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## Separation from children as a specific risk factor to fathers' health and lifestyles

### Summary

**Objectives:** The study was to examine whether fathers living apart from their children following divorce or separation ("fathers without children") differ in their health-related lifestyles and attitudes, and in their health status, from fathers in intact family settings ("fathers with children").

**Methods:** Data was acquired by means of a self-administered questionnaire within an exploratory cross-sectional survey.

**Results:** Fathers without children differed in their lifestyle patterns, parameters of satisfaction, health, and health related orientations from fathers with children. Negative lifestyles could be observed in fathers who had a low income and saw their children only rarely.

**Conclusions:** Separation from their children is a major life crisis for fathers. Subgroups could be identified who had significant health risks. Due to study design, conclusions on causation are not possible. Longitudinal studies are necessary to yield more detailed impact for prevention.

**Key-Words:** Fathers – Lifestyle – Parental separation – Men's health.

Divorce and separation as endemic phenomena are important topics for population-oriented health research. Every year, about 180000 marriages split up in Germany. Half of the children born in the 90s will experience their parents' separation before they reach 18 years<sup>1</sup>. About one million women are single mothers, raising their children after a divorce or separation in a one-parent family, which results in about the same number of fathers who live separated from their children. There is extensive literature on the effects of separation on mothers and children<sup>2-4</sup>. Little is known, how-

ever, on fathers and their psychosocial and physical outcomes. Some findings suggest that fathers' lifestyle and health deteriorates after the separation<sup>5-8</sup>.

Health-related lifestyles have been investigated in various ways. Hazardous lifestyles could be identified – none of them were fully predictive with respect to outcome. The major question remains unanswered: Why do individuals choose negative lifestyles although they should know better? Reasons and consequences of health-related lifestyles are utterly complex<sup>9</sup>. This underlines the importance of identifying individuals with risky lifestyles as potential target groups for both further research and specific prevention. Men are an endangered species. In nearly all industrialised countries men's life is shorter than women's. Male behaviour patterns like smoking, alcohol, and risk seeking attitudes are reasons identified for shorter life expectancy<sup>10,11</sup>. A prominent hypothesis is that traditional female social roles enhance positive healthy lifestyles. It has been shown that married men are healthier and do live a healthier lifestyle than unmarried men<sup>12</sup>. Divorced men, however, have higher morbidity and mortality, even compared to men who have never been married<sup>13</sup>. Lifestyles of the divorced men have been shown to be disorganised and chaotic. They often have periods of frantic sexual activity following the divorce, accompanied by episodes of increased working activity<sup>14</sup>. Divorced men reported that they had lost self-confidence in their social heterosexual abilities, having failed as fathers and husbands. Consequently, happiness, feelings of competence, and self-confidence depend strongly on successfully establishing a new partnership.

In contrast to other social relationships the substitution of protagonists within a family is problematic. The traditional parental relationship is designed to last forever, requiring close to absolute confidence and affection and has a strong physical component<sup>15</sup>. Breaking up this relationship must

have strong effects on behaviour, self-esteem, and health. Parents in intact families seem to have the most favourable lifestyle patterns. In the tradition of Durkheim's findings, most authors conclude that despite children being a major responsibility, limiting personal freedom, they introduce meaning and transcendence into their parents' life and therefore inhibit risky lifestyles. Divorce is not only a challenge to organisation and financial status. A man who moves out loses not only social support of his family, but also contacts to relatives, friends and neighbours<sup>16</sup>. Marital status, e.g. divorce, has been shown to have a strong effect on mortality from suicide<sup>17</sup>.

Most studies about the health effects of divorce and separation on fathers were conducted in the U.S. The results do not necessarily apply to Germany. Here, specific research has focused on men, not specifically fathers. Role and function of fathers in relation to their children were not within the scope of public discussion until recently, when the German law on custody changed. But it is still a German truism that fathers usually stay separated from their children after divorce. The aim of this investigation was to examine the health-related lifestyles of fathers who are separated from their children. The hypothesis was that in fact their lifestyles differ from those of married fathers and that their negative lifestyles are associated with poorer health.

## Methods

### *Population and study design*

The present investigation was conducted as an exploratory cross-sectional survey. The study population consisted of men who lived in the area of Munich in June 1998 and had at least one child below 18 years of age. All data protection regulations were followed according to German law. A random sample of 300 men was drawn from the residents' registration office from a population of 82993 married fathers. 300 men were drawn from a population of 11665 fathers, who were unmarried, divorced, or married but separated. For the first group (fathers living with their children, called *fathers with children* in the following text) married fathers, who live separated from their children, have been excluded from sampling. For the second group (fathers living separated from their children, called *fathers without children* in the following text) widowed fathers have been excluded. 600 personalised letters along with the questionnaire and a prepaid return envelope were mailed in June 1998.

The questionnaire comprised information on sociodemographic measures, health resources, health-relevant behaviour as potential predictors, internal resources (sense of

coherence scale), health-relevant orientations, life events, and circumstances of life. The five lifestyle variables were dichotomised following literature and official definitions. Being overweight was defined as having a body mass index (BMI, weight in kg divided by squared height in m<sup>2</sup>) of or above 25 kg/m<sup>2</sup>. Smoking was defined as present smoking of cigarettes. Daily alcohol intake was assessed by intake of common alcoholic beverages. Daily intake of more than 40 g alcohol was defined as risky. Physical activity was assessed by leisure-time physical activity and physical activity at work. As physical activity above 2000 kcal per week has been shown to have distinct cardioprotective effects, activity of less than three hours per week has been defined as risky. The cutpoint for caffeine was set on a daily intake of 400 mg (the equivalent of more than four cups of coffee). Resources were measured with a modified sense of coherence scale<sup>17</sup> according to Antonovsky (SOC-13).

### *Statistical analysis*

Analysis included all participants whose definition as father with or without children could be logically verified by family parameters. Exploratory bivariate analyses were performed for socio-economic and lifestyle parameters, health status, and internal resources. For analysis the fathers' type was set as dependent variable, socio-economic and lifestyle parameters, health status, and internal resources were independent variables, "explaining" the "outcome", i.e., being a father without children. In order to identify interactions and to illustrate the structure of data in a clear way, CART analysis (Classification And Regression Trees) was done<sup>18</sup>. Analysis was performed with the PC version of the Statistical Analysis System (SAS 6.12; SAS Inc., Cary, NC) and EpiCalc 2000 version 1.02.

## Results

Total participation reached 31.2% (186 participants). 34.0% (102) fathers with children and 28.0% (84) fathers without children responded. The sample of fathers with children consisted of married (96%, n = 98) and single (4%, n = 4) fathers; fathers without children were married (11%, n = 9), single (38%, n = 32) or divorced (51%, n = 43) with 37 men (44%) having separated from their partners within the last 12 months. The mean age of fathers with children was 43.1 ± 8.3 years, of fathers without children 40.5 ± 8.2 years. Fathers without children appeared to have a lower income. 65.1% (95% CI [54.90; 74.14]) of them reported a net income of less than 4000 DM per month (fathers with children: 41.6%, 95% CI [31.04; 52.4]) They also were less educated than

	Fathers with children		Fathers without children		95% % CI (difference of proportions)	
	n	%	n	%		
<b>Body Mass Index</b>						
Below 25 kg/m <sup>2</sup>	44	43.1	47	56.0		
25 to 30 kg/m <sup>2</sup>	47	46.1	32	38.0	[- 7.17; 23.37]	8.1
30 kg/m <sup>2</sup> and more	11	10.8	5	6.0	[- 4.16; 13.76]	4.8
<b>Smoking</b>						
Non-smoker	68	66.7	44	52.4		
Smoker	34	33.3	40	47.6	[- 0.85; 29.45]	14.3
<b>Alcohol</b>						
Under 40 g/day	92	90.2	68	81.0		
40 g and more	10	9.8	16	19.0	[- 3.12; 21.52]	9.2
<b>Binge drinking</b>						
None during last month	55	53.9	43	51.2		
At least one	47	46.1	41	48.8	[- 14.16; 19.56]	2.7
<b>Physical activity</b>						
At least 3 h/week	34	33.7	40	48.8		
Less than 3 h/week	67	66.3	42	51.2	[- 0.22; 30.42]	15.1
<b>Caffeine</b>						
Under 400 mg/day	57	55.9	52	61.9		
400 mg/day and more	45	44.1	32	38.1	[- 9.25; 21.25]	6.0

Table 1 Health-related lifestyles

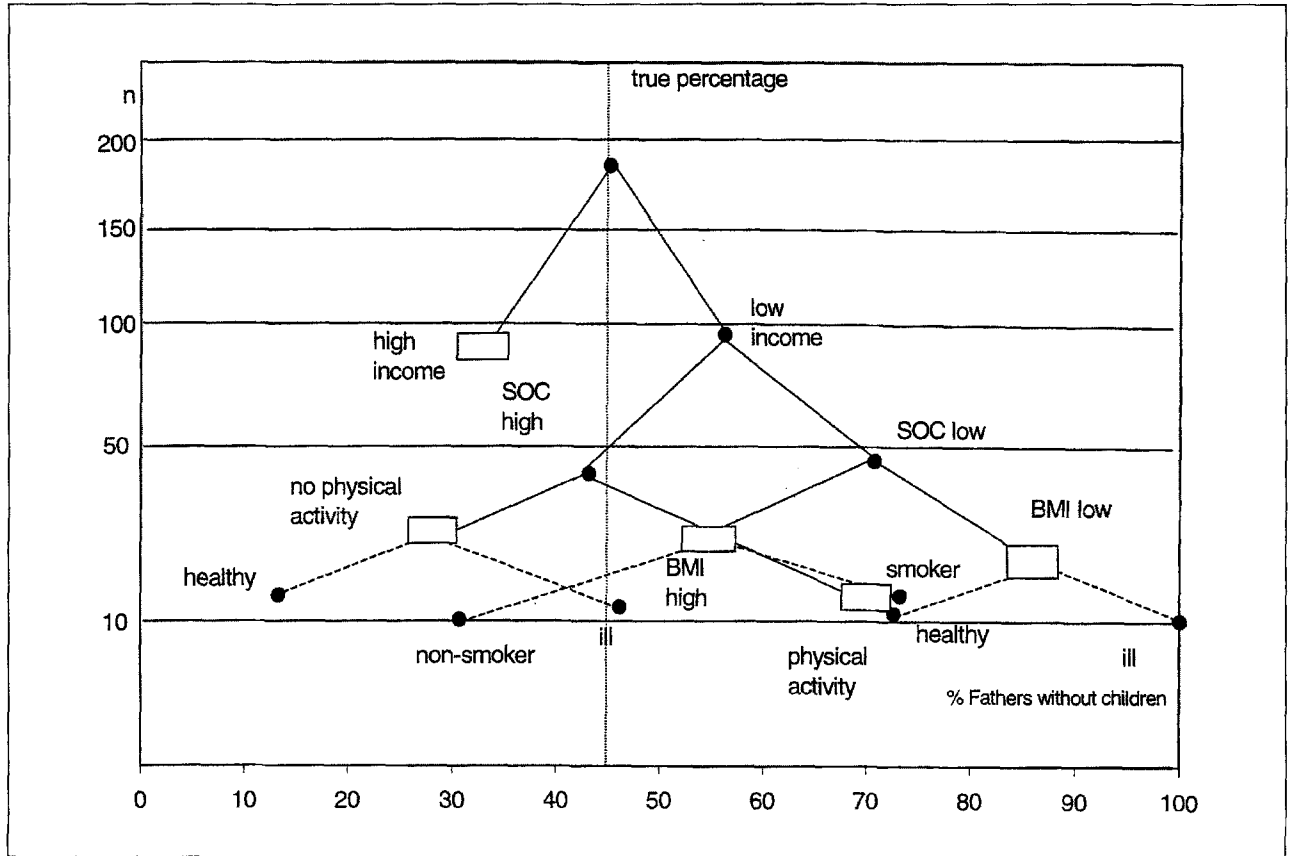
	n	m [95% CI]	s	Median	Range
<b>Fathers with children satisfaction with ...<sup>a</sup></b>					
health	102	2.1 [1.9; 2.3]	0.8	2	1-5
financial situation	102	2.4 [2.2; 2.6]	1.0	2	1-5
family, children	102	1.9 [1.7; 2.1]	0.8	2	1-4
sexuality	102	2.4 [2.2; 2.6]	1.0	2	1-5
life in general	102	2.2 [2.1; 2.3]	0.7	2	1-5
Sense of coherence <sup>b</sup>	98	47.6 [46.5; 48.7]	5.5	48	32-58
<b>Fathers without children satisfaction with ...<sup>a</sup></b>					
health	84	2.3 [2.1; 2.5]	0.9	2	1-5
financial situation	84	3.1 [2.9; 3.3]	1.1	3	1-5
family, children	84	2.8 [2.5; 3.1]	1.3	3	1-5
sexuality	84	2.8 [2.5; 3.1]	1.3	2	1-5
life in general	84	2.6 [2.4; 2.8]	1.0	2	1-5
contact with children	52	3.0	1.5	3	1-5
Sense of coherence <sup>b</sup>	82	46.0 [44.7; 47.3]	5.9	46	31-58

<sup>a</sup> Possible answers: very satisfied = 1, quite satisfied = 2, neutral = 3, rather not satisfied = 4, not satisfied = 5.  
<sup>b</sup> SOC-13.

Table 2 Measures of internal resources and orientations

fathers with children. Unemployment or part-time work was more frequent in the group without children. Health-related lifestyles were distributed unequally. A trend is recognisable although the confidence intervals overlap. Table 1 shows the health-related lifestyles of both groups with the 95 % confidence interval of proportion difference. Results of internal resources and orientations are shown in Table 2. Fathers without children were less satisfied with

their financial situation, family, children, and life in general. Nearly half (45 %) of the fathers without children saw their children only once a month or even less frequently. As expected, divorce/separation, financial crisis, and moving had taken place more often in the group of fathers without children. Most of the fathers of both groups reported good or very good health. Nobody had “very poor” health. “Very good” or “good” health occurred in 84 (82.4 %) fathers with children



**Figure 1** Partitioning of the data according to CART. Optimality criterion is the minimal P-value of the chi square statistic of all dichotomised variables with respect to the dichotomous outcome "being father without children". The CART tree shows final nodes with the minimal p-value being greater than 0.05 (squares) or greater than 0.10 (dots). The "true percentage" of 45 percent is the prevalence of fathers without children in the sample. CART divided the sample into subgroups which are more or less "pure", i.e., containing more or less than 45 percent fathers without children

and 63 (75.0%) fathers without children. Health status had been unchanged during the last year in 83 (81,4%) fathers with and in 57 (67.9%) fathers without children. 8 (7.8%) fathers with children and 13 (15.5%) fathers without children reported that their health had worsened during the last year, in 11 (10.8%) fathers with children and 14 (16.7%) fathers without children health had improved. A participant was rated as "healthy", if his self-perceived health was good or very good, he had no chronic disease (e.g., diabetes mellitus, low back pain, hypertension, depression) and did not take any chronic medication (e.g., antihypertensives, analgetics, antiplatelets). 72 (70.6%) fathers with and 47 (56.0%) fathers without children were healthy according to this definition (95% CI of the difference of proportions: [1.18; 30.82]). Crude bivariate analysis showed a significant difference in

health status between fathers with and fathers without children (prevalence ratio of bad health for fathers without children PR = 1.50, 95% CI [1.02; 2.20]).

Fathers with children showed a prevalence of self-perceived good health which corresponds to the average rating in other studies (82–83%)<sup>19</sup>, whereas fathers without children were well below this average. Differences of lifestyles between fathers' groups were less prominent – both groups had typical patterns of lifestyles which could not be classified as positive or negative.

Subgroups of fathers were identified (CART tree with final nodes is shown in Figure 1). Most of the fathers with children belonged to a group of high income which did not split into further subgroups. Fathers without children mostly belonged to groups with certain characteristics such as low income and low internal resources (measured as sub-median SOC score). High internal resources and frequent contact with children were associated with healthy lifestyles. Income was the strongest predictor for health.

Low income fathers without children also had other unfavourable circumstances of life (date of separation less than 12 months ago, children's visits rare or never, living without partner) and a high prevalence of illness. Fathers without children with a high level of income also saw their children

more often. This corresponds to earlier findings<sup>20</sup>. Additionally, fathers who saw their children frequently and regularly, reported healthy lifestyles. The consequence could be that separated fathers have less risky lifestyles if they have frequent contact with their children. Fathers with low income had a positive risk profile if they were physically active. Physical activity is described as predictor for other healthy habits<sup>19,21</sup>, active people smoke less and have a normal BMI.

## Discussion

Great care has to be taken when interpreting these results, as the study is singular and the validity of the data could be limited. Response rate was low; but this was to be expected for a postal survey, target group and topic being rather sensitive. Differential selection bias could have occurred due to the size of the questionnaire, discouraging men of lower socio-economic groups to participate unless they had personal reasons (e.g. negative personal experience with divorce or separation). A lower educational level accounts for lower income and could partly explain the difference in income between the two groups. Causal relationships could not be evaluated in this cross-sectional study. Due to limited sample size, confidence intervals were large and CART procedure had only limited power.

Divorce and separation are negative life events for both women and men equally. Other life events like puberty and coming of age, partnership, birth, death normally offer “official” mechanisms of compensation and ritualised coping procedures. Divorce and separation do not offer this kind of consolation. Men’s situation is often even worse: a father being separated from his children remains responsible, however, others decide if, how often, and in which circumstances he will be allowed to see his children. This study tried to evaluate how this feeling of powerlessness and the separation influence health-related lifestyles and health. We found that there is a trend towards an association between frequency of contact, unhealthy lifestyles and bad health. Scientists and the public should start to recognise men’s separation from their children as a potentially severe crisis, demanding professional support and health-related risk prevention.

Further longitudinal studies on larger samples are needed to extend the present findings and to investigate causal inference.

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## Zusammenfassung

### Trennung von Kindern als spezifischer Risikofaktor für Gesundheit und Lebensstile ihrer Väter

**Fragestellung:** In dieser Studie sollte untersucht werden, ob Väter, die von ihren Kindern wegen Trennung oder Scheidung getrennt leben („Väter ohne Kinder“) andere gesundheitsbezogene Lebensstile und Verhaltensweisen und einen anderen Gesundheitszustand haben, als Väter in intakten Familien („Väter mit Kindern“).

**Methoden:** Die Daten wurden in einer explorativen Querschnittsstudie mit Hilfe eines selbst auszufüllenden Fragebogens erhoben.

**Ergebnisse:** Väter ohne Kinder unterschieden sich in ihren Lebensstilmustern, Zufriedenheitsparametern und gesundheitsbezogenen Orientierungen von Vätern mit Kindern. Negative (risikoreiche) Lebensstile konnten vor allem bei Vätern beobachtet werden, die ein niedriges Einkommen und wenig Kohärenzgefühl hatten und ihre Kinder nur selten oder gar nicht sahen. Ungünstige Lebensumstände korrelierten bei Vätern ohne Kinder mit ungesundem Verhalten und schlechtem Gesundheitszustand.

**Schlussfolgerungen:** Trennung von den Kindern ist für Väter eine schwerwiegende Lebenskrise. Aufgrund des Studiendesigns sind Kausalschlüsse nicht möglich. Längsschnittstudien sind notwendig, um Präventionsempfehlungen erarbeiten zu können.

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## Résumé

### La séparation des enfants – un facteur de risque pour la santé et le mode de vie des pères

**Objectifs:** L’objectif de l’étude a été d’analyser, si les pères vivant sans leurs enfants à la suite d’une séparation ou d’un divorce (“pères sans enfants”), se distinguaient dans un autre style de vie ou dans l’état de santé des pères vivant dans un contexte familial normal (“pères avec enfants”).

**Méthodes:** Les données ont été recueillies par un questionnaire autogéré dans une étude transversale exploratoire.

**Résultats:** Sur le plan du mode de vie, de la satisfaction générale, de la santé et de la perception de l’état de santé, les pères sans enfants présentaient des différences par rapport aux pères avec enfants.

**Conclusions:** La séparation de leurs enfants entraîne pour les pères une crise de vie majeure. Cette étude permettait d’identifier des sous-groupes montrant des risques significatifs pour la santé. Néanmoins le design de l’étude ne permet pas d’établir des relations de cause à effet. Des études longitudinales sont indispensables afin de pouvoir formuler des recommandations sur les mesures de prévention.

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