January 2007

A scoping review of the evidence relevant to life checks for young people aged 9 to 14 years

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Thanks to members of the EPPI-Centre Health Promotion and Public Health Reviews Facility for helpful advice, and comments on this scoping review.

The work described in this report is undertaken by the EPPI-Centre which receives funding for a specific programme of work from the Department of Health, England (DH). The views expressed in the report are those of the authors and not necessarily those of the DH.

This report should be cited as Harden A, Kavanagh J, Powell C, Oliver K, Oakley A (2007*) A scoping review of the evidence relevant to life checks for young people aged 9 to 14 years*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Author contributions

The proposal for this scoping review was developed by AH, JK and AO. Searching, screening, coding and analysis were undertaken by AH, JK, CP and KO. The report was written by AH, JK, CP and AO.

ISBN 978-0-9554810-1-7

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Background and aims

Life checks - emotional and physical health check ups followed by feedback, advice and support - have been proposed by the English Department of Health (DH) as a personalised service providing support and advice at key stages throughout the lifespan to help people to maintain and improve their health. A set of transitional stages has been identified as the most appropriate for life checks to take place, and, for young people, the proposed key stage for a life check is the transition between primary and secondary school at the ages 11 to 12 years. This report is the result of a scoping review commissioned by the DH. The review aimed to identify the size and scope of the available research evidence relevant to the life check proposal for young people. Of particular interest was evidence about the effectiveness of life checks within and outside school settings, evidence about the acceptability of life checks to young people, and evidence about optimising uptake of the life check.

Methods

We identified three bodies of literature in which we might find relevant evidence: health promotion and public health; resilience and wellbeing; and youth transitions. When searching, we also considered the concepts of 'health literacy' and 'health trainers'. We searched for relevant studies published in the last 10 years within a range of bibliographic databases, specialist registers and websites across the health and social sciences. Eligible studies were those that (a) focused on the provision of a health and/or emotional wellbeing check-up followed by feedback, advice, support, referral and/or the development of personal health plans; and (b) focused on young people aged 9 to 14 years. Relevant studies were coded using a standardised strategy on the basis of information presented in abstracts. This strategy covered study design, country, health focus, study population, intervention setting, intervention provider, and type of intervention.

Results

We identified a total of 70 relevant studies from 13 different countries around the world. Just under half the total number of studies identified (N=34) were evaluations of the impact of interventions on health and other outcomes, suggesting a small but significant body of literature which could potentially provide evidence on the likely effects of the life-check proposal. The body of evidence was spread evenly according to effectiveness in school settings and effectiveness outside school settings. We identified a small number of surveys (N=12) which offered either evidence about the acceptability of the life check to young people or how to optimise uptake of the life check. This smaller amount of evidence on acceptability and uptake was supplemented by a number of outcome evaluations which had also studied acceptability and uptake issues. We also found several studies which had developed and/or evaluated screening tools for young people (N=15). These may have relevance for the assessment stage of the proposed life check. The remainder of the 70 studies were reviews which looked as though they might offer relevant information (N=9). While five of these reviews appeared to be

systematic reviews, none exactly matched the topic, intervention and population focus of this scoping review.

The scope of the interventions reported in the outcome evaluations ranged from a fairly narrow focus on single issues (such as physical activity or asthma) to more broad-ranging assessments of health behaviours and/or emotional health and wellbeing. Many of the interventions involved nurses who undertook some form of assessment and/or provided follow-up guidance and advice. Other providers were family doctors and specialists, such as school counsellors or dentists. The location of the interventions was fairly evenly split between schools and health-care settings. Where the information was available, it appeared that most young people were offered tailored advice or individual health plans following their health check. Most of the studies targeted young people in general, although a small number focused on young people from disadvantaged groups or reported their results stratified by age, gender or socio-economic group. There was limited evidence available from the UK, as only four outcome studies evaluated interventions implemented in this country.

The kinds of interventions evaluated varied in terms of how closely they matched the proposed life check. Some studies evaluated interventions in which young people were invited to take part in 'one-off' assessments to assess their physical health, health behaviours and/or emotional health and wellbeing. These took place in schools or in health-care settings, usually in primary care. Other studies evaluated periodic health check-ups offered to all children in a particular school, area or country. It was not always clear what these periodic health checks covered. In some studies, the health check was used as an opportunity to screen for more specific health problems or behaviours, such as diabetes or oral health behaviour; while, in other studies, the health check was used as an opportunity to discuss health behaviours, lifestyle and/or emotional health more generally. A variation on this theme was a check-up for young people before they participated in school sports. Again, in some of these studies, the 'pre-participation' exam was used to screen for specific problems, such as asthma; in others, it was used as an opportunity for health-promoting activities. Despite searching the transitions literature, we only identified one study which offered a life-check style intervention to help young people negotiate the transition between primary and secondary school.

Conclusion

The results of this scoping review suggest a small, but nonetheless substantive, body of research evidence relevant to the life-check proposal for young people. Although searches were systematic and comprehensive, they were not exhaustive, so the results of this scoping review may represent an underestimate of the total body of relevant literature. On the other hand, because the review is based on titles and abstracts of study reports only, we may have deemed some studies as relevant which may on inspection of the full report turn out to be irrelevant. The scoping review has highlighted that the available research evidence can address questions about the effectiveness, acceptability and uptake of the life check. It was not in the remit of this review to assess the quality of this evidence and synthesise the findings. A full systematic review would be required for this task. The commissioning of such a review would need to consider supplementary searching methods and the relevance to the life-check proposal of the different types of interventions identified in this scoping exercise. Since we found studies evaluating life check style interventions in a variety of settings and

according to a range of outcomes, such a review could also consider where the life checks might be best located (school, health services, community or the home) and the most relevant outcomes of interest. Such a review would also need to appraise both the potential benefits and harms of intervening in young people's lives during their transition years.

1. BACKGROUND

There is increasing recognition of the link between health and the way people live their lives, and the opportunities available to them (Department of Health, 2004). Patterns of health and other behaviours are established early in life and may in later years affect people's health, negatively or positively. In consultations for the Department of Health's *Our Health, Our Care, Our Say* White Paper, people identified emotional health and wellbeing as being equally important as physical health in enabling them to get the most out of life (Department of Health, 2006, p 35). The importance of addressing resiliency and emotional health alongside physical health has been recognised, particularly for young people, with an estimated 10%-20% of children and young people in the UK experiencing mental health problems (Young Minds, 2006).

Life checks have been proposed for England as a personalised service providing support and advice at key stages throughout the lifespan to help people maintain and improve their emotional and physical health (Department of Health, 2006). A set of transitional stages have been identified as the most appropriate stages for life checks to take place. These include the postnatal examination, GP registration, the teenage years, and the over 75s (Hainsworth, 2006). For young people, the proposed key stage for a life check is the transition between primary and secondary school at the ages 11 to 12 years. The plan is to pilot life checks at the start of 2007 at demonstration sites around the country.

Traditionally, children and young people have been offered screening, immunisations and physical examinations at key developmental stages of their lives. Recently, the need for a more holistic form of support, addressing the broader range of issues faced by children and young people, has been recognised. The *Choosing Health* report describes proposals to achieve this through its Child Health Promotion Programme:

> *The new programme moves on from a narrow focus on health screening and developmental reviews to a more broad-based programme of support to children and their families that will help address the wider determinants of health and reduce health inequalities.* (Department of Health, 2004, p 44)

The Scottish Executive has also released guidance on child health proposals, based on recommendations made in the latest edition of the Royal College of Paediatrics and Child Health's review of child health surveillance, *Health for All Children* (Hall and Elliman, 2003). This guidance recommends a reduction in the number of universal routine contacts and developmental checks for school age children in order to release capacity for additional intensive support for those most in need (Scottish Executive, 2003). The guidance recommends that primary care workers use each contact with young people as an opportunity for health surveillance, that teachers are tasked with identification of problems, and that a more proactive approach by school nurses is taken in assessing and meeting needs.

Children and young people have been identified as being particularly in need of support during their transition into teenage years. The document *Youth Matters*

proposed to offer young people a 'personal health MOT'[1] at the transition between primary and secondary education, with an emphasis on enabling young people to explore their emotional wellbeing as well as their physical health (Department for Education and Skills, 2005b). The Scottish Executive has also established a programme to support young people through the 'teenage transition' (Scottish Executive, 2003). In a literature review commissioned by the Health Education Board in Scotland, Furlong (2002) reviewed the youth transitions literature and health implications, outlining the increasing complexities involved in the areas of psychosocial and health outcomes, and the subsequent difficulties in unravelling these relationships. Slootmaker (2005) also identified adolescence as a transitional period and explored the potential for targeting adolescents at this stage through multi-media.

The concept of the life check is relatively new, and has not yet been fully defined. Questions of setting, intervention provider, and appropriate content have yet to be addressed fully, as has the essential and central query of effectiveness. Existing interventions, such as pre-school immunisation and vision screening, may be considered as components of a life check, for example, but on their own they are not what is envisaged for the life check. Components may include initial self-assessments; emotional and/or physical health check-ups; tailored advice, support and referral; and the development of personal health guides or plans. Although the proposed life checks will involve the provision of specialist support staff, *Our Health, Our Care, Our Say* identified the need for people to take control of their own health and wellbeing (Department of Health, 2006, p 31). The emphasis of life checks will be on support for young people to take responsibility for their own wellbeing. Life checks can be understood within the context of health literacy, defined as 'the capacity of an individual to obtain, interpret and understand basic health information and services in ways that are health-enhancing' (Sihota and Lennard, 2004, p 5).

Schools represent a potential setting for life checks and have already been identified as a suitable setting for health promotion activities through the joint DH/DfES National Healthy Schools Programme in the UK and through Scotland's Health Promoting Schools Unit. In an extension of these programmes, the possibilities for integrating a number of services for young people at a school site have been explored. The Green Paper *Every Child Matters* (Department for Education and Skills, 2003) describes plans to promote 'extended schools' in the UK. Extended schools are those which work with local providers to offer a number of extended services, often provided outside the school day, such as childcare and parenting support. One of the five core services offered by extended schools is 'swift and easy referral to specialist services such as speech therapy and health drop ins' (Teachernet, 2006). This involves schools linking with Primary Care Trust services (e.g. school nurses, child and adolescent mental health services (CAMHS) and speech and language therapists) to provide access to services and to enable easier referral of children to specialised services. The DfES has made £680 million available for the establishment of extended schools between 2006 and 2008, and the Schools White Paper outlines its plans for the progress:

> *By 2008, we want half of all primary schools and a third of all secondary schools to be providing access to these extended services, with all schools doing so by 2010.* (Department for Education and Skills, 2005a, p 76)

[1] In the UK, all licensed motor vehicles are required to have a Ministry of Transport (MOT) Certificate of Roadworthiness. This is an official document provided after a vehicle has undergone tests of roadworthiness and safety.

Similar initiatives are evident in New Community Schools in Scotland (Scottish Office, 1999) and in the full-service schools in the USA (Dryfoos, 1998). Although life checks could usefully link into extended school services, it is important to recognise that large sections of the population may not access life checks through a school setting. In 2004-2005, there were 9,440 expulsions from primary, secondary and special needs schools in the UK (Department for Education and Skills, 2006). Nutbeam *et al.* (1999) found that 'teenagers exhibiting health-compromising behaviours are more likely to feel alienated from school, limiting the impact of school-based health interventions' (cited in Walker and Townsend, 1999, p 170). It is therefore important to identify other potential settings for the administration of life checks, such as primary care.

It is important to find out what the available research evidence says about the effects of life checks (including any adverse effects) and whether they are acceptable to young people. This report describes a scoping review which aimed to identify and sort evidence about the effects of interventions that include the suggested components of life checks or employ the methods envisaged for the administration of life checks. The purpose of the review was to assess the size and nature of the available research literature relating to this topic. In contrast to a full systematic review, searches have been systematic but not fully comprehensive (e.g. no attempt to identify 'grey' literature). Full copies of papers have been obtained for only a few studies, and there is no attempt to conduct a full quality appraisal of the identified research or to synthesize findings.

2. AIMS

The scoping review aimed to identify the nature and extent of the research evidence to address the following questions:

- What evidence exists about the effectiveness of life checks for promoting young people's emotional and physical health in school settings, in the UK and internationally?
- What evidence exists about the effectiveness of such checks outside school settings?
- Does any evidence exist as to their acceptability to young people?
- Does any evidence exist about how to optimise their uptake?

3. METHODS

The scoping review was undertaken in two parts: (i) searching and screening to identify relevant evidence, and (ii) systematic coding and analysis to describe the relevant evidence. The review was limited to evidence published within the last 10 years where abstracts were available in the English language.

3.1 Identifying relevant studies

3.1.1 Conceptual issues

In order to identify relevant literature we based our searching and screening strategies on the description of the life check in the White Paper (Department of Health, 2006). We worked with the following definition of a life check as an intervention which included:

- an emotional and/or physical health check-up provided by an adult (e.g. health professional) or a peer or self-assessment through, for example, a self-completion questionnaire; AND
- feedback, advice, support or referral following the emotional and/or physical health check-up; OR
- the development of personal health guides or plans following the emotional and/or physical health check-up.

In line with the focus of the life check on the promotion of physical and emotional health, interventions focused on a population with a pre-existing health condition (e.g. asthma, diabetes, obesity) or those focused on a population referred by a third party for further screening, diagnosis or treatment were NOT considered to be a life check. Furthermore, because the proposed life check suggests more than just screening, mass screening initiatives were not considered to be within the scope of a life check.

The proposed life checks will take place at the transition between primary and secondary school at the ages 12 to 13 years. However the transition point between primary and secondary school may occur at different stages in other countries. In order to identify international evidence on life checks, we focused on a wider age range of 9 to 14 years.

Physical and emotional health are broad concepts and can be measured in different ways. We did not pre-specify relevant outcomes for studies which assessed the effectiveness of life checks. We considered all studies that had measured any aspect of physical or emotional health.

We identified three bodies of literature in which we might find relevant evidence on life check interventions: (1) health promotion and public health, including screening, school medicals, school nurses, and the health promotion work of GPs and primary care practitioners); (2) resilience and wellbeing; and (3) youth

transition programmes. When searching, we also considered the wider context of health literacy and the role of health trainers.

3.1.2 Searching

Major bibliographic databases

Searches were conducted across a range of bibliographic databases for research published in the last 10 years:

- ERIC
- CINAHL
- Social Science Citation Index
- Medline
- PsychInfo

For each of these databases, indexing and free-text terms which covered the key features of the proposed life checks (e.g. counselling, advice, computerised assessment, screening, physical examination, health literacy) were combined with terms representing the three bodies of literature identified as potentially containing literature relevant to life checks: health promotion (e.g. Health Promotion, Preventive Medicine, Health Behaviour); resilience and wellbeing (e.g. Resilience-Personality, Emotional Development, Self Concept); and youth transitions (e.g. Transitional-Programs, Student Adjustment, School Transition). A population filter for young people and a publication year filter to identify studies published in the last 10 years were added to the search strategy.

The search strategy was developed on the Dialog DataStar version of ERIC, and translated to the other databases. Full details of the search strategies can be found in Appendix A.

Specialist registers

- CENTRAL (the trials register of the Cochrane Collaboration)
- C2-SPECTR (the trials register of the Campbell Collaboration)
- Bibliomap (EPPI-Centre database of health promotion research)
- NHS National Research Register
- Cochrane Database of Systematic Reviews
- Database of Abstracts of Reviews of Effects (DARE)
- Healthevidence.ca (registry of systematic review evidence)

Searches were conducted across a range of specialist registers. Where applicable, the search strategy for bibliographic databases was translated to these registers, using a shortened version of the strategy where limited search functionality was available. Specialised health promotion indexing was utilised where available. Full details can be found in Appendix A.

Web searches

Limited web searches were conducted using the Google and Google Scholar search engines. The terms used are listed below. In most cases, these were combined with the terms ‘child’ or ‘adolescent’.

- health check
- life check

- school medical
- physical examination
- health screening
- health consultation
- health assessment
- health literacy

Handsearching

The websites of a number of organisations producing systematic reviews were also scanned for relevant reviews. All available review titles and abstracts were examined on the following:

- UK Health Technology Assessment Programme
- Effective Public Health Practice Project
- World Health Organisation
- National Institute for Health and Clinical Excellence
- Economic and Social Research Council
- MRC Social and Public Health Sciences Unit
- Health Scotland

3.1.3 Screening

All study citations were downloaded into a specialist piece of reviewing software, EPPI-Reviewer (Thomas, 2002). To be included in the scoping exercise, a study citation had to:

1. include an abstract written in the English language
2. be within the scope of the life check as defined in section 3.1.1
3. describe a study focused on young people aged 10 to 14 years
4. describe a study which would help answer one or more of the scoping review questions (effectiveness of life checks in school settings, effectiveness of life checks in other settings, the appropriateness of life checks for young people, optimising the uptake of life checks)
5. be published within the last 10 years

As noted above, study citations with no English language abstract were excluded, unless the title indicated a high likelihood of the report containing information relevant to life checks (e.g. ‘Annual physical examination for adolescents: a reassessment’). In these cases, further searches were conducted to identify an abstract and, where an abstract was still not available, the full report was retrieved.

As the life check is a new concept without a precise definition, it was difficult to achieve a shared understanding at the outset of the review. To ensure that all reviewers applied the criteria in accordance with each other, we undertook triple screening until all reviewers were applying criteria in same way. The remainder of the screening was carried out by individual reviewers. Where there was uncertainty, reports were marked for discussion. At the end of the screening process, these reports were considered by all three reviewers, and, as a final check, all reports selected for inclusion were rescreened.

3.2 Describing relevant studies

A standardised health promotion coding strategy was applied to all study citations (Peersman and Oliver, 1997). Using this strategy, relevant studies were coded according to type of study (e.g. a survey, an outcome evaluation); country in which the study was carried out, the health focus of the report, the characteristics of the study population, the intervention type, site and provider.

A further set of codes, specifically developed for this scoping review, were also applied. These codes covered the features of the life check studied (e.g. who carried out the life check, the mode of assessment) and whether studies focused on inequalities or particular groups of young people.

Study reports were coded on the basis of abstracts and titles only. Reports were divided between reviewers. Each report was coded by two reviewers to achieve a high level of consistency.

4. RESULTS

4.1 Identification of studies

The searches of bibliographic databases and specialist registers resulted in the identification of 5,548 records with titles and/or abstracts. After screening these against our inclusion criteria, we found that 77 reports of 70 individual studies were eligible for inclusion.

Figure 4.1 shows the flow of studies through the stages of the scoping review.

4.2 Characteristics of studies

This section describes the 70 studies according to study design, country, population, and features of the intervention relevant to the life-check proposal. Details of these characteristics for each study are provided in appendices B and C.

4.2.1 Study design

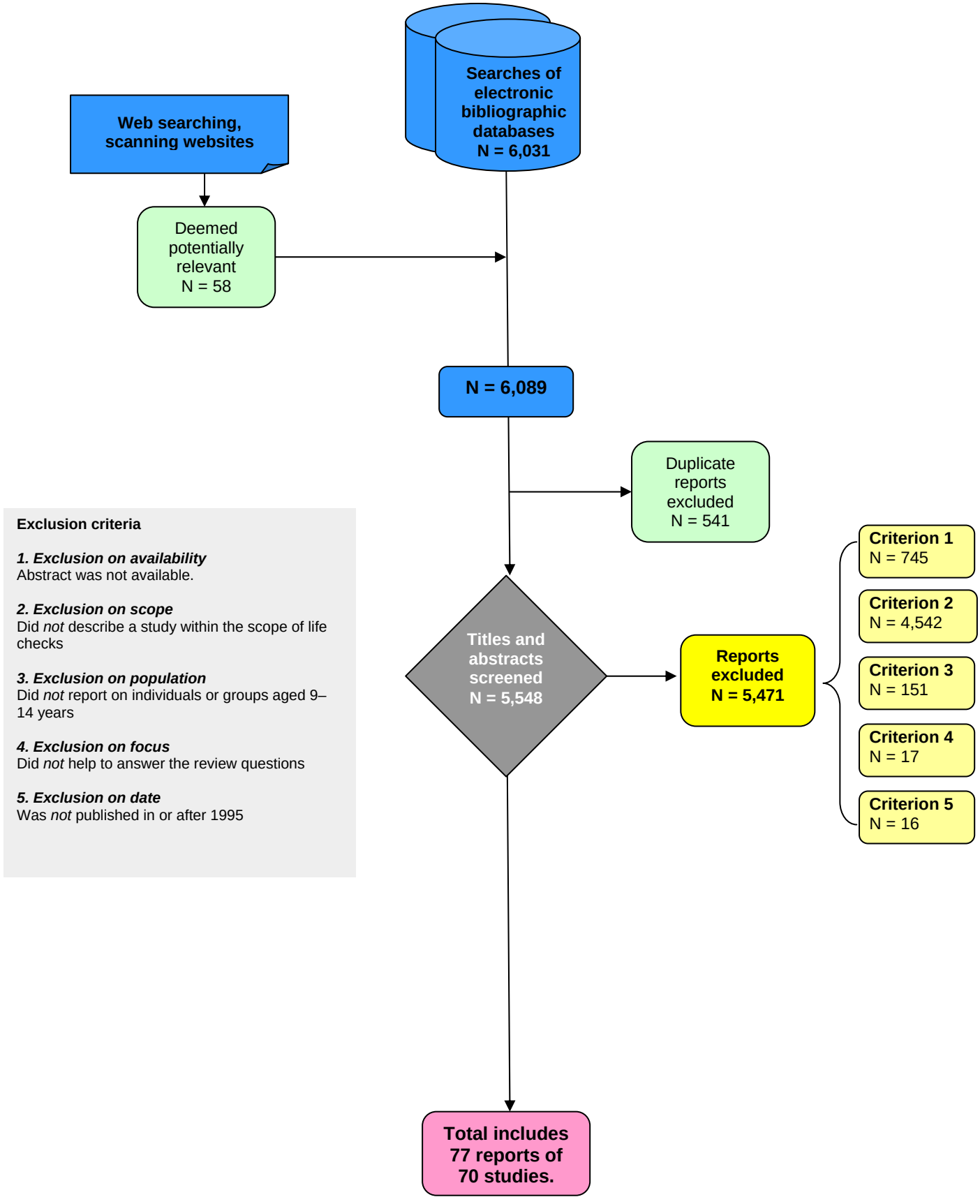
We identified a range of different study types (see Table 4.1).

Table 4.1: Studies by study type (N = 70)

	N	%
Outcome evaluation	34	48
Instrument design	15	21
Survey	12	17
Systematic review	5	7
Non-systematic review	4	7
Total	***70***	***100***

Just under half the studies were outcome evaluations. Nine of these were randomised controlled trials (RCTs), five were controlled trials, and four were single group pre-test / post-test studies. For 16 studies, it was not possible to tell from the information in the abstract the design of the outcome evaluation. The design is important in those which include control groups provide much more reliable evidence of impact than those which collect data post-intervention from only one group, as these cannot compare what happens to young people offered the intervention with those who are not. Controlled studies which include random assignment (of groups or individuals) offer the most reliable evidence of effectiveness. The best evidence of the effectiveness of life checks on young people in schools or other settings is therefore likely to come from the nine RCTs and the five controlled trials.

Figure 4.1: Flow of literature through the review



All 15 studies coded ‘instrument design’ developed and/or evaluated screening or health-assessment tools for children and young people. These screening tools are discussed in more detail in section 4.3.5. Of the 12 surveys, 10 presented children and young people’s views and experiences of interventions similar to the proposed life check. These are likely to provide the most appropriate evidence regarding the acceptability of life checks to young people.

Nine studies were reviews, of which five were systematic reviews and four were non-systematic reviews. The four non-systematic reviews do not offer reliable evidence of effectiveness due to the range of biases to which they are subjected. However, they can provide access to studies which may not have been identified in systematic searches, and can provide useful background information. Well-conducted systematic reviews of effectiveness offer the most reliable level of evidence in terms of impact, provided they address the research question closely. However, it is unusual to find ‘off the peg’ systematic reviews for a new policy intervention, such as a life check. None of the reviews exactly matched the topic, intervention and population focus of this scoping review. The systematic reviews are discussed in more detail in section 4.3.

4.2.2 Country of origin

The studies were conducted across a wide range of countries. One study was European wide. Ten were conducted in the UK. Of the UK studies, three were surveys (Ercan *et al.*, 2006; Hill and Morton, 2003; Holroyd and Hall, 1997), three were systematic reviews (Fothergill *et al.*, 2003; Walker and Townsend, 1998; 1999) and four were outcome evaluations (Boekeloo *et al.*, 2004; Hill and Watkins, 2003; Shucksmith *et al.*, 2003; Walker *et al.*, 2000; Walker *et al.*, 2002).The USA accounted for 34 studies, of which 20 were outcome evaluations. France and Denmark provided three studies and two each were conducted in the Netherlands and Norway. Finally, one each was conducted in Australia, Canada, Finland, India, Japan, Taiwan and Vietnam. For nine studies, this information was not available.

4.2.3 Population

Only three of the studies focused explicitly on young people from disadvantaged or vulnerable groups. These included children looked after by an English city council (Hill and Watkins, 2003), young people in the French judicial system (North, 2003), and children from low income families on Medicaid in the USA (Selby *et al.*, 1995). Seven studies focused on other specific groups of young people. Three studies focused on young people living in rural areas, and four studies on athletes.

Fifty-nine studies focused on young people in general. However, 20 of these studies appeared to offer separate analyses for different population sub-groups related to age, gender and measures of social and economic status.

4.2.4 Types of interventions

In this section, we describe the features of the interventions relevant to the life-check proposal evaluated by the 34 outcome evaluations.

What is being assessed in the health check?

Eleven studies focused on a single aspect of health. Four of these studies focused solely on aspects of emotional health and wellbeing (Cowen, 1997; Puskar *et al.*, 1996; Supple *et al.*, 1999; Vander Stoep *et al.*, 2005). Other studies focused on particular health behaviours, including sexual health (Paperny, 1997), physical activity and nutrition (Patrick *et al.*, 2001; 2006).

Studies evaluated two main types of intervention relevant to the proposed life check: the first were regular and/or annual health checks conducted within existing services (for example, sports pre-participation examinations and annual 'well' visits and preventive health checks in the USA) and the second were one-off health and wellbeing consultations in schools and primary-care settings.

What is offered to the young person after assessment?

Of the 34 health checks reported in the outcome evaluations, information about what was offered to the young person following the health check was available for 20 studies. In the majority of studies, young people were offered tailored advice. Further details are available in Table 4.2. In many cases, more than one option was offered so the total in Table 4.2 adds up to 46 rather than 34.

Table 4.2: What is offered following health assessment (N=46) for outcome evaluations (N = 34, not mutually exclusive)

	N
Tailored advice	12
Individual health plans / guides	7
Referral into health system (e.g. family doctor)	8
Referral within school (e.g. school counsellor)	2
Resource access	3
Not stated / unclear	14
Total	***46***

Who provides the assessment?

In the 34 outcome evaluations, most health-check providers were health professionals (N=20). Ten of the health checks involved an element of self-assessment. For the remainder, it was unclear who provided the intervention. The identity of the health professional was not stated in seven of the studies. Seven of the interventions were provided by nurses (school and primary practice), two by doctors, and the remainder by a range of other health-care providers, including paediatricians and dentists.

Where is the health check provided?

The majority of the health checks reported in the 34 outcome evaluations were provided in education settings (N=15). Eleven were provided in health-care settings and four were provided in the home. For the remaining studies, it was unclear where the intervention was provided.

4.3 Types of evidence

We identified studies relevant to all the questions posed in this scoping review about effectiveness, acceptability and uptake. Some studies were relevant to more than one question. As mentioned earlier, we also identified an additional group of studies focused on the development and evaluation of screening tools which could be used in a life check. In this section, we describe in more detail the sorts of studies which are relevant to each of the questions listed above and the studies on screening tools. In the final part of this section, we describe the five systematic reviews we identified in more detail.

4.3.1 Studies testing effectiveness in school settings

We found 23 studies which could potentially provide evidence about the effectiveness of life checks within a school setting. Overall, this was a heterogeneous set of reports in terms of study design, health focus, and life-check style components. However, there were four distinct groupings of studies as follows.

The first group of studies were all focused on a physical examination offered to young people in the USA before they took part in school sports programmes. These examinations were used as an opportunity for health-promotion activities, such as alcohol misuse prevention (Werch *et al.*, 2000; Werch *et al.*, 2003), or as an opportunity to screen for undiagnosed asthma (Hammerman *et al.*, 2002) or health problems which have been associated with female athletes (e.g. disordered eating, osteoporosis) (De La Torre and Snell, 2005). Briner and Farr (1995) considered the value of the pre-sports participation physical examination for different age groups.

The second group of studies involved disease-specific screening and assessment programmes – often routinely offered to all children and young people within particular schools – followed by some form of feedback, advice, support or referral. The studies covered diabetes screening for young people in the USA (Whitaker *et al.*, 2004); testing and feedback of young people's cholesterol levels in the USA (Nader *et al.*, 1997); assessing behaviours which might put young people in the USA at risk of HIV/STDs (Paperny, 1997); screening for behaviours relevant to oral health among young people in Finland (Kallio *et al.*, 1997) and the USA (Nowjack *et al.*, 1995); vision screening for young people in the UK (Holroyd and Hall, 1997) and the USA (Yawn, 1998); and scoliosis screening for young people in the Netherlands (Pruijs *et al.*, 1996).

The third group of studies involved screening too, but these included more general assessments of health. All but two of the studies in this group were from the USA. Presswood (2005) reported the results of an evaluation of a 'health report card' which was used by school nurses to feed back screening information to young people about their health in relation to obesity. Bracken *et al.* (1998), Harrison *et al.* (2003) and Redding *et al.* (1999) all offered children and young people a computerised health review. Harrison *et al.* (2003) further reported that the results of the health review formed the basis for the development of health plans in discussion with school-based clinic personnel. Fisher (1999) provided a synopsis of US practice guidelines for use in physicians' offices for adolescent health assessment. Fujii *et al.* (2004) examined the role of lifestyle screening for increasing interest in health among young people in Japan, and Lezin and Thouin (2000) considered the effectiveness of computerised assessments for health

promotion among young people in France. Davis (2005) offered individual risk assessments and tailored advice around health education and creative health programmes that build resilience and promote protective factors.

The fourth and final group of studies focused on emotional health and wellbeing. All the studies in this group were from the USA. Cowen (1997) and Vander-Stoep *et al.* (2005) offered young people – at the transition from middle school to high school – an 'emotional health' check and those who were experiencing emotional distress were offered additional services, such as school counselling or academic tutoring.

4.3.2 Studies testing effectiveness outside school settings

We found 18 studies which could potentially provide evidence about the effectiveness of life checks outside the school setting. All these were implemented in health-care settings, in particular within primary care. Like the set of studies on effectiveness within the school setting, this set was also heterogeneous in terms of study design, health focus, and life-check style components. There were three distinct groupings of studies as follows.

The first group of studies focused on interventions which aimed to maximise opportunities for health behaviour screening and health promotion activities within routine and/or mandatory health check-ups by primary care practitioners. All these studies were carried out in the USA. Ozer and colleagues evaluated interventions to improve 'well visits' by increasing the levels and quality of clinician screening and counselling in the areas of tobacco, alcohol, drugs, sexual behaviour, seatbelt use, and cycle helmet use (Ozer *et al.*, 2001; 2004; 2005). Epner *et al.* (1998) and Gadomski *et al.* (2003) evaluated the effects of the 'guidelines for adolescent preventive services' (which advocate screening, guidance, physical examination and immunisations) to increase health professionals' responsiveness to the health risk behaviours reported by young people attending for a routine check-up. Boekeloo *et al.* (2004) evaluated a brief office-based intervention which targeted alcohol use among young people attending a general check-up in the USA. Diaz and Manigat (1999) examined the impact of a direct questioning approach to identify victims of sexual abuse as part of routine medical screenings at an inner-city adolescent health centre. Fisher (1999) provided a synopsis of US adolescent health assessment practice guidelines for use in a physician's office.

The second group of studies was similar to the first in that they evaluated routine and/or mandatory health check-ups. However, in these studies, it was not clear what happened after the check-up. Hill and Watkins (2003) examined the effects of statutory health assessments of children aged six months to 15 years looked after by Southampton City Council in the UK. North (2003) evaluated the use of a periodic health examination for young people in the judicial system in France. Verloove-Vanhorick *et al.* (2003) evaluated the 'Youth healthcare' programme which offered screening, vaccinations, information and advice to all children from birth to 19 years in the Netherlands.

The third group of studies evaluated the effects of inviting young people to attend consultations in primary care which offered health promotion assessments and advice. In the UK, Walker and colleagues evaluated the effectiveness of inviting teenagers to general practice consultations which offered the opportunity to discuss health behaviour concerns with a practice nurse and the provision of appropriate follow-up care (Walker *et al.*, 2000; 2002). In the USA ,Patrick and colleagues evaluated the provision of a computer-assisted diet and physical

activity assessment, stage-based goal setting followed by brief health-care provider counselling, and 12 months of monthly mail and telephone counselling (Patrick *et al.*, 2001; 2006). Again in the USA, Puskar *et al.* (1996) and Supple *et al.* (1999) both focused on mental health and wellbeing. Supple *et al.* (1999) evaluated the effectiveness of a computerised, self-administered, questionnaire on young people's self-reported substance use and psychological wellbeing. Puskar *et al.* (1996) evaluated the effectiveness of distance mental health screening by nurses for rural youth using a facsimile system.

One study which did not neatly fit within any of the groups discussed above is a substantial report with a number of evaluations of the Scottish initiative to introduce Family Health Plans (FHP) (Shucksmith *et al.*, 2003). The FHP has been described as a tool which enables a family to think more actively and critically about their health, social and communal needs in partnership with a health visitor. The contents of the FHP would be agreed with and held by the family, and include a set of goals and actions to achieve them. The report contained surveys examining the attitudes of parents, carers and health providers to the FHP, a summary and evaluation of the FHP pilot projects in operation, and a review of the published literature relevant to FHPs.

4.3.3 Studies examining acceptability

Eleven studies were identified as potential sources of evidence about the acceptability of life checks to young people. Some of the studies had examined acceptability alongside effectiveness (Harrison *et al.*, 2001; Paperny, 1997; Supple *et al.*, 1999; Vander Stoep *et al.*, 2005; Walker *et al.*, 2000; 2002). Other studies focused solely on acceptability and feasibility issues (Borup and Holstein, 2004; Borup, 1998; 2000; Ercan *et al.*, 2006; Hill and Morton, 2003).

Five studies focused on the acceptability of computerised self-assessment tools. Ercan *et al.* (2006) asked young people in the UK for their views on a website to promote emotional health (www.ru-ok.com). The website features a self-assessment tool followed by advice and feedback on how to sort out everyday problems. Supple *et al.* (1999) compared the attitudes of young people in the USA attending health clinics towards either a computerised or pencil or paper self-assessment tool focused on substance use and psychological wellbeing. Paperny (1997) asked young people in schools in the USA for their views on a computerised tool to assess their behaviour in relation to HIV/STDs. Finally, Harrison (2003) asked young people for their views on a stand-alone computerised screening process located in school-based health centres in the USA.

In the remaining seven studies, it was not possible to tell whether assessments of acceptability focused on specific aspects of an intervention. Three studies asked young people in Denmark about their experiences and satisfaction with a 'health dialogue' with their school nurse (Borup and Holstein, 2004; Borup, 1998; 2000). The annual 'health dialogue' aimed to enable young people to make healthy choices and to stay healthy into adult life, and has replaced and reduced routine screening of height, weight, hearing and vision. Vander-Stoep *et al.* (2005) asked young people in US schools for their views on emotional health screening at the middle school transition. Two studies asked young people in the UK for their views on an intervention which invited them to attend a consultation with a practice nurse to discuss health behaviours (Walker *et al.*, 2000; 2002). The final study in this group asked young people and their parents in the UK for their views

on the usefulness of a 'child health profile' designed to provide health information and to encourage young people to take responsibility for their health (Hill and Morton, 2003).

4.3.4 Studies examining uptake

Five studies were potential sources of evidence about how to optimise the uptake of life checks. One of these studies had examined issues of uptake alongside effectiveness (Puskar *et al.*, 1996). Other studies focused solely on uptake issues (Klein *et al.*, 2005; Knishkowy *et al.*, 2000; Sarmiento *et al.*, 2004; Selby *et al.*, 1995).

Three studies examined uptake of routine or annual health check-ups for children and young people. One study evaluated an intervention to increase attendance at such check-ups, while two studies simply explored reasons why some children and young people attended check-ups and others did not. Selby *et al.* (1995) compared the effectiveness of mailed pamphlets, phone calls and home visits to increase the uptake of Medicaid child health screenings in the USA. Klein *et al.* (2005) explored the reasons why young people in Canada attended (or did not attend) for annual health checkups, using analysis of small group discussions. In a secondary analysis of a longitudinal study of adolescent health, Sarmiento *et al.* (2004) examined correlates of attendance for routine physical examinations among Latin American young people in the USA.

Two studies considered uptake issues in relation to programmes which offered young people an assessment of their health behaviours and/or their emotional health, followed by tailored advice from a health professional. Knishkowy *et al.* (2000) evaluated the effectiveness of two different invitation protocols to an adolescent preventive health programme in a USA primary-care setting. The protocols differed in their emphasis on young people's autonomy and parental responsibility. Puskar *et al.* (1996) discussed the possibilities of 'at-a-distance' mental health screening to reach rural young people in the USA.

4.3.5 Screening tools

We identified sixteen studies which developed and/or evaluated screening or health assessment tools for children and young people. Only one of these tools was developed or tested among young people in the UK. Evaluated tools ranged from those with a fairly narrow focus (e.g. the assessment of health behaviours) to multi-dimensional tools with a wide-ranging focus (e.g. behaviours and lifestyle, physical health, emotional health, social support, achievement, and environment).

Seven studies evaluated tools that were designed to be used in schools at school-based health centres or by school nurses. Two of the tools focused on the assessment of health behaviours or lifestyle and were tested among young people in the USA (Gall, 2002) and Taiwan (Chen *et al.*, 2003). Chatterjee and Chatterjee (2005) evaluated a tool to assess exposure to a 'health risk environment' with young people in India. Helseth *et al.* (2005) evaluated a health related quality of life tool – covering self-esteem and emotional health, physical health, friends and school – among young people in Norway. Ronning *et al.* (2004) evaluated the utility of a tool designed to assess emotional problems and/or social difficulties for young people in Norway. Scherrer and Stevens (1997) evaluated a tool to assess health promotion and health education needs with young people in Australia. Finally, Vaughn *et al.* (1996) evaluated a tool to assess

five risk factors (suicide, running away, sexual behaviour, substance abuse and parental substance abuse) among urban minority junior high school students in the USA.

Four studies evaluated tools that were designed to be used in health-care settings, such as primary care. Van Antwerp (Van Antwerp, 1995) evaluated a tool to assess lifestyle and behaviour among young people in the USA. Dafflon and Michaud (2000) evaluated a tool designed to facilitate effective health consultation among young people in France. This tool covered health problems and symptoms, as well as mental health, lifestyle and personal and environmental resources. Harrison *et al.* (2001) developed and tested a psychosocial screening tool with young people in the USA. A final study in this group focused on a very specific tool. Prochaska *et al.* (2001) developed and tested a physical activity screening measure for use with young people in the USA.

For five studies, it was unclear whether tools were designed for use in particular settings. Ravens-Sieberer (2001) reported on a cross-Europe project to measure health-related quality of life. These instruments were developed in consultation with children and young people, and assessed physical, mental and social wellbeing. Two studies tested a child health and illness profile with groups in the USA: one evaluated the child self-report version (Riley *et al.*, 2004b), and the second the parent report version (Riley *et al.*, 2004a). This tool covered five dimensions: satisfaction with self and health; emotional and physical comfort; resilience; risk avoidance; and achievement. In the USA, Yarcheski *et al.* (2005) evaluated a tool to assess how young people conceptualise health, including 'wellness' and 'clinical health'. The final study evaluated a tool to assess both emotional and physical health problems among young people in Vietnam (Vo *et al.*, 2005).

4.3.6 Systematic reviews

We identified five systematic reviews which looked as though they might offer relevant information. However, none of these reviews exactly matched the topic, intervention and population focus of this scoping review. All the reviews focused mainly on primary-care settings rather than school settings. In some of these reviews, very little or no relevant evidence was identified. Fothergill *et al*. (2003) aimed to examine the role of the school nurse in the detection of mental health problems among young people, but no relevant studies were identified. Stickler *et al*. (2000) examined the literature on whether annual physical examinations for young people were necessary. This review did identify relevant studies but these focused on the effectiveness of routine physical examinations in terms of whether they were able to detect previously unknown health problems, rather than on whether they could promote physical and mental wellbeing.

Walker and Townsend (1998) aimed to examine the effectiveness of primary care interventions to prevent mental health problems among young people. Only three relevant studies were identified and these offered very limited information. In a later review by the same authors, Walker and Townsend (1999) aimed to examine the effects of providing health promotion for young people in primary care. However, due to a paucity of studies, this review concluded that whether or not screening followed by advice can change health behaviours requires further evaluation. Moyer and Butler (2004) reviewed the effectiveness of three types of interventions implemented in the context of 'well-child care' in primary care in the USA: behavioural counselling; screening; and preventative treatments (e.g. use of

iron supplements). Like Walker and Townsend (1999), these authors concluded that further evaluation was needed.

5. DISCUSSION

The proposal to implement life checks for children and young people was prompted by concern about the emotional wellbeing and resilience of young people at the transition from primary to secondary school, and the desire to help young people assess their personal risk factors and engage in positive health behaviours. We identified a total of 70 relevant studies, just under half of which were outcome evaluations (N=34). This body of evidence was spread fairly evenly according to effectiveness in school settings and effectiveness outside school settings. One of the two main groups of studies relates to regular and/or annual health checks conducted within existing services. Examples are sports 'pre-participation examinations'; the Danish 'health dialogue'; and annual 'well visits' and preventive health checks provided in the USA. These examples fit with the idea of the young person's life check being one of a number of periodic checks throughout the life span. The second group of studies provide evidence about the effectiveness of a one-off health and wellbeing consultation, a central feature of the life check for this age group.

Since the life check is a new policy proposal and aims to cover both physical and emotional health, we had to develop complex and sophisticated search strategies covering diverse literatures (health promotion and public health, resilience and wellbeing, and youth transitions) and concepts (e.g. counselling, advice, assessment, health literacy). This strategy paid off, because we identified studies which covered nearly all the components and topics suggested in the life-check proposal. However, despite searching within the literature on transitions and including the concept of 'health literacy' within our search terms, we found only one study evaluating an intervention in the style of the life check proposal and none of the studies explicitly used the term 'health literacy'. The latter is likely to be explained by the fact that health literacy is a fairly new concept (Sihota and Lennard, 2004). We did some quick searches within our excluded studies and found approximately 76 reports on youth transitions. We checked whether we had missed any relevant studies, but found that most of these reports had been excluded because they provided guidance, counselling and mentoring to improve academic achievement, rather than health and emotional wellbeing.

A scoping review is intended to provide a preliminary assessment of the potential size and scope of the available research literature. While a scoping review uses some of the methods common to the standard stages of a systematic review, it does so in a limited manner. Our searches were systematic and explicitly reported ,but they were not fully exhaustive. For example, we did not attempt to search the 'grey' literature, we did not scan the reference lists of relevant studies, and we did not search all available electronic databases. This means that we may have underestimated the total amount of literature available. Our screening, coding and analysis of studies were also systematic and transparent, but, because we did not retrieve full reports, we had to work with the limited information available in titles and abstracts. Consequences of this are the inclusion of studies which may have been irrelevant on inspection of the full report and/or exclusion of studies which may have been relevant on inspection of the full report.

There is no way of checking whether the 70 studies we have identified are an over- or under-estimate of the literature. Previous experience suggests that more exhaustive searching tends to identify new studies. However, the yield from searching more and more sources usually tails off, making additional searching

labour intensive relative to new yield. We therefore consider our estimate of 70 studies to be a fair one. Other strengths of this scoping review are that it has provided a useful overview of the kinds of evidence that are available. It has also raised several salient conceptual issues around the relationship between the research literature and the life-check proposal (e.g. the creation of new 'one-off' health checks versus the use of existing periodic health examinations). The results of the scoping review could be used to judge whether or not a full systematic review is required, and, if so, to identify a potential focus for the review.

A full systematic review would need to appraise both the potential benefits and harms of intervening in young people's lives during their transition years. It is possible that, for some young people, a one-off life check might impose an undesirable level of negative self-reflection. For others, a life check may help with adjustment and prevent emotional health problems that may be linked to damaging health behaviours. An important question to consider would be whether an annual activity that takes place throughout the school years is needed to maximise benefit and minimise harm, rather than a periodic check that happens at school entry and then transition. The practical, and therefore, ethical implications of the life check are currently unclear, in terms of what support and services are available and acceptable to young people identified as in need of help that extends beyond an agreed health guidance plan.

It was not clear from this scoping review to what extent life check style interventions varied according to setting and age group. Any future work should consider whether the aims and options offered by a life check need to be tailored according to different age groups and settings. The life check aims to impact on physical and emotional health and wellbeing. Physical and emotional health and wellbeing are broad terms which could be interpreted and measured in a number of ways. For example, emotional health could be assessed through measures of depression, self-esteem or 'good' behaviour. Indeed, the studies in this review which tested the effectiveness of life check style interventions focused on different aspects of physical and emotional health and wellbeing, such as health behaviour, blood pressure, weight, disease, emotional distress, self-esteem and depression. Any future work should consider carefully the intended outcomes of a life check in order to be clear about what would constitute evidence of effectiveness. Prioritising outcomes should involve different perspectives, including the perspectives of young people themselves.

The results of this scoping review suggest a considerable body of relevant research evidence addressing questions about the effectiveness, acceptability and uptake of the life check. A full systematic review which evaluates a life check within the context of both a regular/annual process, or a one-off personal health MOT may be able to provide answers to some of the issues raised above. Since we found studies evaluating life check style interventions in a variety of settings and according to a range of outcomes, such a review could also consider where the life checks might be best located (school, health services, community or the home) and the most relevant outcomes of interest.

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APPENDIX A: Search strategies

ERIC (Dialog DataStar)

1	COMPREHENSIVE-GUIDANCE.DE.
2	SCHOOL-GUIDANCE.DE.
3	COUNSELING.W..DE. OR SCHOOL-COUNSELING.DE.
4	INDIVIDUAL-COUNSELING.DE.
5	PEER-COUNSELING.DE.
6	ANCILLARY-SCHOOL-SERVICES.DE. OR PUPIL-PERSONNEL-SERVICES.DE.
7	ADJUSTMENT-COUNSELORS.DE.
8	SCHOOL-COUNSELORS.DE.
9	SCHOOL-PSYCHOLOGISTS.DE.
10	SCHOOL-NURSES.DE.
11	COMPREHENSIVE-SCHOOL-HEALTH-EDUCATION.DE.
12	AGENCY-COOPERATION.DE.
13	INTEGRATED-SERVICES.DE.
14	SELF-ADVOCACY.DE.
15	SOCIAL-SUPPORT-GROUPS.DE.
16	SELF-EVALUATION-INDIVIDUALS.DE.
17	PEER-MEDIATION.DE.
18	COMPUTER-USES-IN-EDUCATION.DE.
19	NEEDS-ASSESSMENT.DE.
20	PHYSICAL-EXAMINATION.DE.
21	MEDICAL-EVALUATION#.DE.
22	DIAGNOSTIC-TESTS.DE. OR SCREENING-TESTS.DE.
23	COMPUTER$4 NEAR SCREENING$.TI. OR COMPUTER$4 NEAR SCREENING$.AB.
24	COMPUTER$4 NEAR ASSESSMENT$.TI. OR COMPUTER$4 NEAR ASSESSMENT$.AB.
25	(HEALTH ADJ ASESSMENT$).TI. OR (HEALTH ADJ ASESSMENT$).AB.
26	(SELF ADJ ASSESSMENT$).TI. OR (SELF ADJ ASSESSMENT$).AB.
27	(HEALTH ADJ PLANNING).TI. OR (HEALTH ADJ PLANNING).AB.
28	(HEALTH ADJ LITERACY).TI. OR (HEALTH ADJ LITERACY).AB.
29	TRAINER$ OR ADVISER$ OR ADVISOR$.TI. OR TRAINER$ OR ADVISER$ OR ADVISOR$.AB.
30	HEALTH.TI. OR HEALTH.AB.
31	29 NEAR 30
32	TAILOR$ OR PERSONALIS$3 OR PERSONALIZ$3 OR HEALTH.TI. OR TAILOR$ OR PERSONALIS$3 OR PERSONALIZ$3 OR HEALTH.AB.
33	ADVICE OR SUPPORT OR GUIDANCE OR COUNSEL$3 OR MEDIAT$3.TI. OR ADVICE OR SUPPORT OR GUIDANCE OR COUNSEL$3 OR MEDIAT$3.AB.

34 32 NEAR 33
35 HEALTH NEAR CONSULTATION.TI,AB.

36 (HEALTH ADJ CHECK$).TI. OR (HEALTH ADJ CHECK$).AB.
37 (LIFE ADJ CHECK$).TI. OR (LIFE ADJ CHECK$).AB.
38 (HEALTH ADJ MOT).TI. OR (HEALTH ADJ MOT).AB.

39 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22
40 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 31 OR 34 OR 35
41 39 OR 40
42 36 OR 37 OR 38

43 RESILIENCE-PERSONALITY.DE.
44 WELL-BEING.DE. OR WELLNESS.W..DE.
45 EMOTIONAL-DEVELOPMENT.DE.
46 EMOTIONAL-INTELLIGENCE.DE.
47 EMOTIONAL-EXPERIENCE#.DE.
48 SELF-ESTEEM#.DE.
49 LIFE-SATISFACTION.DE.
50 HAPPINESS.W..DE.
51 PERSISTENCE.W..DE.
52 INDIVIDUAL-POWER.DE.
53 EMPOWERMENT.W..DE. OR STUDENT-EMPOWERMENT.DE.
54 STRESS-MANAGEMENT.DE.
55 43 OR 44 OR 45 OR 46 OR 47 OR 48 OR 49 OR 50 OR 51 OR 52 OR 53 OR 54
56 SELF-WORTH.TI. OR SELF-WORTH.AB.
57 55 OR 56

58 TRANSITIONAL-PROGRAMS.DE.
59 STUDENT-SCHOOL-RELATIONSHIP.DE.
60 ADJUSTMENT-TO-ENVIRONMENT.DE. OR EMOTIONAL-ADJUSTMENT.DE. OR SOCIAL-ADJUSTMENT.DE. OR STUDENT-ADJUSTMENT.DE.
61 LIFE-EVENTS.DE.
62 ADOLESCENT-DEVELOPMENT.DE.
63 ORIENTATION.W..DE. OR SCHOOL-ORIENTATION.DE.
64 MATURITY-INDIVIDUALS.DE.
65 STUDENT-PROMOTION#.DE.
66 SCHOOL$ NEAR TRANSITION$
67 58 OR 59 OR 60 OR 61 OR 62 OR 63 OR 64 OR 65
68 66 OR 67

69 HEALTH-PROMOTION.DE.

70 PREVENTIVE-MEDICINE.DE.

71 HEALTH-BEHAVIOR.DE.

72 PUBLIC-HEALTH.DE.

73 HEALTH-EDUCATION.DE.

74 FAMILY-PRACTICE-MEDICINE.DE.

75 PRIMARY-HEALTH-CARE.DE.

76 (HEALTH ADJ PROMOT$4).TI. OR (HEALTH ADJ PROMOT$4).AB.

77 69 OR 70 OR 71 OR 72 OR 73 OR 74 OR 75

78 76 OR 77

79 PREADOLESCENTS.W..DE.

80 EARLY-ADOLESCENTS.DE.

81 ADOLESCENTS.DE.

82 MIDDLE-SCHOOL-STUDENTS.DE. OR SECONDARY-SCHOOL-STUDENTS.DE. OR HIGH-SCHOOL-STUDENTS.DE. OR HIGH-SCHOOL-FRESHMEN.DE. OR JUNIOR-HIGH-SCHOOL-STUDENTS.DE.

83 INTERMEDIATE-GRADES.DE.

84 GRADE-3.DE. OR GRADE-4.DE. OR GRADE-5.DE. OR GRADE-6.DE. OR GRADE-7.DE. OR GRADE-8.DE. OR GRADE-9.DE.

85 YOUTH#.W..DE.

86 KEY ADJ STAGE$ ADJ 2$ OR KEY ADJ STAGE ADJ 3$ OR KEY ADJ STAGE$ ADJ 4$

87 YEAR$ ADJ 4$ OR YEAR$ ADJ 5$ OR YEAR$ ADJ 6$ OR YEAR$ ADJ 7$ OR YEAR$ ADJ 8$ OR YEAR$ ADJ 9$ OR YEAR$ ADJ 10$

88 ADOLESCEN$3 OR PUPIL$2 OR YOUTH OR TEEN OR TEENAGE$2

89 79 OR 80 OR 81 OR 82 OR 83 OR 84 OR 85

90 86 OR 87 OR 88

91 89 OR 90

92 '1995' OR '1996' OR '1997' OR '1998' OR '1999' OR '2000' OR '2001' OR '2002' OR '2003' OR '2004' OR '2005' OR '2006'.YR.

93 PT=JOURNAL-ARTICLES OR PT=REPORTS-EVALUATIVE OR PT=REPORTS-RESEARCH OR PT=REPORTS-DESCRIPTIVE

94 41 AND 57 AND 91 AND 92 AND 93

95 41 AND 68 AND 91 AND 92 AND 93

96 41 AND 78 AND 91 AND 92 AND 93

101 42 AND 92 AND 93

102 94 OR 95 OR 96 OR 101

MEDLINE (Dialog DataStar)

1 COUNSELING.W..DE.
2 DIRECTIVE-COUNSELING.DE.
3 CHILD-GUIDANCE.DE.
4 SELF-EVALUATION-PROGRAMS.DE.
5 MEDICAL-INFORMATICS-APPLICATIONS.DE.
6 COMPUTER-ASSISTED-INSTRUCTION.DE.
7 MASS-SCREENING.DE.
8 PHYSICAL-EXAMINATION.DE.
9 MEDICAL-HISTORY-TAKING.DE.
10 REFERRAL-AND-CONSULTATION.DE.
11 REMOTE-CONSULTATION.DE.
12 NEEDS-ASSESSMENT.DE.
13 SCHOOL-NURSING.DE.
14 (COMPUTER$1 NEAR SCREENING$1).TI,AB.
15 (COMPUTER$1 NEAR ASSESSMENT$1).TI,AB.
16 (HEALTH ADJ ASSESSMENT$1).TI,AB.
17 (SELF ADJ ASSESSMENT$1).TI,AB.
18 (HEALTH ADJ PLANNING).TI,AB.
19 (HEALTH ADJ LITERACY).TI,AB.
20 (TRAINER$1 OR ADVISER$1 OR ADVISOR$1).TI,AB.
21 HEALTH.TI,AB.
22 21 NEAR 20
23 (TAILOR$3 OR PERSONALIS$3 OR PERSONALIZ$3).TI,AB.
24 (ADVICE OR SUPPORT OR GUIDANCE OR COUNSEL$3 OR MEDIAT$3).TI,AB.
25 23 NEAR 24
26 (HEALTH NEAR CONSULTATION).TI,AB.

27 (HEALTH ADJ CHECK$1).TI,AB.
28 (LIFE ADJ CHECK$3).TI,AB.
29 (HEALTH ADJ MOT).TI,AB.

30 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13
31 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 22 OR 25 OR 26
32 27 OR 28 OR 29
33 30 OR 31 OR 32

34 SELF-CONCEPT.DE. OR SELF-EFFICACY.DE. OR SELF-ASSESSMENT-PSYCHOLOGY.DE.
35 PERSONAL-SATISFACTION.DE.
36 HAPPINESS.W..DE.

37 DRIVE.W..DE.
38 ASPIRATIONS-PSYCHOLOGY.DE.
39 PERSONALITY-DEVELOPMENT.DE.
40 RESILIEN$4.TI,AB.
41 (WELLBEING OR WELL-BEING).TI,AB.
42 SELF-WORTH.TI,AB.
43 WELLNESS.TI,AB.
44 34 OR 35 OR 36 OR 37 OR 38 OR 39
45 40 OR 41 OR 42 OR 43
46 44 OR 45

47 ADOLESCENT-DEVELOPMENT.DE.
48 (SCHOOL$4 NEAR TRANSITION$4).TI,AB.
49 47 OR 48

50 HEALTH-PROMOTION#.DE.
51 LIFE-STYLE.DE.
52 HEALTH-EDUCATION.DE.
53 ADOLESCENT-HEALTH-SERVICES.DE.
54 HEALTH-BEHAVIOR.DE.
55 (HEALTH ADJ PROMOT$4).TI,AB.
56 50 OR 51 OR 52 OR 53 OR 54
57 55 OR 56

58 ADOLESCENT.W..DE.
59 CHILD.W..DE.
60 (ADOLESCEN$3 OR PUPIL$2 OR YOUTH OR TEEN OR TEENAGE$2).TI,AB.
61 58 OR 59 OR 60

62 YEAR=2006 OR YEAR=2005 OR YEAR=2004 OR YEAR=1995 OR YEAR=2003 OR YEAR=2002 OR YEAR=2001 OR YEAR=2000 OR YEAR=1999 OR YEAR=1998 OR YEAR=1997 OR YEAR=1996

63 33 AND 46 AND 61 AND 62
64 33 AND 49 AND 61 AND 62
65 33 AND 57 AND 61 AND 62
66 32 AND 61 AND 62
67 63 OR 64 OR 65 OR 66

CINAHL (Dialog DataStar)

1	COUNSELING.DE.
2	SUPPORT-PSYCHOSOCIAL.DE.
3	PEER-COUNSELING.DE.
4	NUTRITIONAL-COUNSELING.DE.
5	SEXUAL-COUNSELING.DE.
6	SELF-ADVOCACY.DE.
7	(SOCIAL ADJ SUPPORT).DE.
8	SELF-ASSESSMENT.DE.
9	PEER-ASSISTANCE-PROGRAMS.DE.
10	NEEDS-ASSESSMENT.DE.
11	PHYSICAL-EXAMINATION.DE.
12	HEALTH-SCREENING.DE.
13	DIAGNOSIS.DE.
14	HEALTH-CONSULTATION.DE.
15	CONSULTATION.DE.
16	SCHOOL-HEALTH-SERVICES.DE.
17	SCHOOL-HEALTH-EDUCATION.DE.
18	NATIONAL-ASSOCIATION-OF-SCHOOL-NURSES.DE.
19	(HEALTH ADJ PLANNING).TI. OR (HEALTH ADJ PLANNING).AB.
20	(HEALTH ADJ CHECK).TI. OR (HEALTH ADJ CHECK).AB.
21	(HEALTH ADJ ASSESSMENT).TI. OR (HEALTH ADJ PLANNING).AB.
22	(HEALTH ADJ MOT).TI. OR (HEALTH ADJ MOT).AB.
23	1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 22
24	HARDINESS.DE.
25	PSYCHOLOGICAL-WELL-BEING.DE.
26	WELLNESS.DE.
27	EMOTIONAL-INTELLIGENCE.DE.
28	PERSONAL-SATISFACTION.DE.
29	HAPPINESS.DE.
30	EMPOWERMENT.DE.
31	STRESS-MANAGEMENT.DE.
32	24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31
33	TRANSITIONAL-PROGRAMS.DE.
34	SCHOOL ADJ TRANSITIONS
35	33 OR 34
36	HEALTH-BEHAVIOR.DE.

37 HEALTH-PROMOTION.DE.
38 ADOLESCENT-HEALTH-SERVICES.DE.
39 CHILD-HEALTH-SERVICES.DE.
40 36 OR 37 OR 38 OR 39

41 CHILD.W..DE. OR ADOLESCENCE.DE.

42 YEAR=2006 OR YEAR=2005 OR YEAR=2004 OR YEAR=1995 OR YEAR=2003 OR YEAR=2002 OR YEAR=2001 OR YEAR=2000 OR YEAR=1999 OR YEAR=1998 OR YEAR=1997 OR YEAR=1996

43 23 AND 40 AND 41 AND 42
44 23 AND 32 AND 41 AND 42
45 23 AND 35 AND 41 AND 42
46 43 OR 44 OR 45

PSYCHINFO (Dialog DataStar)

1 COUNSELING.W..DE.
2 SCHOOL-COUNSELING.DE.
3 PEER-COUNSELING.DE.
4 SCHOOL-COUNSELORS.DE.
5 SCHOOL-PSYCHOLOGISTS.DE.
6 STUDENT-PERSONNEL-SERVICES#.DE.
7 SCHOOL-NURSES.DE.
8 SUPPORT-GROUPS.DE.
9 SELF-EVALUATION.DE.
10 COMPUTER-APPLICATIONS.DE.
11 COMPUTER-ASSISTED-INSTRUCTION.DE.
12 HEALTH-SCREENING.DE.
13 GENERAL-HEALTH-QUESTIONNAIRE.DE.
14 PHYSICAL-EXAMINATION.DE.
15 NEEDS-ASSESSMENT.DE.
16 RISK-ASSESSMENT.DE.
17 PROFESSIONAL-CONSULTATION.DE.
18 (COMPUTER$4 NEAR SCREENING$1).TI,AB.
19 (COMPUTER$4 NEAR ASSESSMENT$1).TI,AB.
20 (HEALTH ADJ ASSESSMENT$1).TI,AB.
21 (SELF ADJ ASSESSMENT$1).TI,AB.
22 (HEALTH ADJ PLANNING).TI,AB.
23 (HEALTH ADJ LITERACY).TI,AB.

24 (TRAINER$1 OR ADVISER$1 OR ADVISOR$1).TI,AB.
25 HEALTH.TI,AB.
26 24 NEAR 25
27 (TAILOR$3 OR PERSONALIS$3 OR PERSONALIZ$3).TI,AB.
28 (ADVICE OR SUPPORT OR GUIDANCE OR COUNSEL$3 OR MEDIAT$3).TI,AB.
29 27 NEAR 28
30 HEALTH NEAR CONSULTATION
31 (HEALTH ADJ CHECK$1).TI,AB.
32 (LIFE ADJ CHECK$3).TI,AB.
33 (HEALTH ADJ MOT).TI,AB.
34 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 26 OR 29 OR 30
35 32 OR 32 OR 33

36 RESILIENCE-PSYCHOLOGICAL.DE.
37 WELL-BEING.DE.
38 ADAPTABILITY-PERSONALITY.DE.
39 EMOTIONAL-STABILITY.DE.
40 PSYCHOLOGICAL-ENDURANCE.DE.
41 POSITIVE-PSYCHOLOGY.DE.
42 OPTIMISM.W..DE.
43 POSITIVISM.W..DE.
44 LIFE-SATISFACTION.DE.
45 HAPPINESS.W..DE.
46 SELF-CONFIDENCE.DE.
47 SELF-ESTEEM.DE.
48 EMOTIONAL-INTELLIGENCE.DE.
49 EMOTIONAL-MATURITY.DE.
50 EMOTIONAL-CONTROL.DE.
51 EMPOWERMENT.W..DE.
52 HAPPINESS.DE.
53 36 OR 37 OR 38 OR 39 OR 40 OR 41 OR 42 OR 43 OR 44 OR 45 OR 46 OR 47 OR 49 OR 50 OR 51

54 SCHOOL-TRANSITION.DE.
55 SCHOOL-ADJUSTMENT.DE.
56 EMOTIONAL-ADJUSTMENT.DE.
57 SOCIAL-ADJUSTMENT.DE.
58 LIFE-CHANGES.DE.
59 ADOLESCENT-DEVELOPMENT.DE.
60 (SCHOOL$4 NEAR TRANSITION$4).TI,AB.
61 54 OR 55 OR 56 OR 57 OR 58 OR 59 OR 60

62 HEALTH-PROMOTION.DE.
63 HEALTH-EDUCATION.DE.
64 HEALTH-BEHAVIOR.DE.
65 LIFESTYLE-CHANGES.DE.
66 PRIMARY-HEALTH-CARE.DE.
67 (HEALTH ADJ PROMOT$4).TI,AB.
68 62 OR 63 OR 64 OR 65 OR 66 OR 67

69 HIGH-SCHOOL-STUDENTS.DE. OR INTERMEDIATE-SCHOOL-STUDENTS.DE. OR JUNIOR-HIGH-SCHOOL-STUDENTS.DE. OR MIDDLE-SCHOOL-STUDENTS#.DE. OR PRIMARY-SCHOOL-STUDENTS.DE.
70 (ADOLESCEN$3 OR PUPIL$2 OR YOUTH OR TEEN OR TEENAGE$2).TI,AB.
71 SCHOOLS.W..DE. OR ELEMENTARY-SCHOOLS.DE. OR HIGH-SCHOOLS.DE. OR JUNIOR-HIGH-SCHOOLS.DE. OR MIDDLE-SCHOOLS.DE.
72 AGE=SCHOOL-AGE-6-12-YRS OR AGE=ADOLESCENCE-13-17-YRS
73 69 OR 70 OR 71 OR 72

74 YEAR=2006 OR YEAR=2005 OR YEAR=2004 OR YEAR=1995 OR YEAR=2003 OR YEAR=2002 OR YEAR=2001 OR YEAR=2000 OR YEAR=1999 OR YEAR=1998 OR YEAR=1997 OR YEAR=1996

75 34 AND 53 AND 73 AND 74
76 34 AND 61 AND 73 AND 74
77 34 AND 68 AND 73 AND 74
78 75 OR 76 OR 77
79 35 AND 73 AND 74
80 78 OR 79

SOCIAL SCIENCE CITATION INDEX (WEB OF SCIENCE)

DocType = All document types; Language = All languages; Database = SSCI; Timespan = 1995–2006

#1 TS=counsel*
#2 TS=guidance
#3 TS=(advice OR support or mediat*) SAME TS=(tailor* or personalis* or personaliz*)
#4 TS=self-advocacy
#5 TS=peer-mediat* or TS=peer mediat*
#6 TS=self-evaluat* OR TS=self evaluat*
#7 TS=self-assessment* OR TS=self assessment*
#8 TS=computer* SAME TS=assessment*

#9 TS=needs assessment*
#10 TS=health assessment*
#11 TS=health planning
#12 TS=health literacy
#13 TS=health trainer OR TS=health advisor* OR TS=health adviser*
#14 TS=health SAME TS=screen*
#15 TS=physical exam*
#16 TS=medical evaluation
#17 TS=health check*
#18 TS=life check*
#19 TS=health MOT
#20 (TS=health SAME TS=consultation)
#21 TS=school* SAME TS=nurs*
#22 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21

#23 TS=resilien* OR TS=wellbeing OR TS=happiness OR TS=emotional development OR TS=self esteem OR TS=self concept OR TS=self worth

#24 TS=transition* OR TS=adjustment OR TS=adolescent development

#25 (TS=health SAME TS=promot*) OR (TS=health SAME TS=educat*) OR TS=health behaviour OR TS=health behavior OR TS=preventive health OR TS=public health OR TS=adolescent health

#26 TS=Adolescen* OR TS=juvenil* OR TS=teen* OR TS=youth OR TS=High School Student* OR TS=Junior High School Student* OR TS=middle school student* OR TS=secondary school student* OR TS=primary school student* OR TS=pupil*

#27 #22 AND #23 AND #26
#28 #22 AND #24 AND #26
#29 #22 AND #25 AND #26
#30 #27 OR #28 OR #29

Cochrane Register of Controlled Trials (CENTRAL), Cochrane Database of Systematic Reviews (Cochrane Library, Wiley InterScience) and Database of Abstracts of Reviews of Effects (DARE) (Cochrane Library, Wiley InterScience)

#1 MeSH descriptor Counseling, this term only in MeSH products
#2 MeSH descriptor Directive Counseling, this term only in MeSH products
#3 MeSH descriptor Child Guidance, this term only in MeSH products
#4 MeSH descriptor Self-Evaluation Programs, this term only in MeSH products
#5 MeSH descriptor Medical Informatics Applications, this term only in MeSH products
#6 MeSH descriptor Computer-Assisted Instruction, this term only in MeSH

products
#7 MeSH descriptor Mass Screening, this term only in MeSH products
#8 MeSH descriptor Physical Examination, this term only in MeSH products
#9 MeSH descriptor Medical History Taking, this term only in MeSH products
#10 MeSH descriptor Referral and Consultation, this term only in MeSH products
#11 MeSH descriptor Remote Consultation, this term only in MeSH products
#12 MeSH descriptor Needs Assessment, this term only in MeSH products
#13 MeSH descriptor School Nursing, this term only in MeSH products
#14 health NEAR consultation in Record Title or health NEAR consultation in Abstract in all products
#15 computer* NEAR screening in Record Title or computer* NEAR screening in Abstract in all products
#16 computer* NEAR assessment in Record Title or computer* NEAR assessment in Abstract in all products
#17 health NEXT assessment* in Record Title or health NEXT assessment* in Abstract in all products
#18 self NEXT assessment* in Record Title or self NEXT assessment* in Abstract in all products
#19 health NEXT planning in Record Title or health NEXT planning in Abstract in all products
#20 health NEXT literacy in Record Title or health NEXT literacy in Abstract in all products
#21 Health NEXT (trainer* OR adviser* OR advisor*) in Record Title or Health NEXT (trainer* OR adviser* OR advisor*) in Abstract in all products
#22 (tailor* OR personalis* or personalize*) AND (advice or support or guidance or counsel* or mediat*) in Record Title or (tailor* OR personalis* or personalize*) AND (advice or support or guidance or counsel* or mediat*) in Abstract in all products

#23 "Health check*" in Record Title or "Health check*" in Abstract in all products
#24 "life check*" in Record Title or "life check*" in Abstract in all products
#25 Health mot in Record Title or Health mot in Abstract in all products

#26 (#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13)
#27 (#14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22)
#28 (#23 OR #24 OR #25)
#29 (#26 OR #27)

#30 MeSH descriptor Self Concept explode all trees in MeSH products
#31 MeSH descriptor Personal Satisfaction explode all trees in MeSH products
#32 MeSH descriptor Happiness, this term only in MeSH products
#33 MeSH descriptor Drive, this term only in MeSH products
#34 MeSH descriptor Aspirations (Psychology), this term only in MeSH products
#35 MeSH descriptor Personality Development, this term only in MeSH products
#36 resilien* in Record Title or resilien* in Abstract in all products
#37 wellbeing OR well-being in Record Title or wellbeing OR well-being in Abstract in all products
#38 self-worth in Record Title or self-worth in Abstract in all products
#39 wellness in Record Title or wellness in Abstract in all products

#40 (#30 OR #31 OR #32 OR #33 OR #34 OR #35)
#41 (#36 OR #37 OR #38 OR #39)
#42 (#40 OR #41)

#43 MeSH descriptor Orientation, this term only in MeSH products
#44 MeSH descriptor Social Adjustment explode all trees in MeSH products
#45 MeSH descriptor Adolescent Development, this term only in MeSH products
#46 MeSH descriptor Life Change Events, this term only in MeSH products
#47 school* NEAR transition* in Record Title or school* NEAR transition* in Abstract in all products
#48 (#43 OR #44 OR #45 OR #46)
#49 (#47 OR #48)

#50 MeSH descriptor Health Promotion explode all trees in MeSH products
#51 MeSH descriptor Life Style, this term only in MeSH products
#52 MeSH descriptor Health Education, this term only in MeSH products
#53 MeSH descriptor Public Health, this term only in MeSH products
#54 MeSH descriptor Preventive Medicine, this term only in MeSH products
#55 MeSH descriptor Preventive Health Services, this term only in MeSH products
#56 MeSH descriptor Adolescent Health Services, this term only in MeSH products
#57 MeSH descriptor Health Behavior, this term only in MeSH products
#58 MeSH descriptor Public Health Nursing, this term only in MeSH products
#59 health near promot* in Record Title or health near promot* in Abstract in all products
#60 (#50 OR #51 OR #52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58)
#61 (#59 OR #60)

#62 MeSH descriptor Adolescent, this term only in MeSH products
#63 MeSH descriptor Child, this term only in MeSH products
#64 adolescen* or pupil* or youth or teen* or teenage* in Record Title or adolescen* or pupil* or youth or teen* or teenage* in Abstract in all products
#65 (#62 OR #63 OR #64)

#66 <nothing>, from 1995 to 2006 in all products

#67 (#29 AND #42 AND #65 AND #66)
#68 (#29 AND #49 AND #65 AND #66)
#69 (#29 AND #61 AND #65 AND #66)
#70 (#28 AND #65 AND #66
#72 (#67 OR #68 OR #69 OR #70)

C2-SPECTR (the trials register of the Campbell Collaboration) (Reference Web poster)

[school nurs] or [health assessment] or [health planning] or [health advi] or [health consult] or [health check] or [school transition] or [resilien] or [self-worth] or [adolescent development] or [personality development] or [aspiration]

AND

[Adolescen] or [juvenil] or [teen] or [young adult] or [young men] or [young man] or [young women] or [young woman] or [young person] or [young people] or [youth] or [High School Student] or [Junior High School Student] or [middle school student] or [secondary school student] or [pupil] or [sixth form student] or [school age child] or [school age boy] or [school age girl] or [older child] or [older boy] or [older girl]

Bibliomap (http://eppi.ioe.ac.uk/EPPIWeb/home.aspx?&page=/hp/databases.htm)

1 **Focus of the report**: cardiovascular OR education system OR health promotion
2 **Characteristics of the study population**: children OR young people
3 **Type(s) of intervention**: advice OR bio-feedback OR counselling OR screening
4 **1 AND 2 AND 3**

NHS National Research Register (Wiley InterScience)

#1. COUNSELING single term (MeSH)
#2. DIRECTIVE COUNSELING single term (MeSH)
#3. CHILD GUIDANCE single term (MeSH)
#4. SELF-EVALUATION PROGRAMS single term (MeSH)
#5. MEDICAL INFORMATICS APPLICATIONS single term (MeSH)
#6. COMPUTER-ASSISTED INSTRUCTION single term (MeSH)
#7. MASS SCREENING single term (MeSH)
#8. PHYSICAL EXAMINATION single term (MeSH)
#9. MEDICAL HISTORY TAKING single term (MeSH)
#10. REFERRAL AND CONSULTATION single term (MeSH)
#11. NEEDS ASSESSMENT single term (MeSH)
#12. SCHOOL NURSING single term (MeSH)
#13. (computer* near screening*)
#14. (computer* near assessment*)
#15. (health next assessment*)
#16. (self next assessment*)
#17. (health next planning)
#18. (health next literacy)
#19. (health next trainer*)
#20. (health next advisor*)
#21. (health next adviser*)
#22. (health next consultation*)
#23. (tailor* or personalis* or personaliz*)
#24. (advice or support or guidance or counsel* or mediat*)
#25. (#23 and #24)
#26. (health next check*)
#27. (life next check*)
#28. (health next mot)
#29. (#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #25 or #26 or #27 or #28)

#30. ADOLESCENT single term (MeSH)
#31. CHILD single term (MeSH)
#32. (adolescen* or pupil* or youth or teen* or teenage*)
#33. (#30 or #31 or #32)

#34. (#29 and #33)

Health-evidence.ca (http://health-evidence.ca/)

Adolescent Health OR Child Health

APPENDIX B: Details of studies included in the review (not screening tools)

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Boekeloo *et al.* (2004)	USA	RCT Process evaluation	**Age** Young people *12-17 year-olds* **Gender** Mixed sex	**What is being assessed?** Unspecified health check, with opportunistic focus on alcohol behaviours **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Self-assessment Family physician **Intervention site** Primary care	Effectiveness
Borup (1998)	Denmark	Survey	**Age** Young people *11,13 and 15 year-olds* **Gender** Mixed sex **Other information** *Data presented on age, gender and social class*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** School nurse	Acceptability

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Borup (2000)	Denmark	Survey	**Age** Young people *11,13 and 15 year-olds* **Gender** Mixed sex	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** School nurse	Acceptability
Borup and Holstein (2004)	Denmark	Survey	**Age** Young people *11,13 and 15 year-olds* **Gender** Mixed sex **Other information** *Data presented on social class*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** School nurse	Acceptability
Bracken *et al.* (1998)	USA	Outcome evaluation – design not stated	**Age** Young people **Gender** Mixed sex **Other information** *Study focuses on rural youth*	**What is being assessed?** Unspecified health check, with emotional health and well being **What is offered to the young person following the health assessment?** Individual health plan / guides	**What is the mode of the assessment?** Computer / online resource Questionnaire **Who provides the intervention?** Self-assessment Health professional – unspecified **Intervention site** Secondary education	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Briner and Farr (1995)	USA	Outcome evaluation – design not stated	**Age** Young people Adults **Gender** Mixed sex **Other information** *Data presented on junior high, high school and college students* *Study focuses on young athletes.*	**What is being assessed?** Physical / clinical measures **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Screening tool Consultation / interview **Who provides the intervention?** Health professional – unspecified **Intervention site** Secondary education Tertiary education	Effectiveness
Cowen (1997)	USA	Outcome evaluation – design not stated	**Age** Children Young people **Gender** Mixed sex	**What is being assessed?** Emotional health and wellbeing only **What is offered to the young person following the health assessment?** Referral within school	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Counsellor assistants **Intervention site** Primary education	Effectiveness
Davis (2005)	USA	review	**Age** Children Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check including physical / clinical measures **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** School nurse	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
De la Torre and Snell (2005)	Not stated	Outcome evaluation – design not stated	**Age** Children Young people **Gender** Female **Other information** *Study focuses on female athletes*	**What is being assessed?** Physical / clinical measures with opportunistic screening for eating disorders, osteoperosis, amenorrhea **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** School nurse **Intervention site** Secondary education	Effectiveness
Diaz and Manigat (1999)	Not stated	Outcome evaluation – design not stated	**Age** Children Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check with opportunistic screening for sexual abuse **What is offered to the young person following the health assessment?** Referral into health system	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Health professional – unspecified **Intervention site** Specialist clinic	Effectiveness
Epner *et al.* (1998)	USA	Process evaluation	**Age** Young people *11-18 year-olds* **Gender** Mixed sex	**What is being assessed?** Physical / clinical measures Behavioural measures **What is offered to the young person following the health assessment?** Tailored advice Resource access	**What is the mode of the assessment?** Questionnaire Consultation / interview **Who provides the intervention?** Health professional – unspecified **Intervention site** Primary care	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Ercan *et al.* (2006)	UK	needs assessment Survey	**Age** Young people *13-15 year-olds* **Gender** Mixed sex **Other information** *Data presented on age and gender*	**What is being assessed?** Single focus on emotional health and wellbeing **What is offered to the young person following the health assessment?** Tailored advice Resource access	**What is the mode of the assessment?** Computer / online resource **What is the mode of the assessment?** Screening tool **Who provides the intervention?** Self-assessment	Acceptability
Fisher (1999)	USA	Review	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not stated / unclear	Effectiveness
Fothergill *et al.* (2003)	UK	Systematic review	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Single focus on emotional health and wellbeing **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Screening tool **Who provides the intervention?** School nurse	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Fujii *et al.* (2004)	Japan	Outcome evaluation – design not stated	**Age** Children Young people Adults **Gender** Mixed sex	**What is being assessed?** Unspecified health check, including physical / clinical measures **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Questionnaire **What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Public health nurses Parent / carer **Intervention site** Primary education Secondary education	Effectiveness
Gadomski *et al.* (2003)	USA	Single group pre-test/post-test study	**Age** Young people **Gender** Mixed sex **Other information** *Data presented on younger and older adolescents*	**What is being assessed?** Behavioural measures **What is offered to the young person following the health assessment?** Referral into health system	**What is the mode of the assessment?** Questionnaire **Who provides the intervention?** Health professional – unspecified **Intervention site** Health care unit	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Hammerman *et al.* (2002)	USA	Instrument design Single group pre-test/post-test study	**Age** Young people **Gender** Mixed sex **Other information** *Study focuses on high school athletes*	**What is being assessed?** Physical / clinical measures with opportunistic asthma screening **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Questionnaire **Who provides the intervention?** Not stated / unclear **Intervention site** Secondary education	Effectiveness
Harrison *et al.* (2003)	USA	Outcome evaluation – design not stated Process evaluation	**Age** Young people **Gender** Mixed sex **Other information** *Data presented on ethnicity and gender*	**What is being assessed?** Unspecified health check, including behavioural measures **What is offered to the young person following the health assessment?** Tailored advice Individual health plan / guides	**What is the mode of the assessment?** Computer / online resource **Who provides the intervention?** Self assessment **Intervention site** Secondary education	Effectiveness Acceptability
Hill and Morton (2003)	Scotland	Survey	**Age** Children Young people Adults **Gender** Mixed sex	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not stated / unclear	Acceptability

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Hill and Watkins (2003)	UK	Outcome evaluation – design not stated	**Age** Children Young people **Gender** Mixed sex **Other information** *Study focuses on looked after Children and Young people* *Data presented on gender*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Referral into health system	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Paediatrician	Effectiveness
Holroyd and Hall (1997)	UK	Survey	**Age** Children Adults **Gender** Male	**What is being assessed?** Single focus on colour vision impairments **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** School nurses and optometrists	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Kallio *et al.* (1997)	Finland	Trial	**Age** Young people **Gender** Mixed sex **Other information** *Data presented on socio-economic background and age*	**What is being assessed?** Single focus on oral health **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Other: self-recording **Who provides the intervention?** Self-assessment **Intervention site** Intervention site unspecified	Effectiveness
Klein *et al.* (2005)	Canada	Survey	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Family physician	Uptake
Knishkowy *et al.* (2000)	Not stated	Trial	**Age** Young people **Gender** Mixed sex **Other information** *Data presented on grade, gender and protocol*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Family nurse or physician **Intervention site** Home Primary care	Uptake

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Lezin and Thouin (2000)	France	Review	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Computer / online resource	Effectiveness
Moyer and Butler (2004)	USA	Systematic review	**Age** Children Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Health professional – unspecified	Effectiveness
Nader *et al.* (1997)	USA	Trial Process evaluation	**Age** Children Adults **Gender** Mixed sex	**What is being assessed?** Single focus on cholesterol levels **What is offered to the young person following the health assessment?** Tailored advice Other: Referral within family	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Health professional – unspecified **Intervention site:** Primary education	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
North (2003)	France	Survey	**Age** Young people **Gender** Mixed sex **Other information** *Study focuses on minors followed by the Judicial Protection of the Youth (PJJ).*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Doctor	Effectiveness
Nowjack *et al.* (1995)	Not stated	RCT	**Age** Young people *14 and 15 year-olds* **Gender** Mixed sex	**What is being assessed?** Single focus on oral health **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Consultation / interview Other: self-assessment **Who provides the intervention?** Dental hygienist Self-assessment **Intervention site** Outreach Secondary education	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Ozer *et al.* (2001)	USA	Single group pre-test/post-test study	**Age** Young people *13-17 year*-olds **Gender** Mixed sex	**What is being assessed?** Unspecified health check, including behavioural measures **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Screening tool Consultation / interview **Who provides the intervention?** Clinicians **Intervention site** Specialist clinic	Effectiveness
Ozer *et al.* (2004)	USA	Survey Outcome evaluation – design not stated	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check, including behavioural measures **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Screening tool Consultation / interview **Who provides the intervention?** Health professional – unspecified	Effectiveness
Ozer *et al.* (2005)	USA	Trial Process evaluation	**Age** Young people Adults **Gender** Mixed sex	**What is being assessed?** Unspecified health check, including behavioural measures **What is offered to the young person following the health assessment?** Tailored advice	**What is the mode of the assessment?** Screening tool Consultation / interview **Who provides the intervention?** Health professional – unspecified **Intervention site** Specialist clinic	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Paperny (1997)	Not stated	Outcome evaluation – design not stated	**Age** Children Young people **Gender** Mixed sex	**What is being assessed?** Single focus on HIV / STD related behaviours **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Computer / online resource **Who provides the intervention?** Self-assessment	Effectiveness Acceptablitity
Patrick *et al.* (2001)	USA	RCT	**Age** Young people *11-15 year-olds* **Gender** Mixed sex	**What is being assessed?** Single focus on physical activity and nutrition **What is offered to the young person following the health assessment?** Individual health plan / guides	**What is the mode of the assessment?** Computer / online resource **Who provides the intervention?** Self-assessment **Intervention site** Primary care	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Patrick *et al.* (2006)	USA	RCT	**Age** Young people **Gender** Mixed sex **Other information** *Data presented on age, ethnicity, BMI, household, education level, site location and gender*	**What is being assessed?** Single focus on physical activity and nutrition **What is offered to the young person following the health assessment?** Tailored advice Individual health plan / guides Resource access	**What is the mode of the assessment?** Computer / online resource Questionnaire Consultation / interview Other: Telephone counselling calls **Who provides the intervention?** Self-assessment Health professional – unspecified **Intervention site** Outreach Primary care	Effectiveness
Presswood (2005)	USA	Outcome evaluation – design not stated	**Age** Children Young people Adults **Gender** Mixed sex	**What is being assessed?** Unspecified health check including clinical / physical measures **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** School nurse	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Pruijs *et al.* (1996)	The Netherlands	Outcome evaluation – design not stated	**Age** Children Young people *10, 12 and 14 years-old* **Gender** Mixed sex	**What is being assessed?** Single focus on screening for scoliosis **What is offered to the young person following the health assessment?** Referral into health system	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Health professional – unspecified	Effectiveness
Puskar *et al.* (1996)	USA	Outcome evaluation – design not stated	**Age** Children Young people **Gender** Mixed sex **Other information** *Study focuses on rural youth.*	**What is being assessed?** Single focus on emotional health and well being **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Computer / online resource **Who provides the intervention?** Self-assessment **Who provides the intervention?** Nurse **Intervention site** Intervention site – unspecified	Effectiveness Uptake
Redding *et al.* (1999)	Not stated	Single group pre-test/post-test study	**Age** Children Young people *high-school students* **Gender** Mixed sex	**What is being assessed?** Behavioural measures **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Computer / online resource **Intervention site** Specialist clinic	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Sarmiento *et al.* (2004)	USA	Survey Secondary analysis	**Age** Children Young people **Gender** Mixed sex **Other information** *Study focuses on in-school adolescents of differing national Latino origins.* *Data presented on gender, age, immigrant generational status, language spoken at home, parental education, poverty level, family structure, and insurance status*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not stated / unclear	Uptake
Selby *et al.* (1995)	USA	RCT	**Age** Children Adults **Gender** Mixed sex **Other information** *Study focuses on rural Children on Medicaid.*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not stated / unclear **Intervention site** Home Outreach	Uptake

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Shucksmith *et al.* (2003)	Scotland	Outcome evaluation – design not stated	**Age** Children Young people Adults **Gender** Mixed sex **Other information** *Study focuses on vulnerable families.* *Data presented on disadvantaged groups, and children with special medical needs*	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Tailored advice Individual health plan / guides Referral into health system	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** Public health visitor	Effectiveness
Stickler (2000)	Not stated	Systematic review	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Physical / clinical measures **What is offered to the young person following the health assessment?** Not applicable	**What is the mode of the assessment?** Not applicable **Who provides the intervention?** Not applicable	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Supple *et al.* (1999)	USA	RCT	**Age** Young people *12-18 year-olds* **Gender** Mixed sex **Other information** *Data presented on respondents' gender, age, race-ethnicity, or family income*	**What is being assessed?** Single focus on emotional health and wellbeing **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Computer / online resource Screening tool Questionnaire **Who provides the intervention?** Self-assessment **Intervention site** Home	Effectiveness Acceptability
Vander Stoep (2005)	USA	Outcome evaluation – design not stated	**Age** Young people *11-12 year-olds* **Gender** Mixed sex	**What is being assessed?** Single focus on emotional health and well being **What is offered to the young person following the health assessment?** Referral into health system Referral within school	**What is the mode of the assessment?** Screening tool **Who provides the intervention?** Self-assessment **Intervention site** Primary education Secondary education	Effectiveness Acceptability

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Verloove Vanhorick *et al.* (2003)	The Netherlands	Outcome evaluation – design not stated	**Age** Children Young people **Gender** Mixed sex	**What is being assessed?** General health check, including physical / clinical measures **What is offered to the young person following the health assessment?** Tailored advice Resource access Other: *vaccination, early diagnosis*	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not stated / unclear	Effectiveness
Walker *et al.* (2000)	UK	RCT Process evaluation	**Age** Young people *14-15 years-olds* **Gender** Mixed sex **Other information** *Data presented on gender*	**What is being assessed?** Physical / clinical measures Emotional health and well being Behavioural measures **What is offered to the young person following the health assessment?** Tailored advice Individual health plan / guides Referral into health system Resource access	**What is the mode of the assessment?** Screening tool Questionnaire Consultation / interview **Who provides the intervention?** Practice nurses **Intervention site** Outreach Primary care	Effectiveness Acceptability

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Walker *et al.* (2002)	UK	RCT	**Age** Young people *14-15 year-olds* **Gender** Mixed sex **Other information** *Data presented on sex, ethnicity, socioeconomic group, housing status*	**What is being assessed?** Physical / clinical measures Emotional health and well being Behavioural measures **What is offered to the young person following the health assessment?** Tailored advice Individual health plan / guides Referral into health system	**What is the mode of the assessment?** Questionnaire Consultation / interview **Who provides the intervention?** Practice nurses **Intervention site** Primary care	Effectiveness Acceptability
Walker and Townsend (1998)	UK	Systematic review	**Age** Young people *10-19 year*-olds **Gender** Mixed sex	**What is being assessed?** Single focus on emotional mental health and well being **What is offered to the young person following the health assessment?** Not applicable	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not applicable	Effectiveness
Walker and Townsend (1999)	UK	Systematic review	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Unspecified health check **What is offered to the young person following the health assessment?** Tailored advice Referral into health system Resource access	**What is the mode of the assessment?** Consultation / interview **Who provides the intervention?** GPs and practice nurses	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Werch *et al.* (2000)	USA	Trial	**Age** Young people **Gender** Mixed sex **Other information** *Study focuses on young athletes.* *Data presented on urban and rural young people*	**What is being assessed?** Physical / clinical measures with opportunistic screening for alcohol use **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not stated / unclear **Intervention site** Secondary education	Effectiveness
Werch *et al.* (2003)	USA	RCT	**Age** Young people **Gender** Mixed sex **Other information** *Study focuses on young athletes.*	**What is being assessed?** Physical / clinical measures with opportunistic screening for alcohol use **What is offered to the young person following the health assessment?** Not stated / unclear	**What is the mode of the assessment?** Consultation / interview **What is the mode of the assessment?** Other **Who provides the intervention?** Not stated / unclear **Intervention site** Home Secondary education	Effectiveness
Whitaker *et al.* (2004)	USA	Survey	**Age** Young people **Gender** Mixed sex	**What is being assessed?** Single focus on diabetes screening	**Who provides the intervention?** Trained health provider Parent / carer	Effectiveness

Item	Country	Study design	Population features	Features of intervention	Mode, provider and setting	Type of evidence
Yawn *et al.* (1998)	USA	Cohort study Survey	**Age** Children Young people **Gender** Mixed sex	**What is being assessed?** Single focus on vision screening **What is offered to the young person following the health assessment?** Referral into health system	**What is the mode of the assessment?** Not stated / unclear **Who provides the intervention?** Not stated / unclear **Intervention site** Primary education Secondary education	Effectiveness

APPENDIX C: Details of screening tools included in the review

Item	Country	Population features	Health domain
Chatterjee and Chatterjee (2005)	India	**Age** Children Young people **Gender** Mixed sex	Unspecified health screening
Chen *et al.* (2003)	Taiwan	**Age** Young people **Gender** Mixed sex	Behavioural measures
Dafflon and Michaud (2000)	France	**Age** Children Young people **Gender** Mixed sex	Behavioural measures Emotional health and wellbeing Physical / clinical measures
Gall (2002)	USA	**Age** Young people **Gender** Mixed sex	Behavioural measures

Item	Country	Population features	Health domain
Harrison *et al.* (2001)	USA	**Age** Young people **Gender** Mixed sex	Emotional health and wellbeing
Helseth and Lund (2005)	Norway	**Age** Young people **Gender** Mixed sex	Emotional health and wellbeing Physical / clinical measures
Prochaska *et al.* (2001)	USA	**Age** Young people **Gender** Mixed sex	Single focus on physical activity screening
Ravens-Sieberer (2001)	Europe	**Age** Children Young people **Gender** Mixed sex	Emotional health and wellbeing Physical / clinical measures

Item	Country	Population features	Health domain
Riley *et al.* (2004a)	USA	**Age** Children Young people Adults **Gender** Mixed sex	Behavioural measures Emotional health and wellbeing Physical / clinical measures
Riley *et al.* (2004b)	USA	**Age** Children Young people **Gender** Mixed sex	Behavioural measures Emotional health and wellbeing Physical / clinical measures
Ronning *et al.* (2004)	Norway	**Age** Young people **Gender** Mixed sex	Emotional health and wellbeing
Scherrer and Stevens (1997)	Australia	**Age** Children Young people Adults **Gender** Mixed sex	Unspecified health screening

Item	Country	Population features	Health domain
Van Antwerp (1995)	Not specified	**Age** Children Young people **Gender** Mixed sex	Behavioural measures
Vaughan *et al.* (1996)	USA	**Age** Children Young people **Gender** Mixed sex	Behavioural measures Emotional health and wellbeing
Vo *et al.* (2005)	Vietnam	**Age** Children Young people **Gender** Mixed sex	Emotional health and wellbeing Physical / clinical measures
Yarcheski *et al.* (2005)	USA	**Age** Young people **Gender** Mixed sex	Emotional health and wellbeing Physical / clinical

First produced in 2007 by:

Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)
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ISBN 978-0-9554810-1-7