Sample	**Boys**			**Girls**		
	No FFC (n=60,177)	**FFC (n=681)**	**|RD|**	**No FFC (n=64,969)**	**FFC (n=480)**	**|RD|**
Threatened	13.0	18.1	5.1 (p<0.001)	8.7	19.6	10.9 (p<0.001)
Robbed	4.6	7.6	3.0 (p<0.001)	2.6	6.0	3.4 (p<0.001)
Stolen from	10.2	12.5	2.3 (p=0.049)	11.0	15.2	4.2 (p=0.003)
Beaten	5.3	8.4	3.1 (p<0.001)	3.1	12.5	9.4 (p<0.001)
Sexually abused	1.5	5.7	4.2 (p<0.001)	3.6	11.0	7.4 (p<0.001)
Any victimization	22.8	31.3	8.5 (p<0.001)	20.8	36.9	16.1 (p<0.001)

Note: FFC = Foster family care, |RD|=Absolute risk difference (percentage units).

Figure 1 displays the general development of victimization over time. Except for being robbed, which shows an increasing trend, the overall rates of victimization decline over time. Although the levels may differ, the trends are similar for boys and girls. However, the trend for being sexually abused differs between the sexes. While it decreases in boys, it increases in girls. It is noteworthy that the general pattern is one of strong convergence of victimization rates for girls and boys. Two exceptions to this pattern can be discerned; Robbed and Sexually abused.

The trends in victimization among youth with and without FFC experience, without accounting for confounding factors, are reported in Figure 2. As shown in the upper section, FFC boys as a group seem to follow the same decreasing trend as non-FFC boys regarding being threatened, stolen from, and having at least one victimization. Although the precision appears to be poor (wide 95% CIs), FFC boys seem to have diverging trends for being robbed (decreasing rather than increasing), and for being beaten and sexually abused (increasing rather than decreasing). In the lower section, FFC girls appear to have the same development over time as their non-FFC counterparts regarding being stolen from, beaten, and sexually abused. However, FFC girls exhibit diverging trends for being threatened or having experienced at least one type of victimization (increasing rather than decreasing) and being robbed (decreasing rather than increasing).

Figure 1. General trends in victimization types 2002-2022 with 95% confidence intervals, by sex. Results from univariable modified Poisson regression analyses.

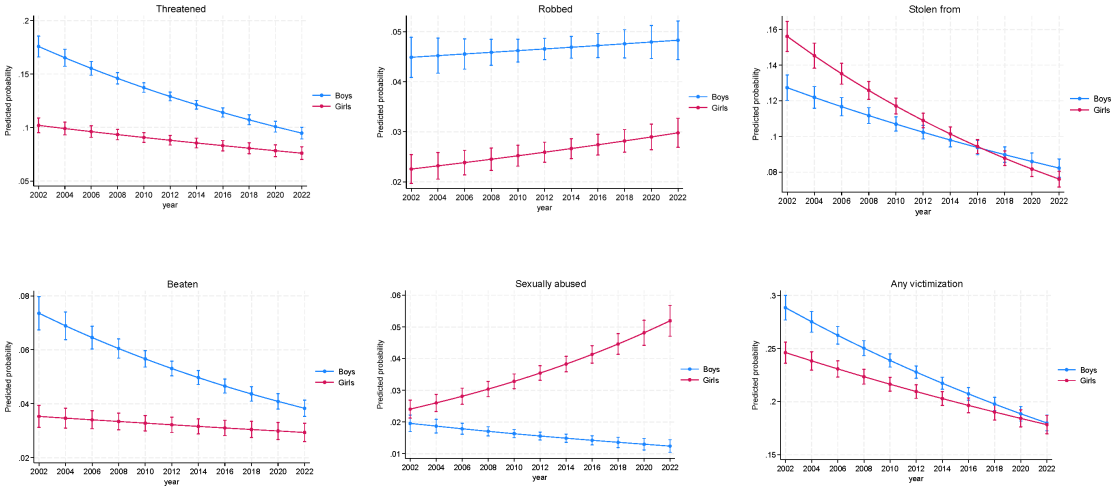
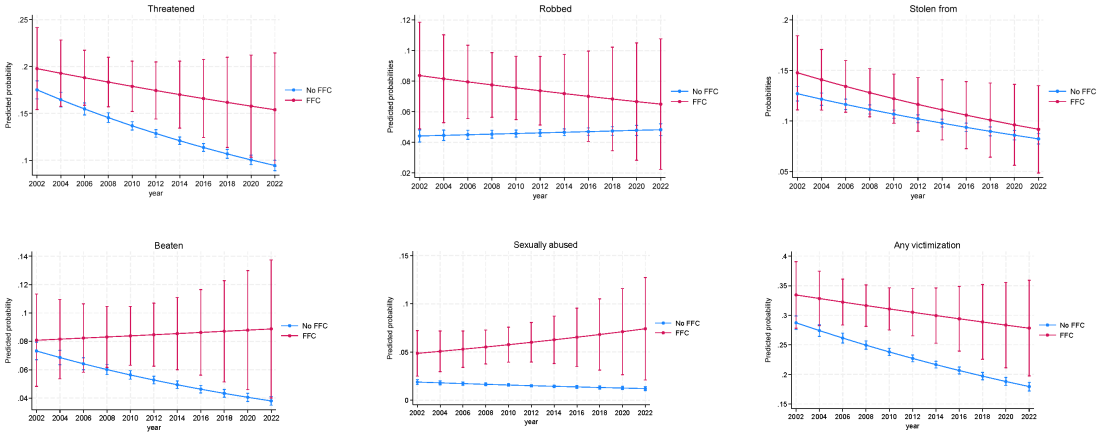
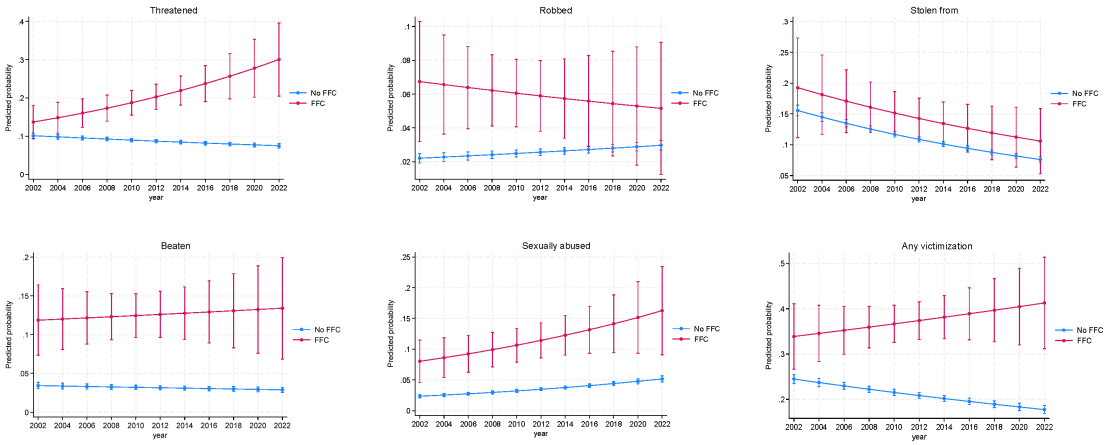


Figure 2. Sex-stratified trends in victimization types 2002-2022 with 95% confidence intervals, by care experience. Results from modified Poisson regression analyses without confounding factors.

Boys



Girls



Note: FFC=Foster family care.

Similar to the previously reported RDs, crude associations from regression analyses describing relative differences between FFC and non-FFC youth, reported in Table 3, show that those who live in FFC typically have elevated risks of being victimized. With the exception of being sexually abused, the size of the RRs is gendered. For example, while boys in FFC have a nearly 30% higher risk of being threatened compared to boys without such experience (RR=1.28, 95% CI: 1.11; 1.47), corresponding girls have more than twice the risk (RR=2.18, 95% CI: 1.83; 2.60). This also holds for being beaten, where boys in FFC have a roughly 40% heightened risk (RR=1.43, 95% CI: 1.12; 1.85) and girls have a nearly fourfold risk (RR=3.91, 95% CI: 3.09, 4.95).

Table 3. Crude and adjusted associations between living in foster-family care and various types of victimization, by sex. Results from modified Poisson regression analyses.

Outcome/Sample		**Boys (n=60,858)**	**Girls (n=65,449)**
		RR (95% CI)	RR (95% CI)
Threatened	Crude	1.28 (1.11; 1.47)	2.18 (1.83; 2.60)
	Adjusted	1.25 (1.09; 1.44)	1.94 (1.64; 2.30)
	FFC x trend interaction?	No (p>0.10)	Yes (p<0.01)
Robbed	Crude	1.67 (1.28; 2.18)	2.40 (1.73; 3.33)
	Adjusted	1.52 (1.17; 1.97)	1.74 (1.27; 2.38)
	FFC x trend interaction?	No (p>0.10)	Yes (p<0.10)
Stolen from	Crude	1.14 (0.95; 1.39)	1.29 (1.02; 1.64)
	Adjusted	1.16 (0.97; 1.41)	1.34 (1.05; 1.70)
	FFC x trend interaction?	No (p>0.10)	No (p>0.10)
Beaten	Crude	1.43 (1.12; 1.85)	3.91 (3.09; 4.95)
	Adjusted	1.26 (0.98; 1.61)	2.88 (2.25; 3.69)
	FFC x trend interaction?	No (p>0.10)	No (p>0.10)
Sexually abused	Crude	3.56 (2.54; 4.99)	3.29 (2.51; 4.30)
	Adjusted	2.72 (1.94; 3.82)	2.68 (2.06; 3.48)
	FFC x trend interaction?	No (p>0.10)	No (p>0.10)
Any victimization	Crude	1.29 (1.15; 1.44)	1.71 (1.53; 1.93)
	Adjusted	1.26 (1.13; 1.41)	1.61 (1.44; 1.80)
	FFC x trend interaction?	No (p>0.10)	Yes (p<0.10)

Note: FFC = Foster family care. RR=Risk ratio. CI=Confidence interval. Intercepts and trend estimates suppressed. Crude models include trend. Adjusted models include trend, grade, age, birth country, own risk behaviors, maternal/paternal educational attainment, and maternal/paternal unemployment.

When accounting for confounding factors, including respondents' own risk behaviors, the elevated risks are somewhat reduced. Yet the previous pattern remains: those with FFC experience generally have elevated risks of being victimized compared to non-FFC peers, and the size of most associations is still gendered. With the exception of being sexually abused, where boys and girls in FFC have nearly three times the risk (RR≈2.7), the elevated risks in boys are typically lower (RR=1.16-1.52). While FFC girls have around a 60% elevated risk of experiencing at least one type of victimization (RR=1.61, 95% CI: 1.44; 1.80), the roughly two to three times higher risks of being threatened and beaten stand out (RR=1.94-2.88).

Moderation analyses (including confounding factors) were performed to assess whether FFC-experienced individuals exhibited a different development over time compared to non-FFC peers. The interaction terms were typically not statistically significant at conventional levels (see Table 3), thereby indicating that FFC-experienced individuals, albeit at different levels, generally followed the trends found in non-FFC peers. However, FFC girls had a statistically significantly ($p<0.10$) different trend for being threatened, being robbed, and having experienced at least one type of victimization. Unlike non-FFC peers, FFC girls thus exhibited an upward trend in experiencing threats, as opposed to the downward trend being observed for non-FFC girls. This is also what drives the corresponding pattern when it comes to having experienced at least one type of victimization. Additionally, FFC girls exhibited a decreasing rather than increasing trend of being robbed (see Figure 2).

Discussion

As far as we know, this study was the first aimed at illuminating the extent to which care-experienced youth deviated from others in terms of reported victimization development. Specifically, we examined how prevalent victimization was among youth living in FFC and how it differed compared to same-aged youth without such experience. We also explored how victimization changed over time and whether this change differed between youth living in FFC and those without such experience.

As expected, victimization in FFC youth is considerably higher than in youth without such experience. This aligns well with prior research on poly-victimization, which suggests elevated risks of revictimization in individuals previously subjected to abuse and neglect (e.g., Finkelhor et al., 2007a). However, surprisingly little of these risks can be explained away by background factors such as risk behavior, parental educational attainment, etc. The magnitude of the elevated risks varies also by crime type. The highest surplus risks are found for sexual abuse for both boys and girls, and assault (beaten) for girls. In these cases, FFC youth are three to four times as likely to be victimized as compared to non-FFC youth. The only crime type where the elevated risk for FFC youth was not statistically significant was theft, specifically for boys.

Moreover, FFC boys follow the declining victimization trend that we observe among youth in general. For most crime types this is true also for girls. However, two exceptions from this trend can be noted. For threats, FFC girls have experienced an increasing trend that deviates significantly from the slowly declining trend among non-FFC girls. For robbery, a crime type for which victimization increases over the time period in focus, the trend for FFC girls is instead declining, and in the adjusted models, from 2012 and onwards there are no longer any statistically significant differences between FFC girls and non-FFC girls (not shown). Since threats are one of the two dominating crime types (the other being theft), its steep increase drives the overall victimization rate to increase as well among FFC girls, as opposed to girls without FFC experience, for whom the overall victimization rate declines.

The current study diverges from previous research on victimization in OHC populations in terms of design, methods, sample size, outcome definition, and setting. As a result, our findings are not directly comparable to those of earlier studies. That said, our findings align with prior research indicating elevated victimization risks for youth in care compared to same-aged majority population peers (Euser et al., 2014; Tordön et al., 2019). It has also been reported that girls in locked and semi-locked institutions in Sweden are more often victimized than boys (IVO, 2023). Although the situation and crime types

inside these institutions are very different from what we should expect in foster-family homes, it is interesting to note the higher surplus risk among girls also in this latter context.

It is also important to note that the crime type that increases most as compared to others among the FFC girls is threats, a crime that is just as likely to happen outside of the home as inside the home, whereas the crime type that deviates in the other direction, robbery, is typically an outdoor crime. As already mentioned, and as shown in Figure 2, the decline in robbery results in a convergence of the robbery rates of FFC girls and others. One possible way of explaining this pattern is as a 'normalization' of robbery victims whereby both groups regress toward the mean. A process which could have its roots in a convergence also of routine activities and lifestyle exposure (Cohen & Felson, 1979; Meier & Miethe, 1993).

Such an explanation is obviously not applicable to the increase of threats directed at FFC girls. This could instead be a result of an increased inclination of other household members to exert power and control over these girls (Goode, 1971). Unfortunately, the available data do not include information on either context of victimization or of who was the perpetrator. So, these potential explanations thus far remain fairly speculative.

Strengths and limitations

Strengths of this study include its large sample size and the ability to identify a sizable population of youth living in FFC at the time of the survey (n>1,100). The large sample size also enabled separate analyses of boys and girls, as well as the application of multivariable regression analyses. Another strength is the possibility of comparing FFC-experienced youth with those without such experience, and to account for own criminal behaviors. Since the data cover two decades, it was also possible to study how victimization evolved over time in youth with and without care experience.

However, all repeated cross-sectional surveys have limitations and ours is no exception. Besides the fact that the associations between FFC experience and the addressed outcomes do not allow for causal interpretations, a major limitation is that we are not able to follow the same individuals over time. This means we cannot examine how experiences of victimization develop within individuals, preventing us from evaluating whether and to what extent exposure to victimization is an isolated incident or a persistent issue. Although the FFC population is sizeable overall, the number of individuals distributed across the 11 waves is not as impressive ($n \approx 100$/wave), particularly when considering the numbers of boys and girls separately. This means that the sex-stratified interaction analyses may be underpowered to detect diverging trends between FFC and non-FFC youth (see Figure 2, where, for example, experiences of being beaten in FFC boys seem to increase over time rather than decrease as it does among peers). Youth living in residential care could moreover not be identified. This limitation affects the conclusions of this study in unknown ways. As noted above, it would also have been desirable to identify who the perpetrators were and where the victimization occurred.

Another limitation arises from the absence of information regarding the timing, duration and stability of placement. As a result of this, and considering that the questions about victimization concern exposure in the last 12 months, it remains uncertain whether the victimization occurred during the placement, despite a reasonable assumption that it did. Some of the control variables were also poor on precision, especially the variable 'born abroad' which is supposed to indicate foreign background. Regarding the confounding factors related to parental education and employment status, it is also unclear whether FFC

youth refers to their foster parents or biological parents. However, this is likely a minor issue, as a socioeconomic matching process appears to play a role in pairing foster families with foster children (Berlin et al., 2019).

Additional constraints refer to the use of pooled datasets spanning two decades. Even though the overall response rate was generally high, with no clear trend of declining response rates over time, the Swedish child welfare system has undergone changes during the period addressed. These changes include a stronger focus on children's rights and participation (Pålsson et al., 2025) and a growing trend toward marketization, characterized by the outsourcing and privatization of OHC (Lundström et al., 2020). However, the impact of these developments on the results of this study is yet to be clarified, particularly as reliable data on these changes over time is often unavailable.

Another potential constraint concerns how the understanding and perception of various acts as being criminal may have changed over the period in focus. It is, for example, a fact that the Swedish population has become increasingly intolerant towards violent acts, sexual harassment, etc. (von Hofer, 2006; Brå, 2020), which may have had consequences for how the number who report having been exposed to such crimes changes over time. However, that would primarily have implications for the overall level of victimization over the years and less so for how differences between groups develop.

Implications

FFC is a way of providing a safe and nurturing family environment for maltreated children who cannot reside with their biological parents. In Scandinavian countries, this intervention goes beyond child protection, explicitly aiming to enhance children's development and future opportunities (Hessle & Vinnerljung, 1999). When a child is placed in FFC, society assumes responsibility for the child's well-being and growth, where neglecting to provide a nurturing upbringing can have detrimental effects on both the child and society (Brännström et al., 2020). Given the substantial societal investments dedicated to enhancing the well-being of FFC youth, the high prevalence of victimization within this group is particularly concerning and warrants attention. This situation underscores the need for targeted interventions and policies to protect these vulnerable individuals and ensure they receive the support and care necessary for their safety and development.

The Swedish discussion about victimization among children in OHC has been vibrant in recent years. However, it has primarily focused on conditions within the locked and semi-locked state-run institutions for abused and neglected children and youth, as well as those who are self-destructive, asocial, or involved in criminal activities. This study suggests that this discussion should also extend to the conditions for adolescents and children in foster families. However, about 15 years ago, the so-called Neglect Inquiry released its final report to the government on neglect and abuse within Swedish OHC during the 20th century (Socialdepartementet, 2011). Although the sample of interviewees was not random, the results from the inquiry indicated that the level of abuse and neglect was in fact higher in foster homes than in institutions on average throughout the century. This may have changed, but the results presented here suggest that it is not necessarily so. In fact, future research should address this issue by posing the same standardized questions to OHC children and adolescents in both institutions and foster homes.

Conclusions

Although FFC youth typically had the same victimization trends as non-FFC youth, this study provides a solid empirical basis for asserting that youth, especially girls, face

substantially elevated risks of being victimized while in care. To the extent that children and youth are placed in societal care to promote safety, the results are disturbing and warrant action from policymakers and practitioners. Further research using large nationwide samples that encompass a substantial number of youths with care experience from other countries is nevertheless crucial to validate the external applicability of the findings presented in this study.

Conflict of interests

The authors have no conflicting interests to declare.

Data availability

Inquiries regarding access to data from the Stockholm School Survey should be directed to the responsible officials at the Municipality of Stockholm via the following address: stockholmsenkaten@stockholm.se.

Funding

This work was supported by the Swedish Crime Victim Authority.

References

Assink, M., van der Put, C.E., Meeuwsen, M.W.C.M., de Jong, N.M., Oort, F.J., Stams, G.J.J.M. & Hoeve, M. (2019). Risk factors for child sexual abuse victimization: A meta-analytic review. *Psychological Bulletin*, *145*(5), 459. https://doi.org/10.1037/bul0000188

Bäckman, O., Estrada, F., Nilsson, A. & Sivertsson, F. (2021). Criminal convictions and immigrant background 1973–2017 in Sweden – have differences increased or declined? *Nordic Journal of Criminology*, *22*(2), 149–168. https://doi.org/10.1080/2578983X.2021.1900038

Baidawi, S., Newton, D., Mendes, P., Bollinger, J. & Purtell, J. (2024). From care to corrections: A scoping review of pathways from child protection to adult criminal justice systems. *Trauma, Violence, & Abuse*. https://doi.org/10.1177/15248380241279861

Baker, A.J.L., Brassard, M.R., Schneiderman, M.S. & Donnelly, L.J. (2013). Foster children's report of psychological maltreatment experiences. *Journal of Public Child Welfare*, *7*(3), 235–252. https://doi.org/10.1080/15548732.2013.779624

Batty, G.D., Kivimäki, M. & Frank, P. (2022). State care in childhood and adult mortality: A systematic review and meta-analysis of prospective cohort studies. *The Lancet Public health*, *7*(6). https://doi.org/10.1016/S2468-2667(22)00081-0

Bennett, A., Clement, A., Walton, R., Jackson, Y. & Gabrielli, J. (2024). Youth reported perpetrators of victimization within a foster care sample. *Child Maltreatment*, *29*(2), 283–296. https://doi.org/10.1177/10775595231163452

Berlin, M., Vinnerljung, B., Hjern, A. & Brännström, L. (2019). Educational outcomes of children from long-term foster care: Does foster parents' educational attainment matter? *Developmental Child Welfare*, *1*(4), 344–359. https://doi.org/10.1177/2516103219892274

Blumstein, A. & Wallman, J. (2006). The crime drop and beyond. *Annual Review of Law and Social Science*, *2*(1), 125–146. https://doi.org/10.1146/annurev.lawsocsci.2.081805.110011

Brodie, I. & Pearce, J. (2017). Violence and alternative care: a rapid review of the evidence. *Psychology, Health & Medicine*, *22*(sup1), 254–265. https://doi.org/10.1080/13548506.2017.1281980

Brå. (2024). *Nationella trygghetsundersökningen 2024*. Report 2024:8. Brottsförebyggande rådet.

Brå. (2020). *Anmälda och uppklarade våldtäkter i Europa. Svårigheter vid internationella jämförelser*. Report 2020:2. Brottsförebyggande rådet.

Brännström, L., Vinnerljung, B. & Hjern, A. (2020). Outcomes in adulthood after long-term foster care: A sibling approach. *Child Maltreatment*, *25*(4), 383–392. https://doi.org/10.1177/1077559519898755

Cohen, L.E. & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review*, *44*(4), 588–608. https://doi.org/10.2307/2094589

Ellonen, N. & Pösö, T. (2011). Violence experiences in care: Some methodological remarks based on the Finnish child victim survey. *Child Abuse Review*, *20*(3), 197–212. https://doi.org/10.1002/car.1181

Erera, P.I. (2002). *Family diversity: Continuity and change in the contemporary family*. Sage Publications.

Estrada, F. (2022). Ungdomsbrottslighetens utveckling, omfattning och struktur. In F. Estrada, J. Flyghed & A. Nilsson (Eds.), *Den svenska ungdomsbrottsligheten*. Studentlitteratur.

Estrada, F., Bäckman, O. & Nilsson, A. (2022). *Biased enforcement expansion? sociodemographic differences in police drug testing for suspected narcotics use 1993–2015*. *The British Journal of Criminology*, *62*(5), 1213–1232. https://doi.org/10.1093/bjc/azac037

Euser, S., Alink, L.R.A., Tharner, A., van IJzendoorn, M.H. & Bakermans-Kranenburg, M.J. (2014). Out of home placement to promote safety? The prevalence of physical abuse in residential and foster care. *Children and Youth Services Review*, *37*, 64–70. https://doi.org/10.1016/j.childyouth.2013.12.002

Finkelhor, D., Ormrod, R.K. & Turner, H.A. (2007a). Re-victimization patterns in a national longitudinal sample of children and youth. *Child Abuse & Neglect*, *31*(5), 479–502. https://doi.org/10.1016/j.chiabu.2006.03.012

Finkelhor, D., Ormrod, R.K. & Turner, H.A. (2007b). Polyvictimization: A neglected component in child victimization trauma. *Child Abuse & Neglect*, *31*(1), 7–26. https://doi.org/10.1016/j.chiabu.2006.06.008

Fohring, S. (2022). Patterns of victimization and gender: Linking emotion, coping, reporting and help-seeking. *Journal of Victimology and Victim Justice*, *5*(2), 121–138. https://doi.org/10.1177/25166069221139903

Font, S.A. & Gershoff, E.T. (2020). *Foster care and best interests of the child: Integrating research, policy, and practice*. Springer Nature.

Goemans, A., van Geel, M. & Vedder, P. (2015). Over three decades of longitudinal research on the development of foster children: A meta-analysis. *Child Abuse & Neglect*, *42*, 121–134. https://doi.org/10.1016/j.chiabu.2015.02.003

Goode, W.J. (1971). Force and violence in the family. *Journal of Marriage and the Family*, *33*(4), 624–636. https://doi.org/10.2307/349435

Gypen, L., Vanderfaeillie, J., De Maeyer, S., Belenger, L. & Van Holen, F. (2017). Outcomes of children who grew up in foster care: Systematic-review. *Children and Youth Services Review*, *76*, 74–83. https://doi.org/10.1016/j.childyouth.2017.02.035

Hessle, S. & Vinnerljung, B. (1999). Child welfare in Sweden: An overview. In *Department of Social Work*. Stockholm University.

Hyde-Nolan, M.E. & Juliao, T. (2012). Theoretical basis for family violence. In R.S. Fife & S. Schrager (Eds.), *Family violence: What health care providers need to know* (pp. 5–16). Jones & Bartlett Publishers.

IVO. (2023). *Tillsyn av SiS särskilda ungdomshem 2021-2022. Redovisning av regeringsuppdrag S2021/03345*. Inspektionen för vård och omsorg.

Jablonska, B. & Lindberg, L. (2007). Risk behaviours, victimisation and mental distress among adolescents in different family structures. *Social Psychiatry and Psychiatric Epidemiology*, *42*(8), 656–663. https://doi.org/10.1007/s00127-007-0210-3

Khoo, E., Skoog, V. & Dalin, R. (2012). In and out of care. A profile and analysis of children in the out-of-home care system in Sweden. *Children and Youth Services Review*, *34*(5), 900–907. https://doi.org/10.1016/j.childyouth.2012.01.019

Kääriälä, A. & Hiilamo, H. (2017). Children in out-of-home care as young adults: A systematic review of outcomes in the Nordic countries. *Children and Youth Services Review*, *79*, 107–114. https://doi.org/10.1016/j.childyouth.2017.05.030

Lauritsen, J.L. & Rezey, M.L. (2018). Vicitimization trends and correlates: Macro- and microinfluences and new directions for research. *Annual Review of Criminology*, *1*(1), 103–121. https://doi.org/10.1146/annurev-criminol-032317-092202

Loomis, A.M., Feely, M. & Kennedy, S. (2020). Measuring self-reported polyvictimization in foster youth research: A systematic review. *Child Abuse & Neglect*, *107*, 104588. https://doi.org/10.1016/j.chiabu.2020.104588

Lundström, T., Sallnäs, M. & Shanks, E. (2020). Stability and change in the field of residential care for children. On ownership structure, treatment ideas and institutional logics. *Nordic Social Work Research*, *10*(1), 39–50. https://doi.org/10.1080/2156857X.2018.1541016

Lutman, E. & Barter, C. (2017). Peer violence in foster care: A review of the research evidence. *Child & Family Social Work*, *22*(2), 1104–1113. https://doi.org/10.1111/cfs.12284

Låftman, S.B., Bergström, M., Modin, B. & Östberg, V. (2014). Joint physical custody, turning to parents for emotional support, and subjective health: A study of adolescents in Stockholm, Sweden. *Scandinavian Journal of Public Health*, *42*(5), 456–462. https://doi.org/10.1177/1403494814526798

Meier, R.F. & Miethe, T.D. (1993). Understanding theories of criminal victimization. *Crime and Justice*, *17*, 459–499. https://doi.org/10.1086/449218

Nilsson, A. & Estrada, F. (2006). The inequality of victimization: Trends in exposure to crime among rich and poor. *European Journal of Criminology*, *3*(4), 387–412. https://doi.org/10.1177/1477370806067910

Nilsson, A., Estrada, F. & Bäckman, O. (2017). The unequal crime drop: Changes over time in the distribution of crime among individuals from different socioeconomic backgrounds. *European Journal of Criminology*, *14*(5), 586–605. https://doi.org/10.1177/1477370816682979

Pålsson, D., Leviner, P. & Wiklund, S. (2025). Children's right to participation in Swedish child welfare – The extent, nature and determinants of child interviews during investigations. *Child Abuse & Neglect*, *162*, 107000. https://doi.org/10.1016/j.chiabu.2024.107000

Simkiss, D.E., Stallard, N. & Thorogood, M. (2013). A systematic literature review of the risk factors associated with children entering public care. *Child: Care, Health and Development*, *39*(5), 628–642. https://doi.org/10.1111/cch.12010

Socialdepartementet. (2011). Vanvård i social barnavård. Slutrapport. SOU 2011: 61. Socialdepartementet.

Stein, M. (2006). Research review: Young people leaving care. *Child & Family Social Work*, *11*(3), 273–279. https://doi.org/10.1111/j.1365-2206.2006.00439.x

Stockholms stad. (2022). *Stockholmsenkäten 2022. Urval av stadsövergripande resultat*. Stockholms stad.

Tonry, M. (2014). Why crime rates are falling throughout the Western world. *Crime and Justice*, *43*(1), 1–63. https://doi.org/10.1086/678181

Tordön, R., Svedin, C.G., Fredlund, C., Jonsson, L., Priebe, G. & Sydsjö, G. (2019). Background, experience of abuse, and mental health among adolescents in out-of-home care: A cross-sectional study of a Swedish high school national sample. *Nordic Journal of Psychiatry*, *73*(1), 16–23. https://doi.org/10.1080/08039488.2018.1527397

Truman, J.L. & Planty, M. (2012). *Criminal Victimization*. Department of Justice. Office justice Programs. Bureau of Justice Statsitcs.

Turner, H.A., Finkelhor, D., Hamby, S.L. & Shattuck, A. (2013). Family structure, victimization, and child mental health in a nationally representative sample. *Social Science & Medicine*, *87*, 39–51. https://doi.org/10.1016/j.socscimed.2013.02.034

Wasserman, M. (2020). *The disparate effects of family structure*. *The Future of Children*, *30*(1), 55–81. https://doi.org/10.1353/foc.2020.0008

von Hofer, H. (2006). Ökat våld och/ eller vidgade definitioner?. *Nordisk Tidskrift for Kriminalvidenskab*, *93*(2), 193–208. https://doi.org/10.7146/ntfk.v93i2.71644