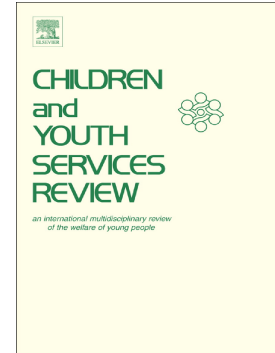# Accepted Manuscript

The coping of young Finnish adults after out-of-home care and aftercare services: A document-based analysis

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The coping of young Finnish adults after out-of-home care and aftercare services: A document-based analysis

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Abstract

Young people taken into custody and lacking the support of their families suffer from social and health problems more often than their peers, and the likelihood of their marginalization in later life can be significantly higher. The aim of this study is to discover how the different factors documented at the time of the custody decision or the placement in out-of-home care are associated with the coping abilities of young adults once aftercare services come to an end. The original dataset consisted of 428 measured variables taken from 600 young Finnish adults who have participated in aftercare services. The data were collected at the end of the aftercare period in 2015 from electronic customer/patient record systems. Original free-text documents were read and data

extracted and collected on a structured electronic worksheet. All of the factors that had influenced the custody decisions were included in the dataset. Thus, the data consisted both of the baseline and follow-up data. The data were analyzed with BayesiaLab 7.0 tool. Altogether, 18.5% of examined persons had no remarkable coping problems, 74.5% had some challenges and seven per cent experienced serious difficulties. A child's own problems, such as substance use, running away from home or truancy, were associated with a poorer prognosis compared to children whose custody decisions stemmed from their parents´ urgent life situations, e.g. substance use, violence or serious mental health issues. Children and adolescents who may be in need of child protection services require effective preventive care activities. If a child does enter out-of-home care, s/he will need more influential social support and personal follow-up to enhance his or her long-term wellbeing as early as possible.

Keywords: long-term effects of custody decisions, aftercare services, out-of-home care, Bayesian modeling

1. Introduction

Family-centered Nordic child welfare practices are characterized by partnerships and voluntary arrangements between families, the authorities and NGOs. The dual earner family model, together with universally available family benefits and health, social welfare and children's services, provide the social support model for families with children. The Nordic countries make a special effort to prevent social risks related to child wellbeing, e.g. by investing in early childhood education in addition to their health and social care (Gilbert, 1997; Satka and Björk, 2004; Eydahl and Kröger, 2010).

Generally speaking, Finland occupies a good position in terms of child wellbeing as one of the Nordic welfare states. Yet among these countries, the numbers of disadvantaged children and

adolescents taken into custody or placed into statutory out-of-home care for other reasons have been the highest in Finland since 2005 (Heino and Johnson, 2010; Kääriälä and Hiilamo, 2017). The considerable number of children going through the process of out-of-home care (placing 12 per 1000 children in Finland, see Kääriälä and Hiilamo, 2017) has made this an important social issue and a trending topic among the populace. Reasons for this trend has been studied and debated with various arguments, e.g. related to community-level factors (Harrikari 2014). Out-of-home care is primarily foster care in families/family homes or in small institutions especially for the teen years and after. It is one of the most far-reaching interventions targeted at children who are abused or neglected by their parents, or who are engaged in social behaviors considered unacceptable for anyone under the age of 18.

This study informs how these young adults are coping. It also informs how are they likely to integrate themselves in education, family life, and to make a career in their later lives after receiving the out-of-home aftercare offered by one big Finnish city. It particularly discovers how the different factors documented at the time of the custody decision, or the placement in out-of-home care, are associated with the coping abilities of young adults once their aftercare services have ended. It is crucial for any society to be well-informed what kind of after-care services to provide, and more widely, to determine how to support their most vulnerable citizens throughout their childhood and youth.

A young Finnish adult, who has received continuous out-of-home care for more than half a year, has the right to aftercare services for at the most a five-year period until he/she has reached the age of 21. Soon it is extended to the age of 25. The municipal authorities have the responsibility to provide for this need should it arise (Child Welfare Act, 2007). Some Finnish cities, such as Helsinki have over the years established well-organized non-institutional aftercare services and supported housing for their care leavers. All services are based on collaboration with the young adult; individual aftercare plans are drawn up based on the specific needs and wishes of the care leaver. However, this service is voluntary for the young person, and in Helsinki it is estimated that only about 40% of care leavers choose to participate in aftercare services. Some of the care leavers have the support of their biological family or foster family, and do not need public services, some are absent e.g. while being in jail, or otherwise unable or unwilling to benefit from the offered aid. The participation rate of the young adults in aftercare services varies: there can be periods of intensive support as well as periods of relative independence.

1.1. Aim

The aim of this retrospective document-based analysis is to discover how the different factors documented at the time of the custody decision, or the placement in out-of-home care, are associated with the coping levels of young adults at the end of the aftercare services. The aim is based on the need to identify groups of children on whom the education system and the child protection and/or other services should target their attention during the crucial early years.

1.2 Theoretical background

It is well known how challenging the transition to adulthood is for care leavers compared to their peers in the general population (e.g. Mendes and Snow, 2016; Gypen et al., 2017; Kääriälä and Hiilamo, 2017; Cameron et al., 2018). In the lives of these young adults, poor outcomes related to health and wellbeing tend to accumulate (Kääriälä and Hiilamo, 2017). Young adults leaving care face many disadvantages due to their adverse experiences in childhood and their disadvantaged social class background, and unlike their peers who have the support of their biological families and kin they often face the transition to adulthood on their own (Heino and Johnson, 2010; Mendes and Snow, 2016).

1.2.1. Profiles of coping

Studies (Courtney et al., 2012; Stein, 2012; Batsche et al., 2014) investigating the heterogeneity that exists among young care leavers are based on a resilience theory and take a holistic perspective of individual development. The transition to adulthood depends on a combination and the interaction of multiple contributing factors. Studies have taken into account the distinctive patterns of past experiences, challenges of current life situation and inherent strengths of young people. Care leavers have dissimilar cultural and ethnic backgrounds and pre-care experiences based on their biological families' life situation and the extent of mistreatment. They have also different needs based on their developmental stage and well-being. Their possibilities to receive support and assistance also diverge. The age entering the care and the in-care experiences increase the dissimilarity of this population. (Mendes and Snow, 2016.)

Stein (2012) has categorized young people leaving care into three groups: "moving on", "survivors" and "strugglers". The first group left the care later and they have had secure and stable placements. Their transition to independent living was planned. They had prepared themselves to the challenges of independent living. They were resilient enough to take advantage of formal and informal support and to secure their lives. The "survivors" have had many difficulties and disruptions during their care. They had therefore left the care early. They have faced many challenges during their independent living on education, housing, working and relationships.

However, they have proven to be able to cope if they receive assistance. The "strugglers" have had the most negative pre-care experiences. They have been placed in several care homes and have had their education and personal relationships disrupted. They were more likely to be homeless and unemployed.

1.2.2. *Education and wellbeing of care leavers*

Overall, young adults with foster care experience have remarkable difficulties in completing post-secondary school and achieving a high-school degree compared to their peers from the general population (Murray and Goddard, 2014; Mendes and Snow, 2016; Gypen et al., 2017; Kääriälä and Hiilamo, 2017; Cameron et al., 2018). In Berlin et al.'s (2011) study, one-third of care leavers had received no training after basic education and were less likely than the control group to gain access to vocational training. Studies in Finland and Sweden have revealed that those placed as teenagers compared to those placed younger faced a higher risk of having no post-comprehensive education (Kääriälä and Hiilamo, 2017; Cameron et al., 2018). Some of the main reasons for teenage placements are related to problems with school attendance and behavior (Cameron et al., 2018). Care leavers are six times more likely to have poorer grades and three times more likely to do unsatisfactorily at school (Berlin et al., 2011; Everson-Hock et al., 2011; Jackson and Cameron, 2012). For all degrees, female care leavers' educational achievements are better than the achievements of male care leavers (Gypen et al., 2017; Cameron et al., 2018). Lack of education hinders the possibilities of care leavers obtaining employment. Former foster children are less likely to be employed and tend to earn considerably less (or live below the poverty line) and have to lean on public assistance more than their peers in the general population (Gypen et al., 2017; Kääriälä and Hiilamo, 2017; Cameron et al., 2018). Females are more likely to be employed than males, but males earn more (Gypen et al., 2017; Cameron et al., 2018). Entering care earlier than during the teenage years is connected to positive outcomes on employment (Cameron et al., 2018).

Former foster children are often homeless and continually move residence (Dumaret et al., 2011; Gypen et al., 2017; Cameron et al., 2018). Dworsky and Courtney (2009) found that running away from care, being in a group care setting, being physically abused prior to entering care and exhibiting delinquent behavior, increased the likelihood of becoming homeless, while feeling very close to at least one adult family member decreased it. Former foster youth's risk of social exclusion and premature death, for example due to suicide, is also several times higher than in their age group in general (Berlin et al., 2011; Kääriälä and Hiilamo, 2017). Female care leavers are statistically at higher risk of teen pregnancy than the control group (Craine et al., 2014; Murray and

Goddard, 2014; Kääriälä and Hiilamo, 2017; Cameron et al., 2018). They are also more likely to deliver their own child (Craine et al., 2014; Murray and Goddard, 2014), but remain less likely to be the child's custodian (Everson-Hock et al., 2011; Murray and Goddard, 2014). Teenage parenthood was most common for those placed as teenagers (Kääriälä and Hiilamo, 2017). Some of the care leavers cope well in their own parenthood despite their personally poor childhood experiences of being parented. Having supportive adult relationships or positive relationships with authority services, or a successful relationship with a partner promotes coping as a parent (Murray and Goddard, 2014).

1.2.3. Health of care leavers

At ages 17 and 18 foster youth are two to four times more likely to suffer mental health disorders and behavioral problems than non-placed young people. Their need for mental health services and substance treatment is much higher than among people in the general population at the same age (Havlicek et al., 2013; Mendes and Snow, 2016; Gypen et al., 2017). Men and young boys placed as teenagers have higher risks of mental health problems than female care leavers and those placed before the onset of the teenage years (Kääriälä and Hiilamo, 2017; Camero et al., 2018). However, the opposite results have also been reported: Gypen et al. (2017) stated in their systematic review that female care leavers have poorer mental outcomes than men. In adulthood, 22% of care leavers have a history of drug abuse, and from 37% to over 50% have serious criminal records, in comparison with only a few per cent in a control group consisting of members of the general public (Berlin et al., 2011; Gypen et al., 2017). Female youth are three times less likely to use drugs or to be arrested than male youth (Gypen et al., 2017). Young adults placed in out-of-home care before the teenage years were more likely to behave criminally and use more alcohol and drugs than the general population (Kääriälä and Hiilamo, 2017).

2. Methods

2.1. Data collection and dataset

The original dataset consisted of 428 measured variables taken from 600 Finnish young persons who had participated in aftercare services; these services consisted of follow-up activities designed to support children and adolescents who had been taken into custody. Altogether, 32 participants were removed due to multiple missing data, leaving 568 subjects of analysis. Subjects had been taken into custody between the years 1991–2013 (median year 2006). The dataset consisted of both

baseline data and follow-up data. Data were collected at the end of the aftercare period in the spring of 2015 from all the available documents that were added to the electronic customer/patient record systems of one big City Division of Social and Health Care in Finland. Original free-text documents were read, and the data were collected on a structured electronic worksheet, which was specially developed for the purposes of this study. All of the reasons that had influenced the custody decisions were included in the dataset. Three researchers, one from nursing sciences and two from social work, collaborated in the same office during the data collection process.

The study was based on a register of patient electronic records and as such it did not require the informed consent of study subjects. Rather, the register holder (City Division of Social and Health Care) gave permission for the study. Because of the sensitivity of the data, all of the credentials of young adults that were required for the data collection from different electronic systems were destroyed when they were found to be unnecessary. The credentials were not recorded in the electronic worksheets, and individual persons cannot be recognized from the data and the results.

The outcome variable was constructed as a sum variable based on previous research on young care leavers. The sum variable includes the following seven variables: teenage pregnancy, compulsory education not completed, substance abuse, criminal record, psychic disorders, the level of social skills and quality of coping with daily activities. Points on each variable were given from 1 to 4; 1 meaning there is no problem, and 4 implying the most problematic scenario.

The cut points for the outcome variable were decided by the researchers after research-informed discussion based on the evidence gathered from international aftercare literature (Courtney et al., 2012; Stein, 2012; Batsche et al., 2014). The young people in the transition from residential care to independent living were categorized in the following subgroups (Stein, 2012).

1. 'Move on group', which includes those young people adjusting and doing well in their lives, the sum variable value 7 indicating that the subject has no problems in the seven measured dimensions.

2. 'Survivors', young people who have some problems but are coping and carrying on, the sum variable value 8–14.

3. 'Strugglers' are the most disadvantaged and vulnerable group of young adults, the sum variable value 15 or more.

After naming one outcome variable – Outcome survival – the remaining dataset consisted besides to it 60 predicting variables measured at the time of the first custody decision. Predicting variables were derived from child protection documents. The dataset consisted of information on

the child's family, personal relationships, the child's mental or behavioral problems, parents' problems such as mental or physical health or substance abuse, deaths and criminal behavior in the family, violence, neglect or abuse, suicidality, housing etc.

2.2. Statistics

A traditional Bayesian belief network (BBN) consists of a set of nodes representing random variables (V), a set of arcs (A) connecting these nodes to form a directed acyclic graph (DAG) and conditional probability distributions (CPD) tables to quantify the probabilistic relationships between nodes. The BBN is a graphic representation of a joint probability distribution that represents dependent and conditionally independent relationships. In a non-causal BBN, arcs do not present causal relationships and the interpretation of the network should be merely statistical.

The data were analyzed with BayesiaLab 7.0 tool (Bayesialab) which allows unsupervised learning with automatic classification of cluster variables. The Bayesian approach affords certain advantages over standard frequentist methods in analyzing data collected in real practice, including in social sciences. Bayesian analysis provides a robust and transparent representation of relationships between system variables. It can handle complicated data sets with missing data, outliers, and nonlinear relationships, and the results of the analysis can be presented in a visual form that is easy to interpret. Bayesian analysis also enables the researchers to investigate the future trends on an individual level, based on the model created using the historical data. (Conrady and Jouffe, 2011.)

Bayesian analysis was performed as follows: Data were loaded into BayesiaLab 7.0 using the entire dataset for learning. In total, 115 numerical values of the dataset were missing, 0.33% of the dataset. Missing value imputations were processed by using a structural equation model (EM) algorithm. Age at first custody decision was a numerical variable. Number of custody decisions was discretized as less than three decisions and four or more decisions. All other variables were discrete. The outcome variable Outcome survival was set as a target node (a dependent variable).

Data analysis was conducted by using the dataset with 60 potential predicting variables (except the outcome variable), and the dataset was factorized and 13 latent variables (Factor 1–Factor 13) were created based on them. The search algorithm was Taboo (Bai, 2005), and the scoring method was two-stage Minimum Description Length (MDL) (Grunwald, 2007). A new BBN was constructed to identify the connections between latent variables and the outcome variable. Three latent variables (Factors 1–3) were associated with the outcome variable. The other ten latent variables (Factors 4–13) were not associated with the outcome variable. Latent variables and their manifest variables having no connection with the outcome variable were removed, leaving a new

dataset with n = 568, ten manifest variables, three cluster variables (factors) and one outcome variable. The characteristics of this dataset are presented in Table 1.

3. Results

Altogether, 294 (51.8%) participants were females, and 274 (48.2%) were males. The majority of subjects (n = 512, 90.1%) were of Finnish origin, and 56 (9.8%) represented other groups. They had started to receive their aftercare services usually at the age of 18, the youngest at the age of 15. The services lasted in general three years. The majority (80 %) of the participants have had more than one reason for their custody decisions. In most of the cases (73 %) the reasons concerned parents and family life. They were problems in parenthood (42 %), substance abuse (33 %) and parents' problems in mental health (19 %), violence against child/young (19 %), problems in interaction between family members (17 %) and chaotic family situation (9 %). Half of the participants (56 %) had reasons for their custody decisions that were related to themselves. These were problems in school attendance (25 %), substance abuse (19 %), disregard of the rules (16 %) and running away from home (12 %). From the participants 55 % had been in one, 31 % in two and 2 % in three placement stations. Most of them (80 %) in child welfare institutions. Those who had been taken into custody once, the decision had been made when they were at the age of 11 in average. Those who had been taken into custody several times, the first time occurred when they had been at the age of six in average. Those who had been taken into custody first time urgently, were at age of 14 or 15.

The outcome variable, renamed Outcome survival, was divided into three classes, as follows:

1. Move on group, n = 105, 18.5%

2. Survivors group, n = 423, 74.5%

3. Strugglers group, n = 40, 7.0%

Three latent variables (factor variables) – having an association with Outcome survival – were renamed as follows: Child's substance use, Parents' problems and Child's anti-social behavior. There were ten manifest variables, details of which are presented in Table 1. The resulting BBN model is presented in Figure 1. In Figure 1 the manifest (observed) variables are situated on the outermost circle, connected with the latent variables (factors) associated with groups of manifest variables, and the outcome survival in the bottom. Node sizes indicate the variables total standardized effect on target. The colors indicate the node force (green is maximum, yellow

intermediate, and red the minimum). Lines indicate mutual information between nodes. Direct effects of factors on the target variable Outcome survival are presented in Table 2. Total effects of factor variables and manifest variables on target Outcome survival are presented in Table 3. The model's predictive performance was 74%, area under ROC curve 70%, and R2 = 0.18. Gender was not associated with the outcome.

Numerical results of the model are presented in a fixation table (Table 4). BayesiaLab gives the chance to attach every manifest variable and their combinations to certain values and observe the influence on the conditional probability distributions of other variables. For example we can fix the variable *Child trying substance use* to the value "yes" = fixed to 100%. Then the model gives the values of the outcome in that hypothetical case that all children had tried substance use. In table 4 model number 2 one can see that variable *Child trying substance use* = yes increases the amount of strugglers and has opposite effect to the amount of the move on –group. In table 4 all manifest variables are fixed same way to either a Yes (100% probability) or a No (100% probability). We can see in Table 4 how the alternative where *Parents' substance use* fixed to a 100% probability (Table 4, model number 12) shifts the balance in the Outcome survival variable compared to the scenario where there is no *Parents' substance use* (Table 4, model number 13). The percentage in the Move on group decreases from 27.2% to 14.3%. The interpretation of this is that in the case of parents´ substance use the custody decisions are taken earlier and that in itself has an impact on the child´s better coping later on. The same logic applies to violence; for coping in later life it is less harmful for a child to have experienced violence than to behave belligerently oneself.

We were able to demonstrate associations between the analyzed variables and the outcome, but the variations were wide. This refers to the fact that there is major dispersion among the variables. We found out that children facing parental problems in their childhood environment are coping better than children or adolescents who have substance abuse problems of their own. This is a paradox caused by the contrast in the data. When all the children in this analysis were those taken into custody, the substance abuse of the parents seems to be a smaller disadvantage compared to the young person's own drinking. The risk for becoming a member of the Strugglers group is higher for children taken into custody older than 12 years of age. Substance abuse by a person at the age of 13–15 is associated with a higher risk of becoming a member of the most disadvantaged group.

4. Discussion

4.1. Consideration of results

The biggest group of care leavers was the Survivors. They had some problems, but are coping in their daily life. This study supports the findings of earlier research which divided care leavers according to different coping profiles (Courtney et al., 2012; Stein, 2012; Batsche et al., 2014). The trend here is similar. Many young people emerging from care are actually doing well, while those who have serious problems and are the most disadvantaged are a minority. In spite of the vulnerability of most care leavers, many are resilient and have the inner strengths necessary to survive (Parry and Weatherhead, 2014; Häggman-Laitila et al., 2018). Earlier research (Grey et al., 2015) has shown that care leavers have, besides different coping profiles, different coping strategies, which are based on the prerequisites of a safe life. These results underline the need to identify the strengths and different coping styles of care leavers, to modify aftercare services based on them and to allocate resources to support those who need support most. So far though, the data describing young people's experiences of aftercare services do not confirm that this approach is in place. The services lack individuality and poorly prepare young people for independent living. In the light of recent literature and systematic reviews, the process of leaving care does not provide care leavers with enough opportunities for participating in the decision-making concerning their future. (Mendes and Snow, 2016; Häggman-Laitila et al., 2018.)

In this study, parental problems are associated with young adults coping better, whereas the young adult's own heavy drinking behavior during his (her) teen years increases the likelihood of problems in relation to coping as a care leaver. As far as we know, this result has not been reported previously in the research literature. The poor outcomes in wellbeing of the young people taken into custody as teenagers are in line with recent previous results (Tyrell and Yates, 2016; Kääriälä and Hiilamo, 2017; Cameron et al., 2018). The Finnish child welfare system seems well capable of supporting children and young people whose need for protection is connected with a chaotic living environment or with the severe social and health issues of their parents. Struggling with everyday life as young adults is more common, if the young person was in need of protection, because of his or her self-harming behavior. These results direct attention once again to the notion of personalized care. How well are the exact needs of these young people identified? Do they get the services they need? What kind of resources do aftercare services have to provide therapeutic care for these young people? These questions underline the need for future studies among these young people struggling with their substance abuse and mental health issues. We have to consider different methodological approaches including qualitative one to understand more deeply how to help them.

Young people with behavior problems and/or engaging in substance abuse need support for their independent living within several life domains. (see also Mendes and Snow, 2016.) This kind of holistic support is successful only if it is based on interdisciplinary collaboration. Naert et al.

(2017) noted that there was a lack of continuity in the access to care after transition to independent living. Care leavers have expressed the wish that they could have some kind of a follow-up period, which would allow them to reflect on their own transition experiences with their former carers (Jones, 2014). Results are also better if the duration of the aftercare services is extended (Barnow et al., 2015).

Previous research has pointed out that care leavers underuse substance treatment and mental health services. This underuse constitutes an obvious obstacle for interprofessional collaboration. Reasons for the underuse of services include doubts concerning the effectiveness of the service, fear of the side-effects of medication, problems with transportation as well as the perception of not requiring mental support or finding better ways to help oneself (Munson et al., 2011; Munson et al., 2012) and lack of health care insurance (Kruszka et al., 2012). Other reasons included a limited awareness regarding mental illnesses and their treatment, and not enough skills and support to navigate the complexities of the health care system (Hiles et al., 2014; Sakai et al., 2014).

To our knowledge, this is the first time that a BBN model has been applied in estimating the long-term effects of custody decisions in child protection. Berzin (2008) noticed among U.S. residents that having foster care experience is not associated to a statistically significant degree with any of the transition outcomes if analyses control for other variables and use well-matched samples of vulnerable youth without foster care history. Instead, sociodemographic characteristics such as poverty, educational level and gender predicted the outcomes. Poverty was negatively associated with completion of high school, and this increased the odds of seeking public assistance, teen parenting and being arrested. These results suggest that negative outcomes are predicted by a combination of individual, familial and communal characteristics that are associated with placement in care. These are so overwhelming that foster care may be unable to alleviate their effects. Mendes's and Snow's (2016) analysis supports the findings of Berzin (2008). Furthermore, they describe as reasons for the vulnerability and the poor transition outcomes of the care leavers the inadequate state care and lack of support provided by family and peers and insufficiency of networks.

4.2. Methodological considerations

The documents were not in the first place produced for research purposes. Most were in a free-text format, and showed considerable variation in quality and actual volume (i.e. the number of documents). The quality of such texts is very much employee-dependent, but here it is assumed that all documents are carefully enough prepared to correspond to reality because they must be legally

adequate when required. The data included, for example, custody decisions which are based on a comprehensive and legally solid consideration of the child's situation. These aspects reinforce the validity of the data.

The structured electronic worksheet was formulated for the purposes of this study based on previous research literature. The worksheet was developed by an expert panel, including experts from medicine, social work and nursing science and representatives of aftercare. A sample of free-text documents was also used to make sure that essential aspects were taken into account in the worksheet. The worksheet was pilot tested with 20 documents before the data collection was started. To avoid the variation that might have arisen from having three research assistants involved in the data collection, the assistants were briefed and orientated together to face their task. They discussed their observations on a daily basis during the period of data collection, and in unclear cases they collaboratively made decisions about how to record the data under question. We consider that using three readers and a structured worksheet has guaranteed the quality of the collected data, which can confidently be described as good. The documents were read from four different electronic patient data sources to get a comprehensive review of care leavers' life situations. This further reinforces the validity of the data.

The outcome variable was formulated as a sum variable of seven indicators of coping based on relevant research results. Teenage pregnancy was one indicator which meant that girls had a possibility of gaining higher points in the sum of indicators. However, gender was not associated with the outcome, showing that teenage pregnancy did not have an effect on results. The data is retrospective: deceased individuals, those in jail or in some other institution are missing from the data. Young people who are doing very well in their lives are also missing since they are not involved in aftercare services. Thus, there are two missing extremities in our data: those coping very badly and the most successful individuals. To a certain degree they compensate each other's influence on the outcome, but we are not able to estimate the total effect of these missing subgroups. Instead, we have used Bayesian mathematical modeling in our analysis as it is a convenient means of managing uncertainty and is highly applicable to human sciences where the research problems are complex, the samples small and the amount of variables high.

4.3.Implications for improving outcomes

This document-based study has implications for research, policy and practice both the out-of-home care, including services for its prevention, and child protection fields. In addition to ours, there is solid research evidence how the disadvantages tend to cumulate into a complex set of

problems among some groups of the care leavers (e.g. Stein, 2012; Heino and Johnson, 2010; Kääriälä and Hiilamo, 2017). There is a clear argument for more comprehensive and comparative research examining the wellbeing of the subgroups of care leavers in Finland, particularly in order to inform leaving care and post-care service provision. Also the voice and collaboration of the care leavers themselves in this evidence production with researchers is necessary. It is not possible to provide services to respond to the acute needs of care leavers if these needs are unclear or designed from above as has been the case before.

On policy level either the municipalities or other authorities responsible of child welfare and aftercare services could establish post-care benchmarks on the wellbeing and health of the care leavers against which the long-term outcomes can be measured and compared. This should lead to a development of a detailed support plan of care leavers covering the key areas of coping such as health and financial security for them.

The missing comparative Finnish research of the long-term wellbeing and coping between the various subgroups of care leavers could open up, how the different factors in childhood, including community level factors as well as other structural factors, are associated with the later coping abilities of the young adults. They also would inform us how it might be possible to support them more effectively over the years in care and even before. For example, if the delivery of child welfare and family services is research-based, early intervention could be aimed towards preventing the unnecessary custody decisions. Secondly, research-based effective supports could be targeted to particular groups of the children and teens in care who need improving their interpersonal skills to strengthen their individual and collective ability to manage emotions, behavior and overall wellbeing and to support their positive identity development.

The recent reform of the Finnish Child Welfare Act that is going to extend aftercare service until the age of 25 is very welcome allowing more gradual transition from care to independency with the support of aftercare services if the young adult finds them supportive and useful. The longer period for learning and transferring to one's adult life enables the development for specialist leaving care services of life skills for the most disadvantaged care leavers, for the strugglers' group. In addition, these young adults need a long-term safety-net to replace the missing support of a kin enabling access to various supports, if required.

Conclusion

Children and adolescents who may be at risk of becoming involved with child protection services need effective preventive care activities. In cases where a child does enter out-of-home

care, s/he needs more influential social support and personalized follow-up to enhance his or her wellbeing as early as possible. Focusing only on improving aftercare services will not be enough to achieve the aim of enhancing everyone's wellbeing in young adulthood. In Western countries where birth rates are in decline, it is important – in terms of resource allocation – to pay more attention to children and young people who are at any kind of risk of being placed in out-of-home care services away from their biological parents at some point in their early lives. Our study indicates how in the present Finnish context much more should be done to help teens whose substance use is harmful and/or whose social behavior is exceptional during their school years. Unless this difficult issue is addressed as a matter of urgency, we are unlikely to reduce the number of young people who are struggling to cope with the challenges of adult life. We will need more multidisciplinary inquiry that is implemented in close connection with experimental interventions in collaboration with young people themselves to enhance wellbeing of young adults.

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Fig. 1

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Table 1. Characteristics of manifest variables.

Variable	Explanation	Value distribution
Continuous substance use	frequent abuse of alcohol or drugs by child	no = 455 (80.1%) yes = 113 (19.9%)
Child trying substance use	child has tried a few times alcohol or drugs, but no regular use	no = 395 (69.5%) yes = 173 (30.5%)
Neglecting regulations	child ignores common rules set by family or society	no = 475 (83.6%) yes = 93 (16.4%)

Problems at school	serious disturbing behavior or neglect of school regulations	no = 427 (75.2%) yes = 41 (24.8%)
Child escaping from home	run away incidents	no = 502 (88.4%) yes = 66 (11.6%)
Parents' violent behaviour	parents' violent behavior against child or against each other	no = 529 (93.1%) yes = 39 (6.9%)
Parents' mental problems	psychological/psychiatric illness of parents	no= 468 (82.4%) yes = 100 (17.6%)
Number of custody decisions	number of previous custody decisions	3 or less = 426 (75.0%) 4 or more = 142 (25.0%)
Parents' substance use	parents' addictive alcohol or drug abuse	no = 385 (67.8%) yes = 183 (32.2%)
Age at custody	child's age when replacement decision first was made	12.5 years or less = 223 (39.3%) 12.6 years or more = 345 (60.7%)

Table 2. Direct Effects of factor variables on target Outcome.

Node	Standardized Direct Effect	Contribution
Child's substance use	0.218	46.3%
Child's anti-social behaviour	0.136	29.0%
Parents' problems	0.116	24.7%

Table 3. Variables' total effects on target in order of standardized total effects.

Node	Standardized Total Effects	G-test (Data)
Factor 3: Child's substance use	0.2789	64.42
Child trying substance use	0.2404	53.95

<u>Factor 2: Child's anti-social behavior</u>	0.2318	41.25
<u>Factor 1: Parents' problems</u>	0.2104	45.16
Continuous substance use	0.1781	33.11
Problems at school	0.1737	31.21
Age at custody	0.1535	43.79
Neglecting regulations	0.1348	14.00
Parents' substance use	-0.1310	39.20
Child escaping from home	0.1075	9.54
Parents' mental problems	-0.0913	10.77
Parents' violent behavior	-0.0515	3.92
Number of custody decisions	-0.0394	7.19

Table 4. Fixation table demonstrating values of the outcome variable when the model is fixed to selected values. Model 1 shows results when the model is unfixed, Models 2–22 are done by fixing one separate value.

Model number	Fixation	Values of Outcome survival
1	no fixation	move on = 18.5% survivors = 74.5% strugglers = 7.0%
2	Child trying substance use yes = fixed to 100%	move on = 4.2% survivors = 85.0% strugglers = 10.8%
3	Child trying substance use no = fixed to 100%	move on = 24.6% survivors = 70.0% strugglers = 5.4%
4	Problems at school yes = fixed to 100%	move on = 5.4% survivors = 85.6% strugglers = 9.0%
5	Problems at school no = fixed to 100%	move on = 22.7% survivors = 70.9% strugglers = 6.4%
6	Continuous substance use yes = fixed to 100%	move on = 4.2% survivors = 85.0% strugglers = 10.8%

7	Continuous substance use no = fixed to 100%	move on = 21.8% survivors = 72.0% strugglers = 6.2%
8	Age at custody ≤ 12.5 years = fixed to 100%	move on = 27.2% survivors = 66.4% strugglers = 6.4%
9	Age at custody > 12.5 years = fixed to 100%	move on = 12.8% survivors = 79.8% strugglers = 7.4%
10	Neglecting regulations yes = fixed to 100%	move on = 5.4% survivors = 85.5% strugglers = 6.4%
11	Neglecting regulations no = fixed to 100%	move on = 21.0% survivors = 72.4% strugglers = 8.6%
12	Parents' substance use yes = fixed to 100%	move on = 27.2% survivors = 66.4% strugglers = 6.4%
13	Parents' substance use no = fixed to 100%	move on = 14.3% survivors = 78.4% strugglers = 7.3%
14	Child escaping from home yes = fixed to 100%	move on = 5.4% survivors = 85.5% strugglers = 9.1%
15	Child escaping from home no = fixed to 100%	move on = 20.1% survivors = 73.1% strugglers = 6.8%
16	Parents' mental problems yes = fixed to 100%	move on = 27.2% survivors = 66.4% strugglers = 6.4%
17	Parents' mental problems no = fixed to 100%	move on = 16.4% survivors = 76.4% strugglers = 7.2%
18	Parents' violent behavior yes = fixed to 100%	move on = 27.2% survivors = 66.4% strugglers = 7.2%
19	Parents' violent behavior no = fixed to 100%	move on = 17.8% survivors = 75.1% strugglers = 7.1%
20	Number of custody decisions ≤ 3 = fixed to 100%	move on = 17.4% survivors = 75.5% strugglers = 7.1%
21	Number of custody decisions > 3 = fixed to 100%	move on = 21.6% survivors = 71.6% strugglers = 6.8%

Highlights

- BayesiaLab tool was used first time to estimate coping after aftercare.
- The biggest group of care leavers was the Survivors.
- Youngsters' heavy drinking behavior increased the likelihood of poor coping.
- Parental problems are associated with better coping than the adolescents' problems
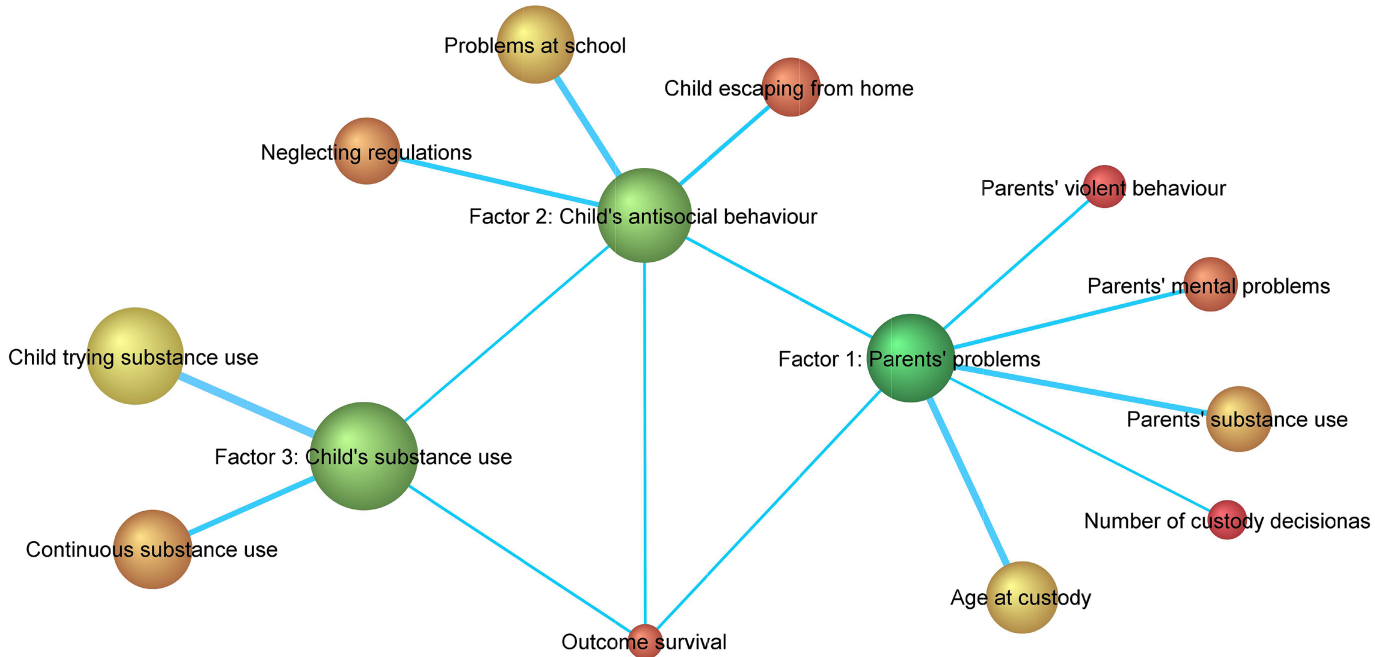- Services should include personalized and interdisciplinary care.

Figure 1