



1	Staffing continuity essential to successful implementation
2	Difficulty offering full-time posts in the youth work field
3	Theme 4: Youth led empowerment
4	Young people determining their own engagement in activities
5	Limitations to choice provided
6	Tensions arising from choice
7	Conclusions
8	Limitations
9	Implications for research, policy and practice
10	<b>Abstract words: 220</b>
11	<b>Paper words: 5,687</b>
12	

## Structured abstract

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

**Objective.** Positive youth development (PYD) often aims to prevent tobacco, alcohol and drugs use and violence. We systematically reviewed PYD interventions, synthesising process and outcomes evidence. Synthesis of outcomes, published elsewhere, found no overall evidence of reducing substance use or violence but notable variability of fidelity. Our synthesis of process evaluations examined how implementation varied and was influenced by context.

**Data source.** Process evaluations of PYD aiming to reduce substance use and violence.

**Study inclusion criteria.** Overall review: published since 1985; written in English; focused on youth age 11-18 years; focused on interventions addressing multiple positive assets; reported on theory, process or outcomes; and concerned with reducing substance use or violence. Synthesis of process evaluations: examined how implementation varies with or is influenced by context.

**Data extraction.** Two reviewers in parallel.

**Data synthesis.** Thematic synthesis.

**Results.** We identified 12 reports. Community engagement enhanced programme appeal. Collaboration with other agencies could broaden the activities offered. Calm but authoritative staff increased acceptability. Staff continuity underpinned diverse activities and durable relationships. Empowering participants was sometimes in tension with requiring them to engage in diverse activities.

**Conclusion.** Our systematic review identified factors that might help improve the fidelity and acceptability of PYD interventions. Addressing these might enable PYD to fulfil its potential as a means of promoting health.

- 1 **Keywords:** Young people; Positive Youth Development; Process evaluations Systematic  
2 review; Qualitative
- 3 **Indexing keywords**
- 4 1. Manuscript format: literature review
- 5 2. Research purpose: intervention testing/ program evaluation
- 6 3. Study design: systematic review of qualitative evidence
- 7 4. Outcome measure: process evidence
- 8 5. Setting: community
- 9 6. Health focus: smoking control, social health
- 10 7. Strategy: education, skill building/behavior change
- 11 8. Target population age: youth
- 12 9. Target population circumstances: education/income level
- 13

## Objective

1  
2 Positive youth development (PYD) interventions aim to develop positive assets such  
3 as resilience, social and emotional competencies and aspirations.<sup>1</sup> They aim to address  
4 multiple inter-correlated risk behaviours<sup>2,3</sup> including substance use (i.e. tobacco, alcohol and  
5 drugs) and violence. PYD is the dominant paradigm in youth work in the USA<sup>1,4,5</sup> and UK.<sup>6</sup>  
6 PYD has the potential to reduce substance use and violence through various complex  
7 pathways, including addressing risk factors like disengagement from education and lack of  
8 social support,<sup>1</sup> diverting young people away from risk behaviours by engaging them in  
9 positive forms of recreation,<sup>7-9</sup> and providing credible health messages and signposting of  
10 health services.<sup>10,11</sup>

11 However, the evidence base for PYD is unclear. Previous reviews of PYD effects on  
12 violence and drug use<sup>1,8</sup> suggest benefits, but they are out of date and in the latter case not  
13 systematic. The review reported here is part of a larger study which synthesised evidence on  
14 PYD theories of change, process and outcomes. Synthesis of outcomes suggested a lack of  
15 evidence overall that PYD interventions are effective in reducing substance use and  
16 violence.<sup>12</sup> Interventions included in this review were notably variable in implementation  
17 fidelity with some heterogeneity of effects. So that future PYD interventions might be more  
18 acceptable, appropriate and ultimately more effective in promoting health, we here report  
19 findings from our synthesis of process evidence. This synthesis aimed to examine how PYD  
20 interventions were implemented, how young people received them and how this was affected  
21 by contextual characteristics of places and persons. Synthesising process evidence is  
22 important to understand what practical factors need to be considered to ensure feasibility,  
23 fidelity, reach, acceptability and ultimately effectiveness<sup>13</sup>. **Recent guidance on process**  
24 **evaluation stresses the importance of qualitative data in understanding the complex processes**  
25 **via which implementation is affected by such factors from the perspectives of providers and**

1 practitioners<sup>14</sup>. Examining how implementation varies with context also allows us to better  
2 understand variations in intervention fidelity, which in the case of PYD ranges from very  
3 good<sup>15,16</sup> to suboptimal for some programmes and some sites<sup>17,18</sup>.

## 4 **Methods**

5 This systematic review was described a priori in a research protocol<sup>19</sup> and adheres to  
6 the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)  
7 guidance.<sup>20</sup> The PRISMA checklist can be found in the online appendix.

### 8 **Data sources**

9 We systematically searched 19 electronic bibliographic databases between October  
10 2013 and January 2014, including PsycINFO, MEDLINE and ERIC, in addition to topic-  
11 specific websites, clinical trials registers and consultation with experts (details in web  
12 appendix). Our search strategy used both indexed and free-text terms relevant to key concepts  
13 identified from the review question and inclusion criteria, such as: population (e.g. youth or  
14 young people) AND intervention (e.g. after school clubs or community based programmes)  
15 OR population/intervention (e.g. youth work or youth club). References were first screened  
16 on title and abstract and then on full report where title and abstract suggested the study was  
17 relevant or provided insufficient information to judge. At both stages, screening was initially  
18 done by two researchers assessing batches of the same 100 references, moving to screening  
19 by a single reviewer once a 90% agreement rate had been achieved. Reviewers referred to a  
20 second screener where uncertain.

### 21 **Inclusion and exclusion criteria**

22 Studies were included in the overall review if they: were published from 1985  
23 onwards; were written in English; focused on youth age 11-18 years; focused on PYD  
24 interventions; reported on PYD theory, process or outcomes; and were concerned with  
25 reducing substance use or violence. Studies were included in this synthesis of process

1 evidence if they reported data on implementation or receipt of PYD and how this varied or  
2 was influenced by context (see web appendix for full details). Informed by existing  
3 literature,<sup>1,5</sup> we defined PYD interventions as voluntary education to address generalised  
4 (beyond merely health) and positive (beyond merely avoiding risk) development.  
5 Development was defined as promoting: bonding, resilience, social, emotional, cognitive,  
6 behavioural or moral competence, self-determination, spirituality, self-efficacy, clear and  
7 positive identity, belief in the future, recognition for positive behaviour, opportunities for  
8 pro-social involvement or pro-social norms. Included PYD interventions needed to address at  
9 least one of these criteria but apply them to different domains such as family, community or  
10 school, or promote more than one of these criteria in a single domain. We included studies of  
11 interventions provided in community settings outside of school time since school-based  
12 interventions have been the subject of recent reviews.<sup>21,22</sup> We excluded PYD interventions  
13 delivered in custodial or probationary settings or clinical settings or employment training for  
14 school leavers.

## 15 **Data extraction**

16 We extracted data using a modified version of an existing tool<sup>23</sup> including items on:  
17 study location; intervention/components, development and delivery, timing of delivery and  
18 evaluation; provider characteristics; target population; sampling and sample characteristics;  
19 data collection and analysis; and findings relevant to our review including verbatim quotes,  
20 author descriptions and interpretations of the findings. After piloting and refinement, two  
21 reviewers working independently extracted study reports, before meeting to agree on coding.

22 Reliability and usefulness of process evaluations were assessed using a standard tool  
23 for process studies<sup>24</sup> including: sampling; data collection; data analysis; the extent to which  
24 the study findings were grounded in the data (criterion 1-4); the extent to which the study  
25 privileged the perspectives of participants; and breadth and depth of findings (criterion 5-6).

1 Studies were assigned two types of ‘weight of evidence’ (low, medium or high): the  
2 reliability or trustworthiness of the findings, and the usefulness of the findings for shedding  
3 light on factors relating to the research questions. To be judged as highly reliable studies  
4 needed to have taken steps to ensure rigour in at least three of the first four criteria. Studies  
5 were judged as medium when scoring only two and low when scoring only one or none. To  
6 achieve a rating of high on usefulness, studies needed to achieve both depth and breadth in  
7 their findings or use methods that enable participants to voice their views on implementing or  
8 engaging in programmes, to ensure richness and complexity in their analysis, to answer the  
9 review questions. Studies rated as medium on usefulness only partially met this criteria and  
10 low rated studies were judged to have sufficient but limited findings. Quality was used to  
11 determine the qualitative weight given to findings in our synthesis, with none of the themes  
12 represented solely by studies judged as low on both dimensions.

### 13 **Data synthesis**

14 We qualitatively meta-synthesised process evaluations using thematic synthesis  
15 methods.<sup>25-27</sup> Qualitative meta-synthesis aims to develop interpretive explanations and  
16 understandings from multiple cases of a given phenomenon by utilising research examining  
17 participant experiences. Two reviewers independently read study reports and then undertook  
18 line-by-line coding of the findings sections. They first applied in vivo codes to what Schutz<sup>28</sup>  
19 termed first-order (verbatim quotes from participants) and second-order constructs (authors’  
20 interpretations of the data). Reviewers wrote memos to summarise their interpretations of  
21 these first-order and second-order constructs. The analysis was then deepened by use of axial  
22 codes to make connections between in vivo codes. Reviewers wrote memos throughout to  
23 describe emerging ‘meta-themes’. Each reviewer developed an emerging coding template, a  
24 hierarchical organisation of the codes that were applied in the course of the analysis.<sup>29</sup> The  
25 two reviewers then compared coding templates to agree a common template that formed the



1 basis for the synthesis, **consisting of all the data as extracted** and third-order constructs  
2 developed by reviewers. As the coding template was developed, the reviewers referred to  
3 tables summarising the methodological quality of each study to ensure the synthesis reflected  
4 study quality.

5

## 6 **Results**

### 7 **Search results**

8 After removing duplicates, 32,394 studies were identified from the search. Of these,  
9 ten studies reported in 12 papers, **all concerned with reducing substance misuse and violence**  
10 **or anti-social behaviour**, met the inclusion criteria (see figure 1) for the synthesis of process  
11 evaluations. **All studies used qualitative methods of data collection and analysis to evaluate**  
12 **processes related to implementation.**

### 13 **Characteristics and quality of process evaluations**

14 Of the ten included studies,<sup>18,30-38</sup> eight were conducted in the USA,<sup>18,30-34,37,39</sup> one in  
15 Australia<sup>36</sup> and one in England.<sup>38</sup> Four studies targeted youth aged 14 or older<sup>18,32,34,37</sup>; three  
16 targeted those aged both above and below 14<sup>33,35,38</sup>; and three did not report the age range  
17 targeted.<sup>30,31,36</sup> Four interventions targeted individuals on the basis of individual  
18 disadvantage; two on the basis of area or school disadvantage; one on both individual and  
19 area disadvantage; and three did not involve targeting on either basis (Table 1).

20 Study reliability and usefulness varied (Table 2). Three studies were judged to be of  
21 high reliability and usefulness<sup>35,37,38</sup>; one as having medium reliability and usefulness<sup>32</sup>; and  
22 three as of low reliability and usefulness.<sup>31,33,36</sup> One study was judged as having high  
23 reliability and medium usefulness<sup>34</sup> while two were judged as having low reliability but high  
24 usefulness.<sup>18,30</sup>

### 25 **Thematic synthesis of process evaluations**

1           **Theme 1: Collaboration with the community.** A major theme across a number of  
2 studies<sup>18,30,32,33,36-38</sup> was the importance of collaborating with local communities to support  
3 implementation. Sub-themes within this were: the importance of cultural sensitivity with  
4 ethnic minority communities; the challenges in building trust; and the importance of  
5 collaborating with communities and with schools.

6           *Importance of cultural sensitivity, collaboration and integration with ethnic*  
7 *minority communities.* The importance of cultural sensitivity and collaboration when  
8 implementing programmes in ethnic minority communities was a sub-theme across three  
9 studies,<sup>30,33,36</sup> all judged to be of low reliability but varying degrees of usefulness. These  
10 reported that formal and informal community engagement was a key factor in ensuring  
11 programmes were culturally sensitive, accessible and appealing to young people and their  
12 parents. This was particularly important when programmes were targeting or situated within  
13 marginalised ethnic minority populations. For example, in a process evaluation judged to be  
14 of high relevance but low reliability, Armstrong and Armstrong<sup>30</sup> reported from interviews  
15 with site coordinators delivering after-school programs in a south-western US state that a  
16 programme's cultural relevance within an "*ethnically diverse community*" meant that it was  
17 "*important to have a strong cultural awareness*" and was essential to the programme's  
18 success. This included both "*outreach projects with parents*" and with schools in the local  
19 area, and "*liaison ... with a trusted member of the community who could communicate with*  
20 *the parents, often times in Spanish*".<sup>30</sup>

21           Lee and colleagues'<sup>36</sup> study, though judged to be of both low reliability and relevance,  
22 corroborated this finding. In their evaluation of a PYD programme targeting the Aboriginal  
23 communities of the Northern Territory of Australia, they highlighted the importance of  
24 seeking and incorporating the views of the wider community, not just those of young people  
25 or parents. This, it was suggested, could provide support through the generation of ideas and

1 allay fears among minority ethnic groups that the programme was "*a non-Indigenous solution*  
2 *so there is little ownership of it by Indigenous people*".<sup>36 p.78</sup> Community consultation led to  
3 activities that were youth-orientated but culturally relevant, such as "*bush hunting excursions*  
4 *and using computers to record traditional music*". This study found that as the programme  
5 progressed, staff became more active in encouraging community members to get involved,  
6 including through "*engaging in regular formal meetings and informal discussion*" with  
7 members of the community.<sup>36 p.78</sup>

8 Lee and colleagues<sup>36</sup> also highlighted the importance of increasing both the cultural  
9 relevance and participation of the local community; addressing potential language barriers by  
10 "*translating key proceedings*" and communicating with indigenous members "*in their*  
11 *language*". Armstrong and Armstrong<sup>30</sup> also found instances where young people were only  
12 allowed to access and participate in the programme, because "*the parents were able to*  
13 *communicate with, and trusted the liaison*" officer connected with the programme.

14 In some cases, programmes actively recruited community members as staff. Lee and  
15 colleagues<sup>36</sup> described this as "*pivotal to the initiative's success*". Such actions could also be  
16 seen as providing the additional benefit of providing local role models. For example, after  
17 identifying a "*lack of Chicano Latino adult role models*" that could "*encourage, empower*  
18 *and develop leadership skills and qualities*" of local Chicano youth in Minnesota,  
19 programme providers in the low-quality study by Bloomberg and colleagues<sup>33</sup> trained local  
20 community members, as "*facilitators*" who could "*work closely with youth in the initial 2*  
21 *day training*" with the aim of establishing and maintaining a bond with them.

22 ***Challenges with community engagement and establishing trust.*** However, two  
23 studies<sup>18,37</sup> of differing quality noted challenges in relying on volunteer community  
24 engagement and establishing trust of parents. These were studies of interventions that did not  
25 specifically target diverse ethnic populations but attempted to involve parents and local

1 community members. For example, as reported by a study of high reliability and usefulness  
2 by Schwartz and colleagues,<sup>35</sup> successful implementation of an intervention component  
3 relying on volunteer mentors was challenging when mentors were not always reliable in  
4 maintaining contact, leaving participants feeling “*disappointed*”; as one young person said,  
5 she hoped her mentor “*would be there more than she was...and, and she wasn’t*”.

6 Building trusting and openly communicative relationships with parents could also be  
7 challenging. Maxfield and colleagues<sup>18</sup> studied the Quantum Opportunity Program,  
8 implemented in the United States, in a process evaluation judged as providing highly useful  
9 findings but with low methodological reliability. They found that trust and open  
10 communication were seen as important means of maintaining contact with young people and  
11 encouraging uptake of intervention activities. The case managers in this programme reported  
12 parents who appeared “*anxious to limit the exposure of family problems*”, who seemed to  
13 experience case managers as “*intrusive*”, or may have “*felt threatened*” by the mentoring  
14 relationships that case managers established with their children, were subsequently the most  
15 “*most difficult to reach*” compared to parents who actively supported case managers and  
16 “*reinforced the value of attending program activities*”.<sup>18 all quotes p.58</sup>

17 ***Collaborating with and utilising local community resources.*** Another sub-theme  
18 concerned with collaborations with others in the local community was the importance of  
19 collaboration with other community agencies to enable programme implementation. This was  
20 apparent in three studies<sup>18,30,32</sup> of variable reliability and usefulness. Armstrong and  
21 Armstrong<sup>30</sup> found that it was “*extremely important for the site to utilize community*  
22 *resources from a programmatic standpoint*” in order to expand the range of activities offered,  
23 a critical element of PYD. For example, local libraries proved to be an “*unplanned benefit*”  
24 that could help deliver a reading programme. Programme providers cited being able to host  
25 “*occasional large-scale events*” by “*taking advantage*” of a nearby Boys and Girls Club.<sup>30</sup>

1 Local funding bodies were considered another important local resource to support positive  
2 youth activities. This was the case in the study of medium reliability and relevance by Berg  
3 and colleagues<sup>32</sup> where the programme received a grant that “*enabled [young participants] to*  
4 *receive training in photography and show their work at a photography exhibit*”.

5 The importance of collaboration was also apparent in Maxfield and colleagues’<sup>18</sup>  
6 study of the Quantum Opportunity Program in which providers forged “*partnerships with*  
7 *agencies that specialized [in a range of life skills training topics] such as substance abuse*  
8 *prevention, conflict resolution training, date rape, and sexual abuse*”. The importance of  
9 being able to make use of other local services to maximise breadth of opportunities was  
10 regarded as particularly important to fill gaps in programme providers' expertise, such as  
11 when drawing on “*student volunteers from the local university*” to offer tutoring to support  
12 sites where case managers felt they lacked the skills to provide such services.<sup>18 p.64</sup>

13 ***Collaboration with schools.*** A final sub-theme regarding community collaboration  
14 highlighted that collaboration with schools, while critical to implementation, could be time-  
15 consuming and challenging. Three studies,<sup>18,30,38</sup> two based in the US and one in the UK,  
16 examined the importance of liaising with schools to support the successful implementation of  
17 programmes. All three studies were judged to be of high usefulness but variable in terms of  
18 methodological reliability. Site co-ordinators in Armstrong and Armstrong’s<sup>30</sup> study of after-  
19 school programmes in the south-western US indicated that communicating with other  
20 community stakeholders to support the development of youth “*such as schools, had an*  
21 *important impact on program implementation*”, particularly because they had a number of  
22 after-school programmes located off schools’ sites. One way of dealing with barriers to  
23 communication arising from this was to designate a school liaison, who could work across  
24 programme sites but who was an employee of a single school. The schools then also acted as

1 a channel to disseminate information about programme events to young people and their  
2 families in order to reach a wider audience and increase programme reach.

3 Wiggins and colleagues<sup>36</sup> study of after-school youth development targeting at-risk  
4 young people across England, which was judged to be of high reliability and usefulness, also  
5 found that “*working with schools was crucial*” for recruiting young people to programmes,  
6 though negotiating “*access and referral routes*” was time-consuming. In a context of  
7 providers aiming to meet challenging recruitment targets, some sites reformatted their  
8 programme so that young people attended as an alternative rather than a supplement to their  
9 normal schooling, a major distortion of the intended intervention model. Maxfield and  
10 colleagues<sup>18</sup> also reported that collaborations with schools in the Quantum Opportunity  
11 Program were subject to logistical challenges. When case managers who transported young  
12 people to the school where tutoring services were provided found it “*proved too*  
13 *burdensome*”, participants’ uptake of tutoring plummeted.

14 **Theme 2: Young people’s relationship with programme providers and peers.** The  
15 second major theme that was apparent across a number of studies<sup>18,34,35</sup> was the importance of  
16 young people’s relationships with programme providers and peers in maximising the  
17 acceptability and potential impact of interventions. Sub-themes within this were the  
18 importance of calm and authoritative providers and positive peer relations.

19 *Calm and authoritative programme providers.* One sub-theme was the importance of  
20 programme providers attending to young people in a calm and nurturing yet authoritative  
21 way, including in response to any challenging behaviour exhibited by participants. Three  
22 studies of varying reliability and usefulness described provider attitudes and responses to  
23 young people in this context. The ‘Stand Up Help Out’ programme was evaluated by Bulanda  
24 and McCrea<sup>34</sup> in a process evaluation judged as highly reliable and of medium usefulness.  
25 They reported that successful implementation was associated with staff signalling their

1 continued commitment to providing ‘*unconditional positive regard*’ when faced with  
2 challenging behaviour from young participants. It was reported that this response style was  
3 acceptable to the young people, who did not feel they were treated ‘negatively’.<sup>34</sup> Similarly,  
4 Maxfield and colleagues’<sup>18</sup> evaluation found evidence supporting the need for case managers  
5 to engage with young people as individuals rather than collectively as a group. They found  
6 that “*the most successful mentors used a balance between nurturing and discipline*” when  
7 interacting with young people.<sup>18 p.59</sup>

8 In contrast, Cross and colleagues<sup>35</sup> reported in what was judged a highly reliable and  
9 relevant study that staff struggled to respond to young people’s frequent challenging  
10 behaviour with “*very little redirection from staff members*” and a disciplinary approach that  
11 “*appeared capricious and confusing to youth*”.<sup>35</sup> In another site, the same evaluators, found  
12 staff to be “*irritated and apathetic*”, appearing to engage more with each other than  
13 interacting and addressing young people’s challenging behaviour.<sup>35</sup>

14 ***Positive peer relations.*** A further sub-theme was the importance of positive and  
15 supportive peer relations underpinned by staff and by programme structure, as examined by  
16 three studies of differing reliability and usefulness. For example, a high-quality study by  
17 Bulanda and McCrea<sup>34</sup> described a US after-school programme where social differences,  
18 such as membership of different “*street alliances*” that could be a cause of conflict outside of  
19 the programme, did not necessarily prevent mutual collaboration and support within the  
20 programme as long as participants were able to “*prioritize their connectedness over the*  
21 *potential discord created by differences*” and “*recognize relationship problems and focus on*  
22 *relationship strengths*”. However, Cross and colleagues<sup>35</sup> argued that tensions among  
23 participants or between participants and staff could only be overcome in sites that were well  
24 managed. A lack of organisation and high turnover of staff at one site within their study was a  
25 key factor in young people not seeming “*to enjoy each other’s company*” and that the

1 positive outcomes observed in another site, might be attributable to “*the friendships among*  
2 *students, which were in part facilitated by stable site management*”.<sup>35</sup>

3 Bloom et al.<sup>40</sup> described how the National Guard Youth Challenge Program separated  
4 participants who belonged to different gangs into different ‘squads’ and removed gang  
5 symbols such as tattoos that could act as “*physical reminders of past affiliations*”. While  
6 problems associated with gang membership were not always easily overcome, staff members  
7 did report that external problems were less likely to intrude during the residential phase of  
8 this programme, where they “*have them 24/7*” and can instil values that young people can  
9 them take “*home with them*”.<sup>40</sup> both quotes, p.37

10 **Theme 3: Staff retention.** Staff retention was another key theme evident across three  
11 studies<sup>18,30,35</sup> of differing reliability and usefulness. These studies reported on the importance  
12 of staff continuity to ensure programmes were implemented fully and appropriately, and the  
13 difficulty of offering full-time posts in the youth-work field.

14 ***Staffing continuity essential to successful implementation.*** Within this, a key sub-  
15 theme was the importance of staffing continuity to intervention delivery. As Armstrong and  
16 Armstrong<sup>30</sup> noted, after-school programme site co-ordinators felt that effective  
17 implementation and sustainability relied on minimising staff turnover. This was a challenge  
18 for some programmes. However, in the after-school programme Cross and colleagues<sup>35</sup>  
19 evaluated, “*six of the original fourteen staff members quit or were fired before the end of the*  
20 *year*”. Similarly, Lee and colleagues<sup>36</sup> reported that turnover of staff “*impacted significantly*  
21 *on program continuity and workloads*”. Maxfield and colleagues<sup>18</sup> observed that they were  
22 “*fortunate [that] turnover [in certain sites] was relatively low*”. However, staff turnover led  
23 to a failure in sustaining mentoring relationships when unfilled staff positions resulted in  
24 participants not having a “*primary mentor for as long as two or three months*”, and when  
25 participants had multiple case managers.



1           ***Difficulty offering full-time posts in the youth work field.*** Across a number of  
2 studies, the lack of full-time positions increased the challenge of securing and retaining  
3 qualified staff. To overcome this, Armstrong and Armstrong<sup>30</sup> report how one programme  
4 aimed to recruit staff who were not looking for full-time work, such as college students  
5 interested in gaining experience of youth work. Difficulties with retaining trained employees  
6 could also mean that replacement staff were not well trained. Cross and colleagues<sup>35</sup> report  
7 that youth workers who had been retained since programme initiation “*received more than 40*  
8 *h[ours] of training on average*” compared to those who had replaced them, who “*received*  
9 *less than 6 hours*” and that sites with high employee turnover were less likely to have staff  
10 who were highly trained because it was not possible to offer them the original training.

11           Creative attempts to compensate for lack of trained staff included drawing on existing  
12 skills that happened to be held by staff members and incorporating these opportunistically  
13 into programme activities. For example, Armstrong and Armstrong<sup>30</sup> observed that at one site  
14 an employee “*with extensive orienteering skills*” was encouraged “*to organize camping trips*  
15 *and day hikes for youth*”, and that at an another site, a staff-member “*who enjoyed jazz*  
16 *dancing started a dance program*”.

17           However, two studies<sup>18,37</sup> reported that it was difficult to overcome limitations in  
18 skills due to a lack of training, leading to an inability to provide the range of activities  
19 normally expected of a PYD programme. For example, Bloom and colleagues<sup>40</sup> a paper reporting on  
20 the study by Schwartz et al. 2013 found that provision of individual tutoring was impossible to  
21 implement because of lack of tutor capacity and had to be “*abandoned midway through the*  
22 *year*”. The authors felt that despite providing an alternative academic activity, the lack of  
23 one-to-one tutoring may have “*contributed to withdrawal of youths whose parents viewed*  
24 *tutoring as the main draw of the program*”.<sup>40 p.54</sup> In addition, Maxfield and colleagues<sup>18</sup>  
25 reported that programmes found it difficult to secure staff with expertise across the range of

1 PYD domains. For example, programmes expanded to include an educational component  
2 challenged staff “*hired on the basis they could be case managers not tutors or teachers*” and  
3 who “*required extensive training and technical assistance*”. Other sites that did not provide  
4 “*extensive in-service training to improve case managers’ tutoring skills*” relied on volunteer  
5 tutors instead, though these volunteers tended only to work for the programme for “*one or*  
6 *two semesters*”.<sup>18</sup>

7 **Theme 4: Youth led empowerment.** Our final theme drawn from five  
8 studies<sup>18,31,32,35,37</sup> concerns the importance of, and potential contradictions and challenges  
9 inherent in, ensuring young people are empowered to make decisions about their engagement  
10 in programme activities. Sub-themes concerned young people determining their own  
11 engagement, limitations to such choices and tensions arising from choice.

12 ***Young people determining their own engagement in activities.*** One sub-theme  
13 within this relates simply to the extent to which young people were empowered to choose in  
14 which PYD activities to participate. This was described in three studies of variable reliability  
15 and usefulness. Berg and colleagues<sup>32</sup> described youth empowerment as a key component in  
16 their Youth Action Research for Prevention programme and suggested that staff needed to be  
17 trained in “*facilitation techniques*” to halt the tendency for staff to determine decisions about  
18 how community engagement is undertaken. Young people’s decision-making processes were  
19 considered more important than their final choice of activity in Baker and colleagues’<sup>31</sup> study  
20 of the South Baltimore Youth Centre. The evaluation, judged as being of low reliability and  
21 relevance, reported that when activities were “*imposed [ in a] top down [manner they] failed*  
22 *and were abandoned*” and thus providers aimed to give young people authority in developing  
23 and executing activities. Schwartz and colleagues’<sup>19</sup> study of youth-initiated mentoring found  
24 that when young people were able to choose their mentors, the mentoring relationship was  
25 more likely to be successful.

1           ***Limitations to choice provided.*** In contrast, two studies judged as highly reliable  
2 reported that young people in some interventions had very limited empowerment to shape  
3 and determine their involvement. For example, empowerment in the ‘All Stars’ curriculum<sup>35</sup>  
4 was highly restricted. In this study, also judged to be of high usefulness, young people’s  
5 choices were restricted to a list predetermined by the site director and programme assistant at  
6 the start of each day. Empowerment was also restricted in the programme evaluated by  
7 Schwartz and colleagues.<sup>19</sup>

8           ***Tensions arising from choice.*** Another sub-theme was the tensions that could arise  
9 when empowering young people to choose which activities in which to engage. Four studies,  
10 judged to be of high relevance with variable reliability, provided data on young people’s  
11 choice of activities, finding that some programme components were often rejected by young  
12 people on the basis that they were unappealing. Sometimes these were activities with a  
13 learning component, such as “*computer-assisted instruction*” and “*community service*”,  
14 which were not received with “*enthusiasm*”.<sup>18</sup> all quotes, p.62 This was also the case for  
15 “*computerised job training*” which was “*ignored*”<sup>31</sup> p.73 and academic assistance.<sup>35</sup> Wiggins  
16 and colleagues<sup>36</sup> argue that an academic style could alienate young people, particularly those  
17 whose lives are “*chaotic and hard*” and suggest that young people need to be able to get  
18 involved in activities at a level that is “*most appropriate for them at any given time*”. This  
19 might suggest the importance of a diversity of provision, not only to enable choice but also  
20 because different young people will have different preferences and developmental needs.

21           However, whereas some process evaluations, as well as much of the theoretical  
22 literature, suggested that young people’s empowerment to choose activities is central to PYD,  
23 process evaluation of the Quantum Opportunity Program<sup>18</sup> suggested that facilitating choice  
24 may in some cases deter engagement in the broad range of activities, which is also commonly  
25 regarded as a central feature of PYD. This study, judged to be of low quality but high

1 relevance, reported that some sites offered more recreational activities (such as outings to the  
2 cinema, swimming, etc.) because they attracted *”more enrollees than did other activities”*.  
3 However, as young people got older they resisted staff’s promotion of *“activities with*  
4 *learning content”* and continued to favour recreational activities that providers had originally  
5 used *“to attract youth to the program”*. Participants reported *“that they missed doing “fun*  
6 *things” and that museum and other cultural activities were boring”*. Similarly, when there  
7 was a scheduling clash between attending summer school and taking up summer  
8 employment, case managers were more likely to recommend summer school, but ultimately,  
9 they were *“not able to prevent an enrollee from choosing [paid work]”*. This contrasted with  
10 programme sites that provided a balanced combination but offered participants little choice,  
11 which appeared to have *“less difficulty in maintaining interest”* of young people. A lack of  
12 choice could be received positively by participants when it offered them something new.  
13 Participants in the National Youth Guard mentoring programme *“welcomed the small class*  
14 *size, tailored instruction, and self-paced approach”*<sup>40 p.48</sup> of the high school completion  
15 programme. The authors noted that a key element of the success of their educational  
16 component was that it was noticeably different from what young people were used to  
17 experiencing in school, as it combined both structure and individual support.

18 Maxfield and colleagues<sup>18</sup> reported that some sites provided financial incentives to  
19 increase engagement in specific educational activities, such as computer-assisted instruction  
20 and assessment tests. However, the two sites that took these approaches found that it was  
21 *“effective for only short periods of time and only for students already inclined to spend time*  
22 *on the computer”* and did not prove effective in motivating already resistant young people.  
23 The use of incentives was also reported as problematic by Cross and colleagues.<sup>35</sup> To  
24 increase engagement in programme activities, young people were randomly assigned to  
25 groups that accrued points for attendance. However, programme staff thought the system

1 unfair and decided to place high-attending youth together “*to ensure the attending students*  
2 *would receive the maximum points*” thus undermining the intended system. This “*probably*  
3 *did not encourage attendance among the lower attending youth because they were placed in*  
4 *groups with very low probabilities for receiving points*”<sup>15</sup>, all quotes p.52-3 a paper reporting on the study by  
5 Cross, 2010 In both of these programmes using incentives, there was a tension in providers’  
6 attitudes to empowerment. Although programme providers wanted to enable choice, they also  
7 sometimes wanted to constrain choice to ensure young people engaged in the programme  
8 overall or in specific activities staff regarded as important.

### 9 **Conclusions**

10 A number of themes emerged from our synthesis. Formal and informal community  
11 engagement was a key factor in ensuring programmes were culturally sensitive, accessible  
12 and appealing to young people and their parents, as well as the wider community. Employing  
13 community members could be pivotal to successful implementation and providing role  
14 models. However, volunteers could be unreliable, for example, when acting as mentors.  
15 Collaboration with other community agencies could also be important particularly in  
16 expanding the range of activities being offered. Another theme was the importance of young  
17 people’s relationships with providers and peers. Providers should ideally relate to young  
18 people in a calm, nurturing yet authoritative way. Peer support was also important, sometimes  
19 in the face of challenges with social differences among young people, such as in membership  
20 of different gangs. Skilled providers could bridge these social differences by helping  
21 participants recognize common ground, but this was difficult where staff were poorly trained.

22 More generally, staff continuity was reported to be critical for PYD since such  
23 programmes require staff with a diversity of skills and experiences who can offer participants  
24 a range of activities as well as durable relationships. Retention was challenging where  
25 programmes, mostly operating after school or at weekends, could not offer full-time

1 positions. A final theme concerns the importance of, and challenges with, ensuring young  
2 people were empowered to make decisions about programme activities. This required that  
3 staff were trained in facilitation rather than merely being directive. Tensions could arise  
4 between PYD's aims of empowering young people to choose and when requiring them to  
5 engage in different activities to develop specific assets, such as vocational or academic skills.

## 6 **Limitations**

7 A limitation of the review was that it omitted potentially includable studies not written in  
8 English or published before 1985. The preponderance of US evaluations means that the  
9 generalisability of the evidence in our synthesis remains uncertain. This, coupled with the  
10 poor reliability and lack of interpretative depth of most of the studies means that it is likely  
11 that studies, and therefore our synthesis, may have missed important and relevant contextual  
12 determinants of implementing PYD programmes. **The qualitative studies included in this**  
13 **review drew on subjective accounts and offered rich explanations of the processes for how**  
14 **context might affect implementation.** The review found no **quantitative analyses of what**  
15 **correlations exist between measures of context and implementation. Future implementation**  
16 **studies should use mixed methods to examine these questions of both what and how.**

17

## 18 **Implications for research, policy and practice**

19 Future process evaluations of the implementation of PYD programmes should be  
20 conducted more rigorously and reported more transparently. Increased use of direct quotes of  
21 staff or young people's views would contribute to transparency.

22 Our synthesis of evidence on the effectiveness of PYD programmes to reduce or  
23 prevent violence and substance use found no evidence overall that these are effective. The  
24 interventions included in this review varied notably in their fidelity of intervention. The  
25 synthesis presented here identifies a number of factors which are likely to be critical for

1 successful implementation of PYD either when delivered within intervention studies or when  
2 scaled up. Greater awareness of these factors might enable better implementation and greater  
3 acceptability, and possibly enhanced effectiveness, of future PYD interventions.

4           The critical factors we identified include valuing and encouraging community  
5 engagement in the delivery of PYD programmes. Specific efforts to mobilise the community  
6 should focus on: adequately training and supporting community members as volunteers in the  
7 delivery of PYD, increasing its cultural sensitivity and appeal to young people. At the outset,  
8 programme funders and providers should engage with the challenges of establishing a highly  
9 skilled work force that can implement PYD programmes, considering the numerous  
10 challenges to recruiting, training and retaining practitioners who are often being offered part-  
11 time work, of potentially low wage, and for time-limited periods. Given the breadth of the  
12 types of activities PYD aims to deliver, there is a high chance that programme providers will  
13 also need to collaborate with other local agencies, such as schools, libraries or community  
14 health initiatives. A balance is required between empowering young people to choose which  
15 activities they wish to engage in, focusing their attention on particular activities of interest to  
16 the programme aims, and offering a diversity of activities overall.

17

1           **So what? Implications for health promotion practitioners and researchers**

2   **What is already known about this topic?**

3           Positive youth development (PYD) interventions aim to develop positive assets such  
4 as resilience, social and emotional competencies and aspirations and to use these assets to  
5 address multiple inter-correlated risk behaviours, including tobacco, alcohol and drugs use  
6 and violence.

7   **What does this article add?**

8           Our systematic review and synthesis of process evaluations suggests that community  
9 engagement, collaboration with other agencies, and the recruitment and retention of calm but  
10 authoritative staff are key to successful implementation. But staff retention staff is a  
11 challenge with part-time contracts and limited funding. The PYD imperative of empowering  
12 participants is sometimes in tension with the imperative to engage participants in diverse  
13 activities.

14   **What are the implications for health promotion practice or research?**

15           Addressing these factors might enable PYD to fulfil its potential as a means of  
16 promoting health. At **the** program outset, funders and planners should establish a highly  
17 skilled workforce and mobilise the community including by training and supporting  
18 community members as volunteers and increasing cultural sensitivity and appeal to young  
19 people.

20



## References

1. Catalano RF, Berglund LM, Ryan JAM, Lonczak HS, Hawkins JD. Positive Youth Development in the United States: Research Findings on Evaluations of Positive Youth Development Programs. *Programs. Prevention & Treatment*. 2002;5(1):1-166.
2. Jackson C, Sweeting H, Haw S. Clustering of substance use and sexual risk behaviour in adolescence: analysis of two cohort studies. *British Medical Journal Open*. 2012;2:e000661.
3. Buck D. *Clustering of unhealthy behaviours over time*. London: The King's Fund; 2012.
4. Gavin L, Catalano R, David-Ferdon C, Gloppen K, Markham C. A review of positive youth development programs that promote adolescent sexual and reproductive health. *Journal of Adolescent Health*. 2010;46(3 Suppl):S75-91.
5. Roth J, Brooks-Gunn J. Promoting healthy adolescents: synthesis of youth development program evaluations *Journal of Research on Adolescence*. 1998;8(4):423-459.
6. National Youth Agency. *The NYA Guide to Youth Work in England*. Leicester: National Youth Agency; 2007.
7. Benson P, Scales P. Positive youth development and the prevention of youth aggression and violence *European Journal of Developmental Science*. 2009;3(3.):218-234.
8. Roth J, Brooks-Gunn J. Youth development programs: risk, prevention and policy. *The Journal Of Adolescent Health: Official Publication Of The Society For Adolescent Medicine* 2003;32(3):170-182.
9. Schwartz S, Pantin H, Coatsworth J, Szapocznik J. Addressing the challenges and opportunities for today's youth: toward an integrative model and its implications for research and intervention. *The Journal Of Primary Prevention*. 2007;28(2):117-144.
10. Catalano RF, Hawkins JD, Berglund ML, Pollard JA, Arthur MW. Prevention science and positive youth development: competitive or cooperative frameworks? . *Journal Of Adolescent Health*. 2002;31(6 Suppl):230-239.
11. Philliber S, Kaye JW, Herrling S, West E. Preventing pregnancy and improving health care access among teenagers: an evaluation of the Children's Aid Society-Carrera Program. *Perspectives on Sexual and Reproductive Health*. 2002;34(5):244-251.
12. Bonell C, Dickson K, Hinds K, et al. The effects of Positive Youth Development interventions on substance use, violence and inequalities: systematic review of theories of change, processes and outcomes Public Health Research *Public Health Research* in press.
13. Gough D, Oliver S, Thomas J. *An Introduction to Systematic Reviews*. London: Sage Publications 2012.
14. Moore GF, Audrey S, Barker M, et al. Process evaluation of complex interventions: Medical Research Council guidance *British Medical Journal Open*. 2015;350(h1258.).
15. Gottfredson DCA, Wilson D, Connell N, Rorie M A *Randomized Trial of the Effects of an Enhanced After-School Program for Middle-School Students*. 2010.

- 1 16. Kuperminc GP, Thomason J, DiMeo M, Broomfield-Massey K. Cool Girls, Inc.:  
2 promoting the positive development of urban preadolescent and early adolescent girls.  
3 *The Journal Of Primary Prevention*. 2011;32(3-4):171-183.
- 4 17. Rodriguez-Planas N. Longer-Term Impacts of Mentoring, Educational Services, and  
5 Learning Incentives: Evidence from a Randomized Trial in the United States.  
6 *American Economic Journal-Applied Economics*. 2012;4(4):121-139.
- 7 18. Maxfield M, Castner L, Maralani V, Vencill M. *The Quantum Opportunities Program*  
8 *Demonstration: Implementation Findings*. Mathematica Policy Research Inc;;2003.
- 9 19. Bonell C, Thomas J, Campbell R, Murphy S, Fletcher A. The effects of positive youth  
10 development interventions on substance use, violence and inequalities: systematic  
11 review of theories of change, processes and outcomes. *PROSPERO*  
12 *2013:CRD42013005439 Available from*  
13 [http://www.crd.york.ac.uk/PROSPERO/display\\_record.asp?ID=CRD42013005439](http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42013005439)  
14 2013.
- 15 20. Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group. Preferred  
16 Reporting Items for Systematic Reviews and Meta Analyses: The PRISMA  
17 Statement. *PLoS Med*. 2009;6(7).
- 18 21. Hummel S, Naylor P, Chilcott J, Guillaume L, Wilkinson A, Blank L. *Cost*  
19 *effectiveness of universal interventions which aim to promote emotional and social*  
20 *wellbeing in secondary schools: report for NICE* Sheffield: University of Sheffield;  
21 2009.
- 22 22. Durlak JA, Weissberg RP, Dymnicki AB. The impact of enhancing students' social  
23 and emotional learning: a meta-analysis of school-based universal interventions. *Child*  
24 *Development*. 2011;82(1):405-432.
- 25 23. Peersman G, Oliver S, Oakley A. *EPPI-Center Review Guidelines: Data Collection*  
26 *for the EPIC Database*. London: EPPI-Centre, Social Science Research Unit, Institute  
27 of Education, University of London; 1997.
- 28 24. Shepherd J, Harden A, Rees R, et al. *Young People and Healthy Eating: A systematic*  
29 *review of barriers and facilitators*. London: EPPI-Centre, Social Science Research  
30 Unit; 2001.
- 31 25. Arai L, Roen K, Roberts H, Popay J. It might work in Oklahoma but will it work in  
32 Oakhampton? Context and implementation in the effectiveness literature on domestic  
33 smoke detectors. *Inj Prev*. 2005;11:148-151.
- 34 26. Noyes J, Popay J, Garner P. What can qualitative research contribute to a Cochrane  
35 systematic review of DOT for promoting adherence to tuberculosis treatment? .  
36 Qualitative Research and Systematic Reviews workshop; 28-29 June, 2005;  
37 Continuing Professional Development Centre, University of Oxford.
- 38 27. Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in  
39 systematic reviews. *BMC Medical Research Methodology*. 2008;8:45.
- 40 28. Schutz A. *Collected Papers* Vol 1. The Hague Martinus Nijhoff; 1962.
- 41 29. Crabtree B, Miller WL. . Using codes and code manuals: A template organizing style  
42 of interpretation. . In: Crabtree BF MW, ed. *Doing Qualitative Research* Vol 2nd.  
43 Thousand Oaks, CA: Sage; 1999:163-178.

- 1 30. Armstrong T, Armstrong G. The Organizational, Community and Programmatic  
2 Characteristics that Predict the Effective Implementation of After-School Programs.  
3 *Journal of School Violence*. 2004;3(4):93-109.
- 4 31. Baker K, Pollack M, Kohn I. Violence prevention through informal socialization: An  
5 evaluation of the South Baltimore Youth Center. *Studies on Crime & Crime*  
6 *Prevention*. 1995;4(1):61-85.
- 7 32. Berg M, Coman E, Schensul J. Youth Action Research for Prevention: a multi-level  
8 intervention designed to increase efficacy and empowerment among urban youth.  
9 *American Journal Of Community Psychology*. 2009;43(3-4):345-359.
- 10 33. Bloomberg L, Ganey A, Alba V, Quintero G, Alcantara Linda A. Chicano-Latino  
11 Youth Leadership Institute: an asset-based program for youth. *American Journal Of*  
12 *Health Behavior*. 2003;27 Suppl 1:S45-S54.
- 13 34. Bulanda J, J., McCrea K, T. The promise of an accumulation of care: Disadvantaged  
14 African-American youths' perspectives about what makes an after school program  
15 meaningful. *Child & Adolescent Social Work Journal*. 2013;30(2):95-118.
- 16 35. Cross AB, Gottfredson DC, Wilson DM, Rorie M, Connell N. Implementation quality  
17 and positive experiences in after-school programs. *American Journal of Community*  
18 *Psychology*. 2010;45(3-4):370-380.
- 19 36. Lee K, Conigrave K, Clough A, Wallace C, Silins E, Rawles J. Evaluation of a  
20 community-driven preventive youth initiative in Arnhem Land, Northern Territory,  
21 Australia. *Drug and Alcohol Review*. 2008;27(1):75-82.
- 22 37. Schwartz S, E.O., Rhodes J, E., Spencer R, Grossman J, B. Youth initiated mentoring:  
23 investigating a new approach to working with vulnerable adolescents. *American*  
24 *Journal of Community Psychology*. 2013;52(1-2):155-169.
- 25 38. Wiggins M, Bonell Christopher P, Burchett H, et al. *Young People's Development*  
26 *Programme evaluation: final report*. University of London. Institute of Education.  
27 Social Science Research Unit; 2008.
- 28 39. Cross AB, Gottfredson DC, Wilson DM, Rorie M, Connell N. The impact of after-  
29 school programs on the routine activities of middle-school students: Results from a  
30 randomized, controlled trial. *Criminology & Public Policy*. 2009;8(2):391-412.
- 31 40. Bloom D, Gardenhire-Crooks A, Mandsager, C. *Reengaging High School Dropouts*  
32 *Early Results of the National Guard Youth ChalleNGe Program Evaluation* New  
33 York MDRC;2009.

34

1 **Figure captions**

2 **Figure 1.** Flow of studies through the review

**Table 1. Description of included studies.**

Study	Country	Characteristics of the programme					Methods of evaluation
		Description	Target group	Setting & Provider	Content	Length	
Armstrong et al., 2004	US; City in the southwest	Supervised after-school program	At risk youth	After-school sites; Parks, Recreation, and Libraries Department	Life skills, educational support, healthy living skills, social and peer interaction, physical activity, cultural awareness, and fine arts and locally relevant programme activities	Not stated	<b>Qualitative:</b> In-depth interviews; and non-participant observation Data analysis:
Baker et al., 1995	US; Baltimore	A violence, substance abuse and delinquency prevention program	At risk youth (of violence, delinquency or substance abuse)	After school youth centre; South Baltimore Youth Center	Safe space to engage in positive social activities; job training and included; case management, mentoring, tutoring and community involvement; outreach and collaboration with other agencies	Not stated	<b>Qualitative:</b> Unstructured interviews and focus groups
Berg et al., 2009	US; Hartford	Youth Action Research for Prevention (YARP)	14 to 16 year olds	Community-based after-school and summer programme; Prevention research educators	Participatory action research in the form of formative community ethnography where participants were trained to identify adolescent risk behaviours, develop a collective action plan, and carry out group activities, including using research to understand their community	8 months	<b>Mixed methods</b> <b>Qualitative:</b> Staff interviews ethnographic observation, youth focus groups and youth self-reflection <b>Quantitative:</b> Quasi-experimental (pretest and posttest)
Bloomberg et al., 2003	US; Minnesota	Chicano Latino Youth Leadership Institute	12-17 year olds	Community; Prevention and health community division	Leadership opportunities through conference presentations and specific youth service projects.	Unstated	<b>Qualitative:</b> Focus groups and youth reports
Bulanda et al., 2013	US; Chicago	Stand Up Help Out (SUHO); leadership development After-School program	African-American youth living in socio-economically disadvantaged neighbourhoods	Schools and community; School and graduate social work students	Paid social work apprenticeship. Activities also included mentoring children, conflict resolution, planning community health and safety fairs, college tours. Counselling available.	Not stated	<b>Qualitative:</b> Youth reports, roundtable discussions, interviews and participant observations

Cross et al., 2010	US: East coast	The All Stars prevention curriculum: an enhanced after-school program	11 to 14 year olds	Middle schools; Government agency providing recreation and leisure activities	Leisure activities, e.g. fitness activities, board games, arts and crafts, field trips, computer projects, computer time, service learning, workforce skills, and holiday and special events celebrations	3 days per week, for 3 hours	Mixed methods Qualitative: Routine documents and data, participant survey and site observations Quantitative: Experimental (pretest and posttest)
Lee et al., 2008	Australia	A community-driven youth initiative	All young people in the community	Community; Programme co-ordinator, case worker and Indigenous youth worker	Diverse activities: including youth leadership opportunities, youth and community festivals, sporting carnivals and health promotion	Not stated	Qualitative: Interviews, document analysis and staff diaries
Maxfield et al., 2003	US: various states	Quantum Opportunities programme	14 year olds	Schools and community-based organisations	Intensive case management, mentoring and educational, developmental, recreational cultural and community based activities	14 hours per week; for up to 5 years	Mixed methods Qualitative: Observational site visits Quantitative: Experimental (pretest and posttest)
Schwartz et al., 2013	US	The National Guard Youth Challenge Program Youth initiated mentoring (YIM) programme	Youth ages 16–18	Community; National Guard members	Two-week orientation / assessment followed by a 20-week residential phase. Classes on academic learning, life skills, health, and job skills. Other activities included physical training, sports, leadership, community service and citizenship activities. Post-residential phase: participants set and fulfil education vocational training or employment development plan	Full-time residential: 5 months, post-residential: 1 Year	Qualitative: semi-structured interviews Quantitative: Quasi-experimental (pretest and posttest)
Wiggins et al., 2008	UK	Youth service providers	Young people aged 13-15 at risk of teenage pregnancy,	Youth centres after school; Community youth services	Overall activities: young people's health, education and social development. Individual project activities also including: education,	6-10 hrs weekly provision for a year	Qualitative: Routine monitoring data, questionnaires and interviews with

			substance use or school drop out		training/employment opportunities, life skills, mentoring, volunteering, health education, arts and sports, and advice on accessing service		young people, staff, focus groups, and site observations. Quantitative: Experimental (pretest and posttest)
--	--	--	----------------------------------	--	---	--	--

**Table 2.** Reliability and usefulness of findings.

Study	Quality of Evidence					
	Reliability of findings			Usefulness of findings		
Author	Low	Medium	High	Low	Medium	High
Armstrong and Armstrong <sup>30</sup>	✓					✓
Baker et al. <sup>31</sup>	✓			✓		
Berg et al. <sup>32</sup>		✓			✓	
Bloomberg et al. <sup>33</sup>	✓			✓		
Bulanda and McCrea <sup>34</sup>			✓		✓	
Cross et al. <sup>35</sup>			✓			✓
Lee et al. <sup>36</sup>	✓			✓		
Maxfield et al. <sup>18</sup>	✓					✓
Schwartz et al. <sup>37</sup>			✓			✓
Wiggins, et al. <sup>38</sup>			✓			✓