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Parental separation in childhood, social capital, and suicide thoughts and suicide attempts: A population-based study

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Abstract

Studies of the association between parental separation in childhood and suicide thoughts and attempts are scarce. The aim of this study is to investigate associations between parental separation/divorce during childhood, and ever having had suicide thoughts and ever having made suicide attempt, adjusting for social capital and other covariates. In 2012 a cross-sectional public health survey was conducted in Scania, southern Sweden, with a postal questionnaire with 28,029 participants aged 18–80. Associations between parental separation/divorce during childhood and ever having considered suicide or having made suicide attempt were analyzed by logistic regression. Overall, 12.1% of the men and 15.5% of the women had experienced suicide thoughts, and 3.2% of the men and 5.3% of the women had ever tried committing suicide. Among men, 20.4% had experienced parental separation during childhood until age 18, and among women 22.3%. Parental separation/divorce in childhood was with few exceptions significantly associated with ever having had suicide thoughts with the highest odds ratios for those who had experienced parental separation during ages 0-4 years. Parental separation/divorce in childhood was significantly associated with suicide attempts among men who had experienced parental separation/divorce at ages 0-4 and 15-18, and among women at any age 0-18.

Key words: Parental separation, divorce, suicide thoughts, suicide attempt, suicide, social capital, Sweden.

1.Introduction

Suicide is a major public health problem. The overall estimated suicide rate in the world was 16/100,000 per year in 2002, and the suicide rate in the USA in 2002 was 17.9/100,000 among men, 4.2/100,000 among women and 11.0/100,000 in total

(www.suicide.org/international-suicide-statistics.html). In Sweden the average suicide rate for the years 2010-2012 was 17.3/100,000 among men and 6.7/100,000 among women (Heimersson, 2014). The total (both sexes) suicide rate in Sweden was 11.6/100,000 in 2012

(data.oecd.org/healthstat/suicide-rates.htm). Sweden has experienced a decline in suicide numbers and rates since the early 1990s (Titelman et al., 2013; Heimersson, 2014), a fact which has been partly attributed to the new generation of SSRI antidepressant drugs in Sweden (Persson, 2005) as well as for instance in the United States (Milane et al., 2006). However, in the age group 15-24 no trend of decline in suicide has been apparent (Titelman et al., 2013), and the development in recent years have even revealed an increase in this age interval. Suicide attempts have also increased in the 15-24 year age group (Heimersson, 2014).

Suicide thoughts, suicide attempts and suicide in adolescence and adulthood depend on a range of factors including circumstances in childhood and adolescence. Parental depression history is a strong and statistically significant risk factor for depression, suicide attempts and completed suicide among offspring in childhood, adolescence and adulthood (Brent et al., 1994; Gould et al., 1996; Brennan et al., 2002; Hammen et al., 2004). The determinant investigated in this study is parental separation/divorce experienced during childhood until the age of 18 years. In 2012, approximately 50,000 children under age 18 in Sweden experienced parental separation/divorce, and the number of separations/divorces has been high and rather stable between 20,000 and 25,000 per year since the 1970s (Tollebrant, 2013). Parental separation/divorce may affect suicidality through several pathways. Children in families which experience parental separation/divorce are more likely to display problematic behaviours, adjustment problems (Amato and Keith, 1991), psychological disorders, substance use disorders (Barrett and Turner, 2006; Lansford et al., 2006) and subsequent adult adjustment problems (Rutter et al., 2006).

Previous studies show somewhat differing patterns of associations between parental separation/divorce and offspring suicidality. In one study, gender-specific analyses among showed that the association between parental divorce and suicidal ideation remained

statistically significant among men even after the inclusion of childhood stressors, adult socioeconomic factors, adult health behaviours, adult stressors, marital status and history of mood and/or anxiety disorders in multiple logistic regression models (Fuller-Thomson and Dalton, 2011). Other studies have failed to show statistically significant associations between parental separation/divorce and suicidal ideation/thoughts as well as between parental separation/divorce and suicide attempts (Afifi et al., 2009). Other studies entailing gender-specific analyses have revealed that the associations between parental separation/divorce and ever having experienced a suicide attempt were stronger among women than among men (Lizardi et al., 2009, 2010), but one study showed only statistically significant results for men (Donald et al., 2006) and another study showed no statistically significant associations (Wan and Leung, 2010). In one study, the bivariate association between parental separation/divorce and completed suicide was a statistically not significant hazard ratio (HR) 1.69 (0.60-4.72), but the comparatively high effect measure was not significant due to a small number of incident cases of suicide (Geoffroy et al., 2014).

No study has to our knowledge investigated how exposure to parental separation/divorce at different age intervals in childhood is related to suicide thoughts and suicide attempts in the adulthood of the offspring. To specify the time when parental separation/divorce occurred in childhood would also make it possible to specify critical periods, i.e. periods when “an exposure acting during a specific period has lasting or lifelong effects on the structure or function of organs, tissues, and body systems that are not modified in any dramatic way by later experience” (Kuh and Ben-Schlomo, 2004), for associations between parental separation/divorce and suicide thoughts and suicide attempts. This study specifies whether parental separation/divorce occurred in childhood in the age intervals 0-4, 5-9, 10-14 or 15-18 years. Furthermore, no studies have to our knowledge investigated age differences in ever having had suicide thoughts and ever having made suicide attempts. All analyses were stratified for sex due to the different patterns of associations between parental separation/divorce and suicide thoughts and attempts in substantial parts of the previous literature. Our first hypothesis is that experience of parental separation/divorce earlier in childhood is more strongly associated with experience of suicide thoughts and suicide attempts than parental separation later in childhood due to higher early life psychological and developmental vulnerability. Our second hypothesis is that lower offspring adult age (current age of participants in the study) is more strongly associated with experience of suicide thoughts and suicide attempts, because the trends in suicide attempts and suicide in the 15-24

year age interval have been adverse compared to the corresponding trends for older adult age groups.

Previous studies have shown that factors such as age, country of birth, socioeconomic status (SES), civil (marital) status, emotional support, instrumental support and generalized trust in other people (an aspect of social capital) are associated with mental health (Lindström et al., 2012; Lindström and Rosvall, 2012, Lindström et al., 2014), which is the rationale for including them as covariates in the analyses. Indicators of socioeconomic status in childhood such as self-reported economic stress in childhood have previously been associated with poor mental health in adulthood (Lindström et al., 2014), and is thus also included.

The aim of this study is to investigate the association between parental separation/divorce during childhood and ever having considered taking one's own life and ever having tried taking one's own life, respectively, including socioeconomic status, civil status, emotional support, instrumental support, generalized trust in other people and economic stress in childhood as covariates in the analyses.

2. Methods and materials

Study population

The public health survey in Scania, southern Sweden in 2012 is a cross sectional study. It is based on a stratified random (weighted) sample of people in Scania from the public population register of residents. In August to September 2012, a total of 28,029 persons responded by returning the questionnaire, which represents a 51.7% response rate. Three reminder questionnaires were also sent to the initial non-respondents. Ethical approval was granted by the Ethical Committee, Lund University, Sweden.

Dependent variables

The item “*Have you ever considered taking your own life, and may even have planned how you would do it?*” (suicide thoughts) was assessed with the alternative answers “No, never”, “Yes, more than a year ago”, “Yes, during the past year”, and “Yes, during the past week”. The item was dichotomized with the first item as “No” and the three latter items as “Yes”.

The item “*Have you ever tried to take your own life?*” (suicide attempt) was assessed with the alternative answers “No, never”, “Yes, more than a year ago”, “Yes, during the past year”, and “Yes, during the past week”. The item was dichotomized with the first item as “No” and the three latter items as “Yes”.

Independent variables

Parental separation/divorce was assessed with the item “Did your parents divorce or separate at any time during your childhood and adolescence before you became 18 years old?” with the alternative answers “Yes” and “No”.

Age at parental divorce/separation was assessed with the item “How old were you when your parents divorced/separated?” with the alternatives 0-4, 5-9, 10-14 and 15-18 years. The two items parental separation/divorce and age at parental separation/divorce were merged.

Age was categorized into the age strata 18-24, 25-34, 35-44, 45-54, 55-64 and 65-80 years.

Stratification by *sex* was conducted in the analyses.

Born in Sweden/born in other country than Sweden. Participants born outside Sweden were aggregated into one group which was compared to participants born in Sweden.

Socioeconomic status (by occupation) included the categories employed on the labour market higher non-manual employees, medium level non-manual employees, low level non-manual employees, skilled manual workers, unskilled manual workers and self-employed/farmers. The groups outside the workforce (without occupation) consists of long-term sick-leave, unemployed, students, pensioners and unclassified/homeworkers.

Civil status was assessed with the alternatives married/registered partnership/co-habitant, unmarried, divorced and widow/widower.

Emotional support was measured with the item “Do you feel that you have someone or some persons who can give you proper personal support to cope with the stress and problems of

life?” which had four alternative answers: “Yes, I am absolutely certain to get such support”, “Yes, possibly”, “Not certain”, and “No”. The three latter were collapsed as low emotional support.

Instrumental support was retrieved with the question “Can you get help by some or several persons in case of illness or practical problems (borrow minor items, help with reparation, help to write a letter, getting advice or information)?” which contained the same alternatives as the emotional support item, and was dichotomized accordingly.

Generalized trust in other people assesses the individual’s level of generalized trust in other people. It was appraised by the item “Generally, you can trust other people” which entails the four answer alternative: “Do not agree at all”, “Do not agree”, “Agree”, and “Completely agree”. These were dichotomized, the two first alternatives denoting low trust and the two latter denoting high.

Economic stress in childhood was assessed with the question “Did your family experience economic hardship during your childhood” with the three alternative answers “No, no significant problems”, “Yes, less severe problems and/or problems during short time periods” and “Yes, severe problems and/or problems during long time periods”.

Statistics

Prevalences (%) of parental separation/divorce before age 18, age, birth country, socioeconomic status, civil status, emotional support, instrumental support, trust, economic stress in childhood, having ever considered taking one’s own life and having tried to take one’s own life, stratified by sex were assessed (table 1). Prevalences (%) (within strata of each variable) and odds ratios with 95% confidence intervals (OR:s, 95% CI) of having ever considered taking one’s own life and having ever tried taking one’s own life were calculated according to parental divorce/separation before age 18, age, birth country, civil status, socioeconomic status, emotional support, instrumental support, trust and economic stress in childhood (tables 2 and 3). Age-adjusted and multiple adjusted odds ratios and 95% confidence intervals of having ever considered taking one’s own life and having ever tried taking one’s own life were calculated according to parental separation/divorce until age 18

(tables 4 and 5). All tables were stratified by sex. The statistical analyses were performed using the SPSS software package version 22.0 (Norusis, 2013).

3. Results

Table 1 shows that 12.1% of the men and 15.5% of the women had ever considered taking their own life, and that 3.2% of the men and 5.3% of the women had ever tried taking their own life. Among men, 79.6% had not experienced parental divorce or separation during childhood until the age 18 years, while 5.9% had experienced parental divorce/separation when 0-4 years old, 5.6% when 5-9 years old, 5.0% when 10-14 years old and 3.9% when 15-18 years old. Among women, 77.7% had not experienced parental divorce or separation during childhood until the age 18 years, while 6.7% had experienced parental separation/divorce when 0-4 years old, 5.9% when 5-9 years old, 5.9% when 10-14 years old and 3.8% when 15-18 years old. The distributions (prevalence) of age, country of birth, socioeconomic status, civil status, emotional support, instrumental support, trust and economic stress in childhood are also shown in table 1.

Table 2 demonstrates that the odds ratios and prevalence (%) in bivariate analyses of ever having considered taking one's own life (suicide thoughts) were significantly higher among those who had experienced parental separation/divorce (in all age intervals in childhood), among the youngest (age group 18-24 years) than among those aged 35 and above, among those born abroad, the unskilled blue collar workers, those on long term sick leave, the unemployed, the students, those without SES information/homeworkers, those with low emotional support, low instrumental support, those with low trust and those who had experienced less severe and severe economic stress in childhood among both men and women. Medium level non-manual employees and skilled manual workers also had significantly higher odds ratios of ever having considered taking their own life compared to higher level non-manual employees among men. In contrast, both male and female pensioners and widows had considered taking their own life to a significantly lower extent than higher non-manual employees and married. In contrast, widowers did not significantly differ from married men.

Table 3 shows that the odds ratios and prevalence (%) in bivariate analyses of ever having tried taking one's own life were significantly higher among the younger, those born abroad,

those on long term sick leave, the unemployed, the students, those without SES information/homeworkers, those with low emotional support, low instrumental support, low trust and those who had experienced less severe and severe economic stress in childhood among men and women. The odds ratios and prevalence (%) in bivariate analyses of ever having tried taking one's own life were also significantly higher among those who had experienced parental separation/divorce in the age intervals 0-4 years, 5-9 years, 10-14 years and 15-18 years among women but only in the age interval 0-4 years among men. Medium level non-manual employees, lower level non-manual employees, skilled and unskilled manual workers as well as employers/farmers also had significantly higher odds ratios of ever having tried taking their own life compared to higher level non-manual employees among women but not among men. In contrast, widows had tried taking their own life to a significantly lower extent than married.

Table 4 displays that the odds ratios of ever having considered taking one's own life were higher among both male and female respondents who had experienced parental separation/divorce during their childhood compared to those who had not. The highest odds ratios were observed among male and female respondents who had experienced parental separation/divorce when their age was 0-4 years, OR 2.76 (2.29-3.36) among men and OR 1.65 (1.38-1.97) among women after multiple adjustments with all covariates except economic stress in childhood. A high effect measure was also seen among men who had experienced parental separation/divorce when they were 15-18 years old, OR 2.11 (1.65-2.70). In the full model including economic stress in childhood the odds ratios were attenuated to a limited extent but remained significant for experience of separation/divorce in the age ranges 0-4, 5-9 and 15-18 years among men, and in the age ranges 0-4, 5-9 and 10-14 years among women.

Table 5 shows that among men only respondents who had experienced parental separation/divorce in childhood at ages 0-4 years, OR 2.50 (1.79-3.48) and ages 15-18 years, OR 2.43 (1.63-3.62) in the multiple adjustments, had significantly higher odds ratios of ever having tried taking their own life (compared to the reference group with no parental separation/divorce experience). In contrast, all respondents who had experienced parental separation/divorce had significantly higher odds ratios of ever having tried taking their own life among women (compared to the no separation/divorce reference group). The highest

effect measure for women, OR 1.76 (1.35-2.30) was seen among women who had experienced parental separation/divorce when they were 0-4 years old.

4. Discussion

Parental separation/divorce in childhood was significantly associated with ever having had suicide thoughts, with the highest odds ratios for those who experienced parental separation at ages 0-4 years. In the fully adjusted models (models c) the only exceptions were those who had experienced parental separation/divorce in the age range 10-14 years among men and 15-18 years among women. Parental separation/divorce in childhood was significantly associated with suicide attempt among men who had experienced parental separation/divorce in the age ranges 0-4 and 15-18 years but not in the age ranges 5-9 and 10-14 years, and among women who had experienced parental separation/divorce at any age 0-18 years. Experience of ever having had suicide thoughts and having made suicide attempt were significantly more common in the 18-24 year age group than among older adults aged 35 and above (the exception being men aged 35-44 in the case of suicide attempt), which supports the observation that recent suicide trends are adverse in the 15-24 age range in Sweden.

This study supports the notion that social factors in early life may affect adult psychological and mental health. It conveys statistically significant results with strong effect measures (high odds ratios) for both men and women. The results of the analyses of the associations between parental separation/divorce and ever having experienced suicide thoughts and suicide attempts are thus more consistent in terms of lack of sex differences, strength of effect measures and statistical significance at the common 5% significance level than in most other studies. Some plausible reasons include the high number of participants (statistical power) and the fact that this is a population-based study based on a random (weighted) sample of the population, which also may give a more representative view of the situation. Some previous studies suffer from low statistical power although effect measures are comparatively strong (Geoffroy et al., 2014). The higher odds ratios for the associations in the 0-4 age group among both men and women are notable. For women the associations between parental separation/divorce and suicide attempts also stay statistically significant for all childhood ages 0-18 years in the fully adjusted models. Among men only the 0-4 and 15-18 age intervals remain significant in the full models. It may be that early childhood and adolescence are critical periods for the effects

of parental separation/divorce in childhood on suicide attempt in adulthood among men, but this question can only be disentangled by future research.

The results are robust, particularly considering the fact that economic stress in childhood was included as a proxy for socioeconomic status in childhood. The results are attenuated to some extent by the inclusion of this variable in models c in the multiple analyses in tables 4 and 5, but the results mostly remain statistically significant even when a proxy of socioeconomic status in childhood is included. Factors not included in the questionnaire study such as experience of conflict before parental separation/divorce as well as psychological sense of loss, abuse or increased risk of violence may partly explain what remains of the robust associations in the full models. Still, this remains to be investigated.

There seems to be no obvious reasons to believe that the strong associations between parental separation/divorce and ever having experienced suicide thoughts and suicide attempts should be due to conditions specific for the Swedish context. However, the level of contact between the non-custodial parent (often the father) and the child is normally rather high (e.g. every second weekend) but widely differs in the individual cases. Sometimes the time between the original/biological parents is divided equally. This may be one reason why the findings in our study are similar for men (boys) and women (girls), although this explanation should not be overstated given the fact that the study includes men and women in the age range 18-80 years.

The overall suicide rate in Sweden and other western countries has declined in recent decades for reasons which most probably include better medical and non-medical treatment of depression. However, an adverse trend with increasing suicide rates in the age interval 15-24 years particularly among women has been demonstrated (Heimersson, 2014; Titelman et al., 2013). The results of this study display that the odds ratios of ever having experienced suicide ideation/suicide thoughts and ever having made a suicide attempt were significantly higher in the 18-24 year age group than in any other adult age group. Since suicide ideation/suicide thoughts and suicide attempts may be regarded as preconditions for completed suicide this study suggests an explanation for the worrying and reverse trend in the 15-24 age interval in Sweden and probably also some other countries. This finding calls for further studies regarding underlying social factors such as for instance unemployment, which has been high in this age interval in Sweden in recent years, but also existential and non-material issues and characteristics of a postmodern society.

Social capital, mostly defined as social network/participation and generalized trust in others (Coleman, 1990; Putnam, 2000), is associated with mental health (Lindström, 2004). The results of this study suggest that social capital in the form of trust is significantly and strongly associated with both ever having experienced suicide thoughts and suicide attempts. However, it should also be noted that social capital did not attenuate the association between parental divorce/separation and suicide thoughts and suicide attempts.

The results of this study may have implications for prevention and clinical practice in Sweden because parental separation/divorce in childhood might be regarded as a marker for increased risk of suicide thoughts/consideration and attempt in adulthood.

Strengths and limitations

Several previous studies have used single items concerning suicidal ideation/suicide thoughts and suicide attempts such as the questions used in our survey (Sorenson and Rutter, 1991; Vilhjalmsson et al., 1998; Enns et al., 2006; Park et al., 2006; Afifi et al., 2009; Fuller-Thomson and Dalton, 2011). The 51.7% participation rate is a limitation in the study. However, a previous postal questionnaire study in Scania in 2008 with approximately the same participation rate showed acceptable correspondence between socio-demographic variables in register data and among the participants, a finding which makes selection bias less likely (Lindström et al., 2014). Information on economic stress in childhood is scarce, so the access to this item is a strength. On the other hand, the fact that the economic stress in childhood item is self-reported may be regarded as a limitation.

Confounders and covariates such as age, birth country, socioeconomic status, civil status, emotional support, instrumental support, trust and economic stress in childhood were adjusted for. Sex stratification was conducted due to sex differences in the previous literature. The proportions of internally missing were approximately 9% for the two items suicide thoughts and suicide attempt and considerably lower for the other items. No items regarding religiosity were included in the 2012 questionnaire because Sweden is one of the most secularized countries in the world.

The cross-sectional study design makes causal inference formally impossible. However, the item concerning parental separation/divorce concerns the age interval 0-18 years for the offspring and precedes the age interval 18-80 years when participants answered the questionnaire.

Conclusions

Experience of ever having had suicide thoughts and ever having experienced suicide attempts were generally more common in the 18-24 year age group than among older adults 35 and above. The experience of parental separation/divorce was mostly significantly associated with ever having had suicide thoughts and ever having made a suicide attempt among both men and women, and the odds ratios were highest when parental separation in childhood occurred in the age range 0-4 years.

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Table 1. Prevalence (%) of ever having considered and ever having tried taking one's own life, experience of parental separation/ divorce in childhood, age, country of birth, socioeconomic status, civil status, emotional support, instrumental support, generalized trust in other people and economic stress in childhood. The public health survey in Scania 2008. N=28,029.

	Men (n = 12,828)	Women (n = 15,201)	Total (n = 28,029)
Ever having considered taking one's own life			
No	87.9	84.5	86.2
Yes, more than a year ago	8.2	11.3	9.7
Yes, during the last year	3.1	3.4	3.3
Yes, during the last week	0.9	0.7	0.8
Ever having tried taking one's own life			
No	96.8	94.7	95.8
Yes, more than a year ago	2.6	4.6	3.6
Yes, during the last year	0.5	0.6	0.5
Yes, during the last week	0.1	0.1	0.1
Parental separation/divorce			
No	79.6	77.7	78.6
Yes, aged 0-4 years	5.9	6.7	6.3
Yes, aged 5-9 years	5.6	5.9	5.8
Yes, aged 10-14 years	5.0	5.9	5.5
Yes, aged 15-18 years	3.9	3.8	3.8
Age			
18-24	11.2	13.7	12.5
25-34	17.1	18.0	17.5
35-44	17.5	17.9	17.7
45-54	17.7	16.9	17.3
55-64	16.2	15.3	15.7
65-80	20.3	18.1	19.2
Born in Sweden/born in other country than Sweden			
Sweden	79.1	77.8	78.4
Other country	20.9	22.2	21.6
Socioeconomic status			
High non-manual	11.7	9.6	10.6
Medium non-manual	9.8	12.9	11.3
Low non-manual	5.7	10.2	7.9
Skilled bluecollar	14.2	13.1	13.6
Unskilled bluecollar	14.1	12.8	13.3
Employer/farmer	9.8	4.8	7.3
Sick leave/ long-term	2.5	4.0	3.2
Unemployed	5.7	4.7	5.2
Student	6.2	8.4	7.3
Pensioner	20.4	18.8	19.6
SES not available/ homeworker	0.2	0.8	0.5
Civil status			
Married/ registered partnership/ co-habitant	65.6	62.5	64.0
Unmarried	25.6	22.7	24.1

Divorced	7.0	9.5	8.2
Widower/ widow	1.9	5.4	3.6
Emotional support			
High	61.2	68.4	64.8
Low	38.8	31.6	35.2
Instrumental support			
High	71.4	76.6	74.0
Low	28.6	23.4	26.0
Trust			
High	62.9	62.7	62.8
Low	37.1	37.3	37.2
Economic stress in childhood			
No significant problem	67.6	67.2	67.4
Less severe and/or shorter period	24.3	24.3	24.3
Severe and/or longer period)	8.1	8.5	8.3

Table 2. Prevalence (%) and odds ratios (OR, 95% CI) in bivariate analyses of ever having considered taking one's life according to parental separation/ divorce in childhood/ adolescence, age, country of birth, socioeconomic status, civil status, emotional support, instrumental support, generalized trust in other people and economic stress in childhood. The public health survey in Scania 2012. N=28,029.

	Men (n=12,828)		Women (n=15,201)	
	%	OR(95% CI)	%	OR(95% CI)
Parental separation/divorce				
No	10.2	1.00	13.6	1.00
Yes, aged 0-4 years	26.2	3.13 (2.62-3.73)	25.2	2.14 (1.81-2.52)
Yes, aged 5-9 years	16.2	1.70 (1.38-2.10)	22.6	1.85 (1.54-2.22)
Yes, aged 10-14 years	14.8	1.52 (1.21-1.92)	20.2	1.62 (1.34-1.95)
Yes, aged 15-18 years	20.6	2.28 (1.82-2.87)	18.9	1.48 (1.17-1.88)
Age				
18-24	17.5	1.00	21.3	1.00
25-34	16.5	0.93 (0.78-1.12)	21.2	0.99 (0.85-1.16)
35-44	15.0	0.82 (0.68-0.98)	15.5	0.68 (0.58-0.80)
45-54	12.1	0.64 (0.53-0.78)	16.9	0.75 (0.64-0.88)
55-64	9.9	0.52 (0.42-0.63)	12.2	0.51 (0.43-0.61)
65-80	5.5	0.28 (0.22-0.34)	7.0	0.28 (0.23-0.34)
Born in Sweden/born in other country than Sweden				
Sweden	11.6	1.00	14.7	1.00
Other country	14.3	1.27 (1.12-1.44)	18.3	1.29 (1.16-1.45)
Socioeconomic status				
High non-manual	7.9	1.00	12.3	1.00
Medium non-manual	10.8	1.42 (1.09-1.84)	14.4	1.19 (0.96-1.48)
Low non-manual	9.7	1.24 (0.91-1.69)	13.1	1.07 (0.84-1.35)
Skilled bluecollar	11.3	1.48 (1.17-1.89)	14.6	1.22 (0.98-1.52)
Unskilled bluecollar	15.3	2.10 (1.67-2.65)	18.7	1.63 (1.32-2.02)
Employer/farmer	9.0	1.15 (0.88-1.51)	14.2	1.18 (0.89-1.56)
Sick leave/ long-term	37.3	6.95 (5.16-9.38)	38.0	4.38 (3.42-5.60)
Unemployed	27.4	4.41 (3.42-5.68)	23.3	2.17 (1.68-2.80)
Student	20.3	2.96 (2.28-3.83)	21.9	2.00 (1.60-2.50)
Pensioner	6.2	0.77 (0.61-0.99)	7.4	0.57 (0.45-0.72)
SES not available/ homemaker	25.0	3.91 (1.53-10.03)	20.8	1.86 (1.10-3.14)
Civil status				
Married/ registered partnership/ co-habitant	8.8	1.00	12.3	1.00
Unmarried	18.4	2.29 (2.04-2.58)	23.2	2.17 (1.94-2.42)
Divorced	19.0	2.39 (1.99-2.87)	22.0	2.02 (1.74-2.36)
Widower/ widow	11.5	1.31 (0.88-1.95)	7.5	0.58 (0.43-0.77)
Emotional support				
High	8.5	1.00	11.8	1.00
Low	18.0	2.38 (2.14-2.65)	23.5	2.29 (2.08-2.53)
Instrumental support				
High	9.3	1.00	12.9	1.00
Low	19.5	2.37 (2.13-2.65)	23.7	2.10 (1.89-2.33)
Trust				
High	9.2	1.00	11.5	1.00
Low	17.2	2.05 (1.84-2.28)	22.2	2.19 (1.99-2.42)

Economic stress in childhood

No significant problem	9.8	1.00	12.6	1.00
Less severe and/or shorter period	15.5	1.69 (1.49-1.90)	19.0	1.63 (1.46-1.82)
Severe and/or longer period)	21.3	2.49 (2.10-2.94)	28.8	2.82 (2.43-3.27)

Table 3. Prevalence (%) and odds ratios (OR, 95% CI) in bivariate analyses of ever having tried taking one's life according to parental separation/ divorce in childhood/ adolescence, age, country of birth, socioeconomic status, civil status, emotional support, instrumental support, generalized trust in other people and economic stress in childhood. The public health survey in Scania 2012. N=28,029.

	Men (n=12,828)		Women (n=15,201)	
	%	OR(95% CI)	%	OR(95% CI)
Parental separation/divorce				
No	2.6	1.00	4.2	1.00
Yes, aged 0-4 years	7.7	3.14 (2.33-4.23)	10.6	2.70 (2.12-3.43)
Yes, aged 5-9 years	3.2	1.25 (0.81-1.94)	8.5	2.11 (1.60-2.78)
Yes, aged 10-14 years	3.7	1.42 (0.92-2.20)	8.0	1.96 (1.48-2.60)
Yes, aged 15-18 years	6.6	2.66 (1.82-3.89)	7.7	1.90 (1.34-2.69)
Age				
18-24	4.6	1.00	7.4	1.00
25-34	3.6	0.78 (0.56-1.10)	7.2	0.98 (0.77-1.24)
35-44	3.9	0.83 (0.60-1.16)	5.1	0.67 (0.52-0.87)
45-54	3.3	0.69 (0.49-0.98)	5.8	0.78 (0.60-1.00)
55-64	3.0	0.64 (0.45-0.92)	3.8	0.50 (0.37-0.67)
65-80	1.5	0.30 (0.20-0.46)	2.1	0.35 (0.26-0.47)
Born in Sweden/born in other country than Sweden				
Sweden	2.4	1.00	4.5	1.00
Other country	5.9	2.50 (2.03-3.08)	8.1	1.85 (1.56-2.19)
Socioeconomic status				
High non-manual	1.8	1.00	2.3	1.00
Medium non-manual	2.5	1.40 (0.83-2.35)	3.8	1.60 (1.02-2.50)
Low non-manual	1.1	0.61 (0.27-1.34)	4.5	1.94 (1.23-3.05)
Skilled bluecollar	1.7	0.94 (0.56-1.59)	4.3	1.84 (1.19-2.85)
Unskilled bluecollar	4.7	2.66 (1.71-4.14)	5.9	2.58 (1.69-3.95)
Employer/farmer	1.9	1.07 (0.61-1.87)	6.2	2.72 (1.67-4.43)
Sick leave/ long-term	17.6	11.62 (7.19-18.79)	17.3	8.58 (5.56-13.23)
Unemployed	7.9	4.59 (2.86-7.37)	10.1	4.59 (2.91-7.23)
Student	4.9	2.80 (1.69-4.64)	7.7	3.45 (2.24-5.31)
Pensioner	1.8	1.00 (0.62-1.62)	3.0	1.28 (0.83-1.97)
SES not available/ homemaker	8.3	5.73 (1.40-23.47)	8.3	3.89 (1.75-8.65)
Civil status				
Married/ registered partnership/ co-habitant	2.1	1.00	3.9	1.00
Unmarried	5.0	2.48 (1.99-3.09)	8.1	2.20 (1.84-2.62)
Divorced	6.3	3.18 (2.34-4.34)	9.6	2.62 (2.10-3.28)
Widower/ widow	2.0	1.02 (0.42-2.46)	1.8	0.44 (0.25-0.79)
Emotional support				
High	2.2	1.00	3.7	1.00
Low	4.6	2.14 (1.74-2.62)	8.8	2.53 (2.16-2.96)
Instrumental support				
High	2.3	1.00	4.1	1.00
Low	5.3	2.37 (1.93-2.90)	9.1	2.34 (1.99-2.75)
Trust				
High	1.9	1.00	3.4	1.00
Low	5.1	2.70 (2.19-3.33)	8.6	2.72 (2.32-3.19)
Economic stress in childhood				

No significant problem	2.5	1.00	3.8	1.00
Less severe and/or shorter period	3.7	1.49 (1.18-1.87)	6.4	1.70 (1.42-2.04)
Severe and/or longer period)	7.0	2.93 (2.21-3.88)	13.7	3.99 (3.24-4.91)

Table 4. Age-adjusted and multiple adjusted odds ratios (OR, 95% CI) of ever having considered taking one's life according to parental separation/ divorce. The public health survey in Scania 2012. N=28,029.

Men			
	OR (95% CI)^a	OR (95% CI)^b	OR (95% CI)^c
No	1.00	1.00	1.00
Yes, aged 0-4 years	2.74 (2.29-3.28)	2.76 (2.29-3.36)	2.35 (1.93-2.86)
Yes, aged 5-9 years	1.40 (1.13-1.73)	1.41 (1.12-1.77)	1.26 (1.00-1.58)
Yes, aged 10-14 years	1.32 (1.04-1.66)	1.30 (1.01-1.66)	1.20 (0.93-1.53)
Yes, aged 15-18 years	2.03 (1.81-2.56)	2.11 (1.65-2.70)	1.96 (1.53-2.52)
Women			
	OR (95% CI)^a	OR (95% CI)^b	OR (95% CI)^c
No	1.00	1.00	1.00
Yes, aged 0-4 years	1.83 (1.54-2.16)	1.65 (1.38-1.97)	1.38 (1.15-1.66)
Yes, aged 5-9 years	1.54 (1.28-1.85)	1.55 (1.27-1.88)	1.34 (1.10-1.63)
Yes, aged 10-14 years	1.45 (1.20-1.75)	1.46 (1.19-1.78)	1.33 (1.09-1.63)
Yes, aged 15-18 years	1.32 (1.04-1.68)	1.31 (1.01-1.68)	1.22 (0.94-1.58)

a Adjusted for age.
b Adjusted for age, country of birth, socioeconomic status (SES), civil status, emotional support, instrumental support and trust.
c Adjusted for age, country of birth, socioeconomic status (SES), civil status, emotional support, instrumental support, trust and economic stress in childhood.

Table 5. Age-adjusted and multiple adjusted odds ratios (OR, 95% CI) of ever having tried taking one's life according to parental separation/ divorce. The public health survey in Skåne Scania 2012. N=28,029.

Men			
	OR (95% CI)^a	OR (95% CI)^b	OR (95% CI)^c
No	1.00	1.00	1.00
Yes, aged 0-4 years	2.82 (2.09-3.82)	2.96 (2.15-4.07)	2.50 (1.79-3.48)
Yes, aged 5-9 years	1.07 (0.69-1.67)	1.10 (0.69-1.75)	1.02 ((0.64-1.62)
Yes, aged 10-14 years	1.27 (0.82-1.97)	1.30 (0.82-2.06)	1.23 (0.78-1.95)
Yes, aged 15-18 years	2.43 (1.66-3.55)	2.57 (1.73-3.82)	2.43 (1.63-3.62)
Women			
	OR (95% CI)^a	OR (95% CI)^b	OR (95% CI)^c
No	1.00	1.00	1.00
Yes, aged 0-4 years	2.36 (1.85-3.01)	2.18 (1.68-2.82)	1.76 (1.35-2.30)
Yes, aged 5-9 years	1.81 (1.37-2.40)	1.79 (1.33-2.42)	1.51 (1.12-2.05)
Yes, aged 10-14 years	1.79 (1.34-2.38)	1.88 (1.39-2.52)	1.70 (1.26-2.29)
Yes, aged 15-18 years	1.72 (1.21-2.45)	1.69 (1.15-2.48)	1.57 (1.07-2.31)

a Adjusted for age.

b Adjusted for age, country of birth, socioeconomic status (SES), civil status, emotional support, instrumental support and trust..

c Adjusted for age, country of birth, socioeconomic status (SES), civil status, emotional support, instrumental support, trust and economic stress in childhood.