2020

Exploring Fit for the Cultural Adaptation of a Self-determination Model for Youth Transitioning from Out-of-home Care: A Comparison of a Sample of Swedish Youth with Two Samples of American youth in out-of-home care

Tina M. Olsson
University of Gothenburg

Jennifer E. Blakeslee
Portland State University, jblakes@pdx.edu

Martin Bergström
Lund University

Therése Skoog
University of Gothenburg

Citation Details

Olsson, T. M., Blakeslee, J., Bergström, M., & Skoog, T. (2020). Exploring fit for the cultural adaptation of a self-determination model for youth transitioning from out-of-home care: A comparison of a sample of Swedish youth with two samples of American youth in out-of-home care. Children and Youth Services Review, 119, 105484.

Children and Youth Services Review 119 (2020) 105484

Contents lists available at ScienceDirect

Children and Youth Services Review

journal homepage: www.elsevier.com/locate/childyouth

Exploring fit for the cultural adaptation of a self-determination model for youth transitioning from out-of-home care: A comparison of a sample of Swedish youth with two samples of American youth in out-of-home care

Tina M Olsson[a,*], Jennifer Blakeslee[b], Martin Bergström[c], Therése Skoog[d]

[a] Department of Social Work, University of Gothenburg, Box 720, 405 30 Gothenburg, Sweden
[b] Portland State University, School of Social Work, PO BOX 751, Portland, OR 97207, USA
[c] School of Social Work, Lund University, Box 23, 221 00 Lund, Sweden
[d] Department of Psychology, University of Gothenburg, BOX 100, S-405 30 Gothenburg, Sweden

ARTICLE INFO

Keywords:
Take charge
Better futures
My life
Foster care
Leaving care
Cultural adaptation
Sweden

ABSTRACT

Background: Prior research has established evidence for self-determination enhancement as a promising intervention for youth transitioning from out-of-home care. Understanding how participants in these prior trials compare to adolescents in target contexts may inform practice by highlighting the extent to which such models are expected to benefit young people.
Objective: To assess the extent to which self-determination enhancement is a promising strategy for the Swedish context.
Design: Cross-sectional study comparing a sample of Swedish youth (n = 104) in out-of-home care aged 15+ on a range of outcomes with two archival data sets (*My Life; Better Futures)* of youth placed in out-of-home care in the U.S. (n = 295; n = 66).
Results: Swedish sample youth report: (1) having come further in their concrete planning for transition to independent living, (2) being less prepared to enter post-secondary education and being more negative toward the school environment in general, and (3) lower scores on a range of general protective factors than youth in U.S. samples.
Conclusions: The self-determination model of intervention may be a promising model to adapt and pilot in the Swedish setting due to the tentative findings that Swedish youth placed in out-of-home care perceive themselves as lacking the assets and resources necessary to address challenges during the transition from out-of-home care.

1. Introduction

1.1. Background

For young people, the transition from adolescence to adulthood is marked by developmentally complex change processes in a number of life areas such as home, education, employment, health, and community involvement (Shaw & DeLaet, 2010), and successful navigation of this period is an important determinant of future well-being (Pao, 2018). Research, however, continually shows that adolescents placed in out-of-home care (e.g., foster care, group home care, institutional care) transition to independent living with relative disadvantage in areas such as mental health (Egelund & Lausten, 2009; Ford, Vostanis, Mletzer, & Goodman, 2007; Holtan, Rønning, Handegård, & Sourander, 2005; Lehmann, Havik, Havik, & Heiervang, 2013; Pecora, White, Jackson, & Wiggins, 2009), somatic health (Brännström, Vinnerljung, & Hjern, 2015; Köhler, Emmelin, Hjern, & Rosvall, 2015; Schneiderman, Leslie, Arnold-Clark, McDaniel, & Xie, 2011), educational attainment (Berlin, Vinnerljung, & Hjern, 2011; Johansson, Höjer, & Hill, 2011) and housing stability (Sallnäs & Vinnerljung, 2012; Webster, Barth, & Needell, 2000; Wulczyn, Kogan, & Harden, 2003) compared to their non-placed peers.

This developmental disadvantage appears to follow these youth into adulthood as a host of Swedish national cohort studies has shown that young adults who have exited societal care have – in comparison with majority population peers - high rates of mental health problems (Vinnerljung, Berlin, & Hjern, 2010; Vinnerljung & Hjern, 2014; Vinnerljung, Hjern, & Lindblad, 2006), suicidal behavior and premature

* Corresponding author.
E-mail addresses: Tina.olsson@socwork.gu.se (T.M. Olsson), Jblakes@pdx.edu (J. Blakeslee), Martin.Bergstrom@soch.lu.se (M. Bergström), Therese.skoog@psy.gu.se (T. Skoog).

https://doi.org/10.1016/j.childyouth.2020.105484
Received 21 July 2020; Received in revised form 12 September 2020; Accepted 12 September 2020
Available online 28 September 2020

death (Berlin et al., 2011; Björkenstam, Björkenstam, Ljung, Vinnerljung, & Tuvblad, 2013; Vinnerljung, Berlin, & Hjern, 2010; Vinnerljung et al., 2006); somatic health problems (Kessler et al., 2008; Schneider et al., 2009; Villegas, Rosenthal, O'Brien, & Pecora, 2011; Viner & Taylor, 2005; Zlotnick, Tam, & Soman, 2012) including dental health problems (Berlin et al., 2018), early childbearing and reproductive health problems (Brännström et al., 2015; Liu et al., 2018; Vinnerljung, Franzén, & Danielsson, 2007), substance abuse (Berlin et al., 2011; von Borczyskowski, Vinnerljung, & Hjern, 2013), offending (Vinnerljung et al., 2010; Vinnerljung & Hjern, 2011), exclusion from or weak attachment to the labor market (Österberg, Gustafsson, & Vinnerljung, 2016; Vinnerljung, Brännström, & Hjern, 2015), public welfare dependency (Vinnerljung et al., 2010; Vinnerljung & Hjern, 2011) and low educational attainment at time of entering the labor market (Berlin et al., 2011; Vinnerljung et al., 2010; Vinnerljung & Hjern, 2011; Vinnerljung, Öman, & Gunnarson, 2005). Several of these outcomes, including premature death, seem to last far into adulthood (Brännström, Vinnerljung, Forsman, & Almquist, 2017). These findings are especially noteworthy given Sweden's universal welfare and healthcare systems, which are in place to prevent the types of disadvantage described above.

In Sweden, approximately 3–4% of children are placed in out-of-home care (e.g., foster care, kinship care, group home care) at some point during childhood and approximately 1% of children grow-up primarily in out-of-home care (Vinnerljung, Forsman, Jacobsen, Kling, Kornør, & Lehmann, 2015). Unlike other Nordic countries (e.g. Norway, Denmark, Finland) there is no legislation regarding transition services for youth aging out of care in Sweden. Further, there are currently no known state or municipally run programs designed specifically to support care leavers and no known systematic routines for managing care exits among older adolescents. In the U.S., there is federal policy and funding available to provide universal transition planning and skill-building services to improve the leaving care process, although (as with Sweden) the range of relatively poor outcomes for this population is similarly broad compared to the general population of U.S. adolescents (see Gypen, Vanderfaeillie, De Maeyer, Belenger, & Van Holen, 2017, for a recent systematic review). However, the U.S. also promotes the development and implementation of tailored interventions with the goal of improving developmental outcomes associated with this population, and some of these have demonstrated evidence of effectiveness that can inform efforts in Sweden to better support youth in their transition from care to independent living. Recent systematic reviews have identified promising programs for improving outcomes among youth in or aging out of care (Bergström et al., 2020; Greeson, Garcia, Tan, Chacon, & Ortiz, 2020), and have specifically highlighted the potential of self-determination enhancement interventions to improve outcomes for youth transitioning from out-of-home care.

1.2. Promoting the self-determination of youth transitioning from out-of-home care

Of the rigorous research that has been conducted to evaluate the impact of interventions designed to promote the successful transition of youth from out-of-home care, self-determination enhancement has emerged as a promising area for intervention. Self-determination enhancement originates from multiple youth-oriented fields (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Deci & Ryan, 2002; Gloppen, David-Ferdon, & Bates, 2010) where consensus has emerged around self-determination as a developmental protective factor (Ryan & Deci, 2017) that can be defined as self-directed action to achieve personally valued goals (Deci & Ryan, 2000). A growing body of research has affirmed the promotive role of self-determination in positive youth development (Catalano et al., 2004), and in quality of life outcomes for youth with chronic health conditions (McDougall et al., 2016). Likewise, self-determination can be a protective factor in preventing externalizing and internalizing mental health disorders and enhancing quality of life among youth with disabilities exiting foster care (Lee et al., 2018).

Intervention to enhance self-determination focuses on the intention to make decisions, to direct one's actions, and to exercise rights and responsibilities, within the context of an individual's culture, experiences, and aspirations (Powers et al., 2018). A multi-component self-determination enhancement model called *TAKE CHARGE* was originally designed for adolescents with disabilities (physical, learning, emotional, etc.) and tested with various adaptations (Powers et al., 2001; Powers et al., 1998; Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012). These early experimental studies provided support for the efficacy of the model in the areas of improving educational planning and performance, student empowerment and student participation, and psychosocial adjustment. This intervention model was then adapted specifically to increase self-determination for adolescents in out-of-home care under the name *My Life*.

In the first study testing the *My Life* model (n = 69; Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012), despite a small sample size and the study likely being underpowered to detect differences, investigators found significant group differences at post-intervention for self-determination, youth-identified accomplishments, quality of life, youth involvement in transition planning, use of transition services, and engagement in key independent living activities, with moderate to large effect sizes for the differences between groups. In addition, at one-year follow-up, youth in the intervention group demonstrated substantially higher rates of employment and high school completion along with a trend towards greater participation in higher education as compared to youth in the comparison group. Lastly, self-determination was found to be a partial mediator of quality of life in this group. A large-scale efficacy trial (n = 293) of this model has shown that the model specifically increases self-determination and self-efficacy, which are key model outcomes, for foster youth with and without disabilities and those experiencing a range of risk factors (Blakeslee, Powers, & Geenen, 2019).

Similarly, a second study slightly adapted the *My Life* model to focus more specifically on academic outcomes (n = 133; Geenen et al., 2013), and investigators found that the intervention promoted educational planning knowledge and engagement, academic performance (homework, credits toward graduating, catching-up on classes, post-secondary and career planning), and reductions in anxiety and depression (although it was not clear if the intervention had a significant impact on self-determination). Differences between groups over time were found for student identification of academic goals, and self-attribution of accomplishments as well as increased engagement in educational planning. Most of these differences were due to the gains made by the intervention youth. The intervention may have had a positive effect on high school retention as almost twice as many control group youths had dropped out of school by follow-up despite the groups being similar in terms of grade level at pre-test. Additionally, intervention youth were found to be more prepared for post-secondary education as they were more engaged in career development activities at post-test and they were more likely to have paid jobs at follow-up compared to control youth. Although the investigators found these results encouraging, they highlighted concerns regarding the longitudinal effects of dose on outcome. The *My Life* self-determination model for youth in out-of-home care was then further tailored to specifically focus on youth in out-of-home care transitioning from high school to college, in an adaptation called *Better Futures* (n = 67; Geenen, Powers, & Phillips, 2015; Phillips, L. A., Powers, L. E., Geenen, S., Schmidt, J., Winges-Yanez, N., McNeely, I. C., … the Research Consortium to Increase the Success of Youth in Foster Care, 2015). In this study, intervention group youth reported significant gains on measures of post-secondary participation, post-secondary and transition preparation, hope, self-

determination, and mental health empowerment, compared to control group youth. In addition, positive trends for intervention group youth were found in the areas of mental health recovery, quality of life, and high school completion.

Taken together, the core intervention model underlying these adaptations seems promising for promoting self-determination and positive outcomes for youth in out-of-home care, although its evidence base is still emerging. The studies for which findings have been published are, in general, small and no one delivery method has been replicated (e.g., changes have been made between trials to: population served, characteristics of professionals or non-professionals delivering intervention, length of intervention, the degree to which outcomes domains such as education are of specific focus, and the presence of additional intervention components). Still, positive effects have been found on many outcomes important to youth in out-of-home care including school achievement outcomes, mental health outcomes, transition outcomes, employment outcomes, and quality of life outcomes. Importantly, two core intervention components have been replicated across multiple trials, and these are (1) youth-directed skill-building to develop specific competencies for accomplishing transition-related goals (e.g., selecting goals, problem-solving, self-regulation; Powers et al., 2018), and (2) consistency in promoting positive youth attitudes and beliefs around their capacity for self-determination in their lives. An important implication of this line of research is that the model may be flexible enough to withstand planned adaptations such as cultural adaptations (e.g., Ferrer-Wreder, Sundell, & Mansoory, 2012).

2. Exploring fit for the Swedish context

When moving interventions between contexts, understanding fit becomes an important aspect of the pre-implementation process. Predominantly, the literature on intervention fit has taken place within the implementation literature (e.g., Blase, Kiser, & Van Dyke, 2013; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). This attention to fit, however, has largely focused on organizational context (e.g., Dermby et al., 2014; Wand et al., 2019) with scant attention to the systematic assessment of fit between the target population and the outcomes that have been achieved by the intervention under consideration in their original context. An emerging field with focus on intervention cultural adaptation (Ferrer-Wreder et al., 2012), however, gives specific attention to the importance of investigating the extent to which interventions being considered for transfer between cultural contexts fit the specific needs of the population in the new cultural context (Domenech Rodriguez, Baumann, & Schwartz, 2011; Kilbourne, Neumann, Pincus, Bauer, & Stall, 2007; Kumpfer, Pinyuchon, de Melo, & Whiteside, 2008; Resnicow, Soler, Braithwaite, Ahluwalia, & Butler, 2000). This may in part be due to the large number of interventions that do not succeed to the extent expected when transferred from one context to another (Sundell, Beelmann, Hasson, & von Thiele Schwarz, 2015; Sundell, Ferrer-Wreder, & Fraser, 2013). What this line of research has uncovered is that the transfer of (evidence-based or other) interventions across cultural contexts is a complex task and choosing when to adopt or adapt an intervention depends on how well the intervention in question fits the new context. Further, this line of research suggests that assessment of the degree of fit between the intervention in question and the target population may be aided by cross-sectional descriptive studies (e.g, Ferrer-Wreder et al., 2012). This exploratory research would use original evaluation tools with the target population as a basis for assessing the etiologic profiles of the "new" target population in relation to intervention content, experimental evidence and original participant characteristics.

The purpose of this study is to explore the fit of a self-determination model (i.e., *My Life*) for youth transitioning from out-of-home care for the Swedish context by comparing baseline characteristics of two American samples of adolescents in out-of-home care who have participated in and benefited from experimental tests of the self-determination model with a sample of adolescents in care in Sweden. The main question investigated in this study is: relative to American sample adolescents that have participated in experimental studies of the self-determination model of intervention, do Swedish sample youth in care report similar baseline profiles on a range of outcomes targeted by the *My Life* intervention as measured by original evaluation instruments? In answering this question, we expect to gain a better understanding of how *My Life* may hypothetically impact on the etiology of problem profiles among youth transitioning from the Swedish out-of-home care system.

3. Methods

3.1. Study design

This study is a cross-sectional study of adolescents aged 15+ placed in out-of-home care in Sweden. The cross-sectional data set was compared to two archival pre-test (i.e. baseline) reference groups of youth from the U.S. that have participated in prior randomized controlled trials of *My Life*.

3.2. My Life archival data

My Life data was collected between 2010 and 2013 in the greater Portland, Oregon metropolitan area as part of two concurrent, rigorous, large-scale randomized trials of the *My Life* model, funded by the National Institutes of Health (NIH) and the Institute for Educational Sciences (IES). The NIH study involved adolescents in out-of-home care (n = 139) and the IES study involved adolescents in out-of-home care who also received special education services (n = 154). The studies had parallel designs, common measures, and were conducted by the same research team, allowing the datasets to be combined. The study had the following inclusion criteria: (a) 16.5–18.5 years of age at study entry, (b) under the guardianship of Oregon Department of Human Services (DHS) (with at least 90 days in out-of-home care), and (c) residing in the study's target geography. The sampling of all eligible youth in three counties yielded a geographically diverse sample reflecting the primarily urban areas of Multnomah County (the city of Portland), the primarily suburban areas of Washington County, and the suburban and more rural areas of Clackamas County. To recruit the sample, the DHS child welfare agency first generated a list of all youth who met eligibility requirements, caseworkers were then notified, and the youth and caregivers were contacted for recruitment. Ninety percent of youth chose to participate in the study following an orientation meeting and the child welfare agency provided consent following youth assent. Upon consent and enrollment and prior to randomization into treatment groups, youth completed baseline self-report surveys with assistance by research staff as needed. Youth received a $20 (USD) remuneration for their time. The current study uses baseline data only (Blakeslee et al., 2020).

3.3. Better Futures archival data

The method used to collect data in the *Better Futures* trial is described in two prior publications (Geenan et al., 2014; Phillips, L. A., Powers, L. E., Geenen, S., Schmidt, J., Winges-Yanez, N., McNeely, I. C., … the Research Consortium to Increase the Success of Youth in Foster Care, 2015). Briefly, data was collected between 2010 and 2013 in the greater Portland, Oregon metropolitan area as part of a randomized trial of the *Better Futures* model. To be eligible for participation in the trial, adolescents were (a) in the guardianship of the state foster care system, (b) living within the project's geographic area, (c) in high school or a GED program and 1–2 years away from completion of secondary education, and (d) identified as experiencing a significant mental health condition (e.g., receiving special education services for an emotional disability, taking psychotropic medication, living in

therapeutic settings, or receiving mental health counseling). In addition, included adolescents had an interest in exploring college or vocational school but had not yet applied. 87% of eligible adolescents consented to participation. Upon consent and enrollment and prior to randomization into treatment groups, youth completed baseline self-report surveys with assistance by research staff as needed. Participants received a small renumeration ($30 USD) upon participation in pretest data collection. The current study uses baseline data only.

3.4. Procedure

The data in the Swedish data set was collected between February and October 2019. Invitation to participate in the study was sent via regular mail to 416 adolescents aged 15+ placed in out-of-home care in 14 of Sweden's 290 municipalities. Twenty-six of these invitations were returned by the post office and 47 foster parents (or other) reported back to the research team that the placed child did not meet the inclusion criteria (e.g., too young) or for other reason could not participate (e.g., severe intellectual disability). Leaving 343 adolescents eligible to participate. Two reminders were sent to each eligible participant with an approximate 2-week interval between invitation and reminder in all but one of the municipalities where no reminders were sent (due to administrative difficulties at the collaborating municipality). No new invitations were made, nor reminders sent, during the month of July due to Swedish holidays. All invitations and reminders included information on how the recipient could access the anonymous web-based questionnaire via an individualized link. The links were accessible during a 90-day period. Upon completion of the self-reported questionnaire, adolescents were immediately provided a gift certificate for two movie tickets (worth approximately $20.00).

3.5. Participants

Of the 343 adolescents eligible to participate, a total of 104 adolescents (30.3%) (41% girls, 59% boys) aged 17.5 (SD 0.14) placed in out-of-home care across Sweden answered the web-based questionnaire. Of the participants 41% were girls and 59% boys.

3.6. Measures and background variables

As noted above, our primary aim is to explore, relative to an American sample of adolescents in care, whether the Swedish sample youth in care report similar baseline profiles on a range of outcomes assessed in prior studies with the American sample who received the self-determination intervention. The outcome measures chosen for the current study were selected from the range of measures used in the *My Life* and *Better Futures* trials based on which of these were most sensitive to change in these prior studies and which best reflected preliminary fit across the cultural contexts. We then made item-level adjustments prior to and during translation from English to Swedish, as described below.

3.7. Background variables

Background variables collected for the Swedish study included gender, placement type, age, grade level, and whether the respondent was attending school. A final variable 'race/ethnicity' was created from youth answers to the question "where were you born". 'Race/ethnicity' was then constructed based on geographical birthplace. As such, this variable measures a different aspect of 'race/ethnicity' than the two archival studies which asked: (1) 'how do you identify in terms of ethnicity' (*My Life* sample), (2) 'how do you identify in terms of race' (*My Life* sample), and (3) 'how do you currently identify in terms of race and/or ethnicity' (*Better Futures* sample). Therefore, although race/ethnicity gives a good idea of the ethnic make-up of the participants in the three samples included here, comparison should be understood as general.

3.8. Instruments used from the My Life trial

3.8.1. My Life Self Efficacy Scale (MLSES)

Self-efficacy around necessary tasks for self-determination was assessed to reflect the model's theoretical association with self-efficacy theory (Bandura, 1997) (i.e., the model's focus on promoting youths' enactive mastery, vicarious learning, exposure to positive verbal persuasion, and positive self-attribution). The 17-item *My Life* Self-Efficacy Scale was specifically developed to assess youths' beliefs that they can carry-out the skills targeted by the *My Life* intervention (e.g., problem solving, self-monitoring, working with adults) and includes three subscales 'Self-regulation', 'Managing others' and 'Achievement' (previously 'Actions towards goals') as well as an overall self-efficacy score. Examples of items include: *I am confident that I can solve problems that keep me from achieving goals*; *I am confident that I can make agreements with adults to help me in specific ways;* and *I am confident that I can keep myself from being overwhelmed by stressful situations*. The scale demonstrated an acceptable three-factor structure accounting for 53% of the variance and generally aligned with the model's foci, and the scale showed excelled reliability in the *My Life* study ($\alpha = 0.91$), as well as convergent validity with two other self-efficacy scales. The instrument has been used in two prior experimental studies of youth in out-of-home care (Blakeslee et al., 2020; Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012), and its psychometric properties including factor structure, reliability and validity have been tested (Blakeslee et al., 2020). In the current sample, internal consistency was good for the total scale ($\alpha = 0.84$) and acceptable to good for the subscales (α's = 0.75–0.86). Missing values in the archival data set ranged from 2-2.6% on single items, Little's MCAR chi2 = 65.99, df = 32, p = 0.00. Missing values in the Swedish data set ranged from 4.8 to 5.8% on single items except for item 13 ('*I am confident that I can name the supports or accommodations I need to be successful*') in which 62.5% was missing. Little's MCAR chi2 = 84.85, df = 62, p = 0.03.

3.8.2. My Life Activity Checklist (LAC)

The MLAC is a 44-item checklist designed to assess youth competence in terms of the extent to which youth have participated in or performed certain activities important for preparing to live independently (Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997). The measure has three subdomains: activities related to career exploration and development (e.g., created a CV, talked to a career counselor or advisor about a career that interests me), activities related to post-secondary education (e.g., talked to a teacher or guidance counselor about going to college, got information about financial aid or scholarships to pay for college), and activities related to daily life (e.g., opened a bank account, scheduled an appointment with a case manager or professional in the community). The three free-text items were removed from the checklist for the current study as were two items that were not applicable to the Swedish context ('Got my social security card', 'Applied for health insurance'). The measure has been used in prior experimental studies of youth in out-of-home care (Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012; Geenen et al., 2013). Cronbach's alpha in the archival studies was excellent at baseline ($\alpha = 0.88$), with acceptable-to-good reliability on the Career ($\alpha = 0.72$), Education ($\alpha = 0.82$), and Daily Living ($\alpha = 0.77$) subscales. Missing values in the archival data was 1.4% on single items, Little's MCAR test chi2 = 0. Missing values in the Swedish data ranged from 5.8-7.7% on single items. Missing values were assessed as MCAR (Little's MCAR test chi2 = 263.57, df = 242, p = 0.16).

3.8.3. Youth Transition Planning Assessment (YTPA)

Transition planning skills and engagement were measured using the

17-item YTPA (Powers et al., 2001). The measure assesses youth-perceived self-determination specific to their involvement in typical transition planning meetings, and includes items such as, *People ask about my opinions and ideas at meetings*, *I help run my transition planning meetings*, and *I understand everything decided at the meeting*. The YTPA has been used previously in three experimental studies of youth interventions. The first study included youth aged 14–17 who had learning or other disabilities (Powers et al., 2001), the second included youth with disabilities in out-of-home care aged 16.5–17.5 years old (Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012) and the third included youth in out-of-home care with mental health challenges aged 16–18 years (Geenen et al., 2015). The standardized item alpha coefficient for the youth participating in Powers et al. (2001) was 0.84 on pre-test measurement. Internal consistency for the current sample was good for the total scale (α = 0.83) and questionable for the subscales (α's = 0.60–0.67). Missing values in the archival data was 3.7% on single items except for three items Q3 (*I understand how DHS can help me plan for the future*) 24.4% missing, Q6 (*My plans for life after leaving foster care are clear to me*) 23.7% missing, and Q17 (*Who typically attends my transition planning meetings*) 42% missing. Missing data could not be determined as MCAR (Little's MCAR test chi2 = 178.76, df = 92, p = 0.00). Missing values in the Swedish data ranged from 5.8 − 7.7% on single items. Missing values were assessed as MCAR (Little's MCAR test chi2 = 57.19, df = 54, p = 0.36).

3.8.4. Resilience Scale (RS)

The resilience scale was developed to assess the successful psychological adaptation to adversity or stress in the general population (Wagnild & Young, 1993). It is one of the most widely used resilience measures globally and has been used with a variety of study populations, including youth. The short version RS-14 was used in the current study given expected associations with self-determination, and has previously been shown to have reliable internal consistency and external validity. Items include the following: *I can get through difficult times because I've experienced difficulty before, I usually manage one way or another,* and *My belief in myself gets me through hard times.* The measure has been used in at least one prior experimental study of youth in out-of-home care (Blakeslee et al., 2020). Internal consistency in the current sample was excellent (α = 0.93). Missing values in the archival data ranged from 3.4 to 3.7% on single items. Missing values were assessed as MCAR (Little's MCAR test chi2 = 15.66, df = 24, p = 0.90). Missing values in the Swedish data ranged from 6.7 to 7.7% on single items and assessed MCAR (Little's MCAR test chi2 = 5.61, df = 12, p = 0.94).

3.8.5. Career Decision-making Self-efficacy – short form (CDSE)

The 25-item CDSE assesses the degree of belief an individual has that they can successfully complete tasks necessary to making career decisions (Betz, Klein, & Taylor, 1996). Given the focus on the transition to adulthood and the theoretical underpinnings of the study, this measure was included to investigate participants' specific development of career-related self-efficacy beliefs. Items include confidence to do such things as, *Determine what your ideal job would be, Change majors if you did not like your first choice,* and *Successfully manage the job interview process.* The measure includes the following subscales: (1) accurate self-appraisal, (2) gathering occupational information, (3) goal selection, (4) making plans for the future, and (5) problem-solving as well as a global score. Prior investigations have confirmed the five-factor structure (Betz et al., 1996; Gati, Osipow, & Fassa, 1994) with values of coefficient alphas on subscales ranging from 0.73 (self-appraisal) to 0.83 (goal selection). The measure has been used in at least one prior experimental study of youth in out-of-home care (Geenen et al., 2015). In the current sample, internal consistency was excellent on the total score (α = 0.96) and acceptable for the subscales (α's = 0.78–0.87). Missing values in the archival data on individual items was 3.4% and were assessed to be MCAR (Little's MCAR test chi2 = 12.50, df = 20, p = 0.90). Missing values in the Swedish data ranged from 7.7 to 10.6% and were assessed as MCAR (Little's MCAR test chi2 = 229.34, df = 198, p = 0.07).

3.9. Instruments used from the better futures trial

3.9.1. American Institutes for Research (AIR) self-determination scale

Self-determination was measured using the 18-item student version of the AIR Self-Determination Scale (Wolman, Campeau, DuBois, Mithaug, & Stolarski, 1994). The scale assesses individual aptitude for and opportunity to exercise self-determination, as these are distinct dimensions of self-determination and particularly of interest in relation to youth in out-of-home care, who may experience limited opportunities to demonstrate self-determination. Subscales reflect a set of 6 similarly-oriented items applied to different contexts (e.g., *I set goals to get what I want or need* and *People at school let me know that I can set goals to get what I want or need.*) Three of the instrument's subscales were included: 'Things I do', 'How I feel', and 'What happens at school' as well as an overall self-determination score. The scale has been field tested in more than 70 schools across the U.S. Alternate-item correlation for item consistency ranged between 0.91 and 0.98 (Wolman et al., 1994), split-half reliability was 0.95 and three-month test–retest correlation was 0.74. The measure has been used in two prior experimental studies of youth in out-of-home care (Geenen et al., 2013, 2015). Internal consistency in the current sample is good (AIR total score α = 0.89; subscale α's = 0.80–0.84). Archival data had no missing values on this instrument. Missing on single items in the Swedish sample ranged from 3.8 to 5.8% and were found to be missing completely at random (MCAR) (Little's MCAR test chi2 = 23.52, df = 39, p = 0.98).

3.9.2. Assessing Barriers to Education (ABE)

The 40-item ABE was designed to assess the barriers preventing individuals from attaining additional education or training as well as identify their most accessible post-secondary options (Liptak, 2008). The measure includes five subscales: (1) academic barriers, (2) financial barriers, (3) educational planning barriers, (4) personal and situational barriers, and (5) beliefs and expectations, where low scores indicate lower perceived barriers and higher scores indicate higher levels of perceived barriers. The measure has undergone extensive validity and reliability testing with high school and adult populations. ABE has been used in one prior experimental study of youth in out-of-home care to understand self-determination around post-secondary aspirations in the context of identified barriers (Geenen et al., 2015). Internal consistency for the current sample was excellent for the total scale (α = 0.96) and good for the subscales (α's = 0.82–0.89). Archival data had no missing values. Missing values in the Swedish sample ranged from 6.7 to 12.5% and were found to be MCAR (Little's MCAR test chi2 = 905.54, df = 855, p = 0.11).

3.9.3. School Attitude Measure (SAM)

The SAM is a 26-item measure designed to assess affective responses of students to the school experience as well as facilitate clarification of student satisfaction and dissatisfaction with specific aspects of the school experience (Dolan, 1983; Wick, 1990), which are expected to be associated with self-determination around school. Items include the following: *Schoolwork is difficult but it's worth the effort, I don't like to stay home from school,* and *I will not drop out of school.* The measure has undergone extensive psychometric testing ranging from content validation (e.g., internal consistency, factor structures, latent trait characteristics, etc.) through the establishment of national (U.S.) norming standards. The measure has been used in one prior experimental study of youth in out-of-home care (Geenen et al., 2013) with reported internal consistency coefficients for the subscales 'Motivation for Schooling' and 'Student's Sense of Control Over Performance' scales

ranging from 0.71 to 0.89. In the current study the scale's total score is assessed and internal consistency was found to be good (α = 0.87). There were no missing values in the archival data. Missing values on single items in the Swedish data ranged from 6.7 − 7.7% and were found to be MCAR (Little's MCAR test ch2 = 90.74, df = 96, p = 0.63).

3.9.4. Youth Efficacy Empowerment Scale–Mental Health (YES-MH)

The YES-MH is a 23-item self-report instrument designed to assess efficacy and empowerment specific to mental health, which is a common challenge for youth in out of home care, and is likely to be associated with youth self-determination. The measure includes three subscales: 'Self' which includes aspects of confidence and optimism about coping with/managing one's own condition (e.g., *I know how to take care of my emotional or mental health*); 'Services' which includes aspects of confidence and capacity to work with service providers to select and optimize services and supports (e.g., *When a service or support is not working for me, I take steps to get it changed*); and 'System' which includes aspects of confidence and capacity to help providers improve services and to help other youth understand the service system (e.g., *I have ideas about how to improve services or supports for young people with emotional or mental health difficulties*) (Walker & Powers, 2007). Each subscale can be used separately or combined for a total score of youth empowerment. The scale has been assessed for its psychometric properties in two prior studies of (1) youth aged 14–21 who have an individualized education plan (Walker, Thorne, Powers, & Gaonkar, 2010) and (2) youth in grades 8–12 leaving residential care (Huscroft-D'Angelo, Trout, Lambert, & Thompson, 2017). In addition, the measure has been used in one prior experimental study of youth in out-of-home care (Geenan et al., 2014). Internal consistency in the current sample was acceptable to good (YES-MH total α = 0.87; subscale α 's = 0.75–0.87) Missing values on single items in the archival data set was less than 1.5% and found to be MCAR (Little's MCAR test chi2 = 12.16, df = 13, p = 0.51). Missing values on single items ranged from 4.8 to 6.7% in the Swedish sample and were found to be MCAR (Little's MCAR test chi2 = 121.86, df = 130, p = 0.68).

3.10. Translation

All measures were translated from English to Swedish using an iterative collaborative approach (Douglas & Craig, 2007). Two of the authors, one with Swedish as a first language and one with English as a first language and both fluent in both languages, translated instruments from English to Swedish. These translations were then shared between the two translators and discussed. Following discussion, the translators compared translated instruments with the original instruments and produced updated translations of all measures. This iterative process was repeated until both translators were satisfied with all translations. When translators could not agree on individual item translation, a third translator independent from the research team and fluent in both languages was invited in to compare and assess individual item translations with the original items. A third translator was included in the translation of three of the nine measures used in this study. Here, the goal was that of achieving cultural equivalency as opposed to direct language translation. This process was concluded after 4–6 iterations depending on measure. The Swedish instrument was, as a final measure, reviewed and discussed with a 15-year old volunteer in order to gain feedback on the age appropriateness of the wording on each of the items in the instrument. No items were highlighted for lack of understanding. The volunteer was given a small renumeration (gift certificate for two movie tickets, worth approximately $20.00) for participation in the translation process.

3.11. Missing values and imputation

Missing value analysis was undertaken on all items for each of the three samples separately. For the majority of measures used in this study, missing data on single items was acceptable (less than 5%) and data can be understood as missing completely at random (MCAR; Little's MCAR test, p > .05). However, for a number of measures, the Swedish sample had missing values on single items exceeding 5%. In addition, for two measures in particular (*Youth Transition Planning Assessment*, *My Life Self-Efficacy Scale*) it was not possible to determine whether data was MCAR. Therefore, the multiple imputation method was used to impute missing values on single items across all measures for each sample individually. Background variables were used as predictor variables in the imputation process.

3.12. Sensitivity analysis

All comparisons were also conducted without imputation to investigate the robustness of the results.

3.13. Data management and analysis

All collected data is stored in Qualtrics (Qualtrics.com) a secure internet-based data collection tool. Comparisons between the Swedish sample and two American samples were conducted with SPSS v. 26. In the current study Chi^2 was used to compare differences between groups on frequency measures and the independent samples t-test was used to compare differences between groups on continuous variables. Probability values less than or equal to 0.05 are considered significant. For the main research question, similar or more serious problem profiles exhibited by youth in the Swedish sample are considered indication that the self-determination model may be an interesting model to adapt and pilot in the Swedish setting.

4. Results

4.1. Participants

Comparison of background characteristics for the adolescents included in the three samples is provided in Table 1. Swedish sample youth were on average 17.5 years old (SD = 0.14 years); My Life sample youth were on average 17.3 years old (SD = 0.03 years); and Better Futures youth were on average 16.7 (SD .62) years old. There was a statistically significant difference between Swedish and Better Futures sample youth on age (p < 0.001). Swedish sample youth were in grade 10 and My Life and Better Futures youth were in grade 11 (p < 0.001). Furthermore, Swedish sample youth differed significantly from both My Life and Better Futures youth on ethnicity (p < 0.001). Notably, in the Swedish sample, 40% were of Asian background, compared to 1 or 2% in the American samples, respectively. Finally, Swedish sample youth differed significantly from My Life sample youth, but not Better Futures Youth, on placement type (p < 0.001).

4.2. Swedish data compared to My Life archival data

Comparison of the Swedish sample with the *My Life* sample on outcomes targeted by the My Life intervention can be found in Table 2. Swedish sample youth reported having performed significantly more concrete independent living activities compared to American sample youth (ps < 0.001) in all measured areas with the exception of the post-secondary education subscale as measured by the LAC. Here, youth in the Swedish sample had performed significantly fewer activities related to post-secondary education preparation (p ≤ 0.01) In addition, Swedish youth reported significantly lower levels of self-efficacy as measured by both the CDSE and MLSES and resilience as measured by the RS (ps < 0.001). No other differences were found between samples on any of the other measures used in the *My Life* trial.

Table 1
Background characteristics for participants in the My Life Trial (n = 295) and Better Futures Trial (n = 66) at intake compared to Swedish cross-sectional (n = 104) foster care data.

	Swedish Foster Care (n = 104)		*My Life* (n = 295)		*Better Futures* (n = 66)	
	n	%	*n*	%	*n*	%
Gender						
Female	43	41	156	53	35	53
Male	61	59	139	47	31	47
Race/Ethnicity						
White/Caucasian	50	50	135	47	28	42
Black/African-American	10	10	46	16	13	20
Hispanic/Latinx	0	0	36	13	3	5
Alaskan Native/Native American	0	0	19	7	16	24
Asian/Asian American	40	40	4	1	1	2
Other	0	0	49	17	5	8
Placement type						
Foster care, non-relative	64	77	119	44	44	68
Foster care, relative	10	12	61	23	16	25
Group home, treatment, institution	9	11	88	33	5	8
In School						
Yes	95	94	261	90	58	88
No	5	5	30	10	4	6
Graduated	1	1	0	0	4	6

4.3. Swedish data compared to Better Futures archival data

A comparison of the Swedish sample with the *Better Futures* sample on outcomes targeted by the My Life intervention can be found in Table 3. Significant differences were found between adolescents in the two samples in their self-reported attitude toward school as measured by the SAM ($p < .001$). No other differences were found between samples on any of the other measures used in the *Better Futures* trial.

Table 3
Independent *t*-test on pooled data for differences in pre-test measurement for participants in Better Futures trial (n = 66) compared to cross-sectional Swedish foster youth (n = 104).

	Better Futures Trial Pre-test values (n = 66)		Swedish cross-sectional data (n = 104)		*t*	*p*
	M	SE	M	SE		
Assessing Barriers to Education						
Academic barriers	14.00	.53	15.17	8.88	−.12	.90
Financial barriers	16.22	.68	12.16	8.46	.42	.67
Educational planning barriers	16.96	.72	17.76	7.95	−.08	.93
Personal and situational barriers	12.57	.46	14.04	3.20	−.39	.69
Beliefs and expectations	13.83	.57	14.72	8.44	−.09	.92
ABE Total	73.60	2.51	73.88	25.76	−.01	.99
AIR						
Things I Do	22.21	.58	23.32	3.38	−.29	.77
How I Feel	23.34	.61	20.80	3.72	.59	.55
School	22.13	.68	22.38	5.80	−.03	.96
Self-determination total	67.69	1.66	66.52	7.81	.13	.89
YEES						
Self	3.85	.09	3.27	.91	.57	.57
Service	3.62	.60	3.47	1.16	.12	.90
System	3.11	.11	3.00	1.37	.07	.94
YEES Total	3.51	.07	3.25	.56	.41	.67
SAM						
SAM Total	2.93	.49	2.64	.47	9.37	.00

4.4. Sensitivity analysis

Sensitivity analysis suggests that Swedish youth in out-of-home care experience fewer concrete barriers to education as measured by the ABE (Total and all subscale scores $p \leq 0.05$). In addition, Swedish youth report being more negative toward school and the school environment than youth in the *Better Futures* sample as measured by the AIR self-determination subscale 'what happens in school' ($p \leq 0.05$). Finally, in the sensitivity analysis, Swedish youth appear to score much lower than *Better Futures* youth on measures of general protective

Table 2
Independent *t*-test on pooled data for differences in pre-test measurement for participants in My Life trial (n = 295) compared to cross-sectional Swedish foster youth (n = 104).

	My Life Trial pre-test values (n = 295)		Swedish cross-sectional data (n = 104)		*t*	*p*
	M	SE	M	SE		
Life Activity Checklist						
LAC Total Score	14.42	.41	18.86	.75	−5.29	.00
LAC Career subscale	4.97	.15	6.01	.29	−3.24	.00
LAC Post-secondary education subscale	3.71	.17	2.77	.33	2.72	.01
LAC Daily life subscale	6.09	.18	10.56	.34	−11.05	.00
Career Decision Self-Efficacy						
CDSE Self-appraisal subscale	3.92	.04	3.66	.08	3.05	.00
CDSE Occupational information subscale	3.85	.04	3.72	.08	1.43	.15
CDSE Goal Selection subscale	3.89	.04	3.76	.08	1.38	.16
CDSE Planning subscale	3.69	.04	3.50	.08	2.00	.04
CDSE Problem solving subscale	3.66	.04	3.51	.08	1.63	.10
CDSE Overall total score	3.80	.04	3.63	.07	2.11	.03
Resiliency Scale						
Resilience total score	79.26	.78	68.69	1.85	5.17	.00
Youth Transition Planning						
Youth transition planning total score	23.91	70	22.57	.98	1.08	.27
My Life Self-efficacy scale						
Self-regulation subscale	15.82	.15	14.19	.32	4.45	.00
Managing others subscale	20.54	.17	18.76	.39	4.14	.00
Action toward goals subscale	31.85	.29	30.14	.55	2.73	.00
Self-efficacy total	68.22	.56	63.10	1.16	3.96	.00

factors as measured by the AIR self-determination scale and the YES-MH (AIR total score, YES-MH total score, YES-MH self and service subscales $p \leq 0.05$). No differences were found between the samples in career decision planning or the CDSE overall score in the sensitivity analysis.

5. Discussion

There is a large gap in knowledge of how we might support youth in their transition from out-of-home care to independent living in Sweden. This is concerning given the range of negative outcomes that have been identified in this group both before and after their transition from care. The purpose of this study was to assess the extent to which youth in out-of-home care in Sweden compare on important outcomes with youth in out-of-home care in the U.S. at baseline in an attempt to understand the extent to which a promising multi-component self-determination skill building model for transition-age youth developed and tested in the U.S. (Geenen et al., 2013; Geenen et al., 2015; Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012), fits the Swedish context.

We found three broad patterns in results. First, Swedish youth appear to have come further in their concrete planning for transition to independent living than youth in the American samples. Relatedly, the results suggest that Swedish youth experience similar or fewer concrete barriers to education. This seems reasonable when considering the types of planning and barriers assessed (e.g., lacking adequate child-care, lacking financial resource to return to school) as many of these barriers are addressed by the universal Swedish welfare system (e.g., universally provided child care, state funded university system) but are left to the individual in the U.S. system. Although youth in out-of-home care in Sweden are at disadvantage compared to their Swedish peers in the areas that these policies attempt to ameliorate (e.g., Berlin et al., 2011; Johansson et al., 2011; Vinnerljung et al., 2010; Vinnerljung & Hjern, 2011; Vinnerljung et al., 2005), it does not appear, from the current exploration, that they are at disadvantage compared to adolescents that have participated in experimental studies of the self-determination model of intervention. Although the model has been found to positively impact adolescents' concrete planning for independent living as well as alleviating barriers to education experienced by youth (e.g., Blakeslee, Powers, & Geenen, 2019), it is unclear if these changes are powerful enough to be beneficial to youth in an out-of-home care population in Sweden.

Second, Swedish youth report being less prepared to enter post-secondary education than youth in the American samples. This finding is noteworthy as this difference differs from general educational patterns in the two countries. For example, despite differences in the school systems across countries (e.g., 12 years of compulsory education in the U.S. and 10 years of compulsory education in Sweden), the average completion rate of upper secondary school is similar across countries (93.93% Sweden; 91.55% U.S.; based on 2016 data from household surveys as opposed to enrollment; UNESCO, 2020). In addition, entry into the post-secondary educational system is somewhat higher in Sweden (62.52% 2015) than in the U.S. (52.87% 2015) (for all ages 2015 data; UNESCO, 2020).Prior research on youth in out-of-home care in Sweden places them repeatedly at disadvantage compared to their Swedish peers (e.g., Berlin et al., 2011; Vinnerljung et al., 2010; Vinnerljung & Hjern, 2011; Vinnerljung et al., 2005). The finding that Swedish youth in out-of-home care experience themselves as less prepared for this transition than the youth in the U.S. sample may indicate that the Swedish youth are at higher disadvantage in this area. Inasmuch as the self-determination model has been found in repeated trials to impact preparedness for post-secondary education (e.g., Geenen et al., 2013), this finding suggests that the self-determination model may be promising for the Swedish context.

Relatedly, Swedish youth report being more negative toward the school environment in general than youth in the American samples. Inasmuch as school attitude is a predictor of later school achievement, this finding seems important given that previous research has identified shortcomings in school achievement to be the main determining factor for later poor outcomes among this group (e.g., Berlin et al., 2011; Forsman, Brännström, Vinnerljung, & Hjern, 2016). Although there exists a theoretical link between school attitude and school achievement, the empirical link between school attitude and school achievement is more tenuous and has been found to be at best contradictory and at worst negligible in studies of adolescents (Lee, 2016). In addition, the idea that school attitude is a predictor of later school achievement has not been supported empirically but instead, student level characteristics such as 'enjoyment' and 'self-efficacy' may be more powerful predictors of later school achievement among adolescent samples (Lee, 2016). Taken together, the findings that Swedish youth are both more negative toward the school environment and exhibit lower levels of self-efficacy than youth in the U.S. trials, the self-determination model of intervention may have promise for the Swedish context as it has been found to impact these areas in previous trials (e.g., Blakeslee et al., 2020; Geenen et al., 2013).

Third, compared to the U.S. sample, youth in the Swedish sample had lower scores on a range of general protective factors such as goal orientation, problem solving skills, planning skills, leadership skills, self-efficacy, resilience, and self-regulation, all of which are important developmental traits beneficial to positive development among youth across a range of outcome areas (Shek, Dou, Zhu, & Chai, 2019). As such, the results presented here indicate that Swedish youth in out-of-home care differ in a number of aspects from those youth that have taken part in the experimental studies from the U.S. explored here. This difference, however, indicates that Swedish youth may benefit from support which such self-determination promoting interventions can provide as, theoretically, we would expect interventions that can positively impact self-determination to also promote, for example, self-regulation, future planning, problem solving, and leadership skills (Ryan & Deci, 2017; Soenens & Vansteenkiste, 2005) as well as the longer term outcomes of education, employment and social competence (Soenens & Vansteenkiste, 2005). Youth placed in out-of-home care in Sweden are extremely disadvantaged in these outcome areas (e.g., Berlin et al., 2011; Vinnerljung et al., 2010; Vinnerljung & Hjern, 2014; Vinnerljung et al., 2006; von Borczyskowski et al., 2013; Österberg et al., 2016), as such the self-determination model of intervention seems a promising approach for supporting youth in out-of-home care in Sweden as significant changes have been found on these important protective factors in previous trials of the model (e.g., Geenen et al., 2015; Phillips, L. A., Powers, L. E., Geenen, S., Schmidt, J., Winges-Yanez, N., McNeely, I. C., … the Research Consortium to Increase the Success of Youth in Foster Care, 2015; Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012)

6. Conclusions and implications for practice

Taken together, the results of this investigation suggest that this may be an interesting model to adapt and pilot in the Swedish setting. This is due to the tentative findings that Swedish youth in out-of-home care perceive themselves as lacking the assets and resources necessary to deal with challenges and threats to their wellbeing, areas that prior experimental research has found to be impacted by the self-determination intervention examined here (Geenen et al., 2015; Geenen et al., 2013; Phillips, L. A., Powers, L. E., Geenen, S., Schmidt, J., Winges-Yanez, N., McNeely, I. C., … the Research Consortium to Increase the Success of Youth in Foster Care, 2015; Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care, 2012). In addition, the growing body of research

investigating the relative benefits of adoption or adaptation of promising interventions in new cultural contexts has found that interventions adapted to new cultural groups or contexts evidence better outcomes than interventions transferred to new contexts with no cultural adaptations (Sundell et al., 2015; van Mourik, Crone, de Wolff, & Reis, 2017). It should be noted that the cultural adaptation of imported interventions is a process to be approached systematically as adaptation efforts may involve both surface and deep structure aspects of the intervention under consideration (Ferrer-Wreder et al., 2020; Resnicow et al., 2000), the extent of which cannot be determined *a priori*. As the field of intervention science continues to work towards goals of sustainable global impact on reducing (developmental, health, and other) disparities and promoting wellbeing in a much more profound way than has yet been achieved (Gonzales, 2017; Mejia, Leijten, Lachman, & Parra-Cardona, 2017), guidance regarding the steps to take in order to successfully assess interventions prior to implementing them in new contexts is needed. Assessment of the extent to which interventions under consideration can reasonably be expected to impact on the etiologic profiles of the new target population provides one piece to this puzzle.

6.1. Methodological considerations and study limitations

When conducting cross-cultural research in the context of vulnerable youth in the care of the social services, methodological issues arise (Allen, 2002) which might be of less relevance in other types of research. These issues need close attention and should be considered in future studies and when interpreting and drawing conclusions from the data presented in this study. One potential difficulty is access to respondents (Davies & Peters, 2014; Singh & Wassenaar, 2016). We identified study participants with the help of professionals working in social services who provided access to their service users. Relying on gatekeepers for collecting data impacts the extent to which researchers have access to certain populations. In the current study, a minority of municipalities contacted agreed to participate. In certain cases, it took our research team over a year to gain permission to present the study to municipal decision-makers as access to these decision-makers is also controlled by a gatekeeping body.

Another potential problem in this area of research is low response rate. In the current study, the response rate in the Swedish sample was just above 30%. There is an obvious risk that there were systematic differences between responders and non-responders. Such differences threaten the representativeness of the sample and the generalizability of study findings. Previous research on youth in out-of-home care has reported even lower response rates (Lemon, Hines, & Merdinger, 2005; White, O'brien, Pecora, & Buher, 2015). Although a low response rate might result in sampling bias and is a threat to the external validity of the findings, the problem might not be as important for drawing correct conclusions as was previously assumed (Holbrook, Krosnick, & Pfent, 2008).

Measurement invariance is a third methodological issue in this type of research (Miller & Sheu, 2008). The measures need to be cross-culturally valid in order to draw valid conclusions. We did not explicitly test measurement invariance in the current study. Consequently, the extent to which the scales used in the current study are comparable across the two countries is unknown. However, it should be noted that partial strong measurement invariance has been demonstrated in cross-cultural research on positive psychological outcomes, including resilience, among young people (Bieda et al., 2017). In addition, investigation into the impact of culture on youth self-reporting suggests that American youth tend to report higher problem profiles than Swedish youth (Rescorla et al., 2012) which would make the differences found in this study even larger. Nevertheless, we encourage researchers to examine potential differences in the psychometric properties in the scales used in cross-cultural research in future studies.

It should be noted that this study was based on self-reports only. Although there are clear advantages to self-reports, there is a risk that self-reports produce biased estimates (i.e. response bias) (Rosenman, Tennekoon, & Hill, 2011). For instance, the responses of the participants in this and the My Life and Better Future studies, could have been affected by a social desirability bias if participants thought that their answers might have affected their care. Whether the findings can be replicated using other data collection methods is a question for future research. As a result of these methodological considerations and study limitations, the findings must be interpreted with caution.

Finally, it should be noted that both of the U.S. samples were drawn from the Portland, OR metropolitan area. Although a local sample is sufficient for the aims of this study, it may not be representative of the U.S. as a whole. Future studies on the self-determination model should be undertaken in new U.S. contexts in order to gain knowledge regarding the generalizability of the findings as well as the intervention for this vulnerable group of young people.

7. Authors' contributions

TO conceived the current study, procured funding and administered the project. JB is PI for the *My Life* trial. TO, JB and MB contributed to the design and implementation of the research. TO and MB translated all instruments. TO is responsible for data management and analysis. TO, MB and TS contributed to the interpretation of results. TO is primary author of this manuscript. All authors have contributed to and approved the final version of this manuscript.

8. Declarations

8.1. Availability of data and material

This study will adhere to the ethical guidelines as set forth by the Swedish Ethical Review Authority and reasonable requests for the datasets used and/or analyzed during this study will be considered based on current guidelines regarding data security including GDPR and ethics approval. The current study does not have ethical approval to distribute the data collected in this study.

Ethical approval

This study was granted ethic approval on December 3, 2018 by the regional ethics committee at the University of Gothenburg Dnr. 742-18.

Funding

This study was jointly funded by Stiftelsen Allmänna Barnhuset, the University of Gothenburg and Lund University.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

Algozzine, B., Browder, D., Karvonen, M., Test, D. W., & Wood, W. M. (2001). The effects of intervention to promote self-determination for individuals with disabilities. *Review of Educational Research, 71*, 219–277.

Allen, D. (2002). Research involving vulnerable young people: A discussion of ethical and methodological concerns. *Drugs: Education, Prevention and Policy, 9*(3), 275–283.

Bandura, A. (1997). *Self-efficacy: The exercis of control.* New York: WH Freeman.

Bergström, M., Cederblad, M., Håkansson, K., Jonsson, A. K., Munthe, C., Vinnerljung, B., ... Sundell, K. (2020). Interventions in foster family care: A systematic review. *Research on Social Work Practice, 30*(1), 3–18.

Berlin, M., Mensah, T., Lundgren, F., Klingberg, G., Hjern, A., Vinnerljung, B., & Cederlund, A. (2018). Dental health utilisation among young adults who were in societal out-of-home care as children: A Swedish cohort study. *International Journal of*

Social Welfare, 27, 325–336.
Berlin, M., Vinnerljung, B.o., & Hjern, A. (2011). School performance in primary school and psychosocial problems in young adulthood among care leavers from long term foster care. *Children and Youth Services Review, 33*(12), 2489–2497.
Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy sclae. *Journal of Career Assessment, 4*(1), 47–57.
Bieda, A., Hirschfeld, G., Schönfeld, P., Brailovskaia, J., Zhang, X. C., & Margraf, J. (2017). Universal happiness? Cross-cultural measurement invariance of scales assessing positive mental health. *Psychological Assessment, 29*(408–421), https://doi.org/10.1037/pas0000353.
Björkenstam, C., Björkenstam, E., Ljung, R., Vinnerljung, B., & Tuvblad, C. (2013). Suicidal behavior among delinquent former child welfare clients. *Eur Child Adolesc Psychiatry, 22*(6), 349–355.
Blakeslee, J. E., Powers, L. E., & Geenen, S. (2019). Evaluating th eimpact of the My Life intervention for older youth in foster care on self-determination skills and self-efficacy [Paper presenttation]. Society for Social Work and Research, San Francisco, CA.
Blakeslee, J. E., Powers, L. E., Geenen, S., Schmidt, J., Nelson, M., Fullerton, A., & Bryant, …. M. (2020). Evaluating the My Life self-determination model for older youth in foster care: Establishing efficacy and exploring moderation of response to intervention. *Children and Youth Services Review*.
Blase, K., Kiser, L., & Van Dyke, M. (2013). The hexagon tool: Exploring context. Retrieved from Chapel Hill, NC: https://schoolturnaroundsupport.org/sites/default/files/resources/NIRN-Education-TheHexagonTool.pdf.
Brännström, L., Vinnerljung, B.o., Forsman, H., & Almquist, Y. B. (2017). Children placed in out-of-home care as midlife adults: Are they still disadvantaged or have they caught up with their peers? *Child Maltreat, 22*(3), 205–214.
Brännström, L., Vinnerljung, B., & Hjern, A. (2015). Risk factors for teenage births: Are they the same for foster youths as for majority population peers? *Children and Youth Services Review, 54*, 393–410.
Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science, 591*(1), 98–124.
Davies, J. T., & Peters, E. (2014). Relationships between gatekeepers and researchers: The experience of conducting evaluations into parenting programmes in community and penal settings. In K. Lumsden, & A. Winter (Eds.). *Reflexivity in criminological research*. London, UK: Palgrave Macmillan.
Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268.
Deci, E. L., & Ryan, R. M. (Eds.). (2002). *Handbook of self-determination research*. Rochester, NY: The University of Rochester Press.
Dermby, H., Gregory, A., Broussard, M., Dickherber, J., Atkins, S., & Jenner, L. W. (2014). Implementation lessons: The importance of assessing organizational "fit" and external factors when implementing evidence-based teen pregnancy prevention programs. *Journal of Adolescence, 54*(3), S37–S44.
Dolan, L. J. (1983). Validity analyses for the school attitude measures at three grade levels. *Educational and Psychological Measurement, 43*, 295–303.
Domenech Rodriguez, M. M., Baumann, A. A., & Schwartz, A. L. (2011). Cultural adaptation of an evidence-based intervention: From theory to parctice in a Latino/a community context. *American Journal of Community Psychology, 47*, 170–186.
Douglas, S. P., & Craig, C. S. (2007). Collaborative and iterative translation: An alternative approach to back translation. *Journal of International Marketing, 15*(1), 30–43.
Egelund, T., & Lausten, M. (2009). Prevalence of mental health problems among children placed in out-of-home care in Demnark. *Child & Family Social Work, 14*, 156–165.
Ferrer-Wreder, L., Eninger, L., Olsson, T. M., Sedem, M., Allodi Westling, M., & Ginner Hau, H. (2020). The cultural adaptation of interventions to promote positive development: The preschool edition of PATHS in Sweden. In R. Dimitrova, & N. Wiium (Eds.). *Handbook of positive youth development in a global context. Research, policy and practice applications*New York, NY: Springer (in press).
Ferrer-Wreder, L., Sundell, K., & Mansoory, S. (2012). Tinkering with perfection: Theory development in the intervention cultural adaptation field. *Child Youth Care Forum, 41*(2), 149–171.
Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). Implementation research: A synthesis of the literature. Retrieved from Tampa, FL: https://nirn.fpg.unc.edu/sites/nirn.fpg.unc.edu/files/resources/NIRN-MonographFull-01-2005.pdf.
Ford, T., Vostanis, P., Mletzer, H., & Goodman, R. (2007). Psychiatric disorder among British children looked after by local authorities: Comparison with children living in private households. *British Journal of Psychiatry, 190*, 319–325.
Forsman, H., Brännström, L., Vinnerljung, B.o., & Hjern, A. (2016). Does poor school performance cause later psychosocial problems among children in foster care? Evidence from national longitudinal registry data. *Child Abuse & Neglect, 57*, 61–71.
Gati, I., Osipow, S. H., & Fassa, N. (1994). The scale structure of multi-scale measures: Application of the split-scale method to the task- specific occupational self-efficacy scale and the career decision-making self-efficacy Scale. *Journal of Career Assessment, 2*(4), 384–397.
Geenan, S., Powers, L. E., Philips, L. A., Nelson, M., Winges, Y. N., Blanchette, L., … Swank, P. (2014). Better Futures: A randomized field test of a model for supporting young people in foster care with mental health challenges to participate in higher education. *Journal of Behavioral Health Sciences & Research, 42*(2), 150–171.
Geenen, S. J., Powers, L. E., & Phillips, L. A. (2015). Better futures: A randomized field test of a model for supporting young people in foster care with mental health challenges to participate in higher education. *The Journal of Behavioral Health Services & Research, 42*(2), 150–171.
Geenen, S., Powers, L. E., Powers, J., Cunningham, M., McMahon, L., Nelson, M., … Fullerton, A. (2013). Experimental study of a self-determination intervention for youth in foster care. *Career Development and Transition for Exceptional Individuals, 36*(2), 84–95.
Gloppen, K. M., David-Ferdon, C., & Bates, J. (2010). Confidence as a predictor of sexual and reproductive health outcomes for youth. *Journal of Adolescent Health, 46*(3), S42–S58. https://doi.org/10.1016/jadohealth.2009.11.216.
Gonzales, N. A. (2017). Expanding the cultural adaptation framework for population-level impact. *Prevenion Science, 18*(6), 689–693.
Greeson, J. K. P., Garcia, A. R., Tan, F., Chacon, A., & Ortiz, A. J. (2020). Interventions for youth aging out of foster care: A state of the science review. *Children and Youth Services Review, 113*, 105005.
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.
Holbrook, A. L., Krosnick, J. A., & Pfent, A. M. (2008). The causes and consequences of response rates in surveys by the news media and government contractor survey research firms. In J. Lepkowski, C. Tucker, J. M. Brick, E. de Leeuw, L. Japec, P. J. Lavrakas, M. W. Link, & R. L. Sangster (Eds.). *Advances in telephone survey methodology* (pp. 499–528). New York, NY: Wiley.
Holtan, A., Rønning, J. A., Handegård, B. H., & Sourander, A. (2005). A comparison of mental health problems in kinship and nonkinship foster care. *European Child & Adolescent Psychiatry, 14*(4), 200–207.
Huscroft-D'Angelo, J., Trout, A. L., Lambert, M. C., & Thompson, R. (2017). Reliability and vlidity of the youth empowerment scale-mental health in youth departing residential care and reintegrating into school and community settings. *Education and Treatment of Chidlren, 40*(4), 547–570.
Johansson, H., Höjer, I., & Hill, M. (2011). Young people from a public care background and their pathways to education. Retrieved from Göteborg. https://socwork.gu.se/digitalAssets/1337/1337608_yippee-sverige-slutrapport.pdf.
Kessler, R. C., Pecora, P. J., Williams, J., Hiripi, E., O'Brien, K., English, D., … Sampson, N. A. (2008). Effects of enhanced foster care on the long-term physical and mental health of foster care alumni. *Archives of General Psychiatry, 65*(6), 625.
Kilbourne, A. M., Neumann, M. S., Pincus, H. A., Bauer, M. S., & Stall, R. (2007). Implementing evidence-based interventions in health care: Application of the replicating effective programs framework. *Implementation Science, 2*(1), https://doi.org/10.1186/1748-5908-2-42.
Köhler, M., Emmelin, M., Hjern, A., & Rosvall, M. (2015). Children in family foster care have greater health risks and less involvement in Child Health Services. *Acta Paediatrica, 104*(5), 508–513.
Kumpfer, K. L., Pinyuchon, M., de Melo, A. T., & Whiteside, H. O. (2008). Cultural adaptation process for international dissemination of the strengthening families program. *Evaluation & The Health Professions, 31*(2), 226–239.
Lee, J. (2016). Attitude toward school does not predict academic achievement. *Learning and Individual Differences, 52*, 1–9. https://doi.org/10.1016/j.lindif.2016.09.009.
Lee, J., Powers, L., Geenen, S., Schmidt, J., Blakeslee, J., & Hwang, I. (2018). Mental health outcomes among youth in foster care with disabilities. *Children and Youth Services Review, 94*, 27–34.
Lehmann, S., Havik, O. E., Havik, T., & Heiervang, E. R. (2013). Mental disorders in foster children: A study of prevalence, comorbidity and risk factors. *Child and Adolescent Psychiatry and Mental Health, 7*(1), 39. https://doi.org/10.1186/1753-2000-7-39.
Lemon, K., Hines, A. M., & Merdinger, J. (2005). From foster care to young adulthood: The role of independent living programs in supporting successful transitions. *Children and Youth Services Review, 27*(3), 251–270.
Liptak, J. (2008). *Assessing barriers to education.* Indianapolis, IN: JIST Works.
Liu, C., Vinnerljung, B., Östberg, V., Gauffin, K., Juarez, S., Cnattingius, S., & Hjern, A. (2018). Out-of-home care and subsequent preterm delivery: An intergenerational cohort study. *Pediatrics, 142*(2), e20172729. https://doi.org/10.1542/peds.2017-2729.
McDougall, J., Baldwin, P., Evans, J., Nichols, M., Etherington, N., & Wright, V. (2016). Quality of life and self-determination: Youth with chronic health conditions make the connection. *Applied Research Quality Life, 11*(2), 571–599.
Mejia, A., Leijten, P., Lachman, J. M., & Parra-Cardona, J. (2017). Different strokes for different folks? Contrasting appraoches to cultural adaptation of parenting interventions. *Prevention Science, 18*, 630–639.
Miller, M. J., & Sheu, H. B. (2008). Conceptual and measurement issues in multicultural psychology research. In S. D. Brown, & R. W. Lent (Eds.). *Handbook of counseling psychology* (pp. 103–120). Hoboken, NJ: John Wiley & Sons.
Österberg, T., Gustafsson, B., & Vinnerljung, B. (2016). Children in out-of-home care and adult labor-market attachment: A Swedish national register study. *Journal of Public Child Welfare, 10*, 414–433.
Pao, M. (2018). Defining success in the transition to adulthood. *Child and Adolescent Psychiatric Clinics of North America, 26*(2), 191–198.
Pecora, P., White, C., Jackson, L., & Wiggins, T. (2009). Mental health of current and former recipients of foster care: A review of recent studies in the USA. *Child & Family Social Work, 14*, 132–146.
Phillips, L. A., Powers, L. E., Geenen, S., Schmidt, J., Winges-Yanez, N., McNeely, I. C., … the Research Consortium to Increase the Success of Youth in Foster Care (2015). Better Futures: a validated model for increasing postsecondary preparation ad participation of youth in foster care with mental health challenges. Children and Youth Services Review, 57, 50–59.
Powers, L. E., Ellison, R., Matuszewski, J., Wilson, R., Phillips, A., & Rein, C. (2001). A multi-component intervention to promote adolescent self-determination. *Journal of Rehabilitation, 67*(4), 13–19.
Powers, L. E., Fullerton, A., Schmidt, J., Geenen, S., Oberweiser-Kennedy, M., Dohn, J., … Blakeslee, J. (2018). Perspectives of youth in foster care on essential ingredients for promoting self-determination and successful transition to adult life: My Life model. *Children and Youth Services Review, 86*, 277–286.

Powers, L. E., Geenan, S., Powers, J., Pommier-Satya, S., Turner, A., Dalton, L. D., . . . other members of the Research Consortium to Increase the Success of Youth in Foster Care (2012). My Life: effects of a longitudinal, randomized study of self-determination enhancement on the transition outcomes of youth in foster care and special education. Children and Youth Services Review, 34, 2179–2187.

Powers, L. E., Turner, A., Westwood, D., Loesch, C., Brown, A., & Rowland, C. (1998). TAKE CHARGE for the future: A student-directed approach to transition planning. In M. L. Wehmeyer, & D. J. Sands (Eds.). *Making it happen: Student involvement in education planning, decision making and instruction* (pp. 187–210). Baltimore: Brookes.

Powers, L. E., Turner, A., Westwood, D., Matuszewski, J., Wilson, R., & Phillips, A. (2001). TAKE CHARGE for the future: A controlled field-test of a model to promote student involvement in transition planning. *Career Development for Exceptional Individuals, 24*(1), 89–104.

Rescorla, L., Ivanova, M. Y., Achenbach, T. M., Begovac, I., Chahed, M., Drugli, M. B., ... Zhang, E. Y. (2012). International epidemiology of child and adolescent psychopathology II: Integration and applications of dimensianal findings from 44 societies. *Journal of the American Academy of Child & Adoilescent Psychiatry, 51*(12) 1273–1283e1278.

Resnicow, K., Soler, R., Braithwaite, R. L., Ahluwalia, J. S., & Butler, J. (2000). Cultural sensitivity in substance use prevention. *Journal of Community Psychology, 28*(3), 271–290.

Rosenman, R., Tennekoon, V., & Hill, L. G. (2011). Measuring bias in self-report data. *International Journal of Behavioural and Healthcare Research, 2*(4), 320–332.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development and wellness.* New York: Guilford Press.

Sallnäs, M., & Vinnerljung, B. (2012). Instabilitet i familjehemsvården - en regional studie om sammanbrott bland yngre barn och bland barn i långvarit famijehemsvård. In Oplanerade avbrott i familjehemsplaceringar av yngre barn och långvarigt placerade barn (pp. 24–68). Stockholm: Socialstyrelsen.

Schneider, R., Baumrind, N., Pavao, J., Stockdale, G., Castelli, P., Goodman, G. S., & Kimerling, R. (2009). What happens to youth removed from parental care?: Health and economic outcomes for women with a history of out-of-home placement. *Children and Youth Services Review, 31*(4), 440–444.

Schneiderman, J. U., Leslie, L. K., Arnold-Clark, J. S., McDaniel, D., & Xie, B. (2011). Pediatric health assessments of young children in child welfare by placement type. *Child Abuse & Neglect, 35*(1), 29–39.

Shaw, T. M., & DeLaet, D. E. (2010). Transition of adolescents to young adulthood for vulnerable populations. *Pediatrics in Review, 31*(12), 497–505.

Shek, D. T., Dou, D., Zhu, X., & Chai, W. (2019). Positive youth development: Current perspectives. *Adolescent Health, Medicine and Therapeutics, 10*, 131–141.

Singh, S., & Wassenaar, D. (2016). Contextualising the role of the gatekeeper in social science research. *South African Journal of Bioethics and Law, 9*(1), 42. https://doi.org/10.7196/SAJBL.2016.v9i1.465.

Soenens, B., & Vansteenkiste, M. (2005). Antecedents and outcomes of self-determination in 3 life domains: The role of parents' and teachers' autonomy support. *Journal of Youth and Adolescence, 34*(6), 589–604.

Sundell, K., Beelmann, A., Hasson, H., & von Thiele Schwarz, U. (2015). Novel programs, international adoptions, or contextual adaptations? Meta-analytical resurlts from German and Swedish intervention research. *Journal of Clinical Child & Adolescent Psychology,* 1–13. https://doi.org/10.1080/15374416.2015.1020540.

Sundell, K., Ferrer-Wreder, L., & Fraser, M. W. (2013). Going global: A model for evaluating empirically supported family-based interventions in new contexts. *Evaluation and the Health Professions, Online First,* 1–28.

UNESCO (2020). UNESCO Sustainable Development Goals Database. Retrieved from http://data.uis.unesco.org/index.aspx?queryid=162.

van Mourik, K., Crone, M. R., de Wolff, M. S., & Reis, R. (2017). Parent training programs for ethnic minorities: A meta-analysis of adaptations and effect. *Prevention Science, 18*, 95–105.

Villegas, S., Rosenthal, J., O'Brien, K., & Pecora, P. (2011). Health outcomes for adults in family foster care as children: An analysis by ethnicity. *Children and Youth Services Review, 33*, 110–117.

Viner, R., & Taylor, B. (2005). Adult health and social outcomes of children who have been in public care: Population-based study. *Pediatrics, 115*, 894–899.

Vinnerljung, B., Berlin, M., & Hjern, A. (2010). Skolbetyg, utbildning och risker för ogynnsam utveckling hos barn. Retrieved from Stockholm.

Vinnerljung, B., Brännström, L., & Hjern, A. (2015). Disability pension among adult former child welfare clients: A Swedish national cohort study. *Children and Youth Services Review, 56*, 169–176.

Vinnerljung, B., Forsman, H., Jacobsen, H., Kling, S., Kornør, H., & Lehmann, S. (2015). Barn kan inte vänta. Retrieved from Stockholm. https://www.kineo.nu/skolfam/moodle/pluginfile.php/65/mod_resource/content/1/Kap_7_Skolbetyg_utbildning_och_risker_for_ogynnsam_utveckling_hos_barn.pdf.

Vinnerljung, B., Franzén, E., & Danielsson, M. (2007). Teenage parenthood among child welfare clients: A Swedish national cohort study of prevalence and odds. *Journal of Adolescence, 30*(1), 97–116.

Vinnerljung, B., & Hjern, A. (2011). Cognitive, educational and self-support outcomes of long-term foster care versus adoption. A Swedish national cohort study. *Children and Youth Services Review, 33*(10), 1902–1910.

Vinnerljung, B., & Hjern, A. (2014). Consumption of psychotropic drugs among adults who were in societal care during their childhood—A Swedish national cohort study. *Nordic Journal of Psychiatry, 68*(8), 611–619.

Vinnerljung, B., Hjern, A., & Lindblad, F. (2006). Suicide attempts and severe psychiatric morbidity among former child welfare clients – A national cohort study. *Journal of Child Psychology and Psychiatry, 47*(7), 723–733.

Vinnerljung, B., Öman, M., & Gunnarson, T. (2005). Educational attainments of former child welfare clients – A Swedish national cohort study. *International Journal of Social Welfare, 14*, 265–276.

von Borczyskowski, A., Vinnerljung, B., & Hjern, A. (2013). Alcohol and drug abuse among young adults who grew up in substitute care—Findings from a Swedish national cohort study. *Children and Youth Services Review, 35*(12), 1954–1961.

Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement, 1*, 165–178.

Walker, J. S., & Powers, L. E. (2007). Introduction to the youth self-efficacy scale/mental health and the youth participation in planning scale. Retrieved from Portland, OR. https://www.pathwaysrtc.pdx.edu/pdf/pbCompleteSurveyPacket.pdf.

Walker, J. S., Thorne, E. K., Powers, L. E., & Gaonkar, R. (2010). Development of a scale to measure the empowerment of youth consumers of mental health services. *Journal of Emotional and Behavioral Disorders, 18*(1), 51–59.

Wand, T., Crawford, C., Bell, N., Murphy, M., White, K., & Wood, E. (2019). Documenting the pre-implementation phase for a multi-site translational research project to test a new model Emergency Department-based mental health nursing care. *International Emergency Nursing, 45*, 10–16.

Webster, D., Barth, R. P., & Needell, B. (2000). Placement stability for children in out-of-home care: A longitudinal analysis. *Child Welfare, 79*(5), 614–632.

Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive disabilities three years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities, 38*(2), 131–144.

Wehmeyer, M. L., & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation or learning disabilities. *Exceptional Children, 63*(2), 245–255.

White, C. R., O'brien, K., Pecora, P. J., & Buher, A. (2015). Mental Health and Educational Outcomes for Youth Transitioning from Foster Care in Michigan. *Families in Society, 96*(1), 17–24.

Wick, J. W. (1990). *Comprehensive assessment program: SAM attitue measures technical manual.* Iowa City, IA: American Testronics.

Wolman, J., Campeau, P. I., DuBois, P. A., Mithaug, D. E., & Stolarski, V. S. (1994). *AIR Self-determination Scale and user guide.* Palo Alto, CA: American Institutes for Research.

Wulczyn, F., Kogan, J., & Harden, B. J. (2003). Placement stability and movement trajectories. *Social Service Review, 77*(02), 212–236.

Zlotnick, C., Tam, T., & Soman, L. (2012). Life course outcomes on mental and physical health: The impact of foster care on adulthood. *American Journal of Public Health, 102*, 534–540.