Abstract  Background: The aims of present study were to assess the prevalence of suicidal expression in the general population, to compare prevalences over time, to identify risk groups and to examine the evidence regarding the proposition that there is a continuous sequence of suicidal expressions with an underlying gradient of severity. Method: Two postal questionnaire studies were conducted, in 1986 and in 1996, involving representative samples of about 700 and 1000 persons respectively, in the age range 18–65 years. Response rates of 76% and 64%, respectively, were obtained. Results: A higher proportion (34%) reported some degree of suicidal expression during the past year in the 1996 survey, compared to 1986 (23%). This was mainly attributed to higher reporting of life-weariness and death-wishes, since there was a simultaneous lower reporting of suicidal ideation (12.5% vs 8.6%). The total lifetime incidence of suicidal expression was identical (52%) in both studies. Respective proportions of 0.6% and 0.2% reported that they had made a suicide attempt during the last year, and 2.6% and 2.7%, respectively, during their lifetime. Higher prevalences of combined suicidal expression during the previous year were reported by women, younger persons, those living alone and women living in urban areas. Concerning suicidal ideation during last year, no gender differences were found. For a total of 21% of those reporting some degree of suicidal expressions during the past year, no simple cumulative relationship between the different types of suicidal expression was found. Conclusions: It is possible to use a postal questionnaire approach for studies on suicidal expression in the general population, and the study indicates that such suicidal expression is fairly prevalent. The pronounced gender differences concerning most types of suicidal behaviours and expression are not valid for suicidal ideation, which is important to consider in a preventative context.

Introduction

The fundamental reason for studying suicidal problems in the general population is to obtain an epidemiological basis for suicide prevention. The present study constitutes part of a suicide prevention project in a northern Swedish county. Suicide is regarded as a public health problem and consequently a public health strategy is required, instead of exclusively working with individuals at risk. Part of the strategy is to disseminate information about the suicide problem in order to increase social awareness and stimulate debate, especially regarding the possibilities of prevention. Earlier studies from the project have focused on the epidemiology of suicide and parasuicide in the area [1–3]. In the current study, the focus was on other aspects of the suicide problem: life-weariness, death-wishes, suicidal ideation, suicidal plans and suicide attempts, constituting a possible continuous sequence of phenomena with increasing severity [4]. In this paper the term ‘suicidal expression’ is used as an overall concept for these different types of suicidal cognitions and behaviours.

The extent of suicidal expression in the population is not easily assessed, due to a lack of clear and concise definitions and classifications, as well as a lack of consistent methods for data collection on suicide morbidity. This has led to some variability in the estimates obtained in different studies. The population-based studies [4–18], mainly based on interview surveys, report estimates of 1-year incidence of suicide attempts among adults ranging from about 0.3% to 2.6%, yielding an approximated rate of 300–2600 per 100,000 inhabitants per year. In a lifetime perspective, incidences from about 0.7% to 10% are reported. Concerning attempted sui-
Concerning suicide attempts result in medical treatment [17, 21]. Population studies. It is estimated that about 25–60% of medically treated cases result in medical treatment [17, 21]. Concerning suicidal ideation, i.e. suicidal thoughts, population-based studies report prevalences from about 2% to 11% in a 1-year perspective and between 2.1% and 24% in a lifetime perspective [4, 6, 9, 12–18, 22, 23]. Studies on other types of suicidal expression, report 1-year and lifetime prevalences, respectively, for life-weariness of 7.8% and 11.5–22.3%, for death-wishes of 5% and 8.2%, and for suicidal plans of 1.5–2.7% and 3.9–13% [4, 8, 14, 15, 24].

Positive demographic and socioeconomic correlates for suicidal ideation have, in most population-based studies, been identified as younger age and disrupted or single civil status [5, 9, 14, 16–18, 25]. In some studies, female gender [4, 9, 12] and lower educational status and unemployment [10, 13, 17, 18, 26] have also been identified. However, there are more recent studies showing no gender differences in self-reporting of suicidal ideation [13–15, 17, 27, 28]. Population-based studies on attempted suicide generally show higher rates among females, younger people, unemployed, single and divorced, and persons with lower education [5, 9, 14, 17, 18]. Concerning age, on the other hand, somewhat contradictory results are reported, with findings of higher rates among persons under 30 and findings of no association between age and self-reported suicide attempts both being reported.

Suicide can be regarded as a process [29], usually protracted over many years, implying that there is a persistent underlying problem developing in severity over time. Paykel et al. [4] found in their study a continuum on the aggregated level, i.e. a stepwise association, between different types of suicidal expression, suggesting an increased severity, starting from life-weariness and going on to death-wishes, then suicidal thoughts, suicidal plans and finally attempted suicide. The study of different forms of suicidal expression in the population might therefore give an understanding of the suicidal process from a general population perspective.

Consequently, the aims of the present study were to assess the prevalence and incidence of suicidal expression in a general population, to make make comparisons over time, to identify risk groups and to examine the continuous sequence of suicidal expression with an underlying gradient of severity proposed by Paykel et al. Since most surveys in the general population are interview-based, and consequently very resource- and time-consuming, an additional aim was to explore whether it was appropriate to use a postal questionnaire approach for this type of study.

Subjects and methods

Study population

The study area comprised the county of Västerbotten in northern Sweden, with a population of about 250,000 inhabitants. The county includes both expanding urban areas and very sparsely populated areas. Traditionally there have been low suicide rates in the area, but during the 1980s and 1990s the rates have slowly approached national figures. Rates for medically treated attempted suicides, in contrast, decreased during the first half of 1990s. A more detailed description of the area and the development of suicide and attempted suicide rates can be found elsewhere [2, 3].

Procedure

In the first survey, which was conducted at two different time points, spring 1985 and spring 1987, a total simple random sample of 710 persons was selected, aged between 18 and 65 years. Since no differences were found between the samples concerning age, gender and regional distribution, the two studies were combined and labelled “the 1986 study”. Ten years later, spring 1996, a similar randomly selected sample of 1000 persons was drawn. Both samples were representative of the whole population regarding age, gender and geographical area (Table 1). A postal questionnaire was distributed, consisting of questions about different types of suicidal expression, identical to those used by Paykel et al. [4].

The persons were asked:

1. Have you ever felt that life was not worth living?
2. Have you ever wished you were dead? For instance that you could really do it?
3. Have you ever thought of taking your life, even if you would not really do it?
4. Have you ever reached the point where you seriously considered taking your life, or perhaps made plans how you would go about doing it?
5. Have you ever made an attempt to take your life?

A choice of four response possibilities was given: “often”, “sometimes”, “hardly ever” and “never”. The subjects were asked to report the occurrence during the past year and earlier in their life. For the last question, on suicide attempts, the response options were “yes” or “no”. The questionnaire also included a set of demographic items: sex; age; region (divided into an urban expanding area with relatively high suicide rates, a rural area including the most sparsely populated areas in the mountainous and forested regions, areas with relatively high suicide rates, and a mixed area including some sub-rural and sub-urban districts along the coast, areas with low suicide rates); co-habitation status (living alone vs all other categories) and years of education (≤9 years, 10–13 years, 14+ years). The education variable was only used in the 1996 survey. In 1986 the SEI (Swedish socio-economic classification) system was used to classify the respondents. However, for reasons of comparability, this variable was transformed into years of education, according to instructions from the manual [30]. The questions on suicidal expression appeared in a part of a questionnaire that also concerned attitudes towards suicide, and were placed after the attitudinal questions. The subjects were informed that the questionnaire was a part of an ongoing project concerning suicide prevention.

Response rate

During the first survey in 1986, a total of 521 persons out of 700, responded, after two reminders, to the questionnaire, leading to a response rate of 76%. In the second survey, conducted in 1996, the response rate was 64% – 636 out of the 1000 randomly selected persons. In the two surveys, 12 and 13 persons respectively were excluded from the study groups, due to, for instance, language difficulties, learning difficulties or having recently moved. Concerning internal drop-out, i.e. missing responses on specific questions, this rate was very low,