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Psychiatric and somatic health in relation to experience of parental divorce in childhood

Teresia Ängarne-Lindberg[1] and Marie Wadsby[1]

Abstract

Background: The outcome of studies about the experience of parental divorce and its effects on mental and physical health differs, a result possibly caused by the use of different questionnaires and instruments, varying length of time since the divorce and divergent drop-out of participants.
Aims: To study the presence of psychiatric records and number of diagnosed somatic and mental healthcare visits in a group of young adults with childhood experience of parental divorce in comparison to a group without this experience.
Methods: The presence of records at public psychiatric clinics and 10 years of administrative healthcare data (somatic and mental) were checked for both groups.
Results: Significantly more persons from the divorce group appeared in child and adolescent psychiatric care; this was most pronounced in females. However, there were no significant differences between the groups in the number of persons seeking adult psychiatry or in the number of psychiatric consultations. Experience of parental divorce was not found to be an indicator of larger somatic health problems.
Conclusion: Experience of parental divorce in childhood is not an indicator of adult psychiatric or somatic need of care.

Keywords

somatic health, parental divorce, psychiatric records

Introduction

Parental divorce and its possible consequences is a life event that has been investigated by many researchers and interest in this subject remains strong since the divorce rate continues to be high, although a slight decline has been observed in Sweden (Statistics Sweden, 2007). Most studies on divorce assume it to be a stressful life event, an event to which both children and adults have to adjust (Amato, 2000). However, the accessible resources in this process of adjustment and circumstances around the divorce show variation. The divorce literature offers many theories as to why the psychological well-being of persons who experienced parental divorce in childhood differ (Amato, 2000; Hetherington and Stanley-Hagan, 1999). Some research has pointed at theories such as crisis theory being more directly connected to the divorce, while others focus on factors such as economic deprivation, family structure and inter-parental conflict, associated with or following divorce (Gähler, 1998). These and additional or other circumstances have been shown to contribute to a variety of problems such as alcohol abuse, smoking, behavioural/conduct problems, anxiety and depression (Amato, 2001; Harland et al., 2002; Lu et al., 2008; Rothman et al., 2008; Størksen et al., 2005).

Adverse childhood experiences such as parental divorce or circumstances caused by the divorce have, besides or in addition to mental health problems, been said to contribute to poorer physical health (Nunes-Costa et al., 2009). Published studies have pointed at larger risks for the development of psychosomatic disorders and also for the development of cancer (Hemminki and Chen, 2006; Masuda et al., 2007). One study has claimed divorce to be a stressor responsible for maladjusted neuropsychobiological responses causing a decline in children's physical health (Nunes-Costa et al., 2009).

There is, however, other research that emphasizes the small average differences, in absolute terms, between persons with divorced and with continuously married parents. These results point at good mental health among a majority

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of persons with childhood experience of parental divorce (Amato, 2001; Ängarne-Lindberg and Wadsby, 2009; Chase-Lansdale et al., 1995; Gähler, 1998).

Therefore it can be seen that the outcome of studies on the experience of parental divorce and its effects on mental health differ. Diverse studies rely in general on different questionnaires and instruments, and it is not unusual for the length of time that has passed since divorce to vary from study to study. These differences and varying drop-out of participants are factors that may influence some of the differences in the outcome of studies (Afifi et al., 2009; Amato, 2001; Ängarne-Lindberg and Wadsby, 2009; Jónsson et al., 2000; Størksen et al., 2005; Størksen et al., 2006; Tyrka et al., 2008). A homogeneous and systematic study of the matter in focus, with no drop-outs and a similar length of time passed since divorce, might therefore add to previous research.

No study has, as far as the present authors were aware, explored the presence of child and adolescent psychiatric and psychiatric records, and in addition to this, the number of diagnosed visits for somatic health problems including visits for mental and behavioural difficulties, in a group of young adults with a similar time passed since parental divorce in childhood, and compared this to a group of young adults whose parents are still married to each other. This method would examine whether persons with divorced parents are more affected by health problems, both psychiatric and somatic, than those with parents who are still married to each other.

Aim

The main purpose of the present study was to investigate if the presence of a child and adolescent and/or a psychiatric record was more common among young adults (age 27–38, age 7–18 at parental divorce, 20 years earlier), men and women respectively, with childhood experience of parental divorce, than among young adults (age 27–38) without this experience, this within public healthcare. If so, whether there was also a difference in given diagnoses and the number of psychiatric consultations between the groups.

The second aim was to study whether possible over-representation of the divorce group in the group who sought healthcare could be connected to experienced parental divorce.

The third aim was to investigate if there was a difference between the divorce and the non-divorce groups in the number of persons seeking relief for different somatic health problems, and if inpatient and outpatient data for these people held additional information about mental and behavioural problems.

Material and methods

Subjects

The divorce group comprised all the men and women who were children between 0–18 years ($N = 239$, 119 male, 120 female) when their parents filed for and completed a divorce at the district court in Linköping, Sweden during one year (July 1987 to June 1988), 20 years before the beginning of the study.

A comparison group ($N = 239$, 119 male, 120 female) was formed of men and women whose parents were still married to each other. Persons of the same gender, born on the same, following or preceding day as the corresponding person in the divorce group, and who were living in the same area at the time of the start of the study comprised the non-divorce group. The participants in the comparison group were captured from the Swedish national population register, with due permission.

The court's judicial district includes Sweden's fifth largest city, some small densely populated areas and some rural areas, well representing the population in the country except for the biggest three city areas.

Procedure

The first task was to determine if there was a record for each participant at the child and adolescent psychiatric clinic (up to 18 years of age, the general age limit for child and adolescent psychiatry in Sweden) and/or at the psychiatric clinic (18 years and older) at the University Hospital in Linköping serving the study region. This procedure was made with due permission from the current head physicians at these clinics and with approval from the human research ethics committee at Linköping University.

In those cases where a record was found, the diagnosis (plus possible divorce-related difficulties or narratives) and whether it was a consultation with psychiatrist, psychologist or social worker were noted.

In addition to these data, information was also obtained, with due permission, from the administrative database in the area. The administrative collection of data in the current county council started on 1 January 1998. The data in the present study include all accessible data about the number of in- and outpatient healthcare visits, somatic diagnoses, and mental and behavioural diagnoses, during the period from the beginning of administrative data collection to 30 December 2008, the end of the data collection for this study.

Psychiatric care: Diagnoses according to DSM-IV

All persons in the divorce and the non-divorce group with a psychiatric record were diagnosed according to DSM-IV, and the diagnoses were grouped according to the DSM-IV manual (American Psychiatric Association, 1994). The adult psychiatric records all contained diagnoses, but most child and adolescent psychiatric records lacked a DSM-IV diagnosis due to accepted praxis within child psychiatric outpatient care. It was, however, fully possible for a practised child and adolescent psychiatrist to assign diagnoses according to the DSM-IV manual from the content of the records. The process of assigning diagnoses was blind: the practised child and adolescent psychiatrist was not told to

which group (divorced or non-divorced parents) each individual belonged.

Somatic in- and outpatient healthcare: Diagnoses according to ICD-10

All recorded and diagnosed healthcare visits of persons in the divorce and the non-divorce group were obtained from the administrative database, and they were then placed into groups according to the ICD-10 diagnosis and classification system (Socialstyrelsen, 1997).

Ethical considerations

The study was approved by the human research ethics committee at the Faculty of Health Sciences, Linköping University (Dnr: 139-08). Permission for access to the psychiatric records was granted by the heads of the child/adolescent and adult psychiatric clinics at the University Hospital in Linköping, Sweden.

Statistical analyses

The results of the diagnoses and groups according to DSM-IV are presented in terms of numbers and percentages; the results of type of consultation are presented in terms of mean values and standard deviations (SD); and the result of diagnoses according to ICD-10 are presented in terms of the number of persons and the number of consultations. Differences between the divorce and the non-divorce groups in the number of diagnoses according to DSM-IV were analysed using Fisher's exact test; differences between the groups in the number of consultations were analysed using the Mann-Whitney *U*-test; and differences between groups in the number of persons in need of outpatient care were analysed using χ^2 or Fisher's exact test where appropriate. In all calculations of statistics, the SPSS version 14.0 software was used.

Results

Presence of psychiatric contact

Both men ($\chi^2 = 11.20$, $p < 0.001$) and women ($\chi^2 = 28.49$, $p < 0.001$) in the divorce group had significantly more often had a child and adolescent psychiatric contact compared to the non-divorce group; 20.9% (18 men, 32 women) in the divorce group compared to 2.1% (3 men, 2 women) in the non-divorce group. In the divorce group, it was noted that women more often than men had been given care ($\chi^2 = 4.37$, $p < 0.05$).

No significant difference was found between the divorce and the non-divorce group in adult psychiatric contacts, even when gender was considered. In the divorce group, 6.7% (7 men, 9 women) had had this kind of contact compared to 6.7% (4 men, 12 women) in the non-divorce group (Figure 1).

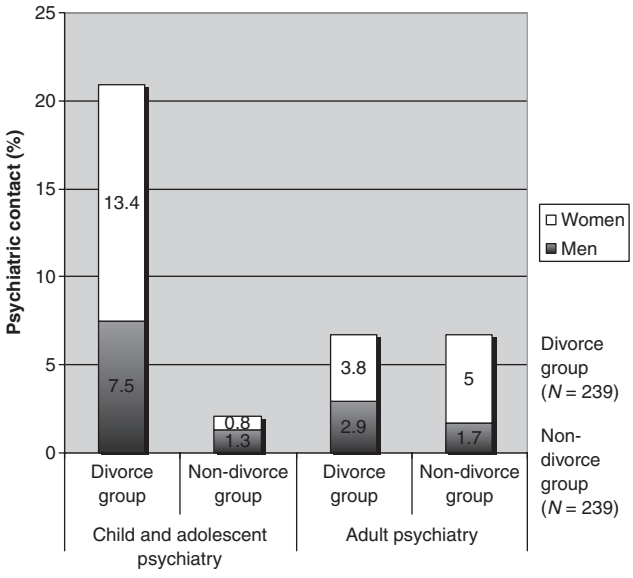

Figure 1. Incidence of psychiatric contacts in the divorce and the non-divorce groups

Psychiatric records: Diagnoses, number and type of treating consultations

A significant difference was found between the divorce group and the non-divorce group in three groups of diagnoses, according to DSM-IV, in child and adolescent psychiatric care: 'Disorders usually first diagnosed in infancy childhood or adolescence' ($p < 0.05$); 'Mood disorders' ($p < 0.05$) and 'Additional codes' ($p < 0.001$). All three diagnoses were more common in the divorce group than in the non-divorce group. The most common diagnoses in the diagnosis group 'Additional groups' were to be preferentially referred to as 'Relational difficulties between family members' and 'Antisocial behaviour' (Table 1).

Records from adult psychiatry showed no significant differences between the divorce and the non-divorce groups as concerned psychiatric DSM-IV diagnoses (Table 2).

There was no significant difference between the divorce and non-divorce groups in the number or type of consultations – that is, first or subsequent consultations and number of consultations with psychiatrist or psychologist/social worker. Similarly no difference was observed between gender either within child and adolescent psychiatric care or within adult psychiatric care (Table 3a and b).

Seven persons (7%) in the divorce group and two persons (1%) in the non-divorce group had both a child/adolescent and an adult psychiatry record (Tables 1 and 2).

Somatic out- and inpatient healthcare: Diagnoses and number of consultations

The comparison between the divorce group and the non-divorce group in outpatient care showed a significant difference in five diagnosis groups according to ICD-10. More

Table 1. Diagnoses according to DSM-IV: Child and adolescent psychiatry

Stated cause for contact	Divorce group			Non-divorce group			Test of significance Fisher's exact test	Files in both child/ adolescent and adult psychiatry Divorce/Non-divorce group
	(*N* = 239)		Gender ratio (M:W)	(*N* = 239)		Gender ratio (M:W)		
	n	%		*n*	%			
1. Disorders usually first diagnosed in infancy, childhood or adolescence	**5**	2.1	3:2	**0**	0.0	0:0	$p < 0.05$	**1/0**
Learning disorders	1			0				
Attention-deficit and disruptive behaviour disorders	1			0				
Feeding and eating disorders of infancy or early childhood	1			0				
Tics and compulsory behaviour	1			0				1
Encopresis without constipation	1			0				
2. Substance-related disorders	**1**	0.4	1:0	**0**	0.0	0:0		**0/0**
Intox-judgement	1			0				
3. Schizophrenia and other psychotic disorders	**1**	0.4	1:0	**0**	0.0	0:0		**1/0**
Alcohol abuse, criminality, aggressiveness, voice-hallucinations	1			**0**				1
4. Mood disorders	**7**	2.9	0:7	**1**	0.4	0:1	$p < 0.05$	**0/1**
Moderate depression, sadness, irritability	4			0				
Depression, cutting injuries, recurrent thoughts of death	1			0				
Depression disorders	1			1				1
Apathy and passivity	1			0				
5. Anxiety disorders	**6**	2.5	1:5	**1**	0.4	1:0		**1/0**
Panic disorder	1							1
Specific phobia	0			1				
Social phobia	2							
Acute stress disorder	2							
Sleeping disorder, fear of death	1			0				
6. Somatoform disorders	**3**	1.3	0:3	**0**	0.0	0:0		**0/0**
Pain associated with psychological factors	2	0						
Eczema	1	0						
7. Eating disorders	**4**	1.7	0:4	**0**	0.0	0:0		**2/0**
Bulimia nervosa	4			0				2
8. Personality disorders								
9. Additional codes	**21**	8.8	12:9	**3**	1.2	2:1	$p < 0.001$	**2/1**
Antisocial behaviour	6			0				1/1
Physical abuse of child by adult	1			0				
Relational difficulties between family members	8			0				
Sexual abuse of child	4			1				1
Physical abuse of child by another child	1			0				
Relational problems	1			0				
Missing files	**2**	0.8	0:2	**0**				
Total	**50*** **	**20.9**	**18:32*** **	**5**	**2.0**	**3:2**		**7/2**

*** $p < 0.001$

Table 2. Diagnoses according to DSM-IV: Adult psychiatry

Diagnoses according to DSM-IV	Divorce group (*N* = 239)		Gender ratio (M:W)	Non-divorce group (*N* = 239)		Gender ratio (M:W)	Test of significance Fisher's exact test	Files in both child/adolescent and adult psychiatry Divorce/Non-divorce group
	n	%		*n*	%			
1. Disorders usually first diagnosed in infancy, childhood, or adolescence.	**2**	0.8	2:0	**0**	0.0	0:0		**1/0**
299.80	1			0				
307.23	1			0				1
2. Substance-related disorders	**1**	0.4	0:1	**2**	0.8	1:1		**0/0**
292.89	0			1				
305.99	1			1				
3. Schizophrenia and other psychotic disorders.	**2**	0.8	2:0	**0**	0.0	0:0		**1/0**
295.30	2			0				1
4. Mood disorders	**1**	0.4	0:1	**4**	1.7	1:3		**0/1**
296.3	0			3				1
296.4	1			0				
311	0			1				
5. Anxiety disorders	**4**	1.7	1:3	**3**	1.3	1:2		**1/0**
300.01	3			1				1
300.21	0			1				
308.3	2			0				
309.81	0			1				
6. Somatoform disorders	**0**			**0**				**0/0**
7 Eating disorders	**2**	0.8	0:2	**0**	0.0	0:0		**2/0**
307.51	2			0				2
8. Personality disorders	**0**	0.0	0:0	**1**	0.4	0:1		**0/0**
301.83	0			1				
9. Additional codes	**1**	0.4	0:1	**1**	0.4	0:1		**1/1**
995.5	1			1				
No diagnosis	**1**	0.4	1:0	**1**	0.4	0:1		**1/0**
Missing files	**2**	0.8	1:1	**4**	1.7	1:3		
Total	**16**	**6.5**	**7:9**	**16**	**6.7**	**4:12**		**7/2**

Table 3a. Type of consultation among persons in divorce group and non-divorce group with a record in child and adolescent psychiatry

Type of consultation	Number of consultations						Test of significance (Mann-Whitney *U*-test)
	Divorce group (*n* = 48)[a]			Non-divorce group (*n* = 5)			
	M	SD	Range	*M*	SD	Range	
Total	11.2	15.4	(1–94)	18.8	34.2	(2–80)	NS
First consultation[b]	1.1	0.3	(1–2)	1.0	0.0	(1–1)	NS
Subsequent consultations	10.1	15.4	(0–93)	17.8	34.2	(1–79)	NS
Proportion of the total that were:							
Consultations with psychiatrist[c]	4.4	4.7	(1–21)	28.0	0.0	(28–28)	NS
Consultations with psychologist[c] or social worker	10.5	13.9	(1–73)	13.2	21.7	(2–52)	NS

[a] 2 files are missing
[b] First visit is recorded when > 18 months have elapsed since last consultation
[c] One person can consult both psychiatrist and psychologist/social worker

Table 3b. Type of consultation among persons in divorce group and non-divorce group with record in adult psychiatry

Type of consultation	Number of consultations						Test of significance (Mann-Whitney *U*-test)
	Divorce group (n = 14)[a]			Non-divorce group (n = 12)[b]			
	M	SD	Range	*M*	SD	Range	
Total	25.4	29.6	(1–107)	15.4	11.6	(1–34)	NS
First consultation [c]	1.2	0.4	(1–2)	1.1	0.3	(1–2)	NS
Subsequent consultations	24.1	29.6	(0–106)	14.1	11.7	(0–33)	NS
Proportion of the total that were:							
Consultations with psychiatrist[d]	14.3	27.7	(1–107)	4.7	3.4	(2–12)	NS
Consultations with psychologist[d] or social worker	28.8	24.0	(5–75)	19.7	7.4	(10–31)	NS

[a] 2 files are missing.
[b] 4 files are missing.
[c] First visit is recorded when > 18 months have elapsed since last consultation
[d] One person can consult both psychiatrist and psychologist/social worker

frequent in the non-divorce group were: 'Neoplasms' ($p < 0.01$); 'Endocrine, nutritional and metabolic diseases' ($p < 0.05$); 'Diseases of the musculoskeletal system and connective tissue' ($p < 0.001$); and 'Factors influencing health status and contact with health services' (administrative contacts, medical examinations, observations or controls, etc.) ($p < 0.001$). The divorce group showed a higher frequency than the non-divorce group only in one diagnosis group: 'Injury, poisoning and certain other consequences of external causes' ($p < 0.001$) (Table 4).

A significant difference between the divorce group and the non-divorce group in inpatient care was present only in

Table 4. Diagnoses according to ICD-10. Number of persons in need of outpatient care, and number of occasions

Classification according to ICD-1	Number of persons (occasions)		Test of significance χ^2/Fisher's exact test
	Divorce group (N = 239)	Non-divorce group (N = 239)	
1. Certain infectious and parasitic diseases	51 (87)	51 (64)	
2. Neoplasms	27 (43)	49 (64)	$p < 0.01$
3. Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	2 (3)	2 (3)	
4. Endocrine, nutritional and metabolic diseases	3 (3)	12 (20)	$p < 0.05$
5. Mental and behavioural disorders	38 (86)	30 (69)	
6. Diseases of the nervous system	15 (18)	17 (19)	
7. Diseases of the eye and adnexa	19 (27)	24 (39)	
8. Diseases of the ear and mastoid process	30 (47)	28 (47)	
9. Diseases of the circulatory system	10 (11)	16 (20)	
10. Diseases of the respiratory system	120 (238)	131 (255)	
11. Diseases of the digestive system	39 (74)	46 (76)	
12. Diseases of the skin and subcutaneous tissue	65 (102)	84 (129)	
13. Diseases of the musculoskeletal system and connective tissue	84 (184)	142 (150)	$p < 0.001$
14. Diseases of the genito-urinary system	85 (133)	88 (129)	
15. Pregnancy, childbirth and the puerperium	44 (76)	32 (60)	
16. Certain conditions originating in the perinatal period	0 (0)	0 (0)	
17. Congenital malformations, deformations and chromosomal abnormalities	6 (7)	3 (3)	
18. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	86 (149)	95 (166)	
19. Injury, poisoning and certain other consequences of external causes	145 (260)	109 (221)	$p < 0.001$
20. External causes of morbidity and mortality	1 (1)	2 (3)	
21. Factors influencing health status and contact with health services	116 (511)	153 (577)	$p < 0.001$

'External causes of morbidity and mortality' ($p < 0.05$), the non-divorce group scoring higher (Table 5).

Mental and behavioural diagnoses within somatic out- and inpatient care

No significant difference was observed between groups in the number of outpatient or inpatient healthcare visits for 'Mental and behavioural disorders' (Table 4). Thirty eight (38) persons (16%) in the divorce group had an outpatient diagnosis for 'Mental and behavioural disorders'; 23 of those had either a child/adolescent or an adult psychiatric record, while 15 were diagnosed for outpatient care other than psychiatric. Thirty (30) persons (13%) in the non-divorce group had an outpatient diagnosis for 'Mental and behavioural disorders'; 10 of those had an adult psychiatric record, while 20 were diagnosed for outpatient care other than psychiatric.

Turning to inpatient care, four persons (1.7%) in each group were recorded as having been inpatients to deal with 'Mental and behavioural disorders'; all of these had an adult psychiatric record.

Discussion

The present study focused on the presence of records at the child/adolescent and adult psychiatric clinics, in a one-year population of individuals who were 0–18 years old when their parents divorced, 20 years before the start of the study. The frequency of occurrence of this group in these records was analysed and compared to the frequency of occurrence of persons from the non-divorce group. Any difference in somatic need of care between the groups was also investigated, as was whether the records within outpatient and inpatient care held additional information about mental and behavioural difficulties in either group.

One of the most frequent child/adolescent psychiatric diagnoses was 'Mood disorders', diagnoses that might be reactions to disharmonious conditions in the family, as experience of parental divorce has been shown to be connected to emotional problems such as anxiety and depression (Amato, 2001; Harland et al., 2002; Lu et al., 2008; Størksen et al., 2005; Tyrka et al., 2008). Also 'Relational difficulties between family members' under the heading 'Additional codes' were more frequent in the divorce group,

Table 5. Diagnoses according to ICD-10. Number of persons in need of institutional care (inpatient hospital treatment), and number of occasions

Classification according to ICD-10	Number of persons (occasions)		Test of significance χ^2/Fisher's exact test
	Divorce group ($N = 239$)	Non-divorce group ($N = 239$)	
1. Certain infectious and parasitic diseases	6 (6)	7 (7)	
2. Neoplasms	2 (2)	4 (4)	
3. Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0 (0)	0 (0)	
4. Endocrine, nutritional and metabolic diseases	0 (0)	3 (3)	
5. Mental and behavioural disorders	4 (6)	4 (8)	
6. Diseases of the nervous system	2 (2)	4 (4)	
7. Diseases of the eye and adnexa	0 (0)	0 (0)	
8. Diseases of the ear and mastoid process	0 (0)	0 (0)	
9. Diseases of the circulatory system	1 (1)	1 (1)	
10. Diseases of the respiratory system	5 (6)	10 (11)	
11. Diseases of the digestive system	12 (16)	14 (14)	
12. Diseases of the skin and subcutaneous tissue	0 (0)	2 (2)	
13. Diseases of the musculoskeletal system and connective tissue	5 (5)	1 (1)	
14. Diseases of the genito-urinary system	1 (1)	5 (5)	
15. Pregnancy, childbirth and the puerperium	42 (64)	49 (78)	
16. Certain conditions originating in the perinatal Period	0 (0)	0 (0)	
17. Congenital malformations, deformations and chromosomal abnormalities	1 (1)	0 (0)	
18. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	10 (10)	12 (12)	
19. Injury, poisoning and certain other consequences of external causes	16 (16)	16 (21)	
20. External causes of morbidity and mortality	0 (0)	5 (5)	$p < 0.05$
21. Factors influencing health status and contact with health services	6 (6)	6 (6)	

pointing towards visits to child and adolescent psychiatric care as being caused by possible divorce-related problems. There was, however, only one record that contained direct information about problems described as divorce difficulties. When it came to adult psychiatry, no significant differences between groups, either in the number of persons with a psychiatric record or gender, or in DSM-IV diagnoses, were found. This indicates that divorce between parents in one's childhood plays a subordinate role regarding mental and behavioural problems in adulthood.

The results of this study point at women as being more frequently appearing in the records of child and adolescent psychiatry, which is congruent with other studies showing a poorer mental health among younger women who experienced parental divorce in childhood, a difference not as evident in women of older ages (Ängarne-Lindberg and Wadsby, 2009; Huurre et al., 2006; Pelkonen et al., 2008). A possible explanation of the gender and age differences could be, as Cyranowski et al. (2000) noted, a gender-linked vulnerability explaining why females, especially in combination with adolescent transitional difficulties, are more likely than males to become depressed when faced with negative life events, particularly life events with interpersonal consequences. Pelkonen et al.'s (2008) study pointed at female gender as a risk factor for episodic but not for persistent depression, possibly indicating depression caused by a transitional crisis to be passing. This might be the pattern that explains some of the differences between child/adolescent and adult psychiatry and between gender in the present study; however, this needs to be further investigated. If this is the case, is it determined by genetic differences or tradition, or maybe both?

The non-significant difference in the number of consultations between the divorce and non-divorce groups and between gender in either child/adolescent or adult psychiatry indicates no difference in the magnitude of treatment between the divorce and non-divorce groups. The need of psychiatric care was fairly equal and experience of parental divorce did not indicate a larger need of consultation (other than in the number of persons in child/adolescent care). However, this result needs to be confirmed by studies based on a larger sample.

Turning to the somatic need of care, both outpatient and inpatient, there were differences in the number of persons seeking help in some of the groups of diagnoses (Tables 4 and 5). The non-divorce group scored higher than the divorce group in five out of six diagnosis groups, indicating that people who had experienced parental divorce in childhood were not in more need of somatic healthcare than those without this experience. There were, however, more persons in the divorce group who had been given an outpatient diagnosis under the group 'Injury, poisoning and certain other consequences of external causes'. A possible explanation could be a more hazardous way of living, or risky health behaviour among children of divorce, something that has been confirmed in other studies (Hetherington and Stanley-Hagan, 1999; Huurre et al., 2006). On the other hand, there were significantly more persons in the non-divorce group with an inpatient diagnosis under 'External causes of morbidity and mortality', indicating a limited (n = 5) but somewhat hazardous way of living also in the non-divorce group.

The strength of the present study is that it comprises *all* psychiatric records, for all men and women whose parents divorced in a specified region during one year, with a reservation for possible non-public (private) healthcare received, and the control (non-divorce) group was made up of an equal number of comparable persons to the divorce group. In comparison to other studies with results based on questionnaires, this study examined clinical records to make an inventory on possible divorce-related difficulties. By incorporating the database information about out- and inpatient care, even if only the last 10 years were accessible, the information was increased to include somatic healthcare visits and diagnoses, and mental and behavioural problems diagnosed within healthcare sectors other than the psychiatric.

Limitations

Circumstances that might have influenced the outcome of this study have to be put forward. Psychiatric help could have been received elsewhere than within the public health services, for example through private healthcare. However, in Sweden, most of the identified and severe cases will probably be referred to the psychiatric clinics, or will otherwise be recognized within other elements of the public healthcare system. Individuals in both groups have also presumably moved both in and out of the reception area during the 20 years that has passed. Earlier studies have pointed at a prevalence of psychiatric problems that cause obvious difficulties in 10%–20% of all children and adolescents (Almqvist et al., 1999; Brandenburg et al., 1990; Gustavsson et al., 2000; Offord, 1995; Rutter, 1989).

The great difference between the divorce and the non-divorce groups, 20.9% vs. 2.1%, might be explained by the fact that the number of persons in the second group who had grown up in the study area/reception area was not known, although most probably did. It is possible that children in the non-divorce group had a child psychiatric contact elsewhere. An absolutely complete and accurate picture of possible mental health problems among persons with experience of parental divorce in childhood is therefore difficult to obtain. The results, however, probably give a reasonably sound picture of the circumstances.

Another limitation possibly influencing the results, might be the lack of control of socioeconomic status between the divorce and the non-divorce groups. The risk of divorce has been shown to be twice as large if the partners have a low socioeconomic position (Statistics Sweden, 1995, 2009), and it is possible that what some of the individuals in the

divorce group have in common, beside divorce, is low socioeconomic position, which is a risk factor for poorer health (Socialstyrelsen, 2004). However, a report from the child and adolescent psychiatric clinic based on material contemporary with the divorce of the parents showed an equal distribution in the number of psychiatric contacts between families with different socioeconomic positions, comparable with the distribution in the country in its entirety (Gustavsson et al., 2000). The results of an earlier study based on individuals from the divorce group showed the socioeconomic status of the parents at the time of the divorce to be similar to the general status in the study region (Wadsby and Svedin, 1992); data not supporting low socioeconomic position was a major characteristic in the divorce group and a factor causing child and adolescent psychiatric contacts.

Conclusion

Persons with divorced parents, and especially women, more often had a record within child and adolescent psychiatric care than did persons with non-divorced parents. The child and adolescent records were most likely to show the diagnoses 'Mood disorder' and 'Additional codes' where 'Additional codes' included diagnoses such as 'Relational difficulties between family members' and 'Antisocial behaviour'. An indisputable connection to the divorce was, however, difficult to point at when reading the records. As for the rest, there were no significant differences found between the groups in the number of persons with an adult psychiatric record, the number of psychiatric consultations, the number of somatic health consultations, or the number of mental and behavioural diagnoses within somatic care. Therefore, experience of parental divorce in childhood was not found to be an indicator of a greater likelihood of adult psychiatric or somatic health problems among the adult children of divorce.

A focus for future research might be to further explore why there are so many more child and adolescent psychiatric contacts among children of divorce compared to non-divorce children, but no differences when it comes to adult psychiatric contacts.

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