Campbell Systematic Reviews
2011:5
First published: 24 August, 2011
Last updated: March, 2011

Youth Empowerment Programs for Improving Self-Efficacy and Self-Esteem of Adolescents

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Colophon

Title	Youth empowerment programs for improving self-efficacy and self-esteem of adolescents
Institution	The Campbell Collaboration
Authors	Morton, Matthew Montgomery, Paul
DOI	10.4073/csr.2011.5
No. of pages	79
Last updated	March 2011
Citation	Morton, M., Montgomery, P. Youth empowerment programs for improving self-efficacy and self-esteem of adolescents. Campbell Systematic Reviews, 2011:5 10.4073/csr.2011.5

Keywords	
Contributions	Morton and Montgomery contributed to the writing and revising of this protocol. The final search strategy was reviewed and approved by the Trial Search Coordinator for the Campbell SWG. Morton will be responsible for updating this review as additional evidence accumulates and as funding becomes available.
Support/Funding	No funding provided. Expert support provided by the Centre for Evidence-Based Intervention, University of Oxford.
Potential Conflicts of Interest	The authors have no vested interest in the outcomes of this review, nor any incentive to represent findings in a biased manner. Both authors are jointly submitting for peer-review the report of an experimental study of a youth empowerment program in Jordan, which is included in this review.

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Table of contents

Executive summary/Abstract

BACKGROUND

Governments, funders, and charity organizations increasingly demand that young people be involved in the processes that affect their lives and communities. Youth empowerment programs (YEPs) are designed to build on the assets of young people through a focus on active participation, mastery experiences, and positive connections in order to improve developmental outcomes and positive transitions to adulthood. Proponents of YEPs suggest that they may constitute an effective, theory-based approach to youth development.

OBJECTIVES

To report the state of the high-quality evidence on the impacts of YEPs on adolescents' (ages 10-19) sense of self-efficacy and self-esteem, as well as other social and behavioral outcomes. To determine if the available evidence indicates best practices among YEPs or differential effects according to particular subgroups of adolescents. To identify directions for further research.

SEARCH STRATEGY

The investigators conducted an international search that included twelve major academic electronic databases, twelve additional relevant institutional web-based publication databases, and a professional outreach for published and unpublished evaluations.

SELECTION CRITERIA

Randomized controlled trials or quasi-experimental trials using a prospectively assigned control group. Controls could have included no intervention, wait-list, or a comparison intervention without a significant empowerment component. Interventions must have regularly involved youth in program decision-making and met other basic youth empowerment standards. The review included interventions outside of formal education, juvenile detention, residential, and therapeutic systems.

DATA COLLECTION AND ANALYSIS

8,789 citations were identified and screened independently and crosschecked by two reviewers. Sixty-eight studies were reviewed in-depth.

RESULTS

Three studies met the review's full inclusion criteria; two of which measured self-efficacy outcomes that could be aggregated in a meta-analysis. The limited data meta-analyzed did not show a combined intervention effect on self-efficacy (z = 1.21; 95% CI -0.12 to 0.49). None of the three studies independently showed significant intervention effects on the review's primary outcomes. Mixed effects were demonstrated by results for secondary outcomes. There was no evidence of harm, in that no study's results revealed statistically significant adverse intervention effects for any of its measured outcomes.

AUTHORS' CONCLUSIONS

The review reveals an insufficient evidence-base from experimental or quasi-experimental studies to substantiate the expectation that YEPs have an impact on developmental assets such as self-efficacy and self-esteem. Further research into YEPs using rigorous impact study designs is needed. Researchers should further develop methods and measures to enable high-quality, mixed-methods process studies to complement impact studies of YEPs so as to provide more useful evidence for practitioners and policy-makers.

1 Background

1.1 INTRODUCTION

The largest waves of young people in history will soon transition into adulthood. Understanding the most effective approaches for reaching out to adolescents, aged 10-19—a population of over 1.2 billion (UNFPA, 2003)—is a critical challenge that merits global attention. The period of adolescence is particularly important given its instrumental role in the development of habits and competencies that can affect young people's wellbeing and resilience throughout their lives (Kia-Keating et al., 2011). Adolescence is also a vulnerable time in which emotions and risk-taking tendencies are amplified (Call et al., 2002; Dahl, 2004; Rutter, 2001; World Bank, 2006).

This systematic review aims to increase empirical understanding of the use of youth empowerment as a strategy for developing psychosocial assets among adolescents. Despite the increasing popularity of involving young people in the processes that affect their lives and communities, little is known about the demonstrated impacts that such participatory programming has on young people (Crowley & Skeels, 2010; Gray & Hayes, 2008; Zeldin et al., 2000).

Nevertheless, youth empowerment has been promoted internationally. The African Union, European Union, United Nations, World Bank, numerous national governments (e.g., United Kingdom's *Youth Matters*), and the philanthropic community are only a few examples of prominent institutions to have explicitly endorsed strategies to increase participation of young people in policy and programming (African Union, 2006; EU, 1999; Rosen & Maureen, 2001; UKDCSF, 2005; UN, 2005; World Bank, 2006).

To some extent, the argument for youth empowerment is based on rights (Freeman, 2005). The United Nations Convention on the Rights of the Child (UNCRC), which assures children and adolescents the right to be heard and form their own views (Article Twelve), commonly encapsulates the 'rights approach'. This view emphasizes redistribution of power given a perceived injustice embedded in inabilities of young people to exercise their own voice and influence in matters that affect them.

Another approach espouses an instrumental argument. This perspective frames youth empowerment not as a right to be protected, but as a modality for improving youths' developmental outcomes and strengthening institutions and communities by way of young people's contributions (Altman & Feighery, 2004; Jennings, 2006; Suleiman et al., 2006a). The rights-based argument for youth empowerment involves a philosophical and political debate. The instrumental argument—i.e., 'empowerment leads to positive outcomes'—implies an evaluative question of causality, which a systematic review of impact studies is better suited to address.

1.2 DESCRIPTION OF THE CONDITION

1.2.1 Adolescence: challenges and opportunities

As young people experience adolescence, some confront particularly difficult struggles. Recent cross-national self-report data demonstrates especially high youth delinquency rates in Western European and Anglo-Saxon countries (Enzmann et al., 2010). In the United States (US) during 2008, 2.11 million persons under the age of 18 were arrested (Puzzanchera, 2009). Nearly as many young people drop out of school in the US (20-25%) as those that obtain bachelor's degrees (28%) (Wald, 2003). In other words, while many young people will make at least minimally successful transitions to adulthood (Masten & Garmezy, 1985;Wald, 2003; Werner & Smith, 1992), a large number face problems that could jeopardize their future and have negative repercussions for broader society.

The price of neglecting young people's healthy development can be substantial. A 10-year longitudinal study of children in London found that costs for antisocial children with conduct disorder by the time they reached age twenty-eight were ten times higher than costs associated with individuals without such problems (Scott et al., 2001). The largest costs were incurred from crime, followed by extra educational provision, foster and residential care, and state benefits. If YEPs can make a contribution to circumventing the long-term consequences of social behavioral problems, the cost-savings to tax payers may be considerable.

More importantly, those promoting youth empowerment efforts are concerned predominately with more than expressions of antisocial behavior. As Pittman (1999) has popularly stated, "problem-free isn't fully prepared." Many youths avoid the most nettlesome experiences associated with adolescence but still struggle to meet the increasingly diverse demands of a competitive global economy or integrate fully with civil society during adolescence and transitions to adulthood. These challenges are particularly pronounced, for example, in regions like the Middle East and North Africa where young people constitute the largest demographic proportion of society (50-65% age 24 and under), and, yet, working-age youth also have the highest unemployment rates (25-40%) (Fuller, 2003).

Proponents of empowering approaches to youth services contend that young people cannot be adequately prepared without a focus on psychosocial development and effectively capturing young people's interest (Kirby & Bryson, 2002; Larson, 2000). Indicators suggest that society has fallen short to this end for sizeable groups of youth. In a cross-temporal meta-analysis of 72 samples of American college students (total N=13,732), Konrath and colleagues (2010) found a 40% reduction in empathy among American young people since 1979, with the greatest reductions occurring over the last decade. An earlier study that compiled a random sample of 16,000 electronically recorded moments in the daily experiences of 392 middle school youths found that youths reported being bored for more than 27% of those moments (Larson & Richards, 1991). Such indicators highlight a need for youth interventions to achieve more than reducing delinquent behavior. Programs need to challenge, engage, and equip young people to develop personal assets to succeed and contribute meaningfully.

1.3 DESCRIPTION OF THE INTERVENTION

1.3.1 Defining youth empowerment programs

This review defines youth empowerment programs (YEPs) as interventions that regularly involve young people as partners and participants in the decision-making processes that determine program design, planning, and/or implementation. With the support of caring adults, YEPs engage young people in program leadership as a characteristic of their involvement in safe, positive, and structured activities.

Common examples of YEPs are found in *particular* youth councils, teen centers, community-based participatory research programs, social action and advocacy groups, peer education models, and informal and non-formal education programs *that* regularly integrate youth participation in program decision-making, as stated above. Structurally, this participation within programs often takes the form of advisory councils, committees, youth on boards, workgroups, or staff positions. Sometimes, young people and adults serve together in formal leadership capacities such as committees; other times, membership is reserved exclusively for youths with adults acting in more of a supportive role.

Youth empowerment involves a collective, democratic, and prosocial process of engagement, which implies group interaction (Cargo et al., 2003; Jennings, 2006). Consequently, exclusively one-to-one youth development interventions, such as most mentoring schemes, are not reviewed here.

Like YEPs, many non-empowerment-based out-of-school programs involve structured activities and safe spaces during hours that adolescents need them most. They do not qualify as YEPs, however, if youths are not systematically involved with

program decision-making. Some peer education models, for example, may only activate adolescents in content delivery rather than shaping program planning and implementation (Shiner, 1999).

Often, youth centers and out-of-school time program schedules, objectives, and activities are adult-driven. Youths may occasionally be asked for their input or sporadically involved in programmatic decision-making, but if their involvement is not structured so as to ensure opportunity for real influence and regular participation in programmatic decision-making processes, the intervention is not empowerment-based.

While some formal education systems also employ increasingly participatory approaches (Hannam, 2001), this review focuses on youth empowerment initiatives outside of formal schooling. An analysis of effectiveness evidence and unique implementation issues for youth empowerment within formal education would be a valuable undertaking meriting a separate review.

1.3.2 **Levels of participation**

A primary challenge for a systematic review on YEPs is to define what constitutes youth empowerment. The fact that empowerment can be viewed in different ways is in part a consequence of the nature of empowerment, which is a non-static process often characterized by different levels of participation at different levels of decision-making. Several typologies have been developed over the last three decades to try to create practical categories accounting for these variations within youth empowerment.

Lofquist's (1989) 'Spectrum of Attitudes' gave a basic typology of relationships with youths that classified attitudes towards young people as objects, recipients, or resources (roughly, things done 'to youth', 'for youth', and 'with youth', respectively). Hart's prominent 'ladder of participation' went further to delineate a continuum of eight levels at which young people can be engaged (or disengaged) (see figure 13.1; Hart, 1992).

Hart's ladder made a particularly important contribution by illustrating what kinds of activities do *not* qualify as participation as well as those that do. Despite the ubiquitous references to the 'ladder of participation,' however, Hart (2008) himself later recognized needs for updating the framework based on more current knowledge about youth development and cautioned readers against applying the framework too strictly. Hart (p. 19) suggested that the ladder was never intended as a "comprehensive tool for…measuring work with children," but rather as a "jumping-off point" for critical reflection. Interpretations of the ladder that Hart tried to counter included expectations that youth must always perform at the top of the ladder for full empowerment to exist as well as dismissal of the role of adults in

power-sharing and helping youths to develop the competence and confidence to participate effectively.

Other authors subsequently developed frameworks as attempts to build or improve on Hart's ladder, including Treseder's degrees of participation (Treseder, 1997), Shier's pathways to participation (Shier, 2001), and, most recently, Wong and colleagues' Typology of Youth Participation and Empowerment (TYPE) Pyramid (see figure 13.2; Wong et al., 2010). Wong and colleagues proffered a typology of youth participation that values the role of adults in the empowerment process more explicitly by placing youth-adult shared control as the peak of youth empowerment. "In co-learning with youth," Wong and colleagues (p. 105) posited, "adults can serve as resources and collaborators—versus being the experts—by facilitating critical dialogue, awareness, and building skills towards critical consciousness in partnership with young people."

Emphases among YEPs on equipping young people with increased influence and control in decision-making processes might conjure unsettling images like the classic fictional novel by Golding (1954), *Lord of the Flies*—unsupervised youth left to govern themselves only to exploit an abrupt grant of autonomy to wild and destructive effect. Yet, an anarchical interpretation of youth empowerment differs from the most prominent topical literature, which stresses a central and vital role for adults (Hart, 2008; Jennings, 2006). In fact, YEPs may require an even more active adult role than youth programs in which the primary adult function is limited to implementation and supervision rather than development and support of youths' skills and contributions. YEPs do, however, change the *nature* of the relationship between youths and adults to be more horizontal, in which adults act as facilitators and partners with youth, with both youths and adults respecting the unique contributions that each other brings to the partnership (Wong et al., 2010).

The present review aims to capture evaluations of programs that fall within the top three rungs of participation on Hart's ladder, which integrate adolescents into program decision-making. Consistent with the Wong and colleagues' typology and much of the recent youth empowerment literature on youth-adult partnerships (Camino, 2000; Evans et al., 2004; Jones & Perkins, 2005; Zeldin et al., 2008), this review also incorporates the role of adults in the intervention inclusion criteria.

As the various typologies illustrate, youth can be engaged at different levels of participation and shared control with adults along the spectrum of youth empowerment. The participatory criteria held by this review—regular involvement of youth in program decision-making—sets a basal standard for youth empowerment programs so as to be inclusive of the range of programs espousing empowerment models. Evaluation could show that different levels and characteristics of youth participation and adult involvement facilitate different program effects in general or for particular subgroups of young people.

1.4 HOW THE INTERVENTION MIGHT WORK

1.4.1 Theory of change

Youth empowerment programs aim to develop psychosocial assets among participating youths through a dynamic process that integrates connections with supportive adults, skill-building opportunities, prosocial environments, and regular involvement in program decision-making. In turn, youth development literature expects that these assets serve as pathways to distal indicators of success and wellbeing (e.g., academic achievement and health outcomes) and as protective factors against consequences of social exclusion (e.g., antisocial behavior). This basic theory of change is illustrated in figure 13.1. The outcomes of interest for this review are discussed below (measures are discussed in the methodology section).

Positive youth development frameworks for programming goals, such as the *Five C's* (Roth & Brooks-Gunn 2003) and the *Forty Developmental Assets* (Search Institute, 2008) have helped set the stage for an attention to strength-based outcomes in YEPs' theory of change. The Search Institute defines *developmental assets* as relationships, opportunities and personal qualities that young people need to avoid risks and to thrive. The OECD's establishment of *Key Competencies* reinforced concern for developmental assets (OECD, 2005). While the first OECD competency category is largely technology and knowledge-based, the remaining two categories—'interacting in heterogeneous groups' and 'acting autonomously'—outline critical competencies included in or closely related to the developmental outcomes included in this review.

Although researchers have found cognitive skills (e.g., IQ) to be fairly intractable beyond age 8 to 9, they have found noncognitive skills (e.g., motivational, emotional, and social skills) to be malleable into adolescents and thus ideal targets for intervention at that stage and likely to yield better return on investment than cognitive remediation strategies (Carneiro et al., 2007; Cunha & Heckman, 2006; Cunha et al., 2010; Heckman et al., 2006). Noncognitive abilities, moreover, have been shown to significantly predict important distal outcomes, such as future educational-level attainment, employment, wages, and adult depression, even after cognitive ability and demographic variables are controlled for (Carneiro et al., 2007; Cunha & Heckman, 2006).

Youth empowerment literature draws on a range of theory to elucidate the paths by which YEPs are expected to change young people's attitudes and behaviors. *Empowerment theory*, historically more centered around marginalized adult populations, has promoted an emphasis on people's strengths, appreciation for cultural diversity, and shift of language and services to supplant "one up/one down

helper-helpee relationships" with collaboration and active participation of disempowered persons in the processes that affect their lives (Chinman & Linnery, 1998; Rappaport, 1981). This theory has been increasingly applied to adolescent interventions (Chinman & Linnery, 1998; Lakin & Mahoney, 2006). Mohajer and Earnest (2009) and Wong and colleagues (2010) connect youth empowerment to Freire's 'pedagogy' (1972) by which marginalized populations develop *critical consciousness*—progressive awareness of one's environment and one's ability to affect change within it—through participatory learning and action.

Youth empowerment is based on ecological models of human development that emphasize the transactions between influences at the individual level and multiple environmental levels that shape youth outcomes (Bronfenbrenner, 1979). As such, the YEP theory of change anticipates positive impact on youth through direct intervention in the young person's attitudes and behaviors as well as indirect influences via strengthening the nature of a young person's social ecological interactions through a prosocial program environment and facilitating positive connections to the broader community. Rooting in both *social control theory* and *social learning theory* helps youth empowerment literature articulate how behavior can be changed through youth empowerment by altering the nature of a youth's interactions, sense of self-efficacy, and sense of ownership in his or her social environment (Bandura, 1986; Kim et al., 1998).

Expectations for YEPs' facilitation of positive peer influences can be particularly important to this end. An emphasis on 'bondedness' in youth empowerment literature reflects scholarship concerning *social capital*, emphasizing the role of empowerment experiences in facilitating both weak and strong networks that can augment young people's resilience as well as their ability to access new ideas, skills, supports, and resources that promote healthier communities and individual socio-economic mobility (Boeck, 2009; Chinman & Linnery, 1998). YEPs expect that such connections are facilitated by positive, trust-based interactions between youths and peers and youths and adults that constitute basic elements of the empowerment process.

The prevalence of role and identify formation in youth empowerment literature integrates ideas underlying *role theory* (Chinman & Linnery, 1998; Larson, 2000). According to role theory, attitudes and behaviors correspond with the expectations (the 'roles') that individuals' social environments implicitly assign to them (Biddle, 1986). As such, youth empowerment involves a process by which a young person's social environment intentionally redefines his or her role as one of value, ability, autonomy, and contribution. The youth's attitudes and behaviors are expected to change so as to reflect the redefined role.

Finally, recent developments in the natural sciences can also be interpreted to provide theoretical rationale for youth empowerment. A growing body of

neuroscience research indicates that heightened risk-taking behavior during adolescence compared to childhood or adulthood is a natural expression of disproportionately reward- or sensation-seeking characteristics of adolescent brain development (Ernst et al., 2006; Kaltiala-Heino et al., 2003). As such, theory-based programs might better respond to the realities of adolescent development by facilitating positive opportunities that enable youths to be enterprising, risk-taking, challenged, and rewarded through empowerment processes. Without positive outlets, youth are potentially left to destructive alternatives, such as gangs, drugs, and delinquency, to exercise natural sensation-seeking propensities (Romer et al., 2010; Zuckerman, 1994).

1.4.2 **Primary outcomes**

Self-efficacy and self-esteem constitute the primary outcomes for this review. As Bandura explained, "perceived efficacy is a judgment of capability; self-esteem is a judgment of self-worth" (Bandura, 2006;Mohajer & Earnest, 2009). Both outcomes have high prevalence in theory of change descriptions for youth empowerment programs (Chinman & Linnery, 1998; Jennings, 2006; Mohajer & Earnest, 2009; Roth, 2004). By engaging young people as valued partners in challenging and supported opportunities to contribute and exercise skills, YEPs aim to improve young people's beliefs in their personal worth as well as their ability to shape their lives and environments (Kirby & Bryson, 2002, p. 24).

While self-efficacy and self-esteem are distinct concepts (Gilad et al., 2004), Judge and colleagues (2002) have demonstrated that the two traits are highly related and the combination of the two can yield better prediction, for example, of job satisfaction and performance. Moreover, the frequent co-presence of the two constructs as suggested outcomes in literature involving youth empowerment reinforces the sensibility of pairing self-efficacy and self-esteem as primary outcomes from a review perspective (Anderson & Sandmann, 2009; Jennings, 2006; Oliver et al., 2006; Roth & Brooks-Gunn, 2003b; Sinclair, 2000).

High *self-efficacy* has been shown to predict better performance in academics and sports; increased happiness, job satisfaction, and persistence; improved safe sex practices; and successful smoking cessation and prevention (de Vries et al., 1988; Judge & Bono, 2001; Kalichman & Nachimson, 1999; Martin & Gill, 1991; Multon et al., 1991; Natvig et al., 2003). A meta-analysis conducted by Stajkovic and Luthans (1998) found that self-efficacy accounted for a 28% improvement in work-related performance. Lower self-efficacy, conversely, predicts higher levels of depression among young people (Bandura 1999) and is associated with higher alcohol use (Taylor, 2000). Notably, literature on self-efficacy frequently delineates between general and task-specific self-efficacy with arguments both for (Chen et al., 2001; Judge et al., 2002; Luszczynska et al., 2005) and against (Bandura, 1997; Stajkovic

& Luthans, 1998) using general or global measures. Both aspects of self-efficacy are includable in this review.

Evidence suggests that high *self-esteem* is related to high social support and resilience (Dumont & Provost, 1999; Hoffman et al., 1988) whereas low self-esteem is related to depression, anxiety, and suicidal ideation (Newbegin & Owens, 1996; Overholser et al., 1995; Rosenberg et al., 1995). Boden and colleagues (2008) found self-esteem to be an important "risk marker variable, with low self-esteem being associated with a range of negative outcomes," and they found high self-esteem at age 15 to be a significant predictor of life satisfaction and peer attachment at ages 18, 21, and 25. Research by Baldwin and Hoffman (2002) indicates that self-esteem changes dramatically during adolescence, emphasizing the special importance of interventions that foster higher and more stable self-regard through this volatile life period.

1.4.3 **Secondary outcomes**

While self-efficacy and self-esteem are included as primary outcomes for their prominence in the youth empowerment literature and theoretical connections, they are not the only strength-based indicators associated with YEPs. The review's secondary outcomes include several other developmental assets that YEPs are believed to improve in young people.

Developmental assets. Developmental assets can include a range of "internal and external strengths within an individual's social ecology that are predictive of positive outcomes, including health, mental health, and education" (Kia-Keating et al., 2011). Forging *social supports and positive connections* between youths and their peers, communities, teachers, and families constitutes a central pillar of YEP models (Jennings, 2006; Kirby & Bryson, 2002; Roth & Brooks-Gunn, 2003a; Villarruel et al., 2003). Such relationships are frequently discussed as both a key process component as well as an expected outcome of successful YEPs. As young people actively participate in collective decision-making processes, dynamic social environments, and challenging new experiences, it is expected that they acquire and develop transferable *social skills and competencies* (Kirby & Bryson, 2002; WilsonMinklerDashoWallerstein et al., 2006). *Emotional Intelligence (EI)* consists of domains related to aspects of processing, understanding, and managing emotions. Gundlach and colleagues (2003) conceptually argue that increasing EI may act as an important pathway to increasing self-efficacy, reinforcing an important role that some believe EI may play in YEPs' theory of change (Barber, 2007). YEPs that involve adolescent populations especially vulnerable to situations of conflict and stressful life events may prioritize youth empowerment as a strategy to strengthen young people's problem-solving and coping skills to navigate difficult situations. Adeptness in problem-solving skills is frequently highlighted as a valued

characteristic of organizational and community leaders (Mumford et al., 2000)—roles into which YEPs invite young people.

While this review does not limit itself to YEPs centered on social action activities, many YEPs do heavily incorporate community engagement and social advocacy themes into their programming. Therefore, strengthening *civic engagement* among young people is a key driver for many YEPs (Jennings, 2006). The United Kingdom, for example, has a considerable history of local youth councils through which youth empowerment is often a vehicle for activating young people in neighborhoods and public action (Matthews, 2001). Civic engagement can be expressed in many ways, including volunteering, membership in civil society clubs and organizations, beliefs concerning the importance of civic engagement, expectations of future community involvement, voting, and political participation.

Academic achievement. Several of the aforementioned primary and secondary outcomes (e.g., self-efficacy and emotional intelligence) have been shown to predict academic performance (Pajares, 1996; Parker et al., 2004; Petrides et al., 2004). Through strengthening proximal outcomes concerning young people's psychosocial assets, YEPs may have indirect impacts on academic performance via improvements in noncognitive abilities (e.g., motivation, emotional traits, and social skills) that mediate academic achievement (Cunha et al., 2010; Heckman et al., 2006). Research by Berndt and Keefe (1995) indicates that youth who report prosocial peer interactions—a central tenet of youth empowerment—are more likely to participate actively in school and extracurricular activities. YEPs may also directly affect academic performance when educational goals and activities are integrated in particular interventions. Academic performance can refer to standardized test scores, completion, and grades.

Antisocial behavior. Youth empowerment by definition approaches young people from a strengths-based perspective that translates to a primary focus on recognizing and enhancing youths' developmental assets. The focus of YEPs on young people's strengths, however, does not preclude YEPs from having an impact on antisocial behaviors of common concern to communities and policy-makers. As stated by Roth and Brooks-Gunn (2003a), "The *goals* of youth development programs promote positive development, even when seeking to prevent problem behaviors." Research suggests that enhancing adolescents' assets can be an effective course for reducing problem behaviors (Aspy et al., 2004; Kia-Keating et al., 2011). By enhancing psychosocial protective factors, engaging youth in constructive activities during vulnerable out-of-school hours, and strengthening young people's stake in their environments, proponents contend that YEPs may be at least as effective as those directly and primarily aimed at curtailing antisocial behavior.

1.5 WHY IT IS IMPORTANT TO DO THIS REVIEW

1.5.1 Considering harm and null results

While the literature on youth empowerment overwhelmingly assumes positive benefits, it is possible that YEPs may be ineffective or even harmful. Some research, for instance, has shown that programs that aggregate deviant youth together—even if for the purpose of positive interactions—can unintentionally reinforce deviant behavior (Dishion et al., 1999). The reality of ineffectual youth programming was prominently displayed by the Cambridge-Somerville Youth Study (N=650) that evaluated a multi-year, multi-component intervention for child and adolescent boys providing a range of services, including counseling, academic services, family guidance, and recreation (McCord & McCord, 1959). At 18-year follow-up, the study found the number of participants to have committed crimes in childhood and adulthood and the number of crimes committed to have been approximately equal between treatment and control groups. The investigators deemed the well-resourced intervention a failure.

Other observational studies have found that higher self-esteem has correlated with higher hostility, and offenders have reported higher emotional intelligence scores than non-offenders (Baumeister et al., 1996; Hemmati et al., 2004). While these studies do not establish causality between self-esteem and hostility or emotional intelligence and offending, they leave the possibility nonetheless that developing such assets may have unintended consequences for antisocial behavior. The modalities of YEPs may well curtail any such unfavorable effects, but certainty requires a robust evidence base. This constitutes one justification for including antisocial behavior as a secondary outcome in this review.

Moreover, YEPs might unsuccessfully strive to improve developmental assets. Youth empowerment programs, for example, may fail to provide the level of positive stimuli necessary to change developmental outcomes in the context of the many competing influential variables in adolescents' dynamic socioecological environments (Connell & Halpern-Felsher, 1997). Alternatively, programs focused on increasing the roles of young people as leaders in program decision-making might in practice downplay or neglect valuable expertise of adult youth workers. By consequence, programmatic decisions made by youths could lead to null or negative intervention effects. Attempts at empowerment might ultimately reinforce existing power relationships in the group (consider Cooke and Kothari's (2001) "tyranny of participation"), enter adolescents into challenges that leave them feeling inadequate and disillusioned, or elevate some youths over others, thus yielding 'success stories' with a few participants while circumventing the growth potential of others.

1.5.2 **Intervention costs**

Notably, youth empowerment programs generally place a heavy emphasis on human resources, which can drive up the cost of youth interventions. Research by The Finance Project that surveyed fourteen youth empowerment programs in the US found that staff salaries and benefits accounted for an average 54% of intervention costs (Gray & Hayes, 2008). Annual costs per youth directly involved in YEPs in the US can approximate, for example, $1,270 USD for the Wide Angle Youth Media program and $1,726 USD for the Hampton Youth Commission (Gray & Hayes, 2008)[*].

On the other hand, if YEPs can help circumvent the long-term consequences of social behavioral problems, the cost-savings to tax payers may be substantial (Cunha et al., 2005; Scott et al., 2001). Whether YEPs show effective or ineffective results, the economic implications underscore the need for rigorous evaluation to ensure that resources are invested in interventions and practices that produce intended outcomes for intended populations.

1.5.3 **Previous related reviews**

No systematic review, to the authors' knowledge, has been published that specifically addresses the impacts of youth empowerment. This section discusses two reviews synthesizing research for positive youth development and empowerment broadly, which provide relevant insights informing the planned review.

Positive youth development. The Catalano and colleagues (2004) review on positive youth development (PYD) was commissioned by the US Department of Health & Human Services, completed in 2002, and conducted by a team of researchers at the University of Washington. The review ultimately included twenty-five program evaluations, and findings indicate promising results for strength-based programs serving youth and children.

Though the terms are sometimes used interchangeably, 'PYD' covers a broader scope of interventions than YEPs. While PYD refers broadly to approaches that focus on developing youths' strengths, youth empowerment specifically does so by, in part, supporting and involving young people in shared leadership through decision-making processes. The review's definition of PYD is particularly broad, including any intervention that meets at least *one* of fifteen constructs[†]; none of which

[*] Costs reflect total reported expenses for 2007 divided by number of yearly participants, not including youth indirectly served through youth-led community outreach or advocacy actions.

[†] Constructs included the following fifteen objectives: Promotes bonding, fosters resilience, promotes social competence, promotes emotional competence, promotes cognitive competence, promotes behavioral competence, promotes moral competence, fosters self-determination, fosters spirituality, fosters self-efficacy, fosters clear and positive identity,

stipulated involvement of young people in program decisions or design. The broad inclusion criteria for PYD programs coupled with a lack of predetermined outcomes largely explain why so many evaluations were included in the review.

The study, however, did not report a systematic search strategy, extend beyond the United States, nor prospectively state sought-after outcomes. It did not include evaluations revealing null effects or significant effects that did not favor the intervention. The last characteristic is particularly concerning given that past research has demonstrated unintended harm caused by some well-intended youth interventions, which underscores the importance of understanding the consequences—positive, negative, or neutral—of youth development programs (Arnold & Hughes, 1999).

In contrast to the Catalano and colleagues review, the present review concentrates on youth empowerment, reduces program heterogeneity accordingly, and minimizes the chance of spurious conclusions due to a lack of predetermined outcomes.

Empowerment. The Wallerstein (2006) review, conducted for the World Health Organization, was the only review identified by the authors that directly addressed empowerment strategies. The review explores empowerment widely for all age groups and with an interest in health outcomes. Wallerstein gives a useful overview of various themes within the broader empowerment movement and offers a framework for empowerment that includes multiple levels of outcomes. The expansive, international review of outcomes linked to empowerment offers valuable context for the present review. The resulting framework includes a heavy emphasis on self-efficacy, community engagement, and social bonding, which reinforce their importance as outcomes of interest in the present review.

A brief section of the review is devoted to youth empowerment. The author, however, does not discuss the quality of the evidence behind listed outcomes linked to youth empowerment, nor is it clear that the studies actually evaluate YEPs as defined by this review, versus less participatory youth development programs. The present review employed a search strategy for empowerment studies specific to youth and to controlled impact evaluations.

The Wallerstein review was not conducted according to systematic procedures, no specific outcomes were identified for study inclusion, virtually all types of studies were acceptable for assessing effectiveness with no distinction made between study designs in discussing findings, and, again, there is no indication that the review made an effort towards including null or harmful effects.

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fosters belief in the future, provides recognition for positive behavior, provides opportunities for prosocial involvement, and fosters prosocial norms.

2 Objective of the review

This review systematically investigates and summarizes the state of the evidence on the impacts of YEPs on adolescents' self-efficacy and self-esteem. Specifically, this review endeavors to address the following questions in order to contribute to the body of evidence available to stakeholders and researchers so as to improve services and supports for young people:

1. Impacts: Do YEPs affect adolescents' sense of self-efficacy and self-esteem? Additionally, does the intervention affect hypothesized secondary outcomes, including social supports, emotional intelligence, social skills, academic performance, and antisocial behavior? If so, is there sufficient evidence to indicate that the secondary outcomes correlate with this review's primary outcomes as suspected?

2. Heterogeneity: Do YEPs affect various subgroups differently? Do variations in program design or implementation—with special consideration to levels of participation—also reveal trends by which outcomes differ? Does heterogeneity in evaluation quality and design correlate with certain outcome patterns?

3. Future research: What are the knowledge gaps revealed by this review, and how can they inform future research on youth empowerment—especially future impact evaluations?

The expectation of policy-makers, funders, and community organizations to actively involve young people in program design and implementation is becoming increasingly popular. This review works towards a better understanding of the measured merits behind that option. If evidence allows, the review further aims to advance knowledge with respect to the decisions within youth empowerment (e.g., how youth empowerment works best and for whom).

3 Methods

3.1 CRITERIA FOR CONSIDERING STUDIES FOR THIS REVIEW

3.1.1 Types of studies

The evaluation must have involved either an experimental or quasi-experimental design with a prospectively assigned control group. Quasi-experiments needed to have taken steps to establish a reasonably credible counterfactual. As such, only quasi-experiments that used matching or statistical methods (e.g., propensity scores) to ensure that the control group was similar to the intervention group at baseline were included.

This review accepted trials involving control groups with no service provided and/or trials with comparison groups that involved alternative services. Alternative services should not have facilitated youth involvement in program decision-making or active leadership roles. Basic recreational or educational activities, such as instructional sessions or presentations, games, and informal athletic activities, for example, could constitute a comparison to youth empowerment programming.

3.1.2 Types of participants

The target population is adolescents. The age definition of adolescence is not consistent across institutions and cultures. For inclusivity, this review follows the definition of adolescence as ages 10-19 as classified by the World Health Organization, United Nations, and World Bank (UNFPA, 2008; World Bank, 2003; World Health Organisation, 2009). According to recommendations from Campbell Collaboration Social Welfare Group peer-reviewers, it was decided that at least 75% of the study sample must have met this age criteria.

3.1.3 Types of interventions

This review investigated the impacts of YEPs that regularly involve adolescents in determining program design, activities, and/or implementation. Structurally, this participation often takes the form of democratic decision-making processes

involving, for example, youth councils, committees, youth on boards, workgroups, staff positions or other youth groups with regular opportunities for program decision-making. Sometimes, youths and adults serve together in formal leadership capacities such as committees; other times, membership is reserved exclusively for youths with adults acting in more of a supportive role. Programs must involve regular access to a supportive adult or older youth leader, though this need not involve one-to-one mentoring.

Delivery could have taken place in community-based or school-based settings so long as the intervention occurred regularly and outside of formal education. Interventions primarily within formal education, juvenile justice, residential programs, therapeutic interventions, conferences, or workshops were not included. Includable programs must have convened regularly (i.e., not a one-off event).

3.1.4 **Types of outcomes**

Studies must have measured at least one of the review's primary or secondary outcomes. Outcomes could have been measured by way of self-reports, third party or researcher observations, interviews, or official records. The review accepted measures that were and were not well validated.

This review's primary outcomes were self-efficacy and self-esteem. Self-efficacy included both general self-efficacy measures and task-specific self-efficacy (e.g., drug avoidance self-efficacy or sexual behavior self-efficacy). General and task-specific measures, however, were not meta-analyzed together given differences between the constructs. Self-esteem is most commonly assessed by the ten-item Rosenberg Self-Esteem Scale (Rosenberg, 1989). Some research has delineated between global self-esteem (e.g., measured by the Rosenberg scale) and specific self-esteem (e.g., measured by the area-specific Hare Self-Esteem Scale), but no specific self-esteem outcomes were measured by this review's included studies.

Secondary outcomes include several areas of other developmental assets—social supports and connections, social skills, emotional intelligence, coping and problem-solving skills, and civic engagement—as well as academic performance and antisocial behavior. The review's protocol listed prominent example measures for each outcome.

3.2 SEARCH METHODS FOR IDENTIFICATION OF STUDIES

3.2.1 **Electronic searches**

The investigators searched twelve major electronic databases for this review: Applied Social Science Index and Abstracts, Australian Educational Index, British

Educational Index, CINAHL, Cochrane Library (CENTRAL), Dissertation and Theses Abstracts, EMBASE, ERIC, Medline, PsycInfo, Social Service Abstracts, and Sociological Abstracts (see Appendices for dates of coverage). One review author (MM) conducted the literature search.

Additional relevant institutional web-based publication databases searched included Chapin Hall (University of Chicago), Out-of-School Time Program Research & Evaluation Database (Harvard Family Research Project), Innovation Center, National Clearinghouse on Families & Youth (US Administration of Children & Families), Public/Private Ventures, Search Institute, the UNICEF Evaluation and Research Database (ERD), the Australian Clearinghouse for Youth Studies (ACYS), National Council for Voluntary Youth Services (NCVYS) Publications, the UK DCSF Inclusion Development Programme (IDP) Publication Catalogue, and the World Bank Poverty Impact Evaluations Database.

3.2.2 Search terms

The following search terms were used for each of the aforementioned databases[‡]:

Population:
(young OR youth OR child* OR teen* OR adolescen* OR minors OR school ADJ student* OR boy* OR girl* OR NEETs OR NEET OR 14-19).ab,ti.*
AND
Intervention:
(pyd OR cyd OR empowerment OR youth ADJ engag OR volunteerism OR volunteering OR youth ADJ advocacy OR youth ADJ activism OR youth ADJ development OR youth ADJ leader* OR youth ADJ inclusion OR community ADJ service OR after ADJ school OR afterschool OR youth ADJ1 decision-making OR youth ADJ driven OR youth ADJ run OR youth ADJ adult ADJ partnership* OR youth/adult ADJ partnership* OR youth-adult ADJ partnership* OR youth ADJ action OR youth ADJ1 involvement OR youth ADJ participation OR young ADJ people* ADJ participation OR youth ADJ led OR peer ADJ education OR peer ADJ led OR peer ADJ participation OR youth ADJ voice OR service ADJ learning OR youth ADJ council* OR teen ADJ council* OR non-formal ADJ education OR nonformal ADJ education OR informal ADJ education OR teen ADJ cent* OR youth ADJ cent* OR participatory ADJ research).ab,ti.*
AND
Methods:
(control OR random* OR trial* OR effectiveness OR efficacy OR compar* OR clinical* OR experiment* OR impact ADJ evaluation OR impact ADJ study OR impact ADJ assessment OR outcome ADJ evaluation OR outcome ADJ study OR outcome ADJ assessment).af.*

[‡] Variations of Boolean operators, wildcard symbols, and field indexes were used depending on the nature of the specific database.

3.2.3 Searching other resources

In order to explore potentially eligible studies among unpublished as well as published literature, institutions and individuals regarded as professional leaders in the area of youth development and research were contacted individually and directly and asked for any leads on specific studies, or databases likely to include studies, that might have met the review's inclusion criteria. Contacts were made to seventy professionals representing over fifty institutions (e.g., foundations, non-governmental organizations, international organizations, government agencies, and research institutes). Most institutions contacted had country-specific focuses in seven countries, but eleven institutions had international scope (e.g., The World Bank, United Nations agencies, and global foundations). While responses provided insightful information and resources related to youth empowerment, the professional outreach did not yield any additional eligible studies for this review. Respondents generally felt that the field lacked examples of rigorous impact evaluation for youth empowerment programs.

3.3 DATA COLLECTION AND ANALYSIS

3.3.1 Selection of studies

This review accepted both published and unpublished studies for inclusion, and there were no exclusion criteria based on where the study was conducted or the reporting language.

Both authors reviewed all citations and discussed and resolved issues concerning study inclusion and exclusion. A screening guide was used to determine inclusion or exclusion and is provided in appendix 11.2. An abstract was automatically excluded if it was rejected by both authors according to any of the six screening criteria. Full reports of studies were retrieved (by MM), reviewed and discussed (by both authors), and coded (by both authors) using the screening guide for any study that was not excluded based on its abstract.

3.3.2 Data extraction and management

Studies selected for inclusion or as relevant excluded studies were further coded by MM using the forms in appendix 11. 3, primarily for intervention characteristics, and appendix 11.4, to guide discussion of study quality. Both authors reviewed the studies and the coding, and any disagreements were discussed and resolved between the two authors. Relevant data on intervention and study characteristics (summarized in table 9.1) were extracted from the coding forms for analysis and discussion.

3.3.3 Assessment of risk of bias in included studies

A systematic approach to assessing study quality on the basis of predetermined criteria was used by the reviewers, based on previously a published systematic review (Zief et al., 2006). Forty-one characteristics of study design and reporting were used to appraise study quality, and four standards in particular are considered priorities for judging study quality. These standards include evidence of (a) no significant control group contamination, (b) no significant overall study attrition nor differential attrition that would bias the results, (c) appropriate statistical measures used for analyses, and (d) primary outcomes having been measured at follow-up for all available sample members, thereby meeting the qualification of 'intention-to treat', not 'treatment-on-treated', analysis. The checklist used to appraise study quality is included in Appendix 11.4. The checklist is intended as a discussion guide to facilitate meaningful analysis of the quality of included studies; it is not part of the inclusion criteria nor are studies ranked according to a particular grade or score.

3.3.4 Measures of treatment effect

For the included studies with comparable continuous outcomes, Hedges g was calculated using means and standard deviations (SDs). Unlike Cohen's d, Hedges g corrects for small sample size and may give a more conservative estimate of variance.

In future review updates, the following analysis plans apply. Continuous data that must have values greater than 0 will be considered skewed if the mean is less than the sum of two standard deviations (Altman et al., 2001; Higgins & Green, 2009). Primary authors will be contacted for more information, log transformed data, or raw data if skewed data is suspected. The reviewers will calculate and compare standardized mean differences across studies if the same outcomes are measured in different ways; weighted mean differences will be calculated for outcomes measured in the same way. Log odds ratios with 95% intervals will be calculated for dichotomous outcomes data (Higgins & Green, 2009).

When means and SDs are unavailable, the authors will calculate Hedges g using other available statistics, for example an F-test and p-value or t-test and p-value. When data are presented in several forms that could be used to calculate an effect size, we will select the least form that is closest to the raw data. That is, when mean changes are reported in addition to ANOVAs, we will select mean change scores. When means and SDs are not available and Hedges g is calculated using other statistics, we will note this in the text.

A random-effects model was used to calculate combined weighted mean effect sizes. The authors assumed that differences between studies' interventions and

populations were likely to have caused variations in effect sizes, rendering a fixed-effects model inappropriate for this review (Borenstein et al., 2007), especially given that included studies came from different regions of the world.

3.3.5 Unit of analysis issues

The included studies in this review all treated individuals as the unit of analysis. If future updates identify includable studies in which groups (e.g., programs, neighborhoods, classrooms, or schools) are the unit of analysis, the reviewers will have to determine if results can be meta-analyzed without a confounding interaction between the intervention effect and unit of analysis. In order to combine individual-level and cluster-level trials, studies will need to have at least reported adequate information to adjust for possible design effects, including data to calculate 'effect sample sizes' (Donner & Klar, 2002). Sensitivity analysis may be used to assess effects of varying levels of randomization.

3.3.6 Dealing with missing data and incomplete data

Only one study (Berg et al., 2009) did not provide means and standard deviations for the review's primary outcomes in the write-up, but the authors provided this data upon request. Two studies (Berg et al., 2009; Olson-Merichko, 2006) did not impute or include data for those lost to follow-up, nor, in Berg and colleagues' case, for those not analyzed due to lack of compliance (per-protocol analysis). Missing data for Olson-Merichko's study was unlikely to be consequential with only one participant lost to follow-up, and Berg and colleagues' study was not meta-analyzed with the other two included studies.

3.3.7 Assessment of heterogeneity

Heterogeneity according to study quality, population characteristics, and intervention characteristics was assessed and summarized in both table and narrative format. With respect to intervention heterogeneity, differences in levels of youth empowerment and nature of program activities were descriptively assessed from reported intervention descriptions according to extent of youth participation in decision-making, types of skill-building activities, and nature of youth-adult relationships, assisted by prominent frameworks for youth empowerment described in this review's background section.

3.3.8 Assessment of publication bias

Both published and unpublished studies were included. Authors of included studies were contacted and asked to provide statistics for any of the review's primary or secondary outcomes that were measured and not reported. Any potential biases from selective or incomplete publication and/or reporting are discussed in section 4.3.

3.3.9 Treatment of qualitative research

Qualitative studies can contribute usefully to a more holistic understanding of youth empowerment processes and experiences. This review, however, centers on a research question concerning effectiveness as assessed by impact evaluation designs capable of establishing a credible counterfactual. As such, the reviewers maintain a focus on controlled trials for the purposes of this review, though they discuss any qualitative process or implementation research associated with included studies (as outline in section 20.2.3 of the Cochrane Handbook; Higgins & Green, 2009).

A qualitative systematic review exploring process, mechanisms, and perceptions underlying youth empowerment would indeed be a valuable enterprise, but it would be a distinct and considerable undertaking meriting unique criteria, methods, and a separate review altogether (Dixon-Woods et al., 2006; Higgins & Green, 2009; Jones, 2004).

Process and implementation studies play a vital role in making sense of the results of an impact evaluation and therefore should ideally accompany any trial measuring the effectiveness of a social intervention (Mayo-Wilson, 2007; MRC, 2008; Oakley et al., 2006). This is particularly important for YEPs, which rely heavily on process and can vary significantly in implementation. Process studies can involve a combination of qualitative and quantitative methods assessing programming aspects such as program quality; levels of youth engagement, participation, and satisfaction; fidelity to intervention manuals, curricula, or plans; program environment; nature of youth-adult and peer dynamics; and program 'dosage' and consistency. While accompanying process studies are not required for study inclusion, they will be discussed in relation to study quality, better understanding of impact study results, and implications for YEPs.

3.4 DATA SYNTHESIS

3.4.1 Subgroup analysis, moderator analysis and investigation of heterogeneity

There were an inadequate number of includable studies with comparable outcomes to conduct subgroup analyses. If future review updates yield adequate data, the following plans apply. The review will explore potential differential interactions using baseline data on subgroup and program characteristics. In order to model heterogeneity among target populations, potential moderators will be gender, age range (within adolescence), race/ethnicity, and household income. Previous research has suggested relationships between these demographic characteristics and

outcomes for adolescents in youth development settings (Altman, 1998; Eccles et al., 1997; Harris et al., 2001).

Program covariates will include duration and frequency of intervention, presence of a civic engagement component (i.e., volunteering, service-learning, advocacy, or public awareness), existence of a training or preparation component prior to or in tandem with leadership opportunities, and levels at which young people are involved in program decision-making. These program qualities all have important implications for the theoretical literature regarding which aspects of the various approaches to youth empowerment serve as active ingredients for achieving positive outcomes (Billig et al., 2005; Catalano et al., 2004; Chinman & Linnery, 1998; Jennings, 2006; WHO/UN, 1999).

3.4.2 Sensitivity analysis

There were an inadequate number of includable studies with comparable outcomes to conduct sensitivity analyses. If future review updates yield adequate data, the following plans apply. Sensitivity analysis of included studies will be conducted to assess trends between study qualities and synthesized outcomes. Quality indicators will include allocation concealment, intention-to-treat, evidence of contamination, and, in the case of quasi-experimental trials, methods used to establish a credible counterfactual. Sensitivity analysis will examine whether weighted mean effect size differs between randomized trials and quasi-experimental studies, and between groups of trials with varying units of randomization. If there are no differences, then studies using either of these designs will be combined.

4 Results

4.1 RESULTS OF THE SEARCH

From the electronic databases, a total of 7,985 citations were retrieved. An additional 804 citations were identified from relevant institutional web-based publication databases. The total number of citations retrieved was 8,789. Sixty-eight studies were passed for closer inspection by the reviewers. Of these, 62 studies were excluded for not meeting inclusion criteria and 3 studies were excluded due to insufficient data or intervention details; 3 studies ultimately met all of the review's inclusion criteria. Reasons for exclusion and citations for the 65 excluded studies that were reviewed in-depth are provided in the appendices. Figure 13.4 provides a flow diagram of the review process.

4.2 DESCRIPTION OF THE STUDIES

4.2.1 Included studies

The authors identified three studies that matched all of the review's eligibility criteria. The studies included the Youth Action Research Project (YARP) in the US evaluated by Berg and colleagues (2009), the Youth Leadership Program (YLP) in the US evaluated by Olson-Merichko (2006), and the Questscope Non-Formal Education (QS NFE) program in Jordan evaluated by Morton and Montgomery (2011).

Two studies involved randomized controlled trials but had small sample sizes (N=127 and N=40), were both described as pilot studies, and were unpublished at the time of this review (Morton & Montgomery, 2011; Olson-Merichko, 2006). One study was a peer-reviewed quasi-experimental evaluation with a matched comparison design (N=316) (Berg et al., 2009). The Morton & Montgomery (2011) study is in submission for peer-review. Review of the Olson-Merichko (2006) study is limited to details and data provided in the dissertation, as the author is deceased. Further details and data were required to adequately review the Berg and colleagues (2009) study, which were supplied by the primary author.

None of the three studies used a truly active-comparator design to assess youth empowerment against a comparison group with an intervention of comparable

exposure without empowerment-based methodology. Berg and colleagues (2009) compared the intervention group to a group of young people participating in other summer employment programs, but the nature and dosage of these programs was not assessed. In Morton and Montgomery (2011), youth randomly assigned to the waitlist control condition were offered a basic biweekly recreational activity that did not use empowerment-based methodology, but this was conducted at a lesser dosage than the YEP and primarily intended to maintain contact with participants in the control. Olson-Merichko's (2006) study involved a no-treatment control.

The mean ages of the study samples were similar (ranging from 15.2 to 16.0); the samples were otherwise notably heterogeneous. There were differences between study samples in terms of urban versus rural settings, cultural contexts, ethnicity, gender make-up, and life circumstances (e.g., in-school versus out-of-school). Posttests for Morton and Montgomery (2011) and Olson-Merichko (2006) were conducted at 4 months. While Berg and colleagues (2009) conducted a data collection at 3 months, this only captured a summer training institute component; the 12-month posttest captured the more empowerment-based components of the intervention (youth-led projects). The 12-month posttest for Berg and colleagues is reported in this review unless otherwise indicated.

Two of the evaluated programs, YARP and YLP were based on participatory action research models in the United States (Berg et al., 2009; Olson-Merichko, 2006). A substantial amount of youth empowerment literature in recent years has focused on participatory research as a means for engaging young people in programs, schools, and communities (Kirby, 2004; Ozer et al., 2008; Suleiman et al., 2006b; Worrall, 2000). One evaluated program, QS NFE, involved an empowerment-based non-formal education model for out-of-school youth in Jordan (Morton & Montgomery, 2011). Non-formal education is often associated with empowerment approaches to working with marginalized populations through participatory learning (Castelloe & Watson, 1999; Moulton, 1997). This is a central aspect of the QS NFE theory of change with youth participants.

The programs have different characteristics in structure, context, and content; basic characteristics are outlined in the table found in section 9.1. QS NFE is a 24-month intervention, but only the first 4 months of the program are captured by the RCT. YARP is a 10.5-month intervention, but three data collections are conducted (3, 6, and 12 months). The YLP is a 4-month intervention. All three interventions involved weekly programming with minimum intended weekly exposure ranging from 2 to 4 hours for most portions of the interventions.

Given the intensive and manualized 7-week capacity-building institute, constant adult facilitator presence, emphasis on youth-adult partnerships not only in short-term decisions but also in ongoing youth-led projects, emphasis on collective action, and the 10-month intervention exposure, the YEP captured by the Berg and

colleagues evaluation appears to reflect the most thorough application of the youth empowerment process theory of change among the three studies.

While youth in YLP and QS NFE did not receive financial compensation for their participation, YARP participants were employed and financially compensated as youth researchers. Youth participation in YLP and YARP was in both cases centered on explicit social action projects involving school or community advocacy. Direct social action or civic engagement was not a formal aspect of the QS NFE intervention model. The YARP and YLP were both interventions designed and implemented by the respective researchers. QS NFE is an ongoing program jointly led by a non-governmental organization, Questscope, and the Jordanian Ministry of Education; the study authors were unaffiliated with the program design and implementation.

Youth participation in decision-making. The YLP and YARP interventions were developed specifically for the purpose of testing the impacts of youth empowerment. As such, these programs facilitated not only a high level of youth involvement in program decision-making, but also in initiating and planning activities and projects. Youth participants were primarily responsible for designing and implementing research projects, activities, and meetings, with adult facilitators acting as supporters and guides throughout the implementation process. In terms of Hart's Ladder of Children's Participation, empowerment generally ranged from 'adult-initiated, shared decisions with children' with respect to program initiation and training implementation, to 'child-initiated, shared decisions with adults' with respect to the research and community action activities.

The QS NFE program is based on a participatory methodology that involves youth in determining learning topics and social or recreational activities. This methodology stipulates regular involvement of young people in daily program decision-making and a co-learning relationship between youth and adults. While some QS NFE sites have included longer-term youth leadership roles and youth-led planning, the intervention methodology does not formally necessitate this level of participation prompted by YARP and YLP. In terms of Hart's Ladder, the methodology is best described as involving programming that is adult-initiated with shared decisions with children. The associated process study suggests that in sites with lower implementation fidelity, programming slips to an approach more reflective of the 'consulted and informed' level of participation.

While all three studies included qualitative research into the implementation of the interventions, only Morton and Montgomery (2011) used a quantitative instrument to measure the extent to which participants felt empowered by the program process.

Adult involvement. All three studies described adults involved in the programs as 'facilitators.' To this end, each program articulated the adults' roles as facilitating

youth participation and contribution rather than controlling or directing the nature of youth involvement. The YLP's adult involvement primarily included the lead researcher in training youth leaders and supporting youth-led projects. Similarly, YARP adults, consisting of researchers and trained project staff, led the youth research training, supported youth-led projects, and facilitated reflective discussions. QS NFE identifies and retrains teachers from the formal education system to serve as facilitators for the program outside of school hours.

The task of implementing quality youth empowerment processes can require special skills and competencies. This is especially true for those responsible for implementing empowerment programs with more marginalized youth with fewer previous empowering experiences. Youth empowerment literature has emphasized the importance of adult training to help staff or volunteers develop facilitation and youth development skills for empowerment processes and overcome any conflicting deficit-based inclinations towards youth (Jennings, 2006). To this end, facilitators in YARP and QS NFE received structured training specifically in empowerment methodologies prior to intervention implementation. The YLP did not include an adult training component in empowerment methodology, though youth team leaders that led project teams did participate in 25 hours of training in leadership skills.

The YLP gave a particularly high level of autonomy to participants, often with youth groups meeting without adults to discuss and implement projects. Youth 'team leaders' were selected and trained to lead each group. QS NFE involved a higher level of adult control in program planning and implementation, partly due to needs in meeting certain educational curriculum standards established by adult officials. Among the three programs, YARP appeared to most closely approximate Wong and colleagues' (2010) 'pluralistic' standard of youth-adult shared control, though all three programs stressed shared control to varying degrees.

Skill-building**.** YARP provided a distinct training component that engaged all program youth in a 7-week, 20-hour per week summer institute. The YARP training curriculum covered topics particularly focused on developing youths' skills in participatory research. YLP involved a 25 hours of leadership training curriculum for youth team leaders and QS NFE delivered a 24 hours of leadership and research training curriculum for the program's youth advisory council, but these subgroups of program participants were not included in the RCT samples.

All three intervention descriptions stressed the development of young people's social and leadership skills through a diversity of social activities and empowerment-based methodologies. Only YARP included a defined a curriculum for the summer institute component of its skills-building activities. Otherwise, YARP and YLP skill-building activities largely constituted ongoing team research project activities, and QS NFE included a range of educational games as well as cultural, vocational, and

recreational activities depending on the program site and youth preferences. Although QS NFE included a diversity of activities with potential to foster youth development, it did not engage youth in ongoing skill-building opportunities through team-based projects as the other programs did.

Literature on YEPs often suggests an important role for structured, ongoing training components specially designed to help prepare young people for meaningful participation in empowering program processes, specific program tasks (e.g., participatory research, photography, etc.), and broader civic engagement (Jennings, 2006; Wilson et al., 2006). The absence of such components for most youth in programs like QS NFE and YLP may have limited the programs' ability to develop young people's skills and fully engage them in participatory opportunities.

4.2.2 Excluded studies

Sixty-five studies were reviewed in-depth at the final level of screening and ultimately excluded. Reasons for exclusion are given in the appendices. The majority of studies were excluded due to inadequate study design or the intervention description not matching the review's inclusion criteria. In some cases, studies were excluded because program descriptions in write-ups or author communications did not qualify the interventions as empowerment-based according the criterion of regular youth involvement in program decision-making. For some youth development programs that were experimentally or quasi-experimentally evaluated, author communications indicated isolated or ad hoc instances of youth participation in program decision-making but that this was not a regular element of the intervention design.

Three program evaluations matched all of the review's inclusion criteria except for having been primarily based in formal education. These included Allen and colleagues (1997), Lakin and Mahoney (2006), and Winkleby and colleagues (2004). All three studies evaluated school-based programs that implemented youth empowerment through service or advocacy-oriented group projects. Because the study designs match the review's eligibility standards and the interventions contribute to the limited evidence-base for youth empowerment, the studies are briefly described here.

Allen and colleagues (1997): (n=695) conducted a multisite experimental study of the *Teen Outreach Program (TOP)*, a national volunteer service program that combines community service activities with classroom-based discussions on service experiences and broader adolescent development issues. The program is designed to incorporate regular involvement of youth in decision-making processes concerning discussion topics and service projects. Students participated in TOP for nine months (an academic school year). The intervention targeted changes in problem behaviors

(pregnancy, school suspension, and academic failure) and did not measure any strength-based outcomes, such as self-efficacy or self-esteem.
The TOP research design mixed randomization between classes or students as units of assignment depending on agreements with particular schools. Twenty-five schools and 695 students were included in the study sample. Problematically, the study did not conduct a multilevel analysis to account for design effects from mixing individual and cluster-level units of assignment. As such, even if the study were included, the results could not be included in a meta-analysis unless primary data were available to redo analysis and calculate design effects (Donner & Klar, 2002). The study was conducted before these issues of design effect became prominent in the statistical literature in the late 1990s and early 2000s.

Lakin and Mahoney (2006): (n=43) conducted a small, pilot experimental study that randomly assigned three classes to either a class-based participatory research and community-service intervention (two classes) or control (one class). Forty-five students participated in the evaluation (29 intervention and 14 control), and the intervention lasted ten weeks with two sessions per week. The small student sample size and small number of cluster units randomized rendered the study particularly susceptible to underpowered results and confounding influences. Unlike TOP, this intervention was not an ongoing program and was developed specifically for the purpose of the study. Also in contrast to TOP, Lakin and Mahoney were primarily interested in improving strength-based outcomes—particularly, self-efficacy, empathy, and civic engagement indicators.

Winkleby and colleagues (2004): (n=813) conducted a cluster-RCT involving ten continuation high schools and 11th and 12th grade students (5 intervention schools, n=375; 5 control schools, n=438). Schools were randomized to either an intervention that engaged youth in participatory research and community advocacy projects to prevent tobacco use or to a standard drug prevention curriculum (standard treatment control. Students participated in a daylong advocacy institute and a semester (18 weeks) of youth-led participatory research and advocacy activities. The study was primarily interested in changes in tobacco use, but strength-based outcomes, such as advocacy self-efficacy, were also incorporated in the theory of change and impact assessment.

Findings: Effects of the three YEP studies that met all exclusion criteria except having been based in formal education are briefly described here. With respect to this review's primary outcomes, Lakin and Mahoney (2006) detected an intervention effect at trend-level statistical significance for general self-efficacy (p=.09; standard mean difference (d)=.57), and Winkleby and colleagues (2004) found a highly significant intervention effect on tobacco-related advocacy-specific self-efficacy (p<.01; d=2).

Allen and colleagues (1997) did not measure either of the primary outcomes for this review, but the study did find statistically significant intervention effects favoring the intervention group for all three of the study's problem behavior outcomes (secondary outcomes for this review), including academic failure (p<.001; odds ratio (OR)=.42), school suspension (p<.001; OR=.39), and female pregnancy rates (p<.05; OR=.41). For secondary outcomes, Lakin and Mahoney (2006) found significant intervention effects favoring the intervention group on intent to be involved in future community action (p=.046, d=.67) and empathy (p<.01, d=1.03), but not for sense of civic responsibility (p=.95, d=0). Similarly, Winkleby and colleagues (2004) on community advocacy (p<.001, d=5.55) and smoking status for baseline regular smokers (p<.001, d=3.22), but not for smoking status for baseline light smokers (p=.13, d=1.10) or non-smokers (p<.93, d=.05).

As is common with school-based intervention studies, all three of the described excluded studies used designs that randomized either group units (schools or classrooms) or a mix of groups and individuals. Even if the studies met inclusion criteria, including them in meta-analysis would not be possible due to lack of information on design effects in order to appropriately combine individual-level trial data with cluster-level trial data. While the individual studies report generally positive results, varying degrees of potential methodological problems and the small number of studies warrant a level of caution before interpreting the results too ambitiously. Notably, adequate information on design effects was unavailable from any of the study reports to account for cluster designs and therefore the effect sizes provided above probably represent exaggerated estimates.

4.3 RISK OF BIAS IN INCLUDED STUDIES

4.3.1 Allocation

The Morton and Montgomery (2011) and Olson-Merichko (2006) randomized studies reported comparable groups at baseline on demographic and dependent variables, indicating successful randomization. Demographic variables included gender, age, and working status in both studies as well as additional variables (e.g., race, parent's education, and household income) measured by Olson-Merichko (2006), and dependent variables included a wide range of outcome measures. Berg and colleagues (2009), however, conducted a quasi-experimental design, and, even with matching techniques to create two similar groups on demographic variables, there were significant baseline differences according to some of the intended outcome measure variables. As such, although the quasi-experimental design involved the largest sample size of the three included studies, it also invited the most susceptibility to selection bias. Berg and colleagues attempted to adjust for baseline differences in the analysis by treating the variables as covariates. Despite common practice, however, statistical literature increasingly denounces this practice in non-

randomized designs since the variance of an observed dependent variable caused by the covariate is not likely to be independent of the variance caused by the group (Miller & Chapman, 2001).

4.3.2 Blinding

No blinding to trial arm membership was reported for randomization or assessment for any of the included studies for allocation or outcomes assessment. Morton and Montgomery (2011) did utilize a computer-based randomization and data collection programs in order to minimize opportunities for bias in the absence of blinding.

4.3.3 Attrition and missing data

Morton and Montgomery (2011) and Olson-Merichko (2006) had relatively low attrition rates (6.3% and 2.5%, respectively). Even though the latter did not incorporate intention-to-treat analysis, the attrition was small enough that this decision was not likely consequential. Berg and colleagues (2006), however, reported relatively high attrition at 26% (author contact). Berg and colleagues did not find any significant differences on demographic variables between completers and non-completers. Nevertheless, high attrition could have had an impact on results, as non-completers could have been different from completers in terms of response to intervention or other unobserved characteristics. Berg and colleagues' study was not included with the other two studies in this review's meta-analysis.

4.3.4 Selective reporting

There was no evidence of selective reporting of outcomes in the sense that particular measured outcomes were simply not reported. Berg and colleagues (2009) only reported statistics for outcomes with statistically significant intervention effects in the published paper, but the authors did make full data for all outcomes readily available. Olson-Merichko (2006) did not report statistics for antisocial behavior outcomes, which did not show statistically significant intervention effects. Only Morton and Montgomery published a protocol prior to trial commencement prospectively stating outcomes to be measured.

4.3.5 Other potential sources of bias

Only Morton and Montgomery (2011) accounted for 'contamination.' Given the circumstances of the QS NFE target population (out-of-school youths spread across several communities) and that siblings were block-randomized together, notable contamination was unlikely. Documentation of the activities of control group participants confirmed little evidence of contamination effects. Potential for contamination effects was not addressed by Berg and colleagues (2009) nor Olson-Merichko (2006); contamination potential may been a particular concern with the Olson-Merchiko study, given that intervention and control participants were all

members of the same school during the course of the intervention. Berg and colleagues report that control participants took part in alternative summer employment programs, which also *may* have integrated empowerment-based programming components thus inviting potential contamination effects.

4.4 EFFECTS OF THE INTERVENTIONS

Only Berg and colleagues (2009) measured self-esteem, but, given significant baseline differences, the measure was treated as a covariate in the study's analysis rather than an outcome. Olson-Merichko (2006) and Morton and Montgomery (2011) used the same ten-item measure for general self-efficacy (Schwarzer & Jerusalem, 1995). Berg and colleagues (2009) only included task-specific self-efficacy measures for drug avoidance and sexual behavior. None of the included studies independently showed statistically significant impacts on any of the primary outcome measures for self-esteem or self-efficacy.

General self-efficacy was the only primary outcome measured by more than one included evaluation and therefore the only outcome that was meta-analyzed. Meta-analysis of data from Morton and Montgomery (2011) and Olson-Merichko (2006) did not show a combined intervention effect on self-efficacy (z = 1.21 95% CI -0.12 to 0.49). Meta-analysis data and a forest plot using a random-effects model are given in section 12.1. Given the limited sample sizes and includable studies, the results of this meta-analysis should not be interpreted as an authoritative statement on the effects of YEPs. The results simply reflect a small number of impact studies' aggregate effects on self-efficacy. While some secondary outcome areas were assessed by more than one included study (social supports, social skills, and problem areas), these were not meta-analyzed because of the level of heterogeneity among constructs captured by the different measures.

Independent results for all of the review's primary and secondary outcomes measured by the included studies are displayed in tables in sections 10.1 and 10.2 (adaptations of table templates used by the Zief et al (2006) review). Berg and colleagues and Olson-Merichko conducted one-tailed analyses to test for intervention effects. Because this review accommodates the possibility of unintended adverse outcomes, significance levels were recalculated using two-tailed tests. Although the tables present relatively little data given the small number of includable studies, future updates of the review could follow the template with additional material.

5 Discussion

5.1 SUMMARY OF THE MAIN RESULTS

Due to a small number of includable studies with combinable data, only a very modest meta-analysis was possible for one outcome: general self-efficacy. The meta-analysis did not demonstrate intervention effects for self-efficacy. Despite the considerable amount of literature and institutions promoting the believed impacts of YEPs on positive attitudes and behaviors, this review concludes that there is thus far insufficient empirical evidence to adequately support the claim. There is currently insufficient evidence for reviewers to make conclusions concerning the effects of YEPs.

None of the three included studies independently demonstrated significant intervention effects on this review's primary outcomes, self-efficacy and self-esteem. Many outcomes had null effects, and, for all three included studies, these outnumbered outcomes that did show significant intervention effects. All three included studies assessed self-efficacy, but none showed significant intervention effects compared to control groups at posttest. Differences were insignificant for both general (Morton & Montgomery, 2011; Olson-Merichko, 2006) and task-specific (Berg and colleagues 2009) measures of self-efficacy.

On the other hand, no study showed evidence of harm, nor were there any studies that failed to produce at least one statistically significant, positive intervention effect for the review's secondary outcomes—including social skills (team skills), coping skills (proactive coping), and problem behaviors (conduct problems, marijuana use, and number of sex partners). Given the large number of outcomes measured by each study, however, a small proportion of outcomes could have shown intervention effects by chance alone (Feise, 2002).

5.2 OVERALL COMPLETENESS AND APPLICABILITY OF EVIDENCE

In general, the review demonstrates a paucity of evidence from high-quality impact studies of YEPs outside of formal education contexts. The lack of effects reflected by the three includable studies on the primary outcomes reported by included studies

could be attributable to low attendance rates. In the Questscope non-formal education program in Jordan, for example, 52% of study participants attended less than the minimum amount expected (two days per week). Given that the duration of intervention exposure evaluated by the included studies ranged from 4 to 10 months, longer durations of program exposure could be required to achieve intervention effects with adolescents, particularly those of higher risk. To this end, YEPs that take place in formal education may be advantaged over those outside of formal education by higher overall exposure.

Alternatively, it is possible that YEPs, at least in the forms represented by the included studies, could be an ineffective approach to changing social and emotional youth outcomes hypothesized in theory of change descriptions of youth empowerment.

5.3 QUALITY OF THE EVIDENCE

Only three studies met all of the review's inclusion criteria; these consisted of mixed levels of methodological quality and relatively small sample sizes. The two randomized controlled trials (Morton & Montgomery, 2011; Olson-Merichko, 2006) both had fairly short posttest periods at 4-months follow-up, and neither had undergone peer-review at the time of this review. The more intensive youth empowerment model that involved longer participatory experiences and the most structured leadership training (Berg et al., 2009) collected data for up to 12 months, but the non-randomized design was more susceptible to bias. Only one study (Morton & Montgomery, 2011) had published a protocol prior to recruitment. Some study reports did not provide data for outcomes that did not show positive, statistically significant intervention effects (most evaluators were willing and able to provide unreported data after contact). Such reporting bias can skew the public's understanding of the full effects of an intervention (Smyth et al., 2011).

5.4 POTENTIAL BIASES IN THE REVIEW PROCESS

Youth development programs frequently aim to affect changes across multiple behavioral, social, and attitudinal outcomes. As such, the limited emphasis on self-efficacy and self-esteem, though commonplace in the youth empowerment literature, could bias conclusions around a narrow set out of measures. Including and reporting a broader set of secondary outcomes mitigated such potential. Additionally, no study was excluded based on its outcomes measures, and the search strategy did not include terms related to outcomes. Consequently, although the review focused its analysis and discussion based on particular outcomes often associated with youth empowerment, the authors' decisions on primary and secondary outcomes did not constrain the number of studies that were included in

this review. The main reason for the small number of includable studies was a lack of studies that met both the review's intervention criteria (youth programs outside of formal education that regularly involved participants in program decision-making processes) and study methods criteria (experimental or controlled quasi-experimental designs).

The search for grey literature through professional outreach was limited to the contacts in the authors' networks or those that the authors could identify. It is possible that other groups could have conducted includable unpublished studies.

Additionally, the inclusion of 'youth empowerment programs' is susceptible to interpretation as to what constitutes youth empowerment. The authors tried to establish objective and inclusive intervention inclusion criteria based on regular participation of youth in program decision-making. Moreover, both authors independently screened the studies, and there were no disagreements.

5.5 AGREEMENTS AND DISAGREEMENTS WITH OTHER STUDIES OR REVIEWS

This is the first known review of the effects of YEPs. The review findings agree with previously stated expectations in the literature that very little evidence has been generated on youth empowerment interventions through high-quality impact evaluation (Crowley & Skeels, 2010; Gray & Hayes, 2008; Zeldin et al., 2000). This review adds to those statements by identifying the few studies that do exist and outlining directions for future research.

6 Authors' Conclusion

6.1 IMPLICATIONS FOR PRACTICE

The review demonstrates an insufficient evidence-base for YEPs impact on self-efficacy and self-esteem. As such, the authors are unable to offer definitive conclusions about the impacts of YEPs. While the few includable studies do not show positive intervention effects on these primary outcomes, there is also no evidence of harm from reported outcomes data. There is limited evidence for intervention effects on the review's secondary outcomes (e.g., social skills and antisocial behavior) suggesting a potentially important role for youth empowerment in changing these outcomes, but further research is needed.

As expected, there was heterogeneity between YEPs evaluated by the included studies with respect to program activities, the extent of youth participation in program decision-making, the nature of adults' roles in the program, amount of program exposure, and the characteristics of the study sample. As required, all three programs shared a commitment to regular involvement of young people in programming decision-making as an aspect of their intervention experience, samples of similar age groups, a supportive adult presence, and asset-building activities intended to build on young people's strengths.

The reviewers could not identify sufficient data to assess the extent to which differences or similarities between YEPs help to explain outcomes. It remains to be seen, for example, whether different degrees of youth participation in program leadership and decision-making explain different levels of program effects on youth development outcomes, and for different populations of youth. Youth empowerment has varying intervention implications across different cultural contexts; these should be explored in future studies.

Although this review concentrated on YEPs outside of formal education, it also identified three studies of YEPs that met all of the review's criteria except for having been based in formal education. In general, research interest in schools as contexts for youth development and engagement has gained increasing traction (Eccles & Roeser, 2011; Shinn & Yoshikawa, 2008), and these studies reflect that interest. Notably, despite methodological concerns, results from the few randomized studies of YEPs based in formal education present a generally more positive picture of

program effects than do the included studies of YEPs outside of formal education. The evidence is too little and problematic to be generalizable, but it does suggest promise for schools as settings to improve developmental and problem-behavior outcomes through youth empowerment—particularly those with service or advocacy-based curricula.

It may be that more favorable intervention effects in the formal education YEPs were due to methodological differences or more sophisticated program designs. Alternatively, programs based in schools may have advantages of increased overall attendance and the ability to capitalize on setting-level process factors specific to schools, such as improved connections with school staff and positive program "contamination" among peers within the school environment. Out-of-school YEPs included in this review also targeted more disadvantaged populations, including those not attending school, presenting additional challenges for producing high attendance and intervention effects.

6.2 IMPLICATIONS FOR RESEARCH

6.2.1 Impact study

Though still very limited, the concentration of studies over the last six years is a promising sign for impact evaluation of YEPs. Five out of six of the included studies and relevant excluded studies were published since 2004; one was published in 1997. This relatively recent production of experimental and quasi-experimental evaluations of YEPs suggests some momentum for interest in youth empowerment as a modality of intervention as well as understanding its effects. As such, future updates of this review may yield more substantive syntheses of the evidence for YEPs if the primary research trend continues. For example, a large, multisite RCT (anticipated sample of about 3,400 participants) of the YouthBuild program in the US, which involves empowerment-based methodologies, is currently underway and may add significantly to the evidence-base on YEPs (MDRC, 2011).

Nevertheless, the small number of includable studies highlights an ongoing tension between demands for high-quality evidence from scientifically rigorous impact evaluation designs and the difficulties of applying experimental designs to participatory programs. The use of RCTs, for example, is unrealistic when participants *initiate* empowerment programs, in which case the same participants could not be randomly assigned into or out of an intervention they created. In situations where experimental or controlled quasi-experimental designs are not feasible or appropriate, programs may be left to rely on less scientifically robust methods for impact evaluation, such as cohort studies, life histories, and ethnographies, to discern evidence about program effects, but higher susceptibility to bias is a major concern for confiding in their findings on intervention effects.

The prevalence of self-efficacy measures among the few includable studies corroborates the attention to the outcome in the broader youth empowerment literature. Self-esteem was only measured in one study, but it was not included as an outcome in the study's final analysis due to significant group differences at baseline (Berg et al., 2009). The greater attention to self-efficacy compared to self-esteem could reflect clearer congruence between self-efficacy as a motivational construct and the personal agency emphasized by empowerment theory (Chen et al., 2004).

Increased impact evaluation of youth empowerment programs could be supported by more research investment in measures that are consistent with YEPs' general theory of change and have been sufficiently tested for the range of cultural contexts to which researchers plan to apply the measures. For example, despite frequent reference to the role of improved trust-based relationships between youth and community adults in the youth empowerment process, both Morton and Montgomery (2011) and Berg and colleagues (2009) were unable to identify adequately tested and sensitive measures to assess young people's sense of connectedness to community adults.

The baseline differences on several outcome measure variables in Berg and colleagues' (2009) quasi-experimental study reinforce the difficulties of establishing two comparable groups without random assignment, even when matching procedures based on basic demographic variables are used. When practicable and appropriate, future research into the efficacy and effectiveness of YEPs should strive to implement randomized designs, which are best equipped to avoid selection biases that can produce misleading results (Craig et al., 2008; Glazerman et al., 2003; Jadad & Enkin, 2007).

Where sample size calculation was conducted (Morton & Montgomery, 2011), the study was not powered for subgroup analysis. As such, the studies could not authoritatively assess the extent to which demographic characteristics (e.g., age, gender, family income) or process characteristics (e.g., attendance, support, or empowerment) moderated intervention effects. For example, though statistical power was limited, Morton and Montgomery (2011) found that the program center in which youth rated the highest empowerment outperformed the center with the lowest youth scoring on empowerment on nine out of eleven measured outcomes. Potential interactions between young people's experiences of empowerment in program processes and program effects should be investigated further with better process measures and larger sample sizes in future research.

Finally, follow-up data collection for included studies ranged from 4 to 12 months following beginning of program participation. Future studies should follow participants for longer time periods (over a year), as some outcomes may require longer program exposure to reveal measureable change, or, alternatively, changes that do occur in outcomes in the first few months may not be sustained.

6.2.2 **Process study**

Some researchers have challenged the applicability of experimental studies to empowerment-based interventions given the complex processes underlying their potential impacts (Wallerstein, 2006). While this review assumes the importance of using experimental designs to increase the evidence-base for the efficacy and effectiveness of complex social interventions, including YEPs, complementary methods are indeed important to help isolate the particular components, interactions, and processes working inside of such interventions to facilitate or stifle outcomes of interest (Craig et al., 2008; Oakley et al., 2006; Raudebush et al., 2008).

All of the included studies integrated some level of process study in tandem with experimental and quasi-experimental designs. Each of these involved a qualitative dimension, such as qualitative activity observations or interviews with youth participants and/or adult staff. In each case, such qualitative investigation enabled researchers to tease out more nuanced insights into program implementation that might not have been revealed otherwise. Observations in Berg and colleagues (2009), for example, indicated that reflective activities helped youth engage with their action research projects more meaningfully when reflections facilitated opportunities for youth to personalize the experiences; in qualitative interviews associated with Morton and Montgomery's (2011) study, youth described the most important attributes of effective adult facilitators (e.g., making sure that *all* youths' voices get heard in decision-making processes) (Morton, 2011); and youth feedback in Olson-Merichko (2006) suggested that future programming could be improved by extending the duration of projects and shifting meetings to school hours when students found it easier to meet.

Of the three included studies, only Morton and Montgomery (2011) used a quantitative process study component—a modified version of the Learner Empowerment Survey, which was also used in the discussed excluded study by Lakin and Mahoney (2006). The Learner Empowerment Survey (Fymier et al., 1996) was initially created for college communication classes. Theory-driven instruments developed more specifically for YEPs for adolescents could provide more useful information. Efforts have been made in recent years towards better general youth program quality instruments, such as the High/Scope Youth Program Quality Assessment (Blazevski & Smith, 2007) and the READY Tool (Sabaratna & Klein, 2006). Given the continued development and evaluation of YEPs, specific attention should be made to how such instruments validly and reliably assess empowerment constructs concerning the contribution, participation, preparation, and support of young people in community programs.

6.3 SUMMARY CONCLUSIONS

This review reveals an insufficient evidence-base from experimental or quasi-experimental studies to substantiate the hypothesis that YEPs have an impact on developmental assets such as self-efficacy and self-esteem. More research into YEPs using rigorous impact study designs is needed. Researchers should further develop methods and measures to enable high-quality, mixed-methods process studies to complement impact studies of YEPs so as to provide more useful evidence for practitioners and policy-makers. Given the relative nascency of impact evaluation in the YEP field, this review's findings should be interpreted as a stimulus for further research investment and action rather than a basis for generalizable conclusions about the effects of youth empowerment.

7 Acknowledgements

The inspiration for and development of this review is owed to many colleagues, both researchers and practitioners. In particular, we thank our colleagues affiliated with the Centre for Evidence-Based Intervention at the University of Oxford for their methodological and theoretical guidance. Many thanks, also, to the professional contacts who provided resources and support throughout the review process.

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9 Characteristics of studies

9.1 CHARACTERISTICS OF INCLUDED STUDIES

	Berg et al., 2009	Olson-Merichko, 2006	Morton & Montgomery, 2011
Study Characteristics			
Design	Quasi-experimental with matched control group	RCT	RCT
Comparison	Alternative summer employment programs	No treatment control	Waitlist with basic biweekly recreational activities
Review's primary outcomes	Self-esteem, drug avoidance self-efficacy, sexual behavior self-efficacy	General self-efficacy	General self-efficacy
Review's secondary outcomes	Social assertiveness skills, social connectedness, school bonding, drug use, sexual behavior	Proactive coping, proactive attitude, team skills, delinquency, drug use	Social skills, social supports, prosocial attitude, conduct problems, emotional symptoms, local adult connectedness
Follow-up (months)	3, 6, 12	4	4
Sample size	316 (114 Intervention, 202 Control)	40 (20 Intervention, 20 Control)	127 (67 Intervention, 60 Control)
Analysis method	Completer analysis	Completer analysis	Intention-to-treat
Attrition (%)	26.3§	2.5	6.3
Sample age: mean (range)	15.2 (14-17)	16 (14-18)	15.9 (13-21)
Female (%)	51	72	15
Process study	Observations of facilitator performance	Qualitative youth interviews	Quantitative empowerment survey; qualitative youth and facilitator interviews
Program Characteristics			
Intervention	Participatory action research and community advocacy with training	Participatory research with training	Participatory non-formal education

§ Although the published article reports 17.4% attrition, later author contact updates attrition to 26.3%.

Location	USA, urban	USA, rural	Jordan, urban
Dosage	20 hours per week (summer), 4 hours per week (school year)	2-3 hours per week	4-10 per week
Duration	11 months (7-week summer institute, 8-month projects)	4 months	24 months (3 8-month cycles)
Structured youth training component	Yes (7-week leadership & research skills institute)	No (not for study participants)	No (not for study participants)
Service/advocacy component	Yes	Yes	No
Primary setting	Community; single site	School (meetings); single site	Schools (special program center venues); multi-site
Level of Hart's Ladder of Participation according to intervention description	Youth-initiated, shared decisions with adults (for projects; overall program adult-initiated)	Youth-initiated and directed (for projects; overall program adult-initiated)	Adult-initiated, shared decisions with youth

9.2 EXCLUSION CHARACTERISTICS

Sixty-five studies reached the final level of review and were ultimately excluded. All study papers were fully screened (not just abstracts). Reasons for exclusion follow.

Study	Reason for exclusion
Allen et al 1997	Formal education-based
Baker & Hultsman 1998	Inadequate intervention details available (author contacted); not clear systematic empowerment
Branch et al 1987	Not systematic empowerment; no control group
Brieger et al 2001	Not systematic empowerment
Calabrese & Schumer 1986	Inadequate methods for establishing credible control group
Campbell et al 2008	Formal education-based; not systematic empowerment
Cater 2006	Inadequate methods for establishing credible control group
Cheadle et al 2001	Not systematic empowerment
Clarke et al 1986	Formal education-based; not systematic empowerment
Collum 2003	Not systematic empowerment
D'Onofrio et al 2002	Not systematic empowerment for observed youth
Drolet 1997	Not systematic empowerment
Ebreo et al 2002	Formal education based; not systematic empowerment (peer educators engaged in content delivery but not systematically in program decision-

	making)
Ferguson et al 1996	No control group (a large-scaled randomized evaluation of YouthBuild is planned to begin recruitment in Spring 2011)
Fertman & Chubb 1992	Formal education-based; not systematic empowerment
Forneris et al 2010	Not systematic empowerment for observed youth; formal education-based
Fors & Jarvis 1995	Not systematic empowerment for observed youth
Gabriel et al 1996	Formal education-based; over 25% below age 10; not clear systematic empowerment
Gottfredson et al 2004	Not systematic empowerment
Grolnick et al 2007	Not systematic empowerment
Hahn et al 1994	Not systematic empowerment
Hahn et al 1996	Data and full report unavailable (author contacted)
IDRA 1995	No control group
Johannes 2004	Inadequate methods for establishing credible control group; not systematic empowerment
Kahne & Bailey 1999	Not systematic empowerment
Komro et al 2001	Formal education-based; not systematic empowerment
Komro et al 2008	Majority of participants not involved in empowerment-based component and largely formal education-based
Kovatseff & Power 2005	No control group
Laird 2009	Formal education based; not systematic empowerment
Lakin & Mahoney 2006	Formal education-based
Langberg et al 2006	Not systematic empowerment
Lauver 2002	Not systematic empowerment
Litrownik et al 2000	Not systematic empowerment (parent-child intervention)
LoSciuto et al 1997	Not systematic empowerment for study participants
LoSciuto et al 1999	Not systematic empowerment
Mackey 2007	Formal education-based; no control group
Maro et al 2009	Not systematic empowerment for observed youths
Martin 2008	Formal education-based; not systematic empowerment
Mason & Chuang 2001	Below age; not systematic empowerment
Mcloughlin 2009	Formal education-based; inadequate methods for establishing credible control group
Melchior 1998	Formal education based; not systematic empowerment
Moody et al 2003	No control group; not systematic empowerment
Naar-King et al 2010	Not systematic empowerment
Patro 1999	Not systematic empowerment
Pearlman et al 2002	Adequate data and intervention details unavailable (author contacted)

Perry 1989	No control group; formal education-based; not systematic empowerment
Philliber et al 2002	Not systematic empowerment
Prince 1995	Not systematic empowerment for observed youth
Quane & Rankin 2006	Not a controlled trial
Saitzyk & Poorman 1994	Inadequate methods for establishing credible control group; not clear systematic empowerment
Schirm et al 2003	Not systematic empowerment
Shelton 2009	Not systematic empowerment for timeframe measured
Simmons & Parsons 1983	Not systematic empowerment
Singer & Garcia 1988	Inadequate methods to establish credible control group; inadequate details available on intervention and data (author contacted)
Stone 1994	Formal education-based; not systematic empowerment for observed youth
Tebes et al 2007	Inadequate methods for prospectively establishing credible control group; not clear systematic empowerment; further details unavailable (author contacted)
Thomas 2004	Formal education-based; not systematic empowerment
Valentine 1990	No control group; not systematic empowerment
Walker & Arbreton 2001	No prospective control group
Weiss et al 1998	Not systematic empowerment
White 2010	One-off training retreat intervention
Wiggins et al 2009	Not systematic empowerment
Winkleby et al 2001	No control group
Winkleby et al 2004	Formal education-based
Wright et al 2006	Not systematic empowerment

10 Additional tables

10.1 PRIMARY OUTCOMES FROM INCLUDED STUDIES

Study 0utcome Results								
Outcome	**# Studies (Combined N)**	**# Measured Outcomes**	Outcomes favoring intervention		Outcomes favoring comparison		Null effects (p >.10)	
			$p \leq .05$	$.05 < p \leq .10$	$p \leq .05$	$.05 < p \leq .10$	#	Percentage
General self-efficacy[a]	2 (n=167)	2	0	0	0	0	2	100
Specific self-efficacy[b]	1 (n=316)	2	0	0	0	0	2	100
Self-esteem[c]	1 (n=316)	1	0	0	0	0	1	100

[a]Olson-Merichko (2006) and Morton & Montgomery (2011)
[b]Berg et al (2009): drug prevention and sexual behavior
[c]Berg et al (2009) (had baseline differences, reported here but otherwise not treated as an outcome in the primary study or by this review)
*p<.10, **p<.05, ***p<.01 intervention effect

10.2 SECONDARY OUTCOMES FROM INCLUDED STUDIES

Study Outcome Results								
Outcome	**# Studies (Combined N)**	**# Measured Outcomes**	Outcomes favoring intervention		Outcomes favoring comparison		Null effects (p >.10)	
			$p \leq .05$	$.05 < p \leq .10$	$p \leq .05$	$.05 < p \leq .10$	#	Percentage
Social supports and connections[a]	2 (n=443)	5	0	0	0	0	4	80
Social skills[b]	3 (n=483)	5	1	0	0	0	2	66
Emotional intelligence	0	0	0	0	0	0	0	n/a
Coping and problem-solving skills[c]	1 (n=40)	1	1	0	0	0	0	0
Civic engagement	0	0	0	0	0	0	0	n/a
Academic performance	0	0	0	0	0	0	0	n/a
Problem behavior[d]	3 (n=483)	8	3	1	0	0	4	50

[a]Berg et al (2009): social connectedness and school bonding (latter had baseline differences, not treated as outcome); Morton & Montgomery (2011): social supports of friends, social supports of family, and adult connectedness
[b]Berg et al (2009): social assertiveness skills and social skills; Olson-Merichko (2006): team skills**; Morton & Montgomery (2011): social skills and prosocial attitude
[c]Olson-Merichko (2006): proactive coping**
[d]Berg et al (2009): alcohol use*, marijuana use**, had sex, and number of sex partners**; Olson-Merichko (2006): delinquency, drug use, and alcohol use; Morton & Montgomery (2011): conduct problems**
*p<.10, **p<.05, ***p<.01 intervention effect

11 Appendices

11.1 DATABASES & WEBSITES SEARCHED

Database	Dates of coverage
Applied Social Science Index and Abstracts	1987 to June 20, 2010
Australian Educational Index	1979 to June 20, 2010
British Educational Index	1975 to June 20, 2010
CINAHL	Earliest to June 20, 2010
Cochrane Library (CENTRAL)	1950 to June 20, 2010
Dissertation and Theses Abstracts	Earliest to June 20, 2010
EMBASE	Earliest to June 20, 2010
ERIC	1966 to June 20, 2010
Medline	1950 to June wk 2, 2010
PsycInfo	1967 to June wk 3, 2010
Social Service Abstracts	1979 to June 20, 2010
Sociological Abstracts	1952 to June 20, 2010

Website database/publications page	Last date searched (coverage included earliest to latest publications available on website)
Chapin Hall (University of Chicago)	August 6, 2010
Out-of-School Time Program Research & Evaluation Database (Harvard Family Research Project)	August 6, 2010
Innovation Center	August 7, 2010
National Clearinghouse on Families & Youth (US Administration of Children & Families)	August 7, 2010
Public/Private Ventures	August 7, 2010

Search Institute	August 7, 2010
UNICEF Evaluation and Research Database (ERD)	August 7, 2010
Australian Clearinghouse for Youth Studies (ACYS)	August 7, 2010
National Council for Voluntary Youth Services (NCVYS) Publications	August 7, 2010
UK DCSF Inclusion Development Programme (IDP) Publication Catalogue	August 7, 2010
World Bank Poverty Impact Evaluations Database	August 7, 2010

11.2 SCREENING GUIDE

Criteria	Y/N
1. More than 75% of participants are adolescents (10-19)?	
2. Eligible setting and duration? Takes place primarily outside of formal education Provides a physically safe environment Convenes regularly (i.e., not a one-off activity) NOT: a juvenile justice program, residential program, therapeutic intervention, conference or workshop	
3. Formally integrates youth participation into program decision-making? Are youth intentionally involved in democratic decision-making processes, boards, advisory boards, workgroups, committees, councils, positions, or staffing roles that directly and regularly influence program decision-making?	
4. Supportive relationship with adult or older youth leader? Do participants have regular access to at least one adult or older young person (e.g., college volunteer) designated to work with the young people in the program?	
5. Focus primarily on capacity-building strategies (e.g., skill-building, assets development, or leadership development) Does not focus primarily on 'treating' existing problem-behaviors (e.g., punitive-based programs or therapy for a specific problem)	
6. Appropriate methodology? Is there a prospectively assigned control group that used randomization, matching, or statistical methods to establish a credible comparator?	

11.3 ADDITIONAL CODING FORM

Study

Author queries

Status

Reason for exclusion

Location

Published?

Method of recruitment

Recruitment dates

Socioeconomic status

Ethnic/racial characteristics

Other participant details

Mean age (Int)	**SD age (Int)**	**Min age (Int)**	**# Female (Int)**
Mean age (Con)	**SD age (Con)**	**Min age (Con)**	**# Female (Con)**

Study design:

(a) Randomized controlled trial

(b) Non-randomized trial w/comp group(s)

(c) No control group*

If (a):

Unit of randomization

Method of randomization

If (b):

Unit of allocation

Method of allocation

Total # Assigned | **To Intv Group** | **To Cont Group** | **To Other Group**

Type of intervention participation:

Volunteer		**Class Required**		**Other**	
Paid/Staff		**Court Required**			

Baseline differences between groups

Intervention setting – school, community, etc.

Methods of empowerment (if*/how youth were involved in regular decision-making processes)

Hart's ladder classification (according to intvn description)

Formal training/leadership preparation component?

Service/advocacy component?

Empowerment processes involving all study participants or subgroup(s)?

Type of adult presence (check all that apply)

No regular adult pres.*		Staff/paid		Other	
Program facilitator		Volunteer			
One-one mentoring		Teacher		Trained in facilitating empower't	

Frequency of intervention

Duration of intervention

Intervention content and delivery, types of activities

Comparison type

Comparison detail – services, frequency, exposure

Number and schedule of data collections

Notes

Outcomes measured:

Self-efficacy		Type(s)	
Self-esteem			
Social supports/connect.'s			
Social skills			
Emotional intelligence			
Coping & problem-solving			
Civic engagement			
Academic achievement			
Antisocial behavior			

Outcome measures, validity, reliability

*Indicates exclusion criteria.

11.4 GUIDE FOR APPRAISING STUDY QUALITY

Topic	Item #	Descriptor	Comments
INTRODUCTION			
Title and abstract	1	Study design	
Background	2	Relationship of evaluator to intervention	
	3	Relationship of study sponsor to intervention	
	4	Explanation of the rationale for the study intervention	
Objectives	5	Specific goals/objectives and hypotheses	
	6	Logic model or theory of change	
METHODS			
Participants	7	Eligibility criteria for participants (i.e. target population)	
	8	Explanation of recruitment procedures	
Intervention	9	Precise details of the intended intervention	
	10	Precise details on the implementation of the intervention	
	11	Information about the activities of the control group	
	12	Information on possible contamination	
Outcomes	13	Clearly defined primary and secondary outcome measures	
	14	Outcome measures aligned with the goals of the intervention	
	15	Explanation of measurement instruments and information regarding their validity and reliability	
	16	Methods used to enhance the quality of the data (supplemental studies, multiple evaluations, training of data collectors)	
Sample size	17	Size of treatment and control groups	
	18	Use of power analysis to determine sample size	

Randomization (if applicable)	19	Explanation of the method used to generate the random allocation sequence, including details of any restrictions (e.g. blocking, stratification)	
	20	Parental consent for study participation received prior to random assignment	
	21	Explanation of allocation concealment	
	22	Groups were equated on pretest data for outcomes measures and other characteristics suspected of confounding the results	
Blinding	23	Researchers and assessors were blind as to which group participants belonged	
Statistical methods	24	Statistical methods used to compare groups for primary outcome(s) and for additional analyses, such as subgroup analyses	
	25	Appropriateness of methods chosen	
	26	Pretest measures of outcomes and other important variables collected at baseline and incorporated into the analysis	
RESULTS			
Attrition	27	Number in each group who withdrew from study	
	28	Number in each group who were lost to follow-up	
	29	Number excluded from analysis (give reason)	
	30	Attrition >20%: Completers statistically compared to non-completers	
	31	Attrition >20%: Baseline equivalence of analytic sample demonstrated	
Intention-to-treat	32	Whether the analysis was by "intention-to-treat"	
Outcomes and data reporting	33	For each outcome, a summary of results per group	
	34	Means and SDs reported	
	35	*p*-values and degrees of freedom	

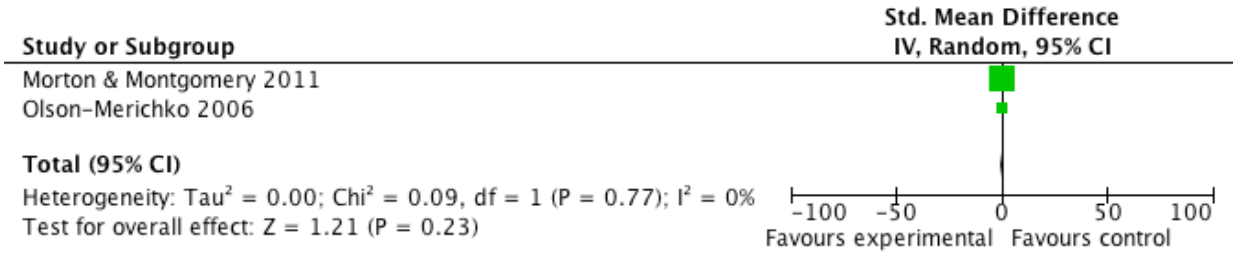
		reported	
	36	Effect sizes reported	
	37	Other value reported (specify)	
CONCLUSIONS			
Interpretation	38	Interpretation of the results, taking into account study hypotheses and sources of potential bias or imprecision	
	39	Use of observational/qualitative data to understand impact results	
External validity	40	Generalizability of results	
	41	Replicability of intervention	
Overall evidence	42	General interpretation of the results in the context of current evidence.	

Note: Adapted from Zief et al (2006) and *What Works Clearinghouse Evidence Standards for Reviewing Studies* (US Department of Education, Revised 2008).

12 Data and analysis

12.1 META-ANALYSIS FOR GENERAL SELF-EFFICACY

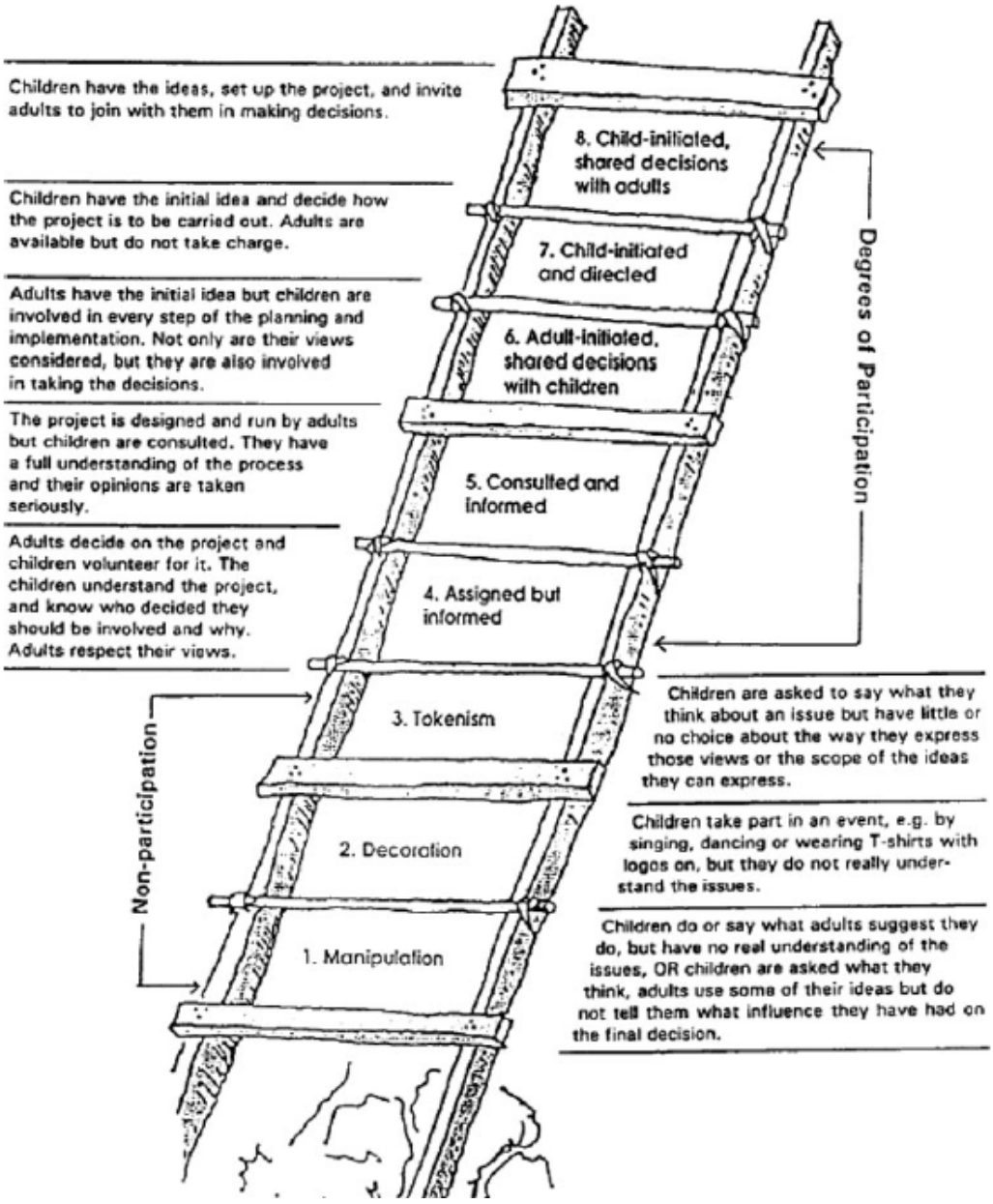
	Experimental			Control				Std. Mean Difference
Study or Subgroup	**Mean**	**SD**	**Total**	**Mean**	**SD**	**Total**	**Weight**	**IV, Random, 95% CI**
Morton & Montgomery 2011	14	3.8	67	13.2	3.6	60	76.4%	0.21 [-0.13, 0.56]
Olson-Merichko 2006	33.42	4.15	19	33	3.63	20	23.6%	0.11 [-0.52, 0.73]
			86			**80**	**100.0%**	**0.19 [-0.12, 0.49]**



13 Figures

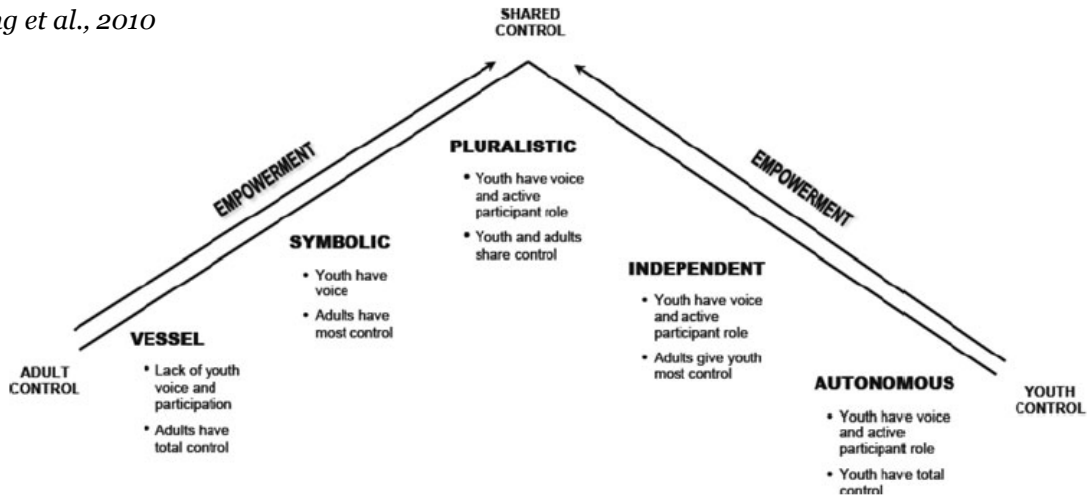
13.1 HART'S LADDER OF CHILDREN'S PARTICIPATION

Hart 1992

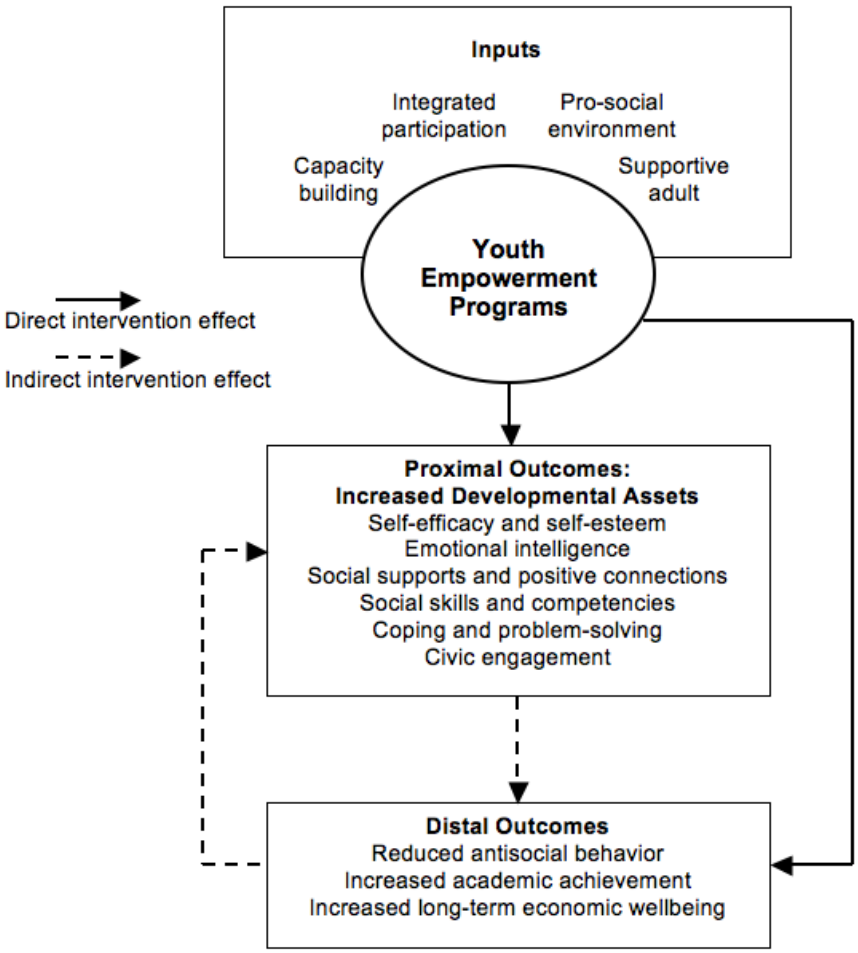


13.2 TYPE PYRAMID

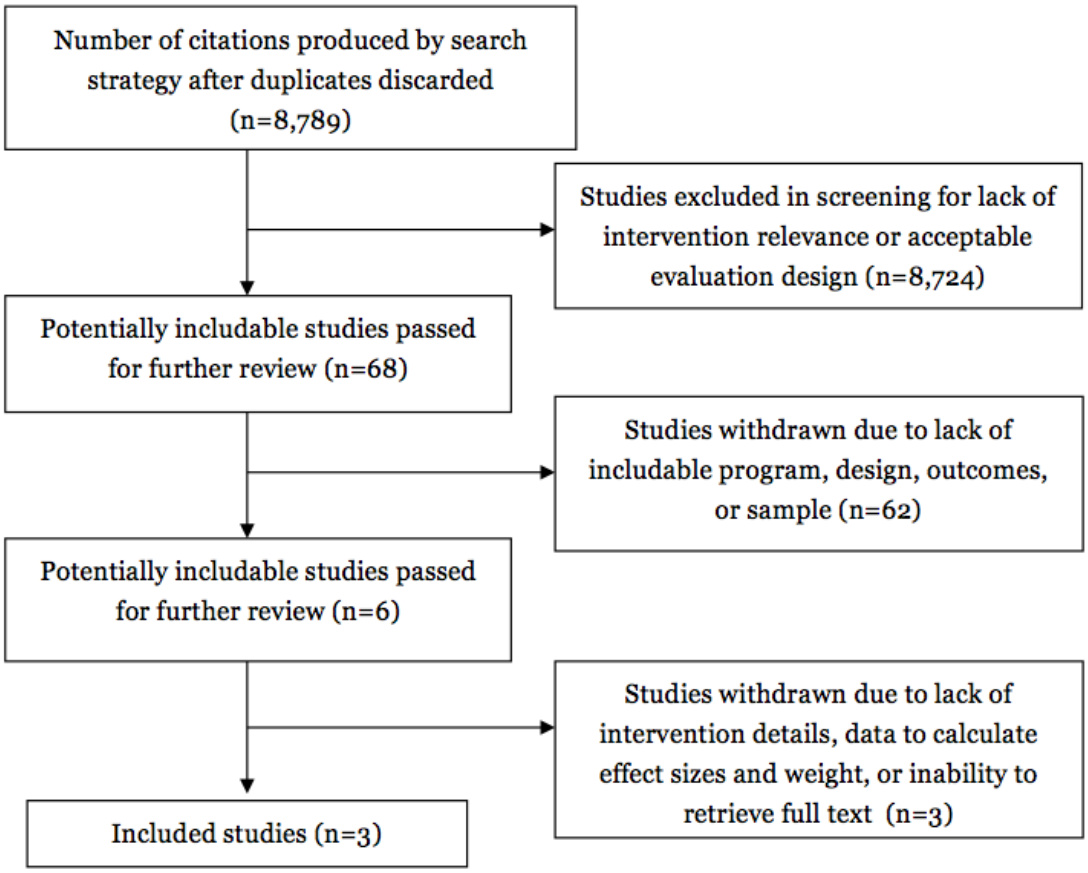
Wong et al., 2010



13.3 BASIC THEORY OF CHANGE DIAGRAM FOR YEPS



13.4 REVIEW FLOW DIAGRAM



14 Contribution of authors

Morton and Montgomery contributed to the writing and revising of this protocol. The final search strategy was reviewed and approved by the Trial Search Coordinator for the Campbell SWG. Morton will be responsible for updating this review as additional evidence accumulates and as funding becomes available.

15 Declarations of interest

Morton has worked with community organizations to develop YEPs. Both authors are jointly submitting for peer-review the report of an experimental study of a youth empowerment program in Jordan, which is included in this review.

16 Sources of support

16.1 INTERNAL SOURCES

Colleagues at the Centre for Evidence-Based Intervention, University of Oxford provided knowledge support in refining the review's methodology and providing feedback.

16.2 EXTERNAL SOURCES

Groups and individuals in the authors' professional outreach provided valuable leads and resources on literature and efforts relevant to youth empowerment.