

# Health, happiness and wellbeing for adolescents transitioning to adulthood: a systematic review of individual-level interventions for adolescents from vulnerable groups

**Helen Sweeting**

MRC/CSO Social and Public Health Sciences Unit

Wednesday 26<sup>th</sup> October, 2016

Royal Society of Edinburgh evening debate - "Health, happiness and well-being: supporting the transition from adolescence to adulthood" – RSE, Edinburgh

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

# Health, happiness and wellbeing for adolescents transitioning to adulthood: a systematic review of individual-level interventions for adolescents from vulnerable groups



**Gaby Vojt,**



**Hilary Thomson,**



**Mhairi Campbell,**



**Candida Fenton,**



**Helen Sweeting,**



**Jean McQueen,**

**Kathryn Skivington**

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## The brief

---

- RSE ... plans to initiate a new programme of research in the area of 'health, happiness and wellbeing', specifically aimed at understanding factors that enable young people to make successful transitions from adolescence to adulthood.
- As a first step ... [we] wish to fund two systematic reviews of empirical evaluations of interventions intended to improve health, happiness and wellbeing or reduce inequalities for young people undergoing the transition to adulthood.
- [We] anticipate funding one systematic review of population interventions and one of individual interventions. ... cover published and grey literature on studies deemed both unsuccessful and successful ... include work conducted in any country where the results may be relevant to Scotland.
- ... not extend to studies conducted on clinical populations or that examine the impact of interventions on disease end points.
- The aim ... is to inform a second stage which will focus on novel studies leading to the development and delivery of an intervention study in Scotland.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Our review

---

What is known about the impacts of non-clinical **individual level** interventions on the **mental health, or wellbeing** of **vulnerable adolescents**?

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Background / rationale – adolescent wellbeing

---

- Mental health disorders are common / start in late adolescence and early adulthood.
    - 13% Scottish 16-24 year-olds reported symptoms indicating presence of a possible psychiatric disorder (Whiteford et al., 2013).
    - 7% Glaswegian 18-20 year-olds reported ever having tried to deliberately hurt or harm themselves (Young et al., 2007).
    - Only 27% Scottish 15-year olds 'very happy' with their lives; only 9% always self-confident (Currie et al., 2015).
  - Mental disorders impact on many other aspects of current / future life.
  - Any inequalities in adolescent mental health / psychological distress generally maintained / increased into later adulthood.
- ➔ **Adolescence is therefore a potential key life-stage for mental health-related interventions.**

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Background / rationale – vulnerable adolescents

---

- Definitions of 'vulnerable group' vary according to context.
- 'Vulnerability' associated with marginalisation, social exclusion, limited opportunities and income, the experience of abuse, hardship, prejudice and discrimination.
- Vulnerable young people:
  - Are at risk of poor health outcomes.
  - Face extra challenges in making transitions to adulthood.
- Vulnerabilities often cluster, increasing risk of problems.

**"... while we want to support all young people, we must ensure we [also] target those most at risk of poor health outcomes, such as those exposed to chaotic early lives. We must work with these young people to improve their life chances"** (Harry Burns, - 'Supporting Young People's Health & Wellbeing', SG, 2013).

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Our review

---

### Aim

- To synthesise the literature that evaluates targeted non-clinical **individual interventions** aiming to improve the **mental health, mental wellbeing, or happiness** of **vulnerable adolescents**.

**In order to inform future work** leading to the development and delivery of an intervention study in Scotland by understanding:

- What interventions have strong evidence of success (for single groups / across groups);
- Where the gaps are in terms of interventions / evidence.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – best available evidence

---

### A phased approach

1. Review of **systematic reviews** plus **quality appraisal** of identified reviews and priority given to those assessed as Low Risk of Bias.
2. Review of **Randomised Controlled Trials (RCTs)** published in peer reviewed journals. RCTs are considered the most controlled and therefore least biased study design.
3. Review of **unpublished ('grey') literature** describing RCTs or evaluations with a control or comparison group.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – population - vulnerable groups included

**'Vulnerable populations': social groups with increased risk of health-related problems and with a focus on social inequalities, specifically:**

1. Looked after or care leavers
2. Homeless
3. Young offenders
4. Living in socio-economically deprived areas
5. Unemployed
6. Out of school or excluded
7. Teenage parent
8. Young carer
9. Ethnic minorities
10. Asylum seekers or Refugees
11. Sexually abused
12. Domestic Violence and Intimate Partner Violence

### Excluded

- Clinical populations, under medical treatment or supervision.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – other inclusion / exclusion criteria

	Inclusion	Exclusion
Age		
Intervention		
Comparison		
Outcome		
Other		

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – other inclusion / exclusion criteria

	Inclusion	Exclusion
<b>Age</b>	<ul style="list-style-type: none"> <li>Targeted to those aged 10-24 years.</li> </ul>	<ul style="list-style-type: none"> <li>Not aged 10-24</li> </ul>
<b>Intervention</b>		
<b>Comparison</b>		
<b>Outcome</b>		
<b>Other</b>		

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – other inclusion / exclusion criteria

	Inclusion	Exclusion
<b>Age</b>	<ul style="list-style-type: none"> <li>Targeted to those aged 10-24 years.</li> </ul>	<ul style="list-style-type: none"> <li>Not aged 10-24</li> </ul>
<b>Intervention</b>	<ul style="list-style-type: none"> <li>Aiming to improve mental health, wellbeing, or happiness</li> </ul>	<ul style="list-style-type: none"> <li>Clinical or pharmacological interventions.</li> <li>Interventions delivered in a clinical setting.</li> <li>School-based interventions.</li> </ul>
<b>Comparison</b>		
<b>Outcome</b>		
<b>Other</b>		

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – other inclusion / exclusion criteria

	Inclusion	Exclusion
<b>Age</b>	<ul style="list-style-type: none"> <li>Targeted to those aged 10-24 years.</li> </ul>	<ul style="list-style-type: none"> <li>Not aged 10-24</li> </ul>
<b>Intervention</b>	<ul style="list-style-type: none"> <li>Aiming to improve mental health, wellbeing, or happiness</li> </ul>	<ul style="list-style-type: none"> <li>Clinical or pharmacological interventions.</li> <li>Interventions delivered in a clinical setting.</li> <li>School-based interventions.</li> </ul>
<b>Comparison</b>	<ul style="list-style-type: none"> <li>Research that allows us to make some evaluation of the intervention</li> </ul>	<ul style="list-style-type: none"> <li>Studies that do not include a comparison group.</li> <li>Qualitative studies.</li> </ul>
<b>Outcome</b>		
<b>Other</b>		

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – other inclusion / exclusion criteria

	Inclusion	Exclusion
<b>Age</b>	<ul style="list-style-type: none"> <li>Targeted to those aged 10-24 years.</li> </ul>	<ul style="list-style-type: none"> <li>Not aged 10-24</li> </ul>
<b>Intervention</b>	<ul style="list-style-type: none"> <li>Aiming to improve mental health, wellbeing, or happiness</li> </ul>	<ul style="list-style-type: none"> <li>Clinical or pharmacological interventions.</li> <li>Interventions delivered in a clinical setting.</li> <li>School-based interventions.</li> </ul>
<b>Comparison</b>	<ul style="list-style-type: none"> <li>Research that allows us to make some evaluation of the intervention</li> </ul>	<ul style="list-style-type: none"> <li>Studies that do not include a comparison group.</li> <li>Qualitative studies.</li> </ul>
<b>Outcome</b>	<ul style="list-style-type: none"> <li>Mental health: measures of general mental health.</li> <li>Mental wellbeing: wellbeing scales, measures of life satisfaction or quality of life</li> <li>Happiness</li> <li>Resilience</li> <li>Impulsivity</li> <li>Self-esteem</li> <li>Sense of coherence</li> </ul>	<ul style="list-style-type: none"> <li>Only a change in 'vulnerable' status</li> <li>Physical health</li> <li>Health risk behaviours</li> <li>Clinical diagnoses</li> <li>Health service use</li> </ul>
<b>Other</b>		

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – other inclusion / exclusion criteria

	Inclusion	Exclusion
<b>Age</b>	<ul style="list-style-type: none"> <li>Targeted to those aged 10-24 years.</li> </ul>	<ul style="list-style-type: none"> <li>Not aged 10-24</li> </ul>
<b>Intervention</b>	<ul style="list-style-type: none"> <li>Aiming to improve mental health, wellbeing, or happiness</li> </ul>	<ul style="list-style-type: none"> <li>Clinical or pharmacological interventions.</li> <li>Interventions delivered in a clinical setting.</li> <li>School-based interventions.</li> </ul>
<b>Comparison</b>	<ul style="list-style-type: none"> <li>Research that allows us to make some evaluation of the intervention</li> </ul>	<ul style="list-style-type: none"> <li>Studies that do not include a comparison group.</li> <li>Qualitative studies.</li> </ul>
<b>Outcome</b>	<ul style="list-style-type: none"> <li>Mental health: measures of general mental health.</li> <li>Mental wellbeing: wellbeing scales, measures of life satisfaction or quality of life</li> <li>Happiness</li> <li>Resilience</li> <li>Impulsivity</li> <li>Self-esteem</li> <li>Sense of coherence</li> </ul>	<ul style="list-style-type: none"> <li>Only a change in 'vulnerable' status</li> <li>Physical health</li> <li>Health risk behaviours</li> <li>Clinical diagnoses</li> <li>Health service use</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>English language only</li> <li>OECD countries only</li> <li>Published since 2005</li> </ul>	<ul style="list-style-type: none"> <li>Non-English language.</li> <li>Non-OECD country.</li> <li>Published before 2005.</li> </ul>

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Methods – searches, screening and data extraction

### Databases

- N=12 - relevant subject areas of medicine, psychology, education, social studies and children (e.g. MEDLINE; British Education Index, Socindex, Psycinfo, Cochrane Library) plus Planex (grey literature).

### Screening (Covidence software)

- Of titles and abstracts by all authors (10% by two authors).
- Of full text by two authors.

### Quality appraisal of Systematic Reviews

- Used AMSTAR (A Measurement Tool to Assess Systematic Reviews).

### Data extraction for included studies

- Using data extraction template, checked by second author.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.



## Results - Identified evidence

### Systematic Reviews

- 7,231 identified → titles and abstracts screened
- 208 → full text screened re inclusion/exclusion
- 32 → included and subject to AMSTAR quality appraisal
- 22 low risk of bias = 'Good quality' reviews
- 10 high risk of bias = 'Poor quality' reviews

### Randomised Controlled Trials

- 4,449 identified → titles and abstracts screened
- 76 → full text screened re inclusion/exclusion
- 20 papers describing 16 RCTs - included

### Unpublished evaluations with a control group in the grey literature

- 8,854 identified → titles and abstracts screened
- 69 → full text screened re inclusion/exclusion
- 0 - included

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results - summary

**Insufficient evidence to identify individual-level interventions clearly benefitting the mental health/wellbeing of any of the vulnerable groups.**

- Unemployed
  - Out of school or excluded
  - Young carers
- } **No evidence**
- Asylum seekers or refugees
  - Ethnic minorities
  - Exposed to domestic/intimate partner violence
  - In socio-economically deprived neighbourhoods
- } **Not enough evidence to really say anything**
- Looked after
  - Homeless
  - Young offenders
  - Sexually abused
  - Teenage parents
- } **Small amounts of evidence allowing us to say something**
- **Practical support**
  - **Psychological interventions**

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – not enough evidence to really say anything

---

### Asylum seekers or refugees

- **Psychological interventions** – ‘good’ review found one German study suggesting creative arts improved wellbeing.

### Ethnic minorities

- **Psychological interventions** – ‘good’ review found no relevant studies on ‘culturally sensitive’ interventions; Dutch RCT found ‘culturally sensitive’ intervention had no impact on sense of mastery.

### Exposed to domestic/intimate partner violence

- **Psychological interventions** – ‘poor’ review suggested positive impact on wellbeing but didn’t report clearly; US RCT of trauma focussed CBT reported reduced anxiety and PTSD.

### In socio-economically deprived neighbourhood

- **Practical support** – ‘good’ review found no relevant studies on giving direct monetary assistance; ‘poor’ review didn’t report clearly on community engagement; US-based Move-to-Opportunity study suggested moving to more affluent neighbourhoods might improve girls’ mental health.
- **Psychological interventions** – ‘poor’ review didn’t report clearly on community mental health interventions.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results -

---

### Small amounts of evidence allowing us to say something

- **Numbers**
- **Identified papers**
- **Evidence**

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – looked after adolescents

### Scotland numbers

- 31/07/2015 - 15,404 (about 1.5% under 18s).
- ~1,500 residential accommodation.
- ~14,000 split roughly equally with: parents; friends/relatives; and foster carers.

### We identified

- 7 'good' reviews; 3 'poor' reviews; 3 RCTs.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – looked after adolescents

	Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
<b>Practical</b>				
Transition support	'Good' review			<b>0</b>
Access to services	'Good' review	<b>X</b>		
Mentoring	'Poor' review RCT (USA)			+ (older mentors) + (group mentoring)
Independent living skills	'Good' review 'Poor' review	<b>X</b> <b>X</b>		
<b>Psychological</b>				
CBT	'Good' review		<b>X</b>	
Foster carer CBT/training	'Good' review			<b>mixed</b>
Multidimensional treatment foster care	'Good' review 'Poor' review	<b>X</b>		+ (based on one relevant study)
Other mental health interventions	'Good' review			<b>mixed</b>
Stress management	RCT			<b>0</b>
'Life story'	RCT			<b>+</b>

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – looked after adolescents

Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
Prac			0
Tran	x		
Acc			+ (older mentors)
Me			+ (group mentoring)
I			
Foster care			
CBT/training			
Multidimensional treatment foster care	'Poor' review		
Other mental health interventions	'Good' review		
Stress management	RCT		
'Life story'			

### Key messages

- Insufficient evidence.
- Available evidence is conflicting.
- Some, very limited, evidence that mentoring may benefit wellbeing and mental health for looked after adolescents.

## Results – homeless adolescents

### Scotland numbers

- ~ 4% of Scottish Household Survey 16-24 year olds reported ever having been homeless.
- 2014/15 ~8,200 (1.3%) 16-24 year olds assessed as homeless.
- 2014/15 – 16-24 year olds represented 29% of the homeless population.

### We identified

- 3 'good' reviews; 1 'poor' review; 1 RCTs.

## Results – homeless adolescents

	Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
<b>Practical</b>				
Independent living skills	'Good' review			+
Homeless services	'Good' review			+
<b>Psychological</b>				
CBT	'Good' review			+
Health promotion vs art therapy	RCT (USA)			+ (for health promotion)
<b>Practical &amp; psychological</b>				
Range including CBT and family therapy	'Good' review			+ (mainly)
Range including CBT and shelter	'Good' review			+
Any primary care	'Poor' review			+ (based on one relevant study)

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – homeless adolescents

	Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
<b>Practical</b>				
Independent living skills	'Good' review			+
Homeless services	'Good' review			+
<b>Psychological</b>				
CBT	'Good' review			+
Health promotion vs art therapy	RCT (USA)			+ (for health promotion)
<b>Practical &amp; psychological</b>				
Range including CBT and family therapy	'Good' review			+ (mainly)
Range including CBT and shelter	'Good' review			+
Any primary care	'Poor' review			+ (based on one relevant study)

**Key messages**

- Practical support (especially independent living and homelessness interventions), psychological interventions (especially CBT), or a combination, can benefit mental health among homeless young people.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – young offenders

### Scotland numbers

- 2012/13 - 4.7% 8-17 year olds involved in offending behaviour.
- Only 1% youth offending is violent crimes.
- 2010/11 ~ 570 under age 18 prison / secure admissions.

### We identified

- 3 'good' reviews; 1 'poor' review; 0 RCTs.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – young offenders

	Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
<b>Psychological</b>				
<b>Group CBT</b>	'Good' review			+
<b>Music therapy</b>	'Good' review			+ (possibly – diverse studies hard to synthesise)
<b>Outdoor activities</b>	'Good' review			<b>Mixed</b>
<b>Multi-systemic therapy</b>	'Poor' review			+ (possibly – review concludes this but unclear reporting)

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – young offenders

Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
Psy Gr M			+ + (possibly - diverse studies hard to synthesise)

**Key messages**

- Insufficient evidence.
- Some evidence that group based CBT improves the mental health of young offenders.
- Unclear impact of activities such as music making, outdoor activities, or multi-systematic therapy on the mental health of young offenders.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – sexually abused adolescents

### Scotland numbers

- 2014/15 - 3,475 recorded sexual offences against under 16s (3.8 per 1,000 children).
- Statistics based on police-recorded crimes are an inaccurate reflection of actual numbers.
- 2011 NSPCC study - 11.3% of UK 18-24 year olds reported having experienced contact sexual abuse while under age 18.

### We identified

- 2 'good' reviews; 2 'poor' reviews; 1 RCT.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – sexually abused adolescents

	Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
<b>Psychological</b>				
<b>CBT</b>	'Good' review			+ (but based on wide age range, impossible to look more specifically)
	'Good' review			+
	'Poor' review			+
<b>Equine facilitated psychotherapy</b>	'Poor' review			+ (but based on few studies)
<b>Family therapy</b>	RCT			+ (but methodological issues)

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – sexually abused adolescents

	Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
<b>Psychological</b>				
<b>CBT</b>				+ (but based on wide age range, impossible to look more specifically)
				+
				+
<b>Equine facilitated psychotherapy</b>				+ (but based on few studies)
<b>Family therapy</b>				+ (but methodological issues)

### Key messages

- Insufficient evidence.
- Some evidence that CBT, can lead to reduced stress and anxiety among adolescents who have experienced sexual abuse.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.



## Results – teenage parents

### Scotland numbers

- 2014 – 3.4% among women aged under 20.
- 2014 – 0.4% among under 16s.
- Recent declines – but Scotland still has higher rates than most other western European countries.

### We identified

- 2 'good' reviews; 0 'poor' reviews; 7 RCTs.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – teenage parents

	Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
<b>Practical</b>				
<b>Various support services</b>	'Good' review	X		
<b>Parenting support</b>	'Good' review RCT (USA)	X		+ (program designed for most deprived populations)
<b>Home visiting</b>	7 RCTs (USA/Chile)			<b>mixed</b>
<b>Psychological</b>				
<b>Interpersonal therapy</b>	RCT			+

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Results – teenage parents

Evidence	Review found no studies with relevant outcomes	Review did not report on relevant studies	Impact on psychological wellbeing
Pr Va P			+ (program designed for most
<b>Psychological</b>			
Interpersonal therapy	RCT		

### Key messages

- Insufficient evidence.
- Limited evidence suggesting parenting programmes and interpersonal therapy may benefit mental health among teenage parents.
- Conflicting evidence on home visiting.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Conclusions - summary

- Overall - insufficient evidence to identify targeted non-clinical **individual** interventions which clearly benefit the **mental health, mental wellbeing, or happiness** of **vulnerable adolescents**.
- Diverse interventions identified – broadly:
  - provision of practical support;
  - psychological interventions.
- Positive impacts of CBT on the mental health and wellbeing of several groups. (Perhaps just a reflection of popularity – it’s been evaluated most.)
- No intervention consistently positive for all groups.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.

## Conclusions - implications

---

### Research

- Lack of research on mental health impacts of interventions for specific vulnerable adolescent groups.
- Useful to review evidence from non-randomised evaluations, qualitative research and 'mainstream' interventions.

### Policy and practice

- We cannot provide clear intervention models for policy makers or practitioners to follow.
- We need to pay greater attention to the wellbeing of the most vulnerable groups of young people.
- Evaluations of interventions which focus on practice outcomes should also measure mental health, happiness or wellbeing outcomes.
- Such outcomes should be assessed before implementation of any intervention.

MRC/CSO Social and Public Health Sciences Unit, University of Glasgow.