Happily Ever After? What Works for Youth Leaving Residential Placement? A Systematic Review of Reviews

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Conflicts of interest

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Abstract

Background: Youth who have been in residential placement (RP) are overrepresented in prevalence rates for criminal behavior, delinquency, incarceration, low academic achievement, low quality of life, and unemployment. Supportive interventions that aid reentry youth can be crucial for subsequent adaptation.

Aims: Our objectives were to create a summary of evidence about transitional interventions for youth who are leaving RP. We assessed the quality of evidence and confidence in effect estimates reported in systematic reviews (SR) to create an overview of the extant literature. This overview of systematic reviews offers a comprehensive synopsis of findings and identifies gaps of knowledge.

Methods: A protocol for this study was preregistered in PROSPERO. SRs that fit the search criteria were evaluated using the AMSTAR checklist and GRADE assessment guidelines.

Results: We screened 2,349 SRs for eligibility and eight systematic reviews were included for analysis. The methodological quality of five SRs was critically low, two SRs were of low quality, and one was of moderate quality. In five SRs, recidivism was reported as the sole outcome. Five SRs reported detrimental outcomes. The confidence in the effect estimates ranged between low and very low for all outcomes. All SRs reported on US populations.

Conclusion: We offer a rigorous appraisal of SRs on transitional interventions. The gaps of knowledge are vast in terms of what works, how it works, and for whom. Development of a knowledge base should consist of defining the substrates of the term

'recidivism', systematic reporting of demographics, and identifying effective intervention elements.

Key Practitioner Message:

- The systematic review literature on transitional interventions for youth who are leaving RP provides inconclusive and contradictory evidence about the efficacy of such programs.
- There is a fundamental lack of methodological rigor in primary studies, and the majority of evidence describes US programs delivered in the 1990s and 2000s.
- The operationalizations of the outcome 'recidivism' varies to such an extent that comparison between studies may not be feasible.
- There is a need for updated empirical evidence on this topic, particularly about what works for reentry youth outside the United States.

Keywords: juvenile residential placement, mental health, reentry youth, youth incarceration, transitional intervention, systematic review

Introduction

The transition from adolescence to adulthood involves structural changes, such as embarking on independent living and completing education, as well as personal changes, such as identity exploration, instability, and alternation between emerging independence and dependence (Arnett, 2007; Courtney, 2019). In this tumultuous time, most youth rely on support from several family domains, while youth in residential placement (RP) care are often left without this support system. For youth transitioning from RP, reentry to the community is a crucial phase for later life outcomes. Many struggle with health issues (Barnert et al., 2020) and debt (Harper et al., 2020), finding employment, or attaining academic credentials (Zajac et al., 2015). In the U.S., up to 75% of RP youth are arrested within three years of reentering the

community (Annie E. Casey Foundation, 2013), and in 2016, 60,000 youth were sentenced to juvenile justice RP alone (Sickmund et al., 2018). The social, emotional, and financial implications for these youth, their caregivers, and their communities, are vast. As a result, a plethora of reentry interventions exist, all aiming to aid the difficult transition phase in some form or another.

A lot is to be gained for communities and policy makers who choose to implement effective reentry programs. The evidence base on which to formulate such decisions, however, is not easily maneuvered. It has been reported that many of these programs are effective, but the systematic empirical evidence is sparse and, more often than not, systematic reviews (SR) describe one specific outcome (e.g. reincarceration), or type of intervention (e.g. surveillance programs). We addressed this issue by summarizing and synthesizing the evidence on this important topic.

In the United States, 46% of youth living in residential care settings meet diagnostic criteria for a mental health disorder (Zajac et al., 2015). Seventy-nine percent of these youth also meet criteria for an additional diagnosis (Shufelt & Cocozza, 2007). In 2015, 76.2% of Norwegian youth in residential placement (RP) met diagnostic criteria for a mental health disorder (Kayed et al., 2015). In addition, children residing in RP are four times more likely to experience emotional dysregulation (Bronsard et al., 2016). This comes as little surprise considering most RP adolescents have experienced pervasive life events such as severe psychosocial stress and neglect (Jozefiak et al., 2016). Exposure to pervasive life events and other adverse childhood experiences increases the likelihood of developing complex mental disorders (Preyde et al., 2020). The onset of mental illness at an early age increases a youth's risk of experiencing detrimental shortfalls such as unemployment, criminality, dependence on drugs, and low academic achievement (Preyde et al., 2020).

RP has emerged as a medium not only to address the underlying conditions that exacerbate youth mental health symptoms, but also as means to confront these shortfalls.

Studies conducted during the 1970s suggested that the RP programs utilized at the time had no considerable effect on recidivism, leading fear-mongers to ask, "does nothing work?" (Lipsey & Cullen, 2007). As a result, treatments "got tough" and punishment was embraced as the method of choice to address dysfunctional youth behavior (Kim et al., 2013; Lipsey & Cullen, 2007). Meta-analyses conducted in the decades that followed demonstrated that "tough-love" methods such as Scared Straight, bootcamp, and prisoner visitation programs increase recidivism, often doing more harm than good (Aos et al., 2001; Petrosino et al., 2016). Unequivocally, researchers today have concluded that punishment programs have little to no effect on recidivism (Akers & Sellers 2004; Cullen et al. 2002; Lipsey & Cullen, 2007; Kim, Merlo, & Benekos, 2013).

Over time, as RPs moved further away from punishment, two main treatment methods emerged: correctional and rehabilitation treatment. Correctional treatments involve the use of punitive penalties as a means to reform offenders (Lipsey & Cullen, 2007). Rehabilitation treatment on the other hand aims to motivate, guide, and support young offenders to maintain positive changes once they are released from supervision (Kim et al., 2013; Lipsey & Cullen, 2007). Contrary to the "just-reward" correctional perspective, rehabilitation is a long-term perspective that involves addressing anti-social behaviors in order to prevent reoffence, reduce crime, and ensure public safety (Lipsey & Cullen, 2007). Previous research demonstrates that rehabilitation programs are more effective than correctional methods (Kim et al., 2013; Lipsey & Cullen, 2007). In addition, researchers propound that rehabilitation has an even higher effect when an integrative community-based focus is incorporated (Braithwaite & Mugford, 1994; Izzo & Ross, 1990; Spencer & Jones-Walker, 2004). Indeed, "effective programs are those that include a comprehensive approach to intervening with

young offenders, focusing not only on youth themselves but also on the different contexts (e.g., family and school) to which they return" (Spencer & Jones-Walker, 2004, p. 89).

Tailoring transitional services is crucial, especially when one takes into consideration the wide spectrum of needs each RP youth has. However, too little information exists on the transitional practices used with RP youth (Hoffman et al., 2009; Zajac et al., 2015), and while tailoring treatment is a vital step in transitional services, it's virtually impossible to give practitioners and policy makers specific instruction on how to do so with the research knowledge base that exists today. While Kim and colleagues (2013) found that the type of correctional intervention was important for outcomes, they also found that the effect differed between different groups of youths. Further, although community-based treatment has been found to have greater effects on recidivism than residential alternatives, it is not known if this difference is explained by differences in the quality of treatment or differences in samples or treatment contexts (Lipsey & Cullen, 2007). Even still, the programs offered to RP youth in the real world vary drastically. According to Cullen and colleagues (2001), many programs are shaped as much by accommodation to providers' customs and accessibilities as by scientific evidence. Furthermore, Zajac et al. (2015) state that intervention programs for youth lack coordination between service providers and fail to meet youths' developmental needs. To complicate the issue further, previous research has not thoroughly described the post-discharge challenges youth encounter during their transition from RP (Preyde et. al. 2020). A sense of falling behind exasperated by the pressures of deciding on long-term life decisions such as study direction and establishing employment is extra burdensome (Zajac et al., 2015). Navigating important milestones such as finding a place to live, developing a social network, and securing a personal economy, combined with a lack of continuity of care and inadequate assistance during the community reintegration phase, confounds this burden (Spencer & Jones-Walker, 2004; Harder et al. 2011).

Our initial searches on the topic of reentry interventions for youth revealed several systematic reviews (SRs), many of which summarized findings on specific programs or types of interventions, such as mentoring (Abrams et al., 2014), intensive supervision (Bouchard & Wong, 2018), moral reconation therapy (Ferguson & Wormith, 2013) , and non-custodial employment programs (Visher et al., 2006). According to The Cochrane Handbook of Systematic Reviews (Higgins et al., 2009), it is advisable to conduct an Overview of Systematic Reviews (Overview) when the scope of the research question is broader than those addressed in the extant SR literature and when SR diversity needs to be examined further (Pollock et al., 2020). In the current overview, we aimed to: (1) examine and conduct a narrative review of the state of empirical evidence-based knowledge regarding interventions for youth transitioning from residential placement; (2) identify and describe outcomes that have been reported in SRs on interventions for youth transitioning from residential placement; (3) identify and discuss gaps of knowledge in the literature.

Methods

Protocol and Registration

The protocol for this review was registered with the international prospective register of systematic reviews (PROSPERO; CRD42019125187) on May 8, 2019. The title was changed from “Happily Ever After? What Works for Youth who are Leaving Out-of-Home-Care? A Systematic Review of Reviews” to “Happily Ever After? What Works for Youth Leaving Residential Placement? A Systematic Review of Reviews” for the sake of clarity.

Eligibility Criteria

We included SRs that fit our inclusion criteria, with no restrictions regarding publication year or language. Since this is an overview of systematic reviews, we only

included SRs that adhere to the DARE criteria (DARE: Database of Abstracts of Reviews of Effects, 2019). We excluded all publications that were not SRs published in peer-reviewed journals. The inclusion criteria were:

Population: Youth, aged 13-18 (up to 23 if they received intervention before age 18), who are transitioning from out-of-home care.

Intervention: Community, therapy or facility-based services that provide support to the youth and/or the family in the transition from out-of-home care.

Comparison: Treatment as usual, other interventions, no intervention.

Outcome: Recidivism, clinical symptoms, life outcomes (e.g. academic attainment, housing, substance abuse), quality of life (e.g. subjective wellbeing, social relations etc.)

Study design: Systematic Review

SRs that otherwise met the above-mentioned inclusion criteria were excluded for the following reasons:

- Intervention was given exclusively before the transition from RP.
- SRs did not adequately distinguish between adult, adolescent, and/or child participants.
- SRs did not adequately report the age of participants.
- Intervention targeted parents or caretakers only.
- The review did not explicitly focus on transitional interventions.

Information Sources and Search Strategy

The following bibliographic databases were searched for relevant material: PsycINFO, Web of Science, Campbell Library, Cochrane Library, Sociological Abstracts (ProQuest), Criminal Justice Abstracts (Ebsco), Social Care Online, Epistemonikos, PROSPERO database, and Ovid MEDLINE(R). The search was conducted on February 11-13, 2019. Two

research librarians performed the literature search and the search strategy was peer reviewed in accordance with the PRESS checklist ("PRESS Peer Review of Electronic Search Strategies," 2019). We monitored potential new reviews by generating a monthly automated update of our search in Ovid MEDLINE(R) and PsycINFO. We obtained titles and abstracts of all new matches and author LSK screened for eligibility. Authors LSK and PW independently screened full texts for new matches that were eligible for inclusion until October 2020. The full electronic search strategy is available in Supplementary Material A.

Study Selection

All abstracts were independently reviewed by one of the authors PW, JK, and LSK, using the review tool Covidence (Covidence Systematic Review Software). All abstracts that were considered a possible match to our search criteria were retrieved in full text and reviewed in duplicate by the authors. All decisions about final inclusion were made in collaboration by authors LSK and PW. Discrepancies in study selection were resolved by discussion until all authors reached consensus.

Data Extraction and Methodological Appraisal

Information included populations, intervention and control group characteristics, duration, follow-up time, outcome measures, and pooled effect estimates for each outcome in each SR. Data from primary studies were not extracted. The AMSTAR **(**A MeaSurement Tool to Assess systematic Reviews) checklist was used to assess the methodological quality and risk of bias of the included SRs. LSK and PW first independently assessed the SRs and then discussed each assessment to reach consensus on the final AMSTAR rating. LSK and PW extracted data from the SRs and checked for accuracy. We used The Grading of Recommendations, Assessment, Development and Evaluation (the GRADEpro GDT tool) for evaluating confidence in effect estimates and strength of evidence for each SR. LSK and PW

GRADE-ed all reviews in duplicate. In cases where there were discrepancies between the GRADE scores, we conferred with the GRADE handbook guidelines and/or a research colleague (Astrid Dahlgren) who has extensive experience using GRADE.

Results

Results of the Literature Search

Two thousand three hundred and forty-nine abstracts were screened and 2,240 were excluded, many of which focused on interventions for youth during incarceration or did not meet the criteria for a SR. One-hundred and ten full text systematic reviews were retrieved. Eight were fit for final inclusion. Therefore, our sample consists of eight SRs, 58 primary studies, 10 of which (21%) were referenced in two SRs. None of the SRs that were identified underway through the automated literature search updates matched our inclusion criteria. Figure 1 illustrates the screening process. See Supplementary Material B for registry of excluded materials and details regarding reasons for exclusion.

Figure 1. Screening Flow Chart

Insert Figure 1 here

Description of Populations

A majority of the primary study interventions were aimed at 12- to 18-year-old adolescents, however some of the studies included adults as old as 24 (Ferguson & Wormith 2013; Heerde et al 2018; Visher et al., 2006). Bouchard and Wong (2018) simply stated that the interventions were aimed at 'youth' and did not provide an age range. For the sake of this article, study samples that included children and adults were included when it was possible for us to delineate the mean age of the sample and ensure that it fell within our criteria. Thus, included samples were comprised of juvenile offenders who had been committed or convicted to detention centers or correctional facilities prior to community reentry. Sander et al.'s

(2012) sample included primary studies that investigated delinquency intervention programs for both delinquent youth who had not been in RP and reentry youth. Therefore, we only included effect estimates for the six of 14 primary studies that reported on reentry youth. Ferguson et al. (2013) reported on adult and youth samples. We included five of the 33 primary studies mentioned in this study that fell within our age criteria. Similarly, we included three of eight primary studies reported by Visher et al. (2006). We included three of eight primary studies from Heerde et al. (2018), as five of them had been covered by other SRs. All included SRs reported on U.S. study samples, except for three primary studies conducted in the UK (Biehal et al., 1994; Gray et al., 2005; Little et al., 2004). Supplementary Material C details included primary studies sorted by SR and overlap in primary studies.

Description of Interventions

The SRs included a variety of transitional interventions for youth leaving RP including: reentry interventions (mentor reentry program, aftercare reentry programs, transitional programs, and transitional support services; Abrams et al. (2014); Bouchard and Wong (2018); Everson-Hock et al. (2011); Heerde et al. (2018), and Weaver and Campbell (2015), psychosocial interventions (DBT, ART, FFT, EMDR, MRT, and solution-focused brief therapy; (Ferguson & Wormith, 2013), as well as educational, vocational and work programs, including tutoring, parent-teacher meetings, JOBSTART and Job Corps; (Sander et al., 2012; Visher et al., 2006).

However, several SRs lacked thorough descriptions of the specific interventions and programs administered. Rather, these studies reported the interventions as general categories such as “transitional services” (Bouchard & Wong, 2018; Everson-Hock et al., 2011; Ferguson & Wormith, 2013; Heerde et al., 2018; Weaver & Campbell, 2015). The same rang true for information regarding follow-up and intervention duration as a number of the reviewed SRs did not provide adequate detail regarding the duration of the interventions

(Bouchard & Wong, 2018; Everson-Hock et al., 2011; Heerde et al., 2018; Sander et al., 2012; Visher et al., 2006), nor whether a follow-up period was administered (Heerde et al., 2018; Weaver & Campbell, 2015).

Description of Control and Comparison Groups

Six SRs reported control or comparison groups defined as probation-only, treatment- or care-as-usual, pre-release-program-only, or no intervention (Abrams et al., 2014; Bouchard & Wong, 2018; Everson-Hock et al., 2011; Ferguson & Wormith, 2013; Sander et al., 2012; Visher et al., 2006). Heerde et al. (2018) reported on 11 cross-sectional studies and eight longitudinal studies with no controls. Weaver and Campbell (2015) did not specify control groups.

Description of Outcomes

Five SRs reported recidivism as the main outcome (Abrams et al., 2014; Bouchard & Wong, 2018; Ferguson & Wormith, 2013; Visher et al., 2006; Weaver & Campbell, 2015). Recidivism was defined as any new convictions, any new court contacts, any new charges, alleged or convicted offenses, criminal offenses subsequent to treatment, or arrests during the follow-up period (official or self-reported). Everson-Hock et al. (2011) reported on educational attainment, employment, criminal and offending behavior, pregnancy and parenthood, housing and homelessness, and physical, mental and sexual health. Heerde et al. (2018) reported outcomes for post-transition housing, education, and employment status. Sander et al. (2012) reported student academic achievement and school functioning (attendance and grades) as their outcomes.

Methodological Quality Assessment

The quality of the SRs was examined using the AMSTAR checklist. The AMSTAR checklist rates methodological quality along a 4-point scale ranging between critically low,

low, moderate, and high (Shea et al., 2017). The included SRs were predominantly of poor methodological quality. Five of the eight SRs were rated 'critically low' (Abrams et al., 2014; Bouchard & Wong, 2018; Ferguson & Wormith, 2013; Sander et al., 2012; Weaver & Campbell, 2015). Two SRs were rated 'low quality' (Heerde et al., 2018; Visher et al., 2006). Only one of the included reviews scored higher; Everson-Hock et al. (2011) received a 'moderate quality' rating. Study characteristics and AMSTAR ratings are detailed in Supplementary Table 1. Common methodological quality deviations included: no clear statement that review methods were established before the authors conducted their literature search, the authors did not perform study selection, nor data extraction, in duplicate, a list of excluded studies was not provided, and risk of bias was not completed.

Risk of Bias in Individual Studies

None of the included SRs used an adequate technique for assessing and reporting risk of bias (RoB) for the primary studies (see summary in Figure 2, and details in Supplementary Table 2). Those that reported on randomly controlled primary studies did not report allocation sequence, intervention allocation, blinding of patients, and outcome assessors. None of the SRs that reported on non-randomized primary studies addressed the possibility of confounding or selection bias. No accounts were given of the risk of bias for selection of reported results from multiple measurements or analyses of one specified outcome. Each SR's score on items pertaining to RoB in the AMSTAR checklist is detailed in Figure 2. Only two SRs addressed the potential impact of individual studies' RoB on the results of meta-analyses (Visher et al., 2006; Weaver & Campbell, 2015). In addition, only two SRs reported primary studies' sources of funding (Visher, Winterfield & Coggeshall, 2006; Weaver & Campbell, 2015). All reviews provided satisfactory discussion of any heterogeneity observed in the results and six of the reviews adequately reported potential conflicts of interest.

Insert Figure 2. *Risk of Bias Scores from the AMSTAR Checklist for each Included Systematic Review* here

Assessing Confidence in the Evidence – GRADE Scores

The confidence in effect estimates was assessed for each outcome in each SR, including adverse effects when reported. Thirty-three outcomes were assessed, including six adverse effects. We were unable to assess effect estimates for two outcomes; reincarceration (Abrams et al., 2014) and substance misuse (Everson-Hock et al., 2011), due to lack of reported measurements. The confidence in the effect estimates was rated 'very low' for 28 outcomes, primarily due to combinations of low numbers of studies and/or participants, incomparable study samples or interventions, heterogeneity of results, and uncertain risk of bias. The confidence in effect estimates for three outcomes was rated 'low'; Everson-Hock et al. (2011) reported beneficial effects of transition programs on parenthood (fewer young parents in intervention groups than in control groups), and housing. No effect estimates received 'moderate' or 'high' ratings. A 'very low' rating indicates that the true effect is probably markedly different from the reported effect estimate. A 'low' rating indicates that the true effect may be markedly different from the reported effect estimate. The GRADE assessments for each SR are detailed in Supplementary Tables 3-110.

Summary of Evidence

Three SRs (Abrams et al., 2014; Everson-Hock et al., 2011; Sander et al., 2012) reported inconclusive evidence of effect due to lack of methodological quality in primary studies. Sander et al. (2012) and Visher, Winterfield & Coggeshall (2006) reported incomparable heterogeneity in study samples and interventions (i.e. publication year, demographic makeup, program content). Heerde et al. (2018) reported small positive effects of reentry program participation on housing and education, but with major limitations

pertaining to sample size and study design. Everson-Hock et al. (2011) reported relatively robust positive effects on independent living, but contradictory effects for education, employment, and offending behavior. Two SRs searched for and included primary studies dating back to the 1970s and onward (Sander et al., 2012; Visher et al., 2006), six SRs reported on studies published from 1990 and onward (Abrams et al., 2014; Bouchard & Wong, 2018; Everson-Hock et al., 2011; Ferguson & Wormith, 2013; Heerde et al., 2018; Weaver & Campbell, 2015), and only three primary studies were published after 2010; Jones, (2010) and Jones (2011), in Heerde et al. (2018), and Stafford and Glassner (2012), in Bouchard and Wong (2018).

Table 1

Main Findings of Included Systematic Reviews

Reference	Intervention	Outcome(s)	Main findings
Abrams et al. (2014)	Transitional mentoring programs for reentry youth *(Aftercare for Indiana Mentoring Project; Washington State Juvenile Rehabilitation Administration Mentoring Project; The Clay County, Minnesota Project)*	Recidivism: Reincarceration, any new convictions, any new court contacts, any new charges	Studies reported moderate levels of recidivism at 12 months, and much higher rates of recidivism at the longer-term follow-up points. No sufficient evidence of effectiveness was found. A lack of rigorous or replicable research on mentoring as a reentry intervention was identified.
Bouchard & Wong (2018)	Intensive Supervision and Aftercare/reentry programs *(unspecified)*	Recidivism: alleged or convicted offenses	Results were contradictory. Supervision had a beneficial effect on alleged offenses and negatively affected convicted offenses.
Everson-Hock et al. (2011)	Support services for youth transitioning from foster/residential care to independent living or community care. *(unspecified)*	Educational attainment, employment, substance misuse, criminal and offending behavior, young parenthood, housing and homelessness, physical, mental and sexual health.	Positive, negative and neutral impacts were reported. Primary study quality was variable. Those who received transitional support were more likely to be living independently, and less likely to be young parents. Contradictory effects reported for education, employment, and crime/offending behavior.
Ferguson & Wormith (2013)	Moral Reconation Therapy (MRT)	Recidivism: Criminal offences subsequent to treatment	Results indicate that MRT has a small effect on recidivism, MRT was more successful with adult rather than juvenile offenders. Effect sizes were larger when type of recidivism was rearrest vs rearrest and conviction, or reincarceration alone.

Heerde, et al. (2018)	Transitional programs for youth leaving out-of-home care *(unspecified)*	Post-transition housing, education, and employment status	Results showed small associations between transitional program participation and positive housing, education and employment outcomes. Authors call for research on whether such associations exist for specific subgroups of transitioning youth (e.g. males versus females, high-risk youth) or youth outside the United States.
Sander et al. (2012)	Various academic programs *(Standard School Experiences, Tutoring, Vocational Training, GED Program, Parent-teacher Meetings and General Achievement Support)*	Measure of student academic achievement or school functioning (attendance + grades for 3 eligible studies)	Authors report a lack of evidence on the effects of juvenile delinquency interventions on academic outcomes. Heterogeneity of samples, generally weak research designs, and the absence of control conditions characterized primary studies.
Visher et al. (2006)	Individually tailored services including basic education, job-readiness training, vocational exploration, job shadowing, and tryout employment *(unspecified)*	Recidivism: arrests during the follow-up period (typically, 12 months). The measure of criminal behavior may have been either official (i.e., arrest, conviction) or self-reported and may be reported either dichotomously or on a continuous scale.	Employment services programs had small to modest effects on reducing recidivism of ex-offenders. No effect sizes on employment outcomes reported. Primary studies span almost 25 years. Interventions may not be comparable, as the content was very diverse.
Weaver & Campbell (2015)	System or milieu-based interventions targeting mental health, substance abuse and/or social skills problems *(unspecified)*	Recidivism: Number of reoffences after the transition phase, when youth were residing in their communities	Treatment effect was modest and nonsignificant but subgroup analyses of various sample, treatment, methodological, and study characteristics indicated that well implemented aftercare programs can reduce the recidivism risk of reentry youth. Aftercare may be particularly effective for older youth with histories of violent crimes.

Discussion

Our intention was to describe what is known about transitional interventions for youth leaving out-of-home care, but our search yielded results that mostly apply to reentry youth released from juvenile incarceration settings in the United States. Only three of 58 primary studies reported on populations from outside North America, all three of which were from the UK. The homogeneity of our sample with regards to nationality and context is noteworthy. The US juvenile incarceration rates are high, compared to most European countries. As a result, it might not be feasible to generalize findings from US reentry programs employed in the US context to countries where juvenile RP is directed more towards rehabilitation and treatment. According to a national survey conducted by Sedlak and Bruce (2010), 69% of incarcerated youth in the US report needing medical treatment for somatic or mental health issues. Most of these youth are deprived of medications and treatment during their stay, due to automatic suspension from Medicaid enrollment upon incarceration. Despite federal initiatives to reinstate Medicaid eligibility upon release, many reentry youths also struggle with accessing healthcare post-release (Barnert et al., 2020). The US juvenile justice system also imposes legal financial obligations on RT youth so that many accumulate debt during their incarceration (Harper et al., 2020). The US juvenile correctional facilities therefore often add to the burden of already marginalized youth, a stark contrast to conventional treatment facilities. The disparity between the needs and experiences of reentry youth who have been imprisoned and those who have received therapeutic or milieu-based care in a non-prison environment is likely significant and must be accounted for.

The disproportionate incarceration of poor and minority youth in the US is well established (Laub, 2014). It is estimated that even though young Hispanics and African Americans make up a mere third of the US population, over 66% of juveniles in custody are

Hispanic or African American, despite the steady decline in juvenile incarceration rates over the past 15 years (Acoca et al., 2014; Hockenberry, 2016). Poverty is a strong predictor for involvement in the juvenile justice system (Laub, 2014), and, as noted, poverty and debt are systematically perpetuated during incarceration through in-prison medical costs and legal financial obligations (Harper et al., 2020). Rearrest rates for youth who have been incarcerated have been reported to be up to 75% within three years of initial release (Barnert et al., 2020). According to Barnert et al. (2020) this creates a system that "effectively traps poor, minority youth into cycles of incarceration" (p.114). These devastating estimates cannot be disregarded, nor can the evident systemic bias against minorities within the U.S. police and court systems. Recidivism rates may reflect the effect of transition interventions to some extent, but they may be confounded by several other factors, such as ethnicity, socioeconomic background, and reporting biases (i.e. "alleged offenses"). None of the SRs in our sample addressed these issues, but those reporting on other outcomes (Everson-Hock et al., 2011; Heerde et al., 2018; Sander et al., 2012) call for additional rigorous research that takes into account subgroupings such as gender-identity, age range, and at-risk or high-risk youth.

It is striking, in our sample, that the sole outcome measurement for interventions targeting mental health, substance abuse, social skills problems (Weaver & Campbell, 2015), and individually tailored services within education and employment (Visher et al., 2006), is recidivism. These two SRs alone account for a sample of over 30 primary studies and 2,000 participants. Historically, the most common way to determine the effectiveness of a reentry intervention is with recidivism rates (Bortner, 1988) and, as a result, a large number of studies have used recidivism as a marker for success when evaluating residential care interventions (Kim et al., 2013; Spencer & Jones-Walker, 2004). While preventing youth from reoffending and returning to RT is an honorable objective, it is a limited perspective. Recidivism is highly contextual and varies from individual to individual: "simple recidivism rates are largely a

function of the input characteristics of the respective offenders, especially risk characteristics such as prior offense history, age, and gender" (Lipsey & Cullen, 2007, p. 299). Furthermore, when outcome success is measured solely by recidivism, other more pertinent quality of life outcomes such as mental health, and vocational and educational triumphs are overlooked (Zajac et al., 2015). The traditional one-size-fits-all rehabilitation approach that "guarantees" large recidivism pay-offs is not sustainable: "it is simply not consistent with the research evidence to view rehabilitation programs as well-defined magic bullets, the right one of which, if found, will have a big impact on recidivism" (Lipsey & Cullen, 2007, p. 310). Using recidivism as the sole means to measure reintegration outcomes is too narrow. Rather, improvements should be quantified with regards to youths' achievement of critical life-milestones such as mental health, educational success, finding employment, and developing healthy relationships (Spencer & Jones-Walker, 2004).

Another noteworthy point regarding our results is the operationalization of 'recidivism'. Between the five SRs that reported recidivism as the sole outcome, the term was defined quite diversely. Among the operationalizations were any new: "convictions", "court contacts", "charges", "self-reported offenses", "offenses", "alleged offenses", "arrests", "technical violations", and "reincarcerations". Visher, Winterfield & Coggeshall (2006) even noted that "The measure of criminal behavior may have been either official… or self-reported and may be reported either dichotomously or on a continuous scale." (p. 6) A self-reported offense, an alleged offense, and a reincarceration cannot be equated, albeit constituting forms of recidivism. The apparent ambiguity of the term 'recidivism' prompts for careful consideration before comparing or pooling effect estimates across studies, particularly in cases where the operationalization is not explicitly detailed. Classifying and defining the substrates of recidivism may clarify for whom and in which contexts to apply the nuanced term. Clarifying what is meant by recidivism might also enhance the utility of the term when used in research

and policy making. In order to illuminate whether (and which) transition services are beneficial for youth, it is imperative that outcomes are operationalized with sufficient detail, and that the outcomes measured are as closely tied to the intervention components as possible. Going forward, one cannot simply ask "Do transition interventions reduce recidivism?," but rather: "Do vocational training programs for reentry youth enhance completion of vocational training?".

While moving away from a one-size-fits-all-perspective, there is a need to identify transitional interventions that are effective across demographic and cultural groups. It may not be feasible to tailor interventions for each individual reentry youth, as many program deliverers have limited access to proficient personnel and other resources. One way of addressing this seemingly paradoxical problem is to investigate which program elements (i.e., discrete clinical strategies and techniques) have the most pervasive effects. Rather than looking at effect sizes on a single outcome (such as recidivism), examining which elements are common for effective interventions may be a novel way forward (Lipsey & Cullen, 2007). Such elements have been described for reduction and prevention of mental health problems in young people (e.g., Caspi & Moffitt, 2019; Mulder et al., 2017). The authors point to transdiagnostic effects of specific program elements. Perhaps similar effects can be identified and utilized with reentry youth, as they are characteristically prone to co-occurring conditions, including mental health, emotional, and conduct problems (i.e. aggressive or oppositional behavior). A future direction for researchers could be to investigate and identify program elements that yield positive outcomes for reentry youth with regards to substance abuse, employment, residential status, academic attainment, and quality of life, and to build a knowledge-base on which interventions may be modelled and optimized.

Strengths and Limitations

The current overview offers a rigorous method to ascertain the empirical evidence regarding the efficacy of transitional interventions for youth who are leaving RP. We provide a comprehensive synopsis of the extant SR literature, point out major gaps of knowledge, and suggest directions for further research. The current study meets a need for an overview of the literature and may inform researchers, practitioners and policymakers.

A major limitation to this overview is the lack of adequate study information provided in the systematic reviews. With Abrams et al. (2014) being the exception, all other SRs lacked one or more vital details. A number of the included SRs did not mention the actual programs or interventions used with the adolescents, rather, they grouped several interventions under a broader category, such as "support services for looked after young people" (Everson-Hock et al., 2011), "aftercare/reentry" (Bouchard & Wong, 2018), "transitional programs" (Heerde et al., 2018), or "aftercare community programs" (Weaver & Campbell, 2015). This weakens our findings as we are unable to present with adequate specificity which interventions were used.

Another limitation of is the inability to provide primary study PICO information; Bouchard & Wong (2018) did not specify any PICO information whatsoever, Everson-Hock et al. (2011), Ferguson & Wormith (2012), and Visher, Winterfield, & Coggeshall (2006) did not provide information regarding intervention duration. Weaver & Campbell (2014) left out follow-up information, and Heerde et al. (2018) failed to mention both intervention duration as well as follow-up periods. Abrams et al. (2014), however, were the only authors to present specific details regarding populations, interventions, controls, intervention durations, and follow-up periods for all included studies. It must be noted that we are unable to determine whether this lack of reporting is tied to the authors of the reviews themselves, or whether they were limited by the reporting quality of the primary studies. Therefore, limitations of this

review may reflect primary studies' reporting quality, and not necessarily the SRs or their authors. Finally, because our search criteria did not allow for inclusion of SRs on parental interventions, some important findings might have evaded this overview. One example of this is Maltais et al.'s (2019) SR on reentry interventions that focus on enhancing parental engagement.

Conclusion

We have identified several gaps of knowledge with regards to the empirical evidence on the efficacy of transition programs for reentry youth. First, due to uncertain risk of bias, primary studies may lack the methodological rigor that is necessary for making conclusions about effect of interventions. Second, confidence in the effect estimates provided is generally very low, largely due to lack of adequately matched control groups, heterogeneity in study populations, and contradictory effects. Third, the variety of operationalizations of the commonly reported outcome 'recidivism' lack specificity and therefore are incomparable and, at best, problematic. Fourth, our extensive search yielded no results for SRs on transitional interventions for reentry youth outside the U.S. The U.S. residential facilities and the youth who are placed there may, as noted, be distinctly different from those of other nations, and U.S. reentry outcomes may therefore not be generalizable to other settings. As a result, not much is known about young care leavers, although there is some evidence that reentry interventions might have a beneficial impact on independent living and family planning. In conclusion, the empirical literature on transitional interventions for reentry youth is ripe for updated studies, as 87% of the primary studies in our sample describe interventions delivered in the 1990s and 2000s.

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Conflicts of interest

The authors have declared that they have no competing or potential conflicts of interest.

Contributorships

LSK, JK, and PW conceived the study. LSK planned and preregistered the study protocol. Information specialist/research librarian Brynhildur Axelsdottir designed and conducted the electronic search strategy. PW, JK and LSK screened abstracts and full texts. PW and LSK conducted the AMSTAR and GRADE assessments. PW, LSK and SSH analyzed and interpreted data. LSK takes responsibility for the integrity of the data and the accuracy of the data analysis. PW, LSK, SSH, and JK wrote and revised the manuscript. We would like to thank Karianne Hammerstrøm Nilsen and Astrid Dahlgren for invaluable advice.

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