



## HBSC Briefing Paper 24

# Mental and emotional well-being in Scottish adolescents

Alina Cosma, Gill Rhodes, Candace Currie, Jo Inchley and the HBSC Scotland team<sup>†</sup>

March 2016

Adolescence is a period of intensive physical and emotional development with long-term impacts on mental and emotional well-being. This Briefing Paper presents the findings from the 2014 Scottish Health Behaviour in School-aged Children (HBSC) survey on key measures of subjective well-being: life satisfaction, happiness, quality of life, psychological complaints, and perceived stress. Many of these are included in the Children and Young People's Mental Health Indicator set established following a review of the evidence in Scotland in 2012<sup>1</sup>.

### Summary of key findings

- The majority (87%) of Scottish adolescents report being highly satisfied with their life, however life satisfaction declines with age between 11 and 15 years.
- Since 2002, life satisfaction has been consistently lower among girls than boys.
- Two-fifths (42%) of Scottish adolescents indicated that they are very happy at present, while 19% reported that they are always happy.
- Reported happiness has been consistently lower among girls and older adolescents since 2002.
- Health-related quality of life has declined since 2006 and has been consistently lower in 15-year old girls than boys.
- Almost a quarter (23%) of Scottish adolescents reported having experienced two or more psychological complaints (such as having difficulty sleeping or feeling low, irritable or nervous) within the past week.
- Reporting of two or more recent psychological complaints has been consistently higher in girls and in older age groups across six surveys (1994-2014).
- Girls and older age groups also reported higher levels of psychological stress.

### The Scottish context

Improving children and adolescents' mental health is a national priority in Scotland. The initiative Getting It Right For Every Child (GIRFEC)<sup>2</sup> is the Scottish Government's approach to improving services to support holistic well-being in young people. In Scotland, adolescent mental well-being and subjective health have previously been shown to relate to socio-economic status, gender<sup>3</sup> and geographic location.

<sup>†</sup>The 2014 HBSC Survey in Scotland was funded by NHS Health Scotland.

Thanks to other members of the HBSC Scotland team: Dorothy Currie, Karen Hunter, Fergus Neville and Ross Whitehead.

## Life satisfaction

- Across all surveys, levels of life satisfaction declined with age. (Figure 1)
- An increase from 2006 to 2014 was observed for both the 11- and 13-year old groups.
- Overall in 2014, almost nine out of ten Scottish adolescents (87%) reported high life satisfaction.

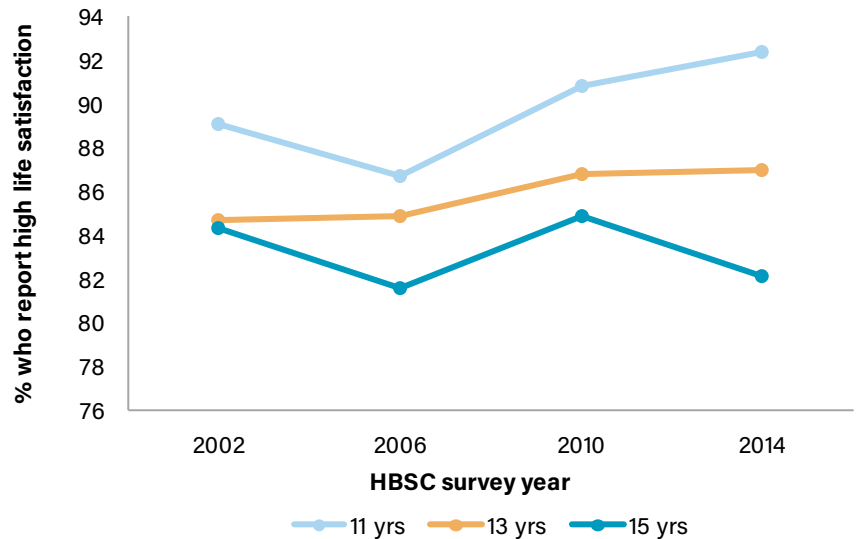


Figure 1. Life satisfaction by age and survey year

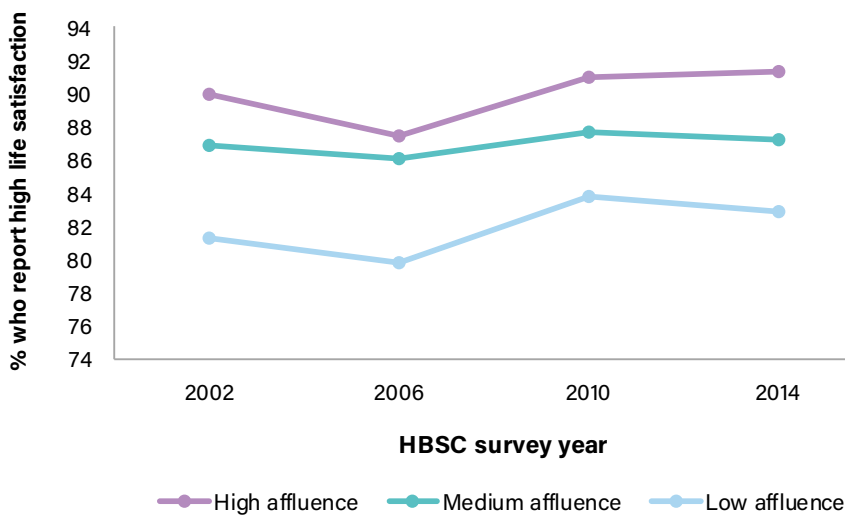


Figure 2. Life satisfaction by family affluence and survey year

- Boys (90%) were more likely to report high life satisfaction compared to girls (84%). (Figure 2-BP24 Supplement<sup>a</sup>)
- Across four survey cycles, schoolchildren from low affluence families reported lower levels of life satisfaction compared to children from medium and high affluence families (Figure 2).

## Happiness

- 42% of Scottish adolescents indicated that they are very happy at present, while 19% report they are always happy. (Table 1)
- Boys were more likely to report feeling very happy and always feeling happy.
- Both measures of happiness declined steeply with age.
- These trends have been consistent across surveys since 1994. (Figures 6-8 of BP24 Supplement)

	Very happy (%)	Always happy (%)
All	42	19
Boys	47	21
Girls	38	17
11-year olds	60	*
13-year olds	41	23
15-year olds	27	15

Table 1. Prevalence of feeling very happy and always happy

\* This question was not asked of children of this age

## Health-related quality of life

- Health-related quality of life (using the KIDSCREEN scale<sup>4</sup>) has been consistently lower in 15-year old girls than boys and declined over surveys since 2006. (Figure 3)

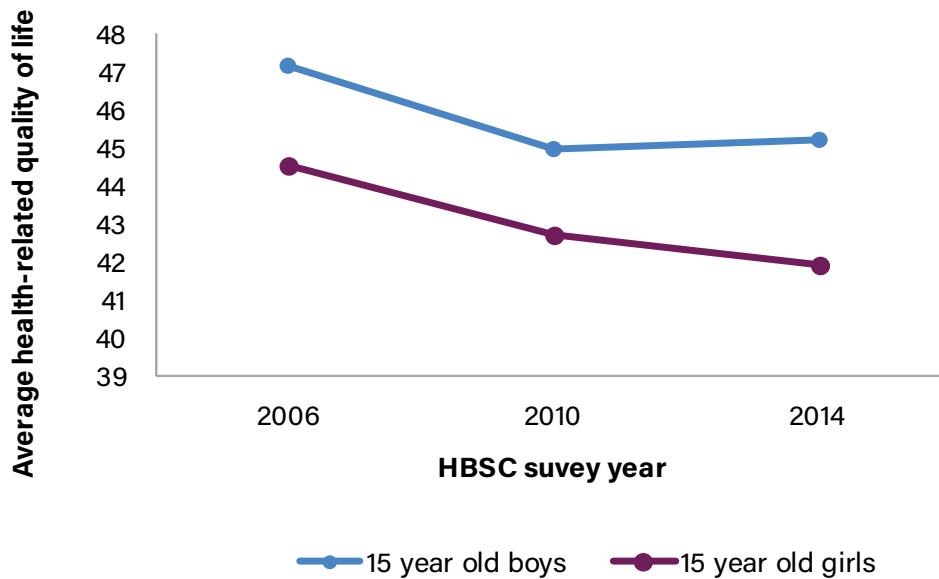


Figure 3. Health-Related Quality of Life by gender and survey year

## Perceived stress in 13- and 15-year olds\*\*

- 15-year olds (both boys and girls) indicated higher levels of stress compared to 13-year olds. (Figure 4)
- Girls in both age groups reported higher levels of stress compared to boys.
- Schoolchildren from low affluence families reported higher levels of stress compared to those from medium and high affluence families (*Figure 11- BP24 Supplement*).



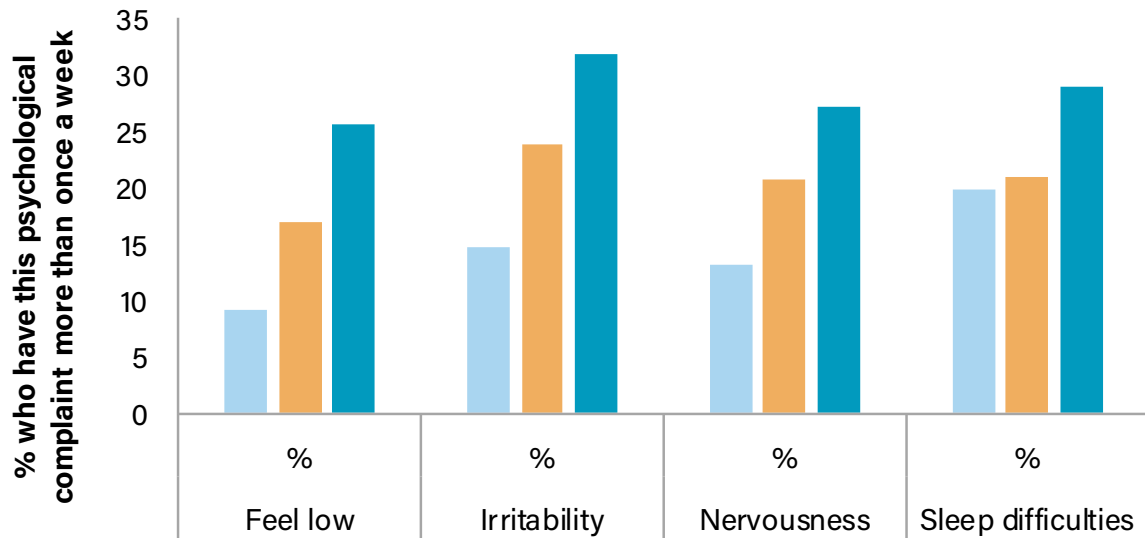
Figure 4. Mean levels for perceived stress by gender and age

\*\* Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24: 385-396.

# Psychological complaints

Adolescents were asked about how often they experienced different psychological complaints, including feeling low, irritability, nervousness, difficulty sleeping, and feeling dizzy.

- Almost a quarter of Scottish adolescents (23%) reported experiencing two or more psychological complaints within the past week, with difficulty sleeping being particularly commonplace. (Figure 5)
- Girls (30%) reported more frequent psychological complaints compared to boys (17%), and this gender difference widens with age. (Figure 6)
- 15-year olds (32%) experience psychological complaints more often than younger age groups (twice as often as 11-year olds).
- Since 2006 substantial increases have been seen in 13-year old and especially 15-year old girls.



Psychological complaints

Figure 5. Specific psychological health complaints by age (HBSC 2014 survey)

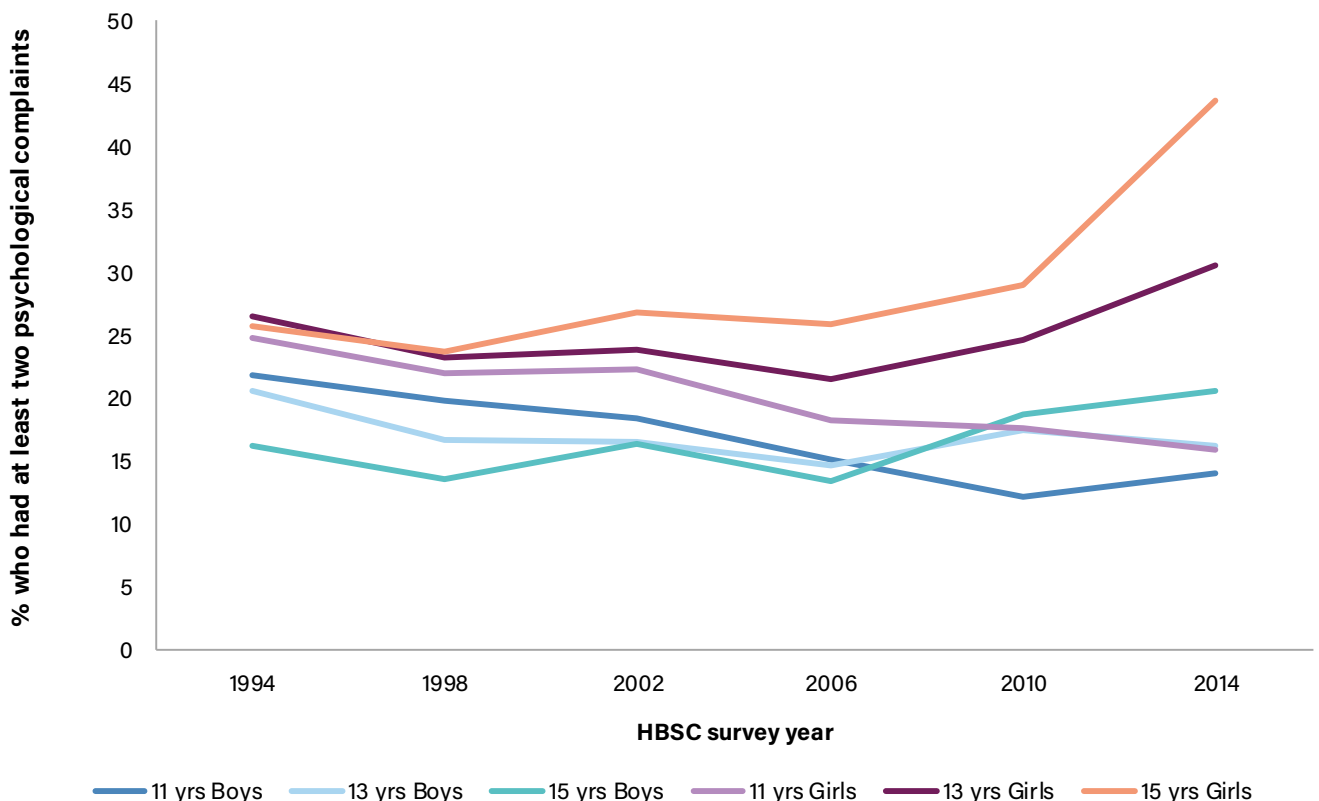


Figure 6. The experience of psychological complaints by age and survey year

## Background

Adolescence is a time of dramatic changes in body and behaviour that can influence both current and future health. Research indicates that the peak age of onset for mental health disorders is 14 years<sup>5</sup>. Low life satisfaction is associated with psychological, social, and behavioural problems while high life satisfaction is related to positive mental and emotional well-being<sup>3</sup>. High life satisfaction among adolescents is positively related with interpersonal functioning (good relationships with peers and parents), self-esteem, and hope, and negatively related with perceived school experiences (negative attitudes towards school and teachers), social stress, anxiety, and depression<sup>6</sup>. School distress and feelings of school alienation decrease the chance for students to feel happy or very happy<sup>7</sup>, whereas perceived support from teachers, and overall satisfaction with school increase the likelihood of feeling happy<sup>8</sup>. The experience of chronic stress during adolescence has a wide range of physiological and psychological consequences which are associated with mental health and chronic disease risk in adulthood<sup>9</sup>. Psychological stress can be particularly disruptive during the sensitive developmental period of adolescence, with long-term negative consequences for academic and social development<sup>10</sup>. Nonetheless, in this period, factors such as school and family connectedness<sup>11</sup>, including social support and communication from at least one caring adult, and supportive peer relations act as protective factors for positive mental health and life satisfaction<sup>12</sup>.

## Discussion of key findings

The HBSC findings presented in this Briefing Paper focused on main indicators of Scottish adolescents' mental and emotional well-being. Almost a quarter of adolescents experienced at least two psychological complaints in the past week, with irritability, sleep difficulties and nervousness being the most prevalent. Girls tended to report higher levels of psychological complaints and perceived stress, as well as lower levels of life satisfaction, general health-related quality of life and happiness. These differences may be partly explained by hormonal changes and pubertal timing (especially for psychological complaint symptoms)<sup>13</sup>. The present findings have implications for the design of targeted school interventions to promote psychological well-being among adolescents. Moreover, extensive research indicates that school interventions based on promoting positive emotions and well-being, could be effective also in decreasing distress, in particular anxiety and other aspects of mental and emotional well-being<sup>14</sup>.

## Methods

Between January and June 2014, a nationally representative sample of 10,839 Scottish school children (aged 11, 13 and 15 years) completed the HBSC survey as part of the HBSC: WHO Collaborative Cross-National Study in 42 countries. This Briefing Paper presents findings from the 2014 Scottish HBSC survey on key measures of subjective well-being: life satisfaction, happiness, quality of life, psychological complaints, and perceived stress, as well as their trends over time (1994-2014). Questions pertaining to this Briefing Paper can be viewed at: <http://www.cahru.org/content/03-publications/03-briefing-papers-and-factsheets/briefing-papers-and-factsheets/14-scottish-questionnaire>

## Acknowledgements

We thank all local authorities, schools and pupils who took part in the 2014 Scottish HBSC survey. We acknowledge all members of the HBSC International Research Network who prepared the HBSC protocol, the international databank, and the support of the WHO Regional Office for Europe. The 2014 HBSC Survey in Scotland was funded by NHS Health Scotland. Further information on the international and Scottish HBSC surveys can be found at [www.hbsc.org](http://www.hbsc.org) and [www.cahru.org](http://www.cahru.org), respectively.

<sup>9</sup>For more information about the data presented and extra figures, please check BP24 Supplement - [http://www.cahru.org/content/03-publications/03-briefing-papers-and-factsheets/BP24\\_Supplement.pdf](http://www.cahru.org/content/03-publications/03-briefing-papers-and-factsheets/BP24_Supplement.pdf)

## References

1. Parkinson J. Establishing a core set of national, sustainable mental health indicators for children and young people in Scotland: Final Report. NHS Health Scotland. 2012 Mar.
2. Scottish Government (2015). Getting It Right For Every Child. <http://www.gov.scot/Topics/People/Young-People/gettingitright> Accessed May 2015.
3. Levin KA, Currie C, Muldoon J. Mental well-being and subjective health of 11-to 15-year old boys and girls in Scotland, 1994–2006. *The European Journal of Public Health*. 2009 Apr 21:ckp046.
4. Herdman M, Raimil L, Ravens-Sieberer U, Bullinger M, Power M, Alonso J and the European KIDSREEN Group, and DISABKIDS Group (2002). Expert consensus in the development of a European health-related quality of life measure for children and adolescents: a Delphi study. *Acta Paediatrica*, 91: 1385-1390
5. Paus T, Keshavan M, Giedd JN. Why do many psychiatric disorders emerge during adolescence?. *Nature Reviews Neuroscience*. 2008 Dec 1;9(12):947-57.
6. Gilman R, Huebner ES. Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence*. 2006 Jun 1;35(3):293-301.
7. Natvig GK, Albrektsen G, Qvarnström U. Associations between psychosocial factors and happiness among school adolescents. *International journal of nursing practice*. 2003 Jun 1;9(3):166-75.
8. Suldo SM, Riley KN, Shaffer EJ. Academic correlates of children and adolescents' life satisfaction. *School Psychology International*. 2006 Dec 1;27(5):567-82.
9. Cohen S, Janicki-Deverts D, Miller GE. Psychological stress and disease. *Jama*. 2007 Oct 10;298(14):1685-7.
10. Middlebrooks, J.S. & Audage, N.C. (2008). *The Effects of Childhood Stress on Health Across the Lifespan*. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.
11. Levin KA, Currie C. Family structure, mother-child communication, father-child communication, and adolescent life satisfaction: A cross-sectional multilevel analysis. *Health Education*. 2010 Apr 20;110(3):152-68.
12. Berndt, T.J. (1996). Transitions in friendship and friends' influence. In: J.A. Graber, J. Brooks-Gunn, A.C. Petersen (Eds.) *Transitions through Adolescence: Interpersonal Domains and Context*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
13. Ge X, Conger RD, Elder Jr GH. Pubertal transition, stressful life events, and the emergence of gender differences in adolescent depressive symptoms. *Developmental psychology*. 2001 May;37(3):404.
14. Ruini C, Ottolini F, Tomba E, Belaise C, Albieri E, Visani D, Offidani E, Caffo E, Fava GA. School intervention for promoting psychological well-being in adolescence. *Journal of Behavior Therapy and Experimental Psychiatry*. 2009 Dec 31;40(4):522-32.