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Research report

Risk behaviors, suicidal ideation and suicide attempts in a nationally representative French sample

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ABSTRACT

Background: Data from large nationally representative samples are needed to provide the empirical foundation to inform health policies for the prevention of suicide risk and risk behaviors in men and women.
Methods: Data were extracted from the 2010 Health Barometer, a large telephone survey on a representative sample of the general population aged 15–85 years living in France (n=27,653), carried out by the National Institute for Health Promotion and Health Education. Data were collected between October 2009 and July 2010. A computer-assisted telephone interview (CATI) system was used.
Results: Overall, 3.9% of respondents aged 15 to 85 reported past year suicidal ideation, and 0.5% reported a suicide attempt in that time period. Increased rates of risky sexual behavior are associated with ideation and attempt in both men and women, after controlling for sociodemographic variables. Homosexuality or bisexuality are associated with suicidal ideation for both men and women, but not with attempts. Substance misuse, physical and sexual assaults are strongly associated with suicidal symptoms for both men and women. Early first experiences with sex, tobacco, and alcohol are associated with suicidal symptoms though somewhat differentially for men and women.
Limitations: Cross-sectional survey.
Conclusion: The findings underscore associations between suicidal thoughts and behaviors and risk behaviors such as unprotected sex and substance use in men and women throughout the lifespan. These associations highlight the need for preventive strategies such as screening for risk behaviors in order to identify men and women particularly at risk for suicidal behavior.

1. Introduction

Suicide rates in France are estimated at 16.6 per 100,000, which is similar to what is observed in other western European countries such as Belgium (19.55), Finland (19.5), and Austria (15.45), and greater than what is found in countries such as Germany (11.95), the Netherlands (9.3), Spain (7.65), the United Kingdom (6.95) or in the United States (11.1) (World Health Organization, 2011). Psychopathology and suicidal behaviors are known to be associated with increased rates of suicide (Cavanagh et al., 2003; Nock et al., 2008).

Preventable risk behaviors such as risky sexual behaviors and risky alcohol and drug consumption contribute to the leading causes of morbidity and mortality (Grunbaum et al., 2004). Such behaviors are known to be associated with sexually transmitted infections which are on the rise in France (Herida et al., 2005) and psychopathology (McGue and Iacono, 2005), thus representing important targets for prevention.

Across nations, suicide rates are consistently greater in men as compared to women (World Health Organization, 2011). However, the gender ratio is also consistently reversed when suicidal thoughts and behaviors are considered with women exhibiting a higher rate of ideation and attempts as compared to men (Nock et al., 2008). Hypotheses regarding gender differences include social roles and life experiences (Payne et al., 2008). Finally, recent studies have underscored the importance of examining risk factors for suicidal symptoms separately for men and women (Epstein and Spirito, 2010).

Data from large nationally representative samples are needed to provide the empirical foundation to inform mental health

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policies for the prevention of suicide risk and risk behaviors in men and women. Previous studies examining gender specific factors associated with suicidal risk have focused on youth (Epstein and Spirito, 2010) or young adults (Legleye et al., 2010) while understanding risk behaviors and suicidal symptoms across the lifespan appears particularly important as the rates of completed suicide increase with age (Shah, 2007).

The present study seeks to: (1) determine national rates of past year suicidal ideation and attempts; (2) identify demographic correlates of suicidal thoughts and behaviors; (3) examine the associations of risky sexual and substance use behaviors, as well as early experiences with sex and substances with past year suicidal ideation and attempt; (4) investigate gender differences in the associations of sociodemographic characteristics and risk behaviors with suicidal symptoms.

2. Methods

2.1. Survey design

Data were extracted from the 2010 Health Barometer, a large telephone survey on health perception, knowledge, representation, and behavior. This survey relies on a representative random sample of the general population aged 15–85 years living in France, carried out by the French National Institute for Health Promotion and Health Education (INPES). Data were collected between October 2009 and July 2010 by interviewers from a professional survey firm who had received specific training for this survey. A computer-assisted telephone interview (CATI) system was used, allowing direct data capture, valuable skip patterns, and automatic detection of inconsistencies. Detailed survey methodology has been published elsewhere (Beck et al., 2011a, 2013).

Participants were contacted by mail, received a description of the study and were offered participation. Individuals for whom home addresses were unknown were contacted by phone. Unsuccessful calls were repeated 30 and 90 min later; up to 40 attempts were made, on different days and at different times. Consent was obtained over the phone. This study was approved by the French commission on data privacy and public liberties (CNIL).

2.2. Sampling

The survey was based on a two-stage random sample of 27,653 community-dwelling individuals aged 15 to 85 years living in metropolitan France. Residents of collective dwellings, hospitals or institutions, as well as individuals who did not speak French were excluded. Private households equipped with landlines, whether in the telephone directory or not, were included. Individuals with no landline but with a cell phone were also included (12% of the sample). First, household selection was performed by randomly generated phone numbers. Second, one individual was randomly selected within each household, using the method outlined by Kish (1949). If a household or respondent refused or could not be contacted, there was no replenishment. Overall refusal rate was 39%. The mean duration of an interview was approximately 32 min for landlines and 34 min for cell phones.

2.3. Variables

2.3.1. Sociodemographic variables

The interview documented gender, age, educational level, marital status, and occupation.

2.3.2. Suicidal ideation and suicide attempts

Suicidal ideation (SI) in the previous 12 months was determined. Prior suicide attempts (SA) were determined both lifetime and in the previous 12 months.

2.3.3. Sexual behavior

Past year sexual behavior was investigated in respondents aged 15 to 54. Unprotected sex with a new partner was defined as having had sexual intercourse without a condom with a partner they had not had intercourse with in the previous year. Other variables included the presence of any sexually transmitted disease in the past five years and sexual orientation.

Several variables were created to estimate the frequency of unprotected encounters with new partners. First, the number of new partners was multiplied by 0 if the respondent reported having used a condom with every partner during the first sexual encounter, by 0.5 if they reported using a condom with some but not all partners, or by 1 if they reported using a condom with none of their new partners. Second, the number of new partners was multiplied by 0 if the respondent reported having always used a condom with new partners in subsequent sexual encounters, by 1 if they reported almost always using a condom, by 1.5 if they reported using a condom only sometimes, or by 2 if they reported never using a condom. Third, the two variables derived from these estimations were added.

As male condom use was used to define unprotected sex, unprotected woman to woman sexual behavior was excluded from our analyses.

2.3.4. Substance use behavior

Past year substance use was characterized by the presence or absence of daily smoking, daily alcohol use, risky single occasion drinking (at least six alcoholic beverages in one sitting) for the entire sample, and reported number of times drunk for respondents aged 15 to 75.

2.3.5. Psychological distress

Psychological distress was assessed using the MH-5 (Verger et al., 2009), a subscale of SF-36 (Leplège et al., 1998), considering a score lower than 56 to be at risk.

2.3.6. Life events and early experiences

Physical assault and sexual assault in the last 12 months were also documented among respondents aged 15 to 75.

Early experiences included respondent's age at first cigarette and first time drunk. Respondents aged 15 to 29 also reported on the age of the first sexual encounter and the consensual or nonconsensual nature of their first sexual encounter.

2.4. Statistical analyses

Data were weighted on the basis of the number of telephone lines and the number of eligible individuals within the household, and adjusted for French population demographics according to age, gender, region, level of urbanization, and education based on the 2008 French population structure issued from the National Institute of Statistics and Economic Studies (Chevalier and Mansuy, 2009). Descriptive bivariate analyses were performed using Pearson chi-square tests. Logistic regressions adjusted for sociodemographic variables were used for multivariate analyses using Stata version 10 (Stata Corp, 2007). Weighted percentages and adjusted odds ratios are presented. Analyses for past year suicide attempt were restricted to respondents aged 15 to 65 as only four female respondents reported a suicide attempt in the previous 12 months