

## Artikelloversigt, Center for Selvmordsforskning, februar 2005

- Jacobsen I. Undervisning i selvmordsforebyggelse på grunduddannelserne i Danmark. *Suicidologi*. 2004;3:17-9. I Danmark er der som opfølgning på den nationale handlingsplan "Forslag til handlingsplan til forebyggelse af selvmordsforsøg og selvmord" (1998) afviklet 15 forsøgsprojekter med undervisning i selvmordsforebyggelse på grunduddannelserne. Undervisningen er gennemført på uddannelserne til social- og sundhedshjælper, social- og sundhedsassistent, sygeplejerske, pædagog, lærer, socialrådgiver og sognemedhjælper. Denne artikel beskriver rammen om det overordnede projekt og udpeger nogle af problemfelterne. Herudover gives enkelte eksempler på de meget forskellige tilgange til undervisningen, som uddannelserne har valgt.
- Christiansen E, Jensen BF. Register for Suicide Attempts. *Dan Med Bull*. 2004;51:415-7. Background: The Register for Suicide Attempts (RSA) is a product of the WHO research project "WHO/Euro Multicentre Study on Parasuicide", which, among other things, had the purpose of collecting data on suicide attempts from 13 European countries. Data is collected in order to calculate trends and identify high-risk groups. Data collection for the RSA started in 1989. Methods: The RSA is a longitudinal, person-based register. It contains information about people who have been in contact with the health care system in the County of Funen as a result of a suicide. The RSA contains 11 variables, which describe the incident in detail, and a number of variables describing the person. The RSA contains data covering the period April 1989 to December 2001 and is updated annually. Data is collected from somatic and psychiatric hospitals in an administrative district (County of Funen). The data collection is done manually by going through all the records in which a contact to the health care system, i.e. a potential suicide attempt, is described. Only incidents matching the WHO definition of an attempted suicide are registered. Conclusion: Data from the RSA has been used in national and international studies. The RSA is the most suitable register in Denmark for analyses of suicide attempts.
- Erlangsen A, Jeune B, Bille-Brahe U, Vaupel JW. Loss of partner and suicide risks among oldest old: a population-based register study. *Age Ageing*. 2004 Jul;33(4):378-83. Epub 2004 May 19. BACKGROUND: while mortality among the oldest old has improved over recent decades, these improvements are not reflected in the suicide mortality of this age group. We do not know the reasons why the suicide mortality is still very high among the oldest old. OBJECTIVE: the aim is to analyse the impact that loss of a partner has on the suicide risks of the oldest old (80+) compared to younger age groups. SUBJECTS: the entire Danish population aged 50 during 1994-1998 (n = 1,978,527). METHODS: we applied survival analysis to calculate the changes in relative risk of suicide after a loss by using individual-level data. RESULTS: the majority of older persons who commit suicide are widowed, although only a relatively small proportion of the oldest old who commit suicide have experienced a recent loss of partner (men: 18%, women: 6%). In absolute terms, the oldest old men experience the highest increase in suicide risk immediately after the loss (15-fold; 95% CI 10.2-23.6) compared to middle-aged men who are still married. Oldest old men seem to suffer more from the loss and need longer time to recover than women. CONCLUSIONS: although a small proportion of oldest old who commit suicide have experienced a recent bereavement, there is a significant increase in the suicide risk during the first year after a bereavement, especially for men. However, the increased risk of suicide in the oldest old men may only in part be explained by the loss of a partner.
- Zøllner L. Udsatte og sårbare unges signaler - set i et selvmordsforebyggelsesperspektiv. *Nordisk psykologi*. 2003;54(4).
- Erlangsen A, Bille-Brahe U, Jeune B. Differences in suicide between the old and the oldest old. *J Gerontol B Psychol Sci Soc Sci*. 2003 Sep;58(5):S314-22. OBJECTIVES: The purpose of our study is to examine suicide trends among the old (65-79 years) and oldest old (80+ years).

**METHODS:** All persons aged 50 or older who committed suicide in Denmark during 1972-1998 are included in the analysis. Suicide trends are analyzed by sex, age, civil status, and methods. Age, period, and cohort effects are examined graphically. **RESULTS:** In all, 17,729 persons (10,479 men and 7,250 women) committed suicide. During the study period, the suicide trends among the middle-aged and the old adults decreased. The trend among the oldest old, by contrast, remained stable. Marriage ceases to have a preventive effect among the oldest old. The oldest old tend to use more determined suicide methods. **DISCUSSION:** Distinct differences in suicide mortality between the old and the oldest old were found. The suicide trend of the oldest old does not reflect the recent improvements found in their overall mortality. Interestingly, it seems that the preventive effect of marriage seems to be ceasing with increasing age.

Zøllner L. Signaler forud for selvskadende handlinger. *Vera*. 2002;21:16-21

Zøllner L. Hør dog efter, hvad jeg ikke siger! 0-14. 2002;3:60-4. Eksperterne taler om flere generationer af ønskebørn, og alligevel er antallet af unge, der ikke vil leve, stigende. Hvad er der galt? Hvorfor er der flere drenge end piger? Hvad tænker de på?

De Leo D, Padoani W, Lonnqvist J, Kerkhof AJ, Bille-Brahe U, Michel K, Salander-Renberg E, Schmidtke A, Wasserman D, Caon F, Scocco P. Repetition of suicidal behaviour in elderly Europeans: a prospective longitudinal study. *J Affect Disord*. 2002 Dec;72(3):291-5. The aim of this study was to assess any predictive factors for repeated attempted suicide and completed suicide in a 1-year follow-up on a sample of elderly European suicide attempters (60 years and over). From 1990 to 1993, 63 subjects completed the first interview and were recontacted after 1 year. At follow-up, eight subjects (12.7%) had taken their lives and seven (11.1%) had repeated at least one suicide attempt. On comparison of repeaters and non-repeaters, differences emerged in terms of death of the father in childhood and for mean Suicidal Intent Score. At the end of follow-up period, repeaters reported a more frequent desire to repeat suicidal behaviour and judged their mental health and social assistance received to be worse. Suicides and non-repeaters differed especially in relation to death of father during childhood and number of contacts with General Practitioner. Interpretation of the results must take into account the smallness of the test sample, the difficulties in obtaining complete data for the follow-up interview, the lack of a control group and a diagnosis formulated in a hospital consultation setting. The study confirms, however, the high risk of repetition of suicidal behaviour in the elderly. In old age suicidal ideation is often sustained over long periods of time and requests for help are addressed to relatives and GPs. An interesting finding is the more frequent death of the father during childhood among repeaters.

Hansen-Schwartz J, Jessen G, Andersen K, Jorgensen HO. Suicide after deployment in UN peacekeeping missions--a Danish pilot study. *Crisis*. 2002;23(2):55-8. This pilot study looks at the frequency of suicide among Danish soldiers who took part in the UN mandated forces (UNMF) during the 1990's. In a contingent of nearly 4000 Danish UN soldiers four suicides were documented, two of whom committed suicide less than one month before deployment and two who committed suicide within a year after discharge from mission. Contributing factors, prevention strategies, and implications for future research are discussed.

Hjelmeland H, Hawton K, Nordvik H, Bille-Brahe U, De Leo D, Fekete S, Grad O, Haring C, Kerkhof JF, Lonnqvist J, Michel K, Renberg ES, Schmidtke A, Van Heeringen K, Wasserman D. Why people engage in parasuicide: a cross-cultural study of intentions. *Suicide Life Threat Behav*. 2002 Winter;32(4):380-93. Information obtained at interview from 1,646 parasuicide patients in 14 regions in 13 European countries participating in the WHO/EURO Multicentre Study on Suicidal Behaviour was used to study self-reported intentions involved in parasuicide. Comparisons were made across cultures, genders, and age groups. Although some statistically significant differences were found, the effect sizes were very small. The main finding from this

study is thus that parasuicide patients in different countries tend to indicate that similar types of intentions are involved in their acts of parasuicide, and that the intentions do not vary greatly with gender or age. The hypothesis that rates of suicide and parasuicide vary between regions with the frequency with which suicidal intention is indicated by the patients was also tested, but was supported only for women and in relation to national suicide rates. The findings from this study are likely to be generalizable to other settings and have implications for clinical practice.

De Leo D, Padoani W, Scocco P, Lie D, Bille-Brahe U, Arensman E, Hjelmeland H, Crepet P, Haring C, Hawton K, Lonnqvist J, Michel K, Pommereau X, Querejeta I, Phillippe J, Salander-Renberg E, Schmidtke A, Fricke S, Weinacker B, Tamesvary B, Wasserman D, Faria S. Attempted and completed suicide in older subjects: results from the WHO/EURO Multicentre Study of Suicidal Behaviour. *Int J Geriatr Psychiatry*. 2001 Mar;16(3):300-10. **OBJECTIVE:** The authors present an analysis of findings for the 65 years and over age group from the WHO/EURO Multicentre Study of Suicidal Behaviour (1989-93). **METHODS:** Multinational data on non-fatal suicidal behaviour is derived from 1518 subjects in 16 European centres. Local district data on suicide were available from 10 of the collaborating centres. **RESULTS:** Stockholm (Sweden), Pontoise (France) and Oxford (UK) had the highest suicide attempts rates. In most centres, the majority of elderly who attempted suicide were widow(er)s, often living alone, who used predominantly voluntary drug ingestion. Non-fatal suicidal behaviour decreased with increasing age, whereas suicide rates rose. The ratio between fatal and non-fatal behaviours was 1:2, that for males/females almost 1:1. In the years considered, substantial stability in suicide and attempted suicide rates was observed. As their age increased, suicidal subjects displayed only a limited tendency to repeat self-destructive acts. Moreover, there was little correlation between attempted suicide and suicide rates, which carries different clinical implications for non-fatal suicidal behaviour in the elderly compared with younger subjects in the same WHO/EURO study.

Michel K, Ballinari P, Bille-Brahe U, Bjerke T, Crepet P, De Leo D, Haring C, Hawton K, Kerkhof A, Lonnqvist J, Querejeta I, Salander-Renberg E, Schmidtke A, Tamesvary B, Wasserman D. Methods used for parasuicide: results of the WHO/EURO Multicentre Study on Parasuicide. *Soc Psychiatry Psychiatr Epidemiol*. 2000 Apr;35(4):156-63. **BACKGROUND:** National suicide statistics show remarkable differences in the frequencies of various methods used for completed suicide. The WHO/EURO Multicentre Study on Parasuicide makes possible for the first time an international comparison of the frequencies of methods used in attempted suicide, because the data are based on geographical catchment areas of medical institutions. **METHOD:** Ongoing standardized monitoring of attempted suicide in all medical institutions serving the catchment areas was performed in 14 centres in 12 European countries. The data analysis is based on 20,649 events involving 15,530 persons, recorded between 1989 and 1993. **RESULTS:** The comparison of rates per 100,000 shows striking differences between the centres. The highest rates for drug overdoses were found for female attempters in Oxford (347/100,000), Helsinki (238/100,000) and Stockholm (221/100,000). Guipuzcoa had the lowest rates (61/100,000). The differences were most prominent in the age group 15-24, with outstanding rates for women in Oxford (653/100,000), which was mainly due to the frequent use of analgesics. Szeged had outstandingly high rates for pesticides and solvents. In some centres the use of multiple methods was frequent. **CONCLUSIONS:** There is a need, especially for areas with high frequencies for certain methods, to understand the factors involved and to develop new and specific prevention projects and to monitor their effects. The WHO/EURO Multicentre Study on Parasuicide has proved to be a useful and reliable instrument for continuous monitoring of trends in parasuicide.

- Bille-Brahe U. Some perspectives on suicidal behaviour. *Epidemiol Psichiatr Soc.* 2000 Apr-Jun;9(2):93-8. **OBJECTIVE:** To try and specify questions of special relevance for suicidological research. **METHODS:** Discussing the merits of questions pertaining to epidemiology and various theories on suicidal behaviour. **RESULTS:** Four types of questions are defined: How many persons show suicidal behaviour? Who are they? Why do they do it? and What can we do about it? Answers to the first three questions are required when approaching question four: What can we do about it? **CONCLUSION:** The complex patterns and backgrounds of suicidal behaviour call for interdisciplinarity and for an increase in both multifactorial and process-related approaches as well as practicable, evidence-based and feasible intervention efforts.
- Hulten A, Wasserman D, Hawton K, Jiang GX, Salander-Renberg E, Schmidtke A, Bille-Brahe U, Bjerke T, Kerkhof A, Michel K, Querejeta I. Recommended care for young people (15-19 years) after suicide attempts in certain European countries. *Eur Child Adolesc Psychiatry.* 2000 Jun;9(2):100-8. Data on recommended care for young people aged 15-19 years after attempted suicide from nine European research centres during the period 1989-1992 were analysed in terms of gender, history of previous suicide attempt and methods used. Altogether 438 suicide attempts made by 353 boys and 1,102 suicide attempts made by 941 girls were included. Analyses of the total data from all centres showed that young people with a history of previous suicide attempt and those using violent methods had significantly higher chance of being recommended aftercare than first-time attempters or those choosing self-poisoning. There were no significant differences of being recommended care between genders. Logistic regression analyses of the material were performed and the results were similar. Both having previous attempted suicide (odds ratio 2.0, 95% CI 1.53-2.61) and using "hard" methods (odds ratio 1.71, 95% CI 1.49-1.96) were significantly associated with increased possibility of being recommended aftercare. When individual centres were analysed, large disparities of recommended care after suicide attempts were found and there were no uniform criteria of recommending care for young suicide attempters in Europe.
- Hjelmeland H, Nordvik H, Bille-Brahe U, De Leo D, Kerkhof JF, Lonnqvist J, Michel K, Renberg ES, Schmidtke A, Wasserman D. A cross-cultural study of suicide intent in parasuicide patients. *Suicide Life Threat Behav.* 2000 Winter;30(4):295-303. As part of the WHO/EURO Multicentre Study on Parasuicide, the level of suicide intent among female and male parasuicide patients from various European regions was compared. From nine regions, a total of 1,212 parasuicide patients, 752 females and 460 males, were included in the study. Although some statistical significant differences in level of suicide intent between the regions and genders were found, the effect sizes of these relationships were so small that the differences have neither theoretical nor practical significance. As far as level of suicide intent is concerned, the WHO study has succeeded in recruiting a relatively homogeneous group of self-harming patients across borders of region, culture, and country.
- Bille-Brahe U, Egebo H, Crepet P, De Leo D, Hjelmeland H, Kerkhoff A, Lonnqvist J, Michel K, Salander-Renberg E, Schmidtke A, Wasserman D. Social support among European suicide attempters. *Archives of Suicide Research.* 1999; 5:215-31. In order to measure social support among suicide attempters, an instrument was especially designed to be included in the follow-up interview study being part of the WHO/Euro Multicentre Study on Parasuicide which is carried out in cooperation with EC Concerted Action on Attempted Suicide. In this paper, which is to be the first in a series, the theories behind the design and the methodology are discussed, and some general results presented. Judged by the level of the need for support, there are some differences between the 10 European areas under study, but judged by the individual's perception of to what degree his needs are met, somewhat to our surprise the majority of the

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suicide attempters in the various areas under study agree in feeling that their needs for support are met to a great extent.

- Bille-Brahe U, Jessen G. Selvmordsadfærd blandt ældre. *Gerontologi og samfund* 1999;15(2):39-41. Ændringen i befolkningens alderssammensætning med et voksende antal ældre har, blandt andet, sat fokus på hyppigheden af selvmordsadfærd blandt ældre mennesker. Ifølge dødsårsagstatistikken er der gennem de senere år sket en stigning i selvmordshyppigheden blandt de ældre-ældre, og i artiklen gennemgås et par af forklaringerne på denne stigning. Forfatterne understreger de mange forskelle, både mellem de yngre-ældre og de ældre-ældre, og mellem de nuværende og de kommende ældre og dermed vigtigheden af ikke at betragte alle ældre over 65 år som én, homogen gruppe. Center for Selvmordsforskning er en selvejende institution under Socialministeriet hvor lektor, cand. rer. soc. Unni Bille-Brahe er forskningschef og cand. phil. Gert Jessen seniorforsker.
- Jessen G, Andersen K, Arensman E, Bille-Brahe U, Crepet P, De Leo D, Hawton K, Haring C, Hjelmeland H, Michel K, Ostamo A, Salander-Renberg E, Schmidtke A, Temesvary B, Wasserman D. Temporal fluctuations and seasonality in attempted suicide in Europe. Findings from the WHO/EURO multicentre study on parasuicide *Archives of Suicide Research*. 1999;5: 57-69. The temporal variations (month of the year, day of the week, and time of day) in attempted suicide have been studied from data on 13,553 suicide attempts by persons aged 15 years and over from 13 centres participating in the WHO/EURO Multicentre Study on Parasuicide mainly in the three-year period 1990-1992. Seasonal and temporal fluctuation in suicide attempts were found throughout Europe. The seasonal pattern for attempted suicide was similar with that seen for suicide with a spring peak and a nadir in December, but only in females. In contrast with suicide, in which deaths are most common on Mondays, the peak days for attempted suicide was Sunday with fewest attempts occurring on Friday. Again this pattern was only statistically significant in females. The peak time of day for attempted suicide in both series was the late evening, whereas suicide is most frequent in the daytime. Our finding that half of the suicide attempts occur in the evening or early part of the night is particularly relevant to prevention, especially the availability of telephone help-lines and the accessibility of other sources of help for people in crisis.
- Jessen G, Jensen BF, Arensman E, Bille-Brahe U, Crepet P, De Leo D, Hawton K, Haring C, Hjelmeland H, Michel K, Ostamo A, Salander-Renberg E, Schmidtke A, Temesvary B, Wasserman D. Attempted suicide and major public holidays in Europe: findings from the WHO/EURO Multicentre Study on Parasuicide. *Acta Psychiatr Scand*. 1999 Jun;99(6):412-8. **OBJECTIVE:** The aim of the study was to examine the relationship between suicide attempts and major public holidays in Europe. **METHOD:** The analysis was based on data on 24 388 suicide attempts by persons aged 15 years or older in the period 1989-1996. Data from 13 centres (representing 11 countries) participating in the WHO/EURO Multicentre Study on Parasuicide were analysed. The analysis of the fluctuation of suicide attempts around public holidays was based on the daily number of suicide attempts for each centre. For each day in the period under examination a mean number of suicide attempts ( $\mu$ ) was calculated. The analysis was based on the assumption that the data followed a Poisson distribution. The observed number of daily suicide attempts was compared with the expected number of attempts. A multiplicative model for the expected number in each centre was developed. **RESULTS:** Before Christmas there were fewer suicide attempts than expected, and after Christmas there were approximately 40% more attempts than expected. In addition, more attempts than expected were registered on New Year's Day. In countries where people have the day off work on Whit Monday there were significantly fewer attempts during the 3 days before, but where Whit Monday is a normal working day significantly fewer attempts occurred on the Monday to

Wednesday after Whit Sunday. CONCLUSION: There appears to be a transposition of a significant number of suicide attempts from before (and during) a major public holiday until after it. The division of holidays into non-working and working days showed that a 'holiday effect' could only be found around major public holidays, particularly Christmas, Easter and Whitsun. These findings support the theory of the 'broken-promise effect' for major public holidays.

- Jessen G, Jensen BF. Postponed suicide death? Suicides around birthdays and major public holidays. *Suicide Life Threat Behav.* 1999 Autumn;29(3):272-83. The relationship between suicide and birthdays, and suicide and public holidays has been studied from data on 32,291 Danish suicides by persons ages 15 years and older in the 25-year period 1970-1994. Evidence was found to support the theory of the "broken-promise effect" for major public holidays in that there appears to be a postponement of a significant number of suicides from before a holiday until after. The division of holidays into nonworking and (half-time) working days showed that a "holiday effect" could only be found around major public holidays, particularly Christmas, Easter, and Whitsun. The postponing or transpositioning effect is relevant to prevention, especially because of the availability and accessibility of help at the end of and after major public (nonworking) holidays.
- De Leo D, Scocco P, Marietta P, Schmidtke A, Bille-Brahe U, Kerkhof AJ, Lonnqvist J, Crepet P, Salander-Renberg E, Wasserman D, Michel K, Bjerke T. Physical illness and parasuicide: evidence from the European Parasuicide Study Interview Schedule (EPSIS/WHO-EURO). *Int J Psychiatry Med.* 1999;29(2):149-63. OBJECTIVE: The aim of this research was to identify psychosocial characteristics which might predict future suicidal behavior in parasuicidal subjects in Europe. METHOD: The interview utilized for the survey (European Parasuicide Study Interview Schedule--EPSIS) was administered to 1269 parasuicides aged fifteen years and over, within one week of hospital admission after a suicide attempt, and is part of a longitudinal multicenter study. EPSIS included a brief medical questionnaire, scales rating depression, hopelessness, self-esteem, suicide intention, questions on sociodemographic characteristics, an interview on life events and social support, a description of the parasuicidal act, and an evaluation of factors precipitating the index parasuicide. RESULTS: Physical illness proved to be very frequent among suicide attempters. One in two subjects suffered from an acute, chronic, or chronic disorder in relapse at the time of the parasuicide. Subjects with a physical illness were significantly more depressed, particularly subjects from the intermediate age band and ones affected by a chronic physical disease in relapse. Forty-two percent of patients with physical illness rated their somatic problem as a factor precipitating the attempt and 22 percent judged it to be major one. Furthermore, subjects with physical illnesses considered psychiatric symptoms and disorders to be relevant factors in triggering suicidal behavior, to a greater extent than non-sufferers. The importance of physical illness in contributing to suicidal behavior increased with advancing age. CONCLUSIONS: More careful attention to somatic conditions and their subjective implications would probably augment chances of effectively preventing suicide.
- Schmidtke A, Weinacker B, Apter A, Batt A, Berman A, Bille-Brahe U, Botsis A, De Leo D, Doneux A, Goldney R, Grad O, Haring C, Hawton K, Hjelmeland H, Kelleher M, Kerkhof A, Leenaars A, Lonnqvist J, Michel K, Ostamo A, Salander-Renberg E, Sayil I, Takahashi Y, van Heeringen C, Varnik A, Wasserman D. Suicide rates in the world: update. *Archives of Suicide Research.* 1999;5(1):81-9. INTRODUCTION: In many countries, especially the Western countries, suicidal behavior constitutes a major public and mental health problem and a considerable drain on resources in both primary and secondary health care settings (Schmidtke, 1997). In numerous countries, the number of suicides is significantly higher than the number of

deaths due to traffic accidents. There are age and gender specific cultures of suicidal behavior (Leenaars, 1995). In many countries in some age groups, especially the younger age groups, suicide is ranked after accidents as one of the leading causes of death. Due to the changing age pyramids in some countries (increasing percentage of older persons) the problem of suicidal behavior among the elderly is also increasing (Gulbinat, 1996). In recent years, especially in Europe, the rank order of suicide rates among the various countries has changed. This is partially due to the splitting up of countries. On the other hand, some countries have published official suicides rates for the first time in their history. This paper will provide a short overview of the latest available suicide figures in the world.

Hjelmeland H, Stiles TC, Bille-Brahe U, Ostamo A, Salander-Renberg E, Wasserman D.

Parasuicide: the value of suicidal intent and various motives as predictors of future suicidal behaviour. *Archives of Suicide Research*. 1998;4(3):209-25. The main aim of the study was to examine whether various aspects of suicidal intent or various motives for an index parasuicide can predict nonfatal or fatal repetition of suicidal behaviour. 776 parasuicide patients from 5 Nordic regions participating in the WHO/EURO Multicentre Study on Parasuicide were followed for one year. The Suicide Intent Scale (SIS) and the Motives for Parasuicide Questionnaire (MPQ) were used as predictor variables. A low level of suicidal intent predicted nonfatal repetition. The motive "make things easier for someone" differentiated female repeaters from male repeaters. The report of an unclear motive was the only significant predictor of fatal repetition. Suicidal intent and various motives for a parasuicide have some value in predicting repetition of suicidal behaviour, but should, perhaps, in future studies be combined with other variables in order to increase the predictive value.

Jessen G, Steffensen P, Jensen BF. Seasons and meteorological factors in suicidal behaviour.

Findings and methodological considerations from a Danish study. *Archives of Suicide Research*. 1998;4(3) 263-80. This study is part of a joint venture project carried out by the Centre for Suicidological Research, Odense, and the Danish Meteorological Institute, Copenhagen. The overall purpose of that project is to examine the seasonality of suicidal behaviour and any covariations between suicidal behaviour and the weather in the Scandinavian countries. The project will comprise studies involving parameters such as suicide and attempted suicide, temporal variations including weekdays, holidays, lunar phases, etc., and a variety of meteorological factors. In this article, which presents results from a pilot study based on Danish data (county of Funen), focus is on temporal variations (month, week) and covariations between suicide and meteorological factors and the methodological problems involved. The material comprises all deaths registered as suicides in Funen (appr. 10% of Denmark) in the period 1970-1993, in all 2610 (age 15+). The meteorological data from the same period consists of daily information on precipitation, temperatures, wind velocities, hours of sunlight, etc. The results confirm findings of several previous studies, especially concerning the spring peak and a decreasing tendency throughout the week with significantly fewer suicides on weekends. Our findings indicate that climatological factors, e.g., changing weather, also to some extent might have an impact on suicidal behaviour. Weather may not be a major factor, but it needs, however, to be taken seriously and into account, when considering the etiology of suicide.

Hawton K, Arensman E, Wasserman D, Hulten A, Bille-Brahe U, Bjerke T, Crepet P,

Deisenhammer E, Kerkhof A, De Leo D, Michel K, Ostamo A, Philippe A, Querejeta I, Salander-Renberg E, Schmidtke A, Temesvary B. Relation between attempted suicide and suicide rates among young people in Europe. *J Epidemiol Community Health*. 1998 Mar;52(3):191-4. AB: STUDY OBJECTIVE: To determine if there are associations between rates of suicide and attempted suicide in 15-24 year olds in different countries in Europe. DESIGN: Attempted suicide rates were based on data collected in centres in Europe between

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1989 and 1992 as part of the WHO/EURO Multicentre Study of Parasuicide. Comparison was made with both national suicide rates and local suicide rates for the areas in which the attempted suicide monitoring centres are based. SETTING: 15 centres in 13 European countries.

PATIENTS: Young people aged 15-24 years who had taken overdoses or deliberately injured themselves and been identified in health care facilities. MAIN RESULTS: There were positive correlations (Spearman rank order) between rates of attempted suicide and suicide rates in both sexes. The correlations only reached statistical significance for male subjects: regional suicide rates,  $r = 0.65$ ,  $p < 0.02$ ; national suicide rates,  $r = 0.55$ ,  $p < 0.02$ . CONCLUSIONS: Rates of attempted suicide and suicide in the young covary. The recent increase in attempted suicide rates in young male subjects in several European countries could herald a further increase in suicide rates.

Bille-Brahe U. Death diagnoses among suicides: an overview based on official Danish records, 1972-93. *Nord J Psychiatry*. 1997;51:339-349. On the basis of printouts of the Danish Central Death Register compiled by the National Board of Health, the frequencies of the three types of death diagnoses stated on the death certificate (the underlying, the secondary, and the tertiary cause of death) have been calculated for all deaths registered as suicide during a period of 22 years. In addition, samples of death certificates have been scrutinized. Analyses showed that the number of suicides registered under a psychiatric diagnosis decreased during the period from 76% to 59% for males and from 79% to 66% for females. For both males and females, the most frequent psychiatric diagnosis was non-classifiable psychoses; for males the second most frequent diagnosis was alcoholism, and for females manic depression, closely followed by alcoholism. The suitability of using death certificates and cause-of-death statistics only as basis for studying death diagnoses among suicides is critically discussed.

Bille-Brahe U, Kerkhof A, De Leo D, Schmidtke A, Crepet P, Lonnqvist J, Michel K, Salander-Renberg E, Stiles TC, Wasserman D, Aagaard B, Egebo H, Jensen B. A repetition-prediction study of European parasuicide populations: a summary of the first report from part II of the WHO/EURO Multicentre Study on Parasuicide in co-operation with the EC concerted action on attempted suicide. *Acta Psychiatr Scand*. 1997 Feb;95(2):81-6. One of the aims of the European Study on Parasuicide, which was initiated by the Regional Office for the European Region of the World Health Organization in the mid-1980s, was to try to identify social and personal characteristics that are predictive of future suicidal behaviour. A follow-up interview study (the Repetition-Prediction Study) was designed, and to date 1145 first-wave interviews have been conducted at nine research centres, representing seven European countries. The present paper provides an abridged version of the first report from the study. The design and the instrument used (The European Parasuicide Study Interview Schedules, EPSIS I and II) are described. Some basic characteristics of the samples from the various centres, such as sex, age, method of suicide attempt, and history of previous attempts, are presented and compared. The male/female sex ratio ranged from 0.41 to 0.85; the mean age range for men was 33-45 years and that for women was 29-45 years. At all of the centres, self-poisoning was the most frequently employed method. On average, more than 50% of all respondents had attempted suicide at least once previously. The representativeness of the samples is discussed. There were differences between the centres in several respects, and also in some cases the representativeness of the different samples varied. Results obtained from analyses based on pooled data should therefore be treated with caution.

Bille-Brahe U. Measuring social integration and social support. *Nord J Psychiatry*. 1996;50 Suppl 37:41-46. With the point of departure in the classical theories of Émile Durkheim on the importance of the relationship between the individual and her society, the concepts of social integration and social support, and the theoretical framework behind an operationalization of the



two are discussed. The paper then concentrates on measuring "social support". To illustrate the method, preliminary Danish data from an inter-European study on attempted suicide are used.

Bille-Brahe U, Kerkhof A, De Leo D, Schmidtke A, Crepet P, Lonnqvist J, Michel K, Salander-Renberg E, Stiles TC, Wasserman D, Egebo H. A repetition-prediction study on European parasuicide populations. Part II of the WHO/Euro Multicentre Study on Parasuicide in cooperation with the EC Concerted Action on Attempted Suicide. *Crisis*. 1996;17(1):22-31. One of the aims of the inter-European study on parasuicide, which was initiated by WHO/Euro in the mid-1980s, was to try and identify social and personal characteristics predictive of future suicidal behavior. A follow-up interview study (the Repetition-Prediction Study) was designed, and so far 1145 interviews have been carried out at nine research centers, representing seven European countries. The study and the instrument used (the European Parasuicide Study Interview Schedules, EPSIS I and II) are described here. Some basic characteristics of the material from the various centers are presented and compared, and the representativeness of the samples are discussed. There were differences between the centers in several respects. Results from analyses based on pooled data have to be treated with some caution because of the possible lack of representativeness.

Bille-Brahe U, Andersen K, Wasserman D, Schmidtke A, Bjerke T, Crepet P, De Leo D, Haring C, Hawton K, Kerkhof A, Lonnqvist J, Michel K, Phillippe A, Querejeta I, Salander-Renberg E, Temesvary B. The WHO-EURO Multicentre Study: risk of parasuicide and the comparability of the areas under study. *Crisis*. 1996;17(1):32-42. The 15 areas under study in the WHO/Euro Multicentre Study on Parasuicide vary considerably with regard to socio-economic factors, culture, life-styles, etc. In this paper, the authors discuss whether the traditional high risk factors for suicidal behavior (such as unemployment, abuse, divorce, etc.) take on different weights depending on local societal and cultural settings. Results from analyzing covariations between various background factors characteristic of the different areas under study and the frequency of attempted suicide showed weak or insignificant correlations, indicating that high-risk factors can only be identified from international pooled data with great care.

Schmidtke A, Bille-Brahe U, DeLeo D, Kerkhof A, Bjerke T, Crepet P, Haring C, Hawton K, Lonnqvist J, Michel K, Pommereau X, Querejeta I, Phillippe I, Salander-Renberg E, Temesvary B, Wasserman D, Fricke S, Weinacker B, Sampaio-Faria JG. Attempted suicide in Europe: rates, trends and sociodemographic characteristics of suicide attempters during the period 1989-1992. Results of the WHO/EURO Multicentre Study on Parasuicide. *Acta Psychiatr Scand*. 1996 May;93(5):327-38. The World Health Organization/EURO Multicentre Project on Parasuicide is part of the action to implement target 12 of the WHO programme, 'Health for All by the Year 2000', for the European region. Sixteen centres in 13 European countries are participating in the monitoring aspect of the project, in which trends in the epidemiology of suicide attempts are assessed. The highest average male age-standardized rate of suicide attempts was found for Helsinki, Finland (314/100,000), and the lowest rate (45/100,000) was for Guipuzcoa, Spain, representing a sevenfold difference. The highest average female age-standardized rate was found for Cergy-Pontoise, France (462/100,000), and the lowest (69/100,000) again for Guipuzcoa, Spain. With only one exception (Helsinki), the person-based suicide attempt rates were higher among women than among men. In the majority of centres, the highest person-based rates were found in the younger age groups. The rates among people aged 55 years or over were generally the lowest. For the majority of the centres, the rates for individuals aged 15 years or over decreased between 1989 and 1992. The methods used were primarily "soft" (poisoning) or cutting. More than 50% of the suicide attempters made more than one attempt, and nearly 20% of the second attempts were made within 12 months after the first

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attempt. Compared with the general population, suicide attempters more often belong to the social categories associated with social destabilization and poverty.

Jessen G, Andersen K, Bille-Brahe U. Selvmordstanker og selvmordsforsøg blandt 15-24-årige i det danske uddannelsessystem. Ugeskr Læger. 1996 Sep 2;158(36):5026-9. FORMÅL: At afdække omfanget af suicidal adfærd blandt 15-24-årige unge i det danske uddannelsessystem. DESIGN: Anonym og frivillig spørgeskemaundersøgelse gennemført fra august 1993 til marts 1995. REGI: Center for selvmordsforskning, Odense. MATERIALE: Data fra 3.042 spørgeskemaer udfyldt af 15-24-årige i uddannelsessystemet. VIGTIGSTE VARIABLER: Hyppighed af selvmordstanker, selvmordsforsøg og oplevelser af selvmord i familien. RESULTATER: Omkring 40% af de adspurgte havde på mindst et tidspunkt tænkt på at begå selvmord, og knap hver tyvende svarede bekræftende på spørgsmålet, om de nogensinde havde forsøgt at begå selvmord. Videre viste spørgeskemaundersøgelsen, at næsten hver tiende havde oplevet selvmord i familien. KONKLUSIONER: Undersøgelsen viste, at hyppige eller kroniske selvmordstanker og selvdestruktiv adfærd kan betragtes som risikofaktorer for selvmordsforsøg og mulige prædiktorer for kommende suicidal adfærd. Det viste sig også, at de elever, som havde oplevet selvmord i familien, havde tre gange så høj risiko for selvmordsforsøg som de elever, der ikke havde oplevet selvmord i familien. Undersøgelsens resultater peger også på, at det sandsynligvis kun er »toppen af isbjerget, der opdages eller registreres af behandlingssystemet. Det skønnes, at helt op mod 75-90 % af de unges selvmordsforsøg ikke officielt bliver registreret. Dette vidner om, at mange af disse 15-24-årige åbenbart ingen hjælp har modtaget efter deres selvmordsforsøg.

Nielsen AS, Bille-Brahe U, Hjelmeland H, Jensen B, Ostamo A, Salander-Renberg E, Wasserman D. Alcohol problems among suicide attempters in the Nordic countries. Crisis. 1996;17(4):157-66. The purpose of this study was to see whether and how the number of suicide attempters with alcohol problems and their drinking habits differ between the Nordic areas under study. Problem-drinkers were defined as persons who themselves felt that they had an alcohol problem. The analyses were based on data collected at five Nordic research centers participating in the WHO/Euro Multicentre Study on Parasuicide, namely: Helsinki (Finland); Umea and Stockholm (Sweden); Sør-Trøndelag (Norway); and Odense (Denmark). The results showed that the frequency of problem-drinking among suicide attempters differed markedly between the areas under study; the Finnish male and the Danish female suicide attempters included the highest proportions of self-identified problem-drinkers. The pattern of drinking among the suicide attempters also differed between the areas. The analyses indicate that the point when alcohol becomes a problem to somebody, especially to a degree that it increases the risk of suicidal behavior, not only depends on how much and how often the person drinks alcohol; the prevailing drinking pattern, the attitudes towards drinking alcohol, and the level of social control are also important factors to take into consideration when relations between alcohol and suicidal behavior are under study.

Jessen G, Arensman E. Developing a European Network for suicidology. Crisis. 1996;17(4):184-5. No abstract available.

Bille-Brahe U. Læger og selvmord. Månedsskr Prakt Lægegern. 1995 Marts:411-6. Efter en kort gennemgang af studier vedrørende suicidal adfærd blandt læger diskuteres de forskellige undersøgelsesresultaters validitet. De mest almindelige forklaringer, som man finder i international litteratur på den høje selvmordshyppighed, selvmord blandt læger, diskuteres: de drejer sig om lægers særlige arbejds- og uddannelsessituation, om deres psykiske helbredstilstand, om stress og om nem adgang til medicin og om lægens særlige »fortrolighed« med døden. Forfatteren hævder imidlertid, at i alle fald en del af forklaringen ligger i lægernes vægring ved (i tide) at søge professionel hjælp og i de professionelles problemer med at

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forholde sig til en kollega som patient, og forslag til forebyggelse tager især udgangspunkt i disse to forhold.

- Bille-Brahe U, Schmidtke A, Kerkhof AJ, De Leo D, Lonnqvist J, Platt S, Sampaio Faria J. Background and introduction to the WHO/EURO Multicentre Study on Parasuicide. *Crisis*. 1995;16(2):72-8, 84. In most European countries, suicidal behavior is a major public health problem and a considerable drain on resources at both the primary and secondary health care levels. Unfortunately, due to cross-cultural differences both in medical treatment of nonfatal suicidal behavior and in research methodologies, it has proved almost impossible to make valid comparisons between countries. It is therefore imperative that international studies based on the same definitions and methodologies be facilitated if we want to extend our knowledge of suicidal behavior and be able to make suggestions for intervention and prevention. The WHO Regional Office for Europe decided to support a collaborative multicenter study, designed to provide a reliable epidemiological picture of parasuicide in Europe. This article provides an introduction to the study.
- Bille-Brahe U. Suicide in relation to other causes of death in Denmark, 1922-1991. *Nord J Psychiatry*. 1994;48:257-61. During the past 70 years, Danish rates of registered suicide have increased by more than one-third. Variations in the ratio of death by suicide to death by other causes distributed by sex and age are discussed, the conclusion being that death by suicide constitutes an increasing proportion of all deaths. Especially among people not yet in their middle age, the proportion has increased markedly from a few per cent in 1922 to approximately 20% today. Among young people below the age of 30 years every fifth death is due to suicide, and among the somewhat older - that is, those 30-40 years old - suicide is the most frequent cause of death.
- Bille-Brahe U, Jensen B, Jessen G. Selvmord blandt ældre - en prognose. *Gerontologi og Samfund*. 1994;10(1):13-6. Det har flere gange været fremme i medierne, at der er en stigning i antallet af selvmord blandt ældre. På Centret for Selvmordsforskning ved Odense Universitet har man kigget nærmere på statistikken og forsøgt at give en prognose for den kommende udvikling. Forfatterne er alle videnskabelige medarbejdere ved Centret, som hører under Odense Universitets Kliniske institut.
- Bille-Brahe U, Jessen G. Selvmord i Danmark gennem 70 år, 1922-1991. Generelle tendenser. *Ugeskr Læger*. 1994 Maj 2;156(18):2759-63. FORMÅL: At give et overblik over udviklingen i forekomsten af selvmord i det danske samfund gennem en 70-årig periode. DESIGN: Registerundersøgelse. REGI: Centret for Selvmordsforskning. Klinisk Institut, Odense Universitet. MATERIALE: Data fra Dødsårsagsstatistikken og fra befolkningsstatistikken for årene 1922-1991. VIGTIGSTE VARIABLER OG EFFEKTMÅL: Antal registrerede selvmord per 100.000 indbyggere i den danske befolkning på 15 år og ældre, fordelt på køn og alder. RESULTATER OG KONKLUSION: Udviklingen i hyppigheden af selvmord udviser en stigende trend. Stigningen har været markant for de voksne kvinders vedkommende. De kvindelige selvmordsrater når deres maksimum blandt de midaldrende, hvorefter hyppigheden falder med alderen, dvs. at alderseffekten ikke er særlig udtalt for kvindernes vedkommende. Når det gælder mændene, har stigningen været mere jævnt fordelt på de enkelte aldersgrupper. Der er for mændenes vedkommende stadig tale om en klar alderseffekt, men samtidig er højrisikogruppen også kommet til at omfatte yngre mænd.
- Bille-Brahe U, Jessen G. The frequency of suicide in individual Danish birth cohorts, 1922-1991. *Suicide Life Threat Behav*. 1994 Fall;24(3):275-81. In recent years many suicidologists have based their epidemiological studies on suicide on theories assuming that people born within the same period of time will follow the same suicidal patterns throughout their lives, and that variations in the annual rate of suicide will, therefore, reflect systematic differences between

cohorts. Cohort analysis carried out on Danish data showed, however, that although some differences could be found as to the course of events during the life span of the cohorts and also when the material was adjusted for sex, no significant differences could be found between various birth cohorts in the total rates of suicide. The authors argue that the reason for this is that a cohort effect is only one of three dimensions of an analytical tool, namely, Age-Period-Cohort (APC) analysis, and that the balance between the three effects changes over time.

- Wasserman D, Fellman M, Bille-Brahe U, Bjerke T, Jacobsson L, Jessen G, Lonnqvist JK, Njastad O, Ostamo A, Salander-Renberg E Parasuicide in the Nordic countries. *Scand J Soc Med.* 1994 Sep;22(3):170-7. This article gives an account of some findings of the WHO/EURO multicentre study on parasuicide from the five Nordic centres: Helsinki (Finland), Stockholm (Sweden), and the countries of Funen (Denmark), So-Trondelag (Norway) and Vasterbotten (Sweden). For parasuicide patients treated in hospital in these five Nordic centres, the parasuicide rates per 100,000 inhabitants per annum were 222 for women, 213 for men and 224 for both sexes combined. In all the Nordic centres except Helsinki, women had higher parasuicide rates than men. The female/male parasuicide ratio was 1.16 for all Nordic centres. The highest parasuicide rates in the whole material were found in Helsinki, Stockholm and Funen, and the lowest in Sor-Trondelag and Vasterbotten. The highest parasuicide rates lay in the 30-39 age interval, i.e. the peak of parasuicide rates was in older age groups than previously reported. Single people, especially divorcees and those who have never been married, constitute a high-risk group in both sexes. The risk of parasuicide for single men is three times that for married men in all the Nordic centres except Sor-Trondelag, where the risk is five times higher. The parasuicide risk for single women is twice as high as for married women except for women in Funen, where the risk for single and married women is almost equal. Exceptionally high parasuicide rates are also reported for Finnish citizens in Sweden, compared with Finns from the Helsinki centre. Parasuicide rates appear to be correlated with population density, since the densely populated areas of Helsinki, Stockholm and Funen evince higher parasuicide rates than the sparsely populated areas of Sor-Trondelag and Vasterbotten.
- Bille-Brahe U, Jessen G. Suicide in Denmark, 1922-1991: the choice of method. *Acta Psychiatr Scand.* 1994 Aug;90(2):91-6. The authors describe methods of suicide registered in Denmark during the last 70 years. The preferred method was initially hanging then later poisoning, first mainly with household gas, later with other agents, especially overdoses of medicine. In recent years there has, however, also been an increasing number of hangings, drownings and other methods of suicide, and there seems to be an increasing inclination towards selecting more violent methods. The Danes' choice of method for committing suicide differ somewhat from that in the other Scandinavian countries; in particular, there have been far more cases of self-poisoning in Denmark.
- Bille-Brahe U, Jessen G. Repeated suicidal behavior: a two-year follow-up. *Crisis.* 1994;15(2):77-82. The majority of suicide attempters repeat the suicidal act at least once. The study described here on a Danish sample of suicide attempters shows that 31% had made only one attempt. More repeaters than nonrepeaters were divorced, and more repeaters also lived alone or alone with children. The two groups did not differ significantly as to level of education, but were clearly different with regard to their economic activity. These differences cannot be used as a basis for the prediction of future suicidal behavior, since the factors discussed refer to characteristics that define suicide attempters in general. However, they do point to conditions that might be targets for intervention and aftercare.
- Bille-Brahe U, Jensen B, Jessen G. Suicide among the Danish elderly: now and in years to come. *Crisis.* 1994;15(1):37-43. The growing number of elderly people is causing concern in most western countries, and the fear is being expressed that the changing age distribution of the

population might eventually lead to increasing frequencies of suicide among old people. The authors discuss the developments in the age distribution of the Danish population and forecasts for the frequency of suicide among the elderly. The presumption that rates of suicide among the elderly will go up is questioned by pointing to the fact that the alleged dysfunctions caused by the growth in the population of elderly people may at least to some extent be counterbalanced by the fact that a new "type" of elderly person appears to be entering the stage.

Stiles TC, Bille-Brahe U, Bjerke T, Lönnqvist JK, Jacobsson L, Wasserman D WHO (Nordic) Multicentre Study on Parasuicide: Description and present status. *Nord J Psychiatry*.

1993;47:281-6. Sixteen centres from 14 different European countries are participating in the WHO/Euro multicentre study on parasuicide. In this paper the Nordic part of the research project is presented. Both the epidemiologic monitoring study and the repetition prediction study (EPSIS) are introduced. The catchment areas covered by each of the five Nordic centres are described, along with selection procedures and assessment instruments. Moreover, some recent incidence data on parasuicide event rates in the Nordic catchment areas are also presented. Finally, a progress of the repetition prediction study is described.

Scmidtke A, Bille-Brahe U, Kerkhof A, De Leo D, Platt S, Sampaio-Faria J, Henderson J, Pototzky W The WHO/EURO Multicentre Project on Parasuicide – State of the Art. *Italian Journal of Suicidology*. 1993;3(2):83-95. This paper presents the main characteristics of the WHO/EURO Multicentre Study on Parasuicide. The project is aimed both to carefully monitor parasuicidal behaviours (medically treated) and to predict future acts ('repetition prediction study'). Preliminary results from the monitoring phase of the project are here discussed.

Nielsen AS, Bille-Brahe U. Rationaliteten bag selvmord blandt ældre. *Ugeskr Læger*. 1993 Jun 14;155(24):1902-5. Artiklen gengiver i forkortet udgave en forelæsning »Assessing rationality in elderly suicidal patients: common sense versus dynamic assessment« holdt på 4th European Symposium on Suicidal Behaviour i Odense, juni 1992. På baggrund af den aktuelle debat om aktiv dødshjælp forekom det to af deltagerne i symposiet ønskværdigt at søge at gøre de fremlagte synspunkter tilgængelige i et dansk forum. Den oprindelige version er udarbejdet af A.J.F.M. Kerkhof, S. C.R. Ormskerk and M. Oomes. Department of Clinical Health, and Personality Psychology, University of Leiden, The Netherlands.

Nielsen AS, Stenager E, Bille-Brahe U. Attempted suicide, suicidal intent, and alcohol. *Crisis*. 1993;14(1):32-8. The purpose of the present study was to relate suicidal intent to the suicide method chosen and the medical lethality of the suicidal act, and to discuss how ingestion of alcohol impacts these three factors. The study was based upon interviews with 139 suicidal patients admitted to the Department of Psychiatry of Odense University Hospital. The results indicated a tendency for suicide attempters using wrist-cutting to score low on the Suicidal Intent Scale. Patients using kinds of self-injury other than self-poisoning or wrist-cutting scored high. In the case of self-poisoning, suicidal intent did not influence the choice of toxic agent, nor was the choice of method and/or choice of toxic agent affected by alcohol ingestion. A correlation between suicidal intent and the lethality of the suicide attempt was seen only among patients without a diagnosis of alcohol dependence. Alcohol-dependent patients who made highly lethal attempts scored relatively low on the Suicidal Intent Scale. The results indicate that the lethality of the suicidal act is only an incomplete guide to a patient's suicidal intent. However, it should be stressed that, despite the fact that alcohol-dependent suicide attempters may not strongly wish to die, they are nonetheless at high risk for making fatal suicide attempts.

Bille-Brahe U. The role of sex and age in suicidal behavior. *Acta Psychiatr Scand Suppl*.

1993;371:21-7. Danish suicide rates for the last 65 years and data from 1976-1979 and 1989-1990, respectively, on attempted suicide in a representative Danish area show that marked changes have taken place in the distribution by sex and age of suicides and suicide attempters.

Relatively more women are now taking their own life and, although suicidal risk still increases by age, the high-risk group also has come to include younger age groups. In contrast, relatively more men are attempting suicide, and the suicide attempters are getting older. Thus an equalization of the sexes has taken place, and the effect of age has become less pronounced. Both trends tally with the general trends in society.

Nielsen AS, Nielsen B, Bille-Brahe U. Selv-forgiftninger og præparatvalg. Bør undersøgelser baseres på henvendelser eller patienter? *Nord J Psychiatry*. 1992;46:195-9. Several studies on the use of toxic agents for intended self-poisoning are based on the a priori assumption that a person's repeated acts of self-poisoning are unrelated, and calculations are therefore based on the number of events. We claim this assumption invalid; repeated acts of intended self-poisoning committed by the same person must be considered interdependent. This notion is supported by our findings in a study at Odense University Hospital, showing that persons with only one single incident differ significantly with regard to the choice of toxic agent from those who repeat the self-poisoning. In our study we demonstrate that the drug pattern differs depending on whether calculations are based on number of events or on number of persons involved. The choice of drug was also found to be significantly sex- and age-specific. Such findings lead to the conclusion that to get a clear picture of the extent of self-poisoning with a particular toxic agent, calculations should be based on the number of persons, distributed by sex, and preferably also by age. If the purpose is to examine the prevalence in a population of poisonings with a particular agent, calculations based on the number of events are statistically incorrect and may be directly misleading.

Nielsen AS, Nielsen B. Mønstret i præparatvalg ved intenderede selvforgiftninger - med særligt henblik på ændringer i ordinationsmønstret. *Ugeskr Læger*. 1992 Jul 6;154(28):1972-6. This investigation was initiated in 1990 to investigate the choice of preparation in cases of attempted suicide treated in the Emergency Unit in Odense University Hospital during the past decade. The results show that 1) an increase has occurred particularly among young women in the use of analgesics obtainable without prescription (e.g. 13% of young women employed paracetamol as the toxic agent), 2) the number of persons employed dextropropoxyphene did not decrease and 3) a great increase was observed in the number of cases of poisoning with ketobemodoni chloridum. In 1985, several barbiturates were withdrawn from the Danish Medical Codex and this was followed by a decrease in the number of cases of poisoning among women but not among men. At present, approximately 10% of men who poison themselves still employ barbiturates. The number of cases of poisoning with barbiturates in men is thus not reduced but phenobarbital is the preparation of choice. The authors conclude that more attention and care should be paid when prescribing dextropropoxyphene, ketobemodoni chloridum and phenobarbital and the availability of paracetamol without prescription must be debated critically.

Platt S, Bille-Brahe U, Kerkhof A, Schmidtke A, Bjerke T, Crepet P, De Leo D, Haring C, Lonnqvist J, Michel K, et al. Parasuicide in Europe: the WHO/EURO multicentre study on parasuicide. I. Introduction and preliminary analysis for 1989. *Acta Psychiatr Scand*. 1992 Feb;85(2):97-104. The WHO/EURO multicentre study on parasuicide is a new, coordinated, multinational, European study that covers two broad areas of research: monitoring trends in the epidemiology of parasuicide (epidemiological monitoring study); and follow-up investigations of parasuicide populations, with a view to identifying the social and personal characteristics predictive of future suicidal behaviour (repetition prediction project). This article provides background information on the development and organization of the multicentre study, and presents selected findings from the epidemiological monitoring project, based on a preliminary examination of data collected in 15 centres on parasuicides aged 15 years and over treated in

health facilities in defined catchment areas during the year 1989. The overall parasuicide incidence varied considerably across the centres, from a high (event) rate of 414 per 100,000 males in Helsinki to a low of 61 among males in Leiden. The highest female event rate was 595 in Pontoise, and the lowest 95 in Guipuzcoa. The mean event rate across all centres was 167 among males and 222 among females. Parasuicide incidence tended to be elevated among 15- to 34-year-olds, with lowest rates among those aged 55 years and over. With one exception (Helsinki), the female parasuicide rate was higher than the male rate, the F:M ratio ranging from 0.71:1 to 2.15:1, with a median of 1.5:1 (events). Short-term repetition rates (as measured by the event:person ratio) differed between centres, from 1.03 to 1.30 (median = 1.12) among males, and from 1.07 to 1.26 (median = 1.13) among females. Although we warn against generalizing from our findings to make statements about differences in parasuicide between countries, we argue that the differences between centres are valid and should be addressed in further research.

- Stenager EN, Stenager E, Koch-Henriksen N, Bronnum-Hansen H, Hyllested K, Jensen K, Bille-Brahe U Suicide and multiple sclerosis: an epidemiological investigation. *J Neurol Neurosurg Psychiatry*. 1992 Jul;55(7):542-5. In a nationwide investigation the risk of death by suicide for patients with multiple sclerosis (MS) was assessed using records kept at the Danish Multiple Sclerosis Registry (DMSR) and the Danish National Register of Cause of Death. The investigation covers all MS patients registered with DMSR with an onset of the disease within the period 1953-85, or for whom MS was diagnosed in the same period. Fifty three of the 5525 cases in the onset cohort group committed suicide. Using the figures from the population death statistics by adjustment to number of subjects, duration of observation, sex, age, and calendar year at the start of observation, the expected number of suicides was calculated to be nearly 29. The cumulative lifetime risk of suicide from onset of MS, using an actuarial method of calculation, was 1.95%. The standard mortality ratio (SMR) of suicide in MS was 1.83. It was highest for males and for patients with onset of MS before the age of 30 years and those diagnosed before the age of 40. The SMR was highest within the first five years after diagnosis.
- Bille-Brahe U. Langtidsvirkning af stigninger i forekomsten af suicidal adfærd. Suicidal transmission blandt børn og unge. *Nord Psykiatr Tidsskr*. 1991;45:185-8. In recent decades rates of suicide and attempted suicide have been increasing in most Western countries. Suicidal behaviour has become more "common", and consequently, more and more people are also exposed to suicidal ideation and suicidal transmission. In Denmark the increase has been especially marked among the 30- to 49-year-olds - that is, in the age group in which the majority most often are parents of children and adolescents. According to social learning theory, behaviours are learned and maintained primarily because they are reinforced by some significant others. During childhood the most significant others are usually the parents, and the suicidal behaviour of a parent may be perceived as a "lesson". In addition, the suicidal behaviour of a parent usually has long-lasting damaging psychologic effects on the child. With the increasing number of people in the parent age group showing suicidal behaviour, an increasing number of youngsters will be in a high-risk group, and chances are that in the years to come we shall have to face increasing rates of suicide and attempted suicide for each new birth cohort.
- Stenager EN, Bille-Brahe U, Jensen K. Kræft og selvmord. *Ugeskr Læger*. 1991 Mar 11;153(11):764-8. On the basis of the available literature about cancer and suicide, it is concluded that patients with cancer show a moderately increased risk of committing suicide. This risk is greatest during the first year after diagnosis of the disease. The forms of cancer which most frequently involves suicide are cancer in the gastro-intestinal canal in men and cancer of the breast and genitalia in women. Points of view as to how the risk of suicide in these patients may be reduced are presented and discussed.

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Bille-Brahe U. Selvmordsforsøg i Fyns Amt 1989/1990. Ugeskr Læger. 1991 Apr 15;153(16):1119-22. I 1985 tog WHO's Europa-kontor initiativ til et fælleseuropæisk program for forskning vedrørende selvmordsforsøg: »The WHO/Euro Multicenter Study on Parasuicide«, hvortil der nu er knyttet 17 forskningscentre fra 15 forskellige lande. Det danske center, der er placeret ved Klinisk Institut, fagområde for psykiatri, Odense Universitet, har som undersøgelsesområde Fyns Amt, der antages at være repræsentativt for landet som helhed. Projektet består af to faser: 1) en registreringsundersøgelse og 2) en opfølgende interviewundersøgelse. I artiklen redegøres for registreringsundersøgelsen og resultaterne fra det første års registrering. I perioden 1.4.1989-31.3.1990 skete der i Fyns Amt i alt 1.052 selvmordsforsøg. Af disse var 1.024 begået af 765 personer med fast bopæl i amtet, hvilket svarer til en årlig personbaseret rate på 183 og 216 per 100.000 indbyggere på 15 år og over for henholdsvis mænd og kvinder. Kønsratioen (M/K) har været faldende gennem de senere år og ligger nu på 0,85. Aldersmæssigt topper raterne blandt de 35-39 årige mænd og blandt de 35-39 årige og de 45-49 årige kvinder. Gennemsnitsalderen har været stigende både for mænds og kvinders vedkommende. Sammenlignet med de samlede opgørelser fra multicenterundersøgelsen ligger Danmark meget højt, navnlig når der tages højde for, at det danske center dækker både by og landdistrikter, medens flere andre centre kun dækker deciderede byområder. Den udvikling mod en større lighed mellem kønnene og en højere gennemsnitsalder, der er så tydelig i Danmark, ses også som tendenser i de fleste øvrige registreringsområder.

Nielsen B, Wang AG, Bille-Brahe U Attempted suicide in Denmark. IV. A five-year follow-up. Acta Psychiatr Scand. 1990 Mar;81(3):250-4. From October 1, 1980 to April 20, 1981, 207 patients were admitted to the Department of Psychiatry, Odense University Hospital, after attempting suicide. Information on physical, mental and social conditions was collected. The patients were then followed for 5 years, to register subsequent suicidal behaviour and to try to identify relevant factors for evaluation of future suicide risk. During the follow-up period 11.6% of the attempters committed suicide, the majority within the first year after the index attempt. Seventy-five percent of the suicides were committed less than 6 months after the last contact with the psychiatric ward. Predictors for future suicide were chronic somatic disease, depression, abuse of medicine, and chronic alcohol abuse. The authors emphasize the need for a thorough medical evaluation of patients attempting suicide, to be able to identify and eventually treat these conditions.

Bille-Brahe U, Nielsen B. Suicidal adfærd. Tidsskrift for Praktisk Lægegerning. 1989 Aug.

Bille-Brahe U. Suicide and social integration. A pilot study of the integration levels in Norway and Denmark. Acta Psychiatr Scand Suppl. 1987;336:45-62. A model for comparison of levels of social integration in each of the Nordic countries was developed from Durkheim's theories and then tested on Norwegian and Danish data to determine whether the difference in the frequency of suicide between Norway and Denmark could be "explained" by a corresponding difference in degree of social integration. The results confirmed Durkheim's theory in that the general level of social integration was found to be considerably lower in Denmark than in Norway. Danish middleaged women, whose rate of suicide is more than three times that of their Norwegian counterparts, were especially poorly integrated by comparison. Furthermore, the level of integration among young Norwegian men was found to be in marked decline and their suicide rate on the increase. The necessity of testing and refining the method is stressed.

Bille-Brahe U, Juel-Nielsen N. Trends in attempted suicide in Denmark, 1976-1980. Suicide Life Threat Behav. 1986 Spring;16(1):46-55. The object of the present study was to estimate proportions and changes in the incidence of suicide attempts in Denmark. Case sheets concerning all admissions in 1976-1979 (total 6,650) at the Department of Psychiatry, Odense University Hospital (the catchment area of which provides a representative sample of the



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Danish population), were examined with a view to establishing the reasons for admission. Rates of suicide attempts by age and sex in 1976-1979 were calculated, and estimated rates of the suicide attempts in 1980 added. Trend analysis showed an increase in the mean rates from 1976 to 1979 of 48%, followed by a decrease in 1980 of 13%. There were high increases among the adolescents, but the increase was above all due to the fact that more and more men attempted suicide; the study suggests as a new phenomenon more male than female suicide attempters. We stress the fact that incidences calculated on the basis of hospital admissions only underestimate the real proportions of self-destructive behavior.

Bille-Brahe U, Hansen W, Kolmos L, Wang AG. Attempted suicide in Denmark. I. Some basic social characteristics. *Acta Psychiatr Scand.* 1985 Mar;71(3):217-26. During a 6 months' period, 99 persons, randomly chosen among patients admitted for attempted suicide to the Department of Psychiatry, Odense University Hospital, were interviewed. This paper, which is the first in a series, deals with the theoretical and methodological background of the survey and the validity of the sample and also with some basic social characteristics of the suicide attempters. The majority of the suicide attempters were found to be single and many of them were living alone or alone with children. The sample could also be characterized by a low level of vocational education and by lack of association with the labour market. The suicide attempters could not, however, be unequivocally described as being in bad financial circumstances, neither were they solely from the lower social classes; the social status profile of the suicide attempters was closer to the status profile of suiciders, with relatively many persons from both upper and lower classes and few from the middle class.

Bille-Brahe U, Juel-Nielsen N. Selvmordsforsøg i et repræsentativt dansk område 1976-80. *Ugeskr Læger.* 1985 Jan 14;147(3):193-7.

Bille-Brahe U, Wang AG. Attempted suicide in Denmark. II. Social integration. *Soc Psychiatry.* 1985;20(4):163-70.

Wang AG, Nielsen B, Bille-Brahe U, Hansen W, Kolmos L. Attempted suicide in Denmark. III. Assessment of repeated suicidal behaviour. *Acta Psychiatr Scand.* 1985 Oct;72(4):389-94. Ninety-nine patients, randomly chosen among hospital admitted suicide attempters, were initially interviewed at the Department of Psychiatry, Odense University Hospital, Denmark, and then followed up for a period of about 3 years. Half of the patients repeated the attempt in the follow-up period, mostly in the first year. Ten patients committed suicide, half of them in the first 3 months after the interview, shortly after discharge from hospital. The majority of the repeaters were living alone, while those that committed suicide were mostly married women aged 50-60 years. Other characteristic features for the repeaters were previous suicidal behaviour and suicidal behaviour among relatives. Many had a psychiatric record and expressed chronic somatic complaints. Around the time of the attempt, many expressed hopelessness, isolation and suicidal ideation. Pierce's Suicide Intent Scale performed poorly due, in particular, to low specificity. Future work will focus on objective risk factors, those indicated here and others, in order to establish an up-to-date background for assessment and management.

Bille-Brahe U. Den suicidal patient som klient i socialforvaltningen. *Ugeskr Laeger.* 1982 Sep 6;144(36):2667-71.