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Original article

Suicide attempt rates and intervention effects in women of Turkish origin in Berlin

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ABSTRACT

Purpose: Ethnic minority groups show elevated suicide attempt rates across Europe. Evidence suggests a similar trend for women of Turkish origin in Germany, yet data on suicidal behaviour in minorities in Germany is scarce. The objective was to examine rates of suicidal behaviour, underlying motives, and to explore the effectiveness of an intervention program.
Methods: From 05/2009–09/2011, data on all suicide attempts among women of Turkish origin who presented at a hospital-based emergency unit in Berlin, Germany, were collected. A multi-modal intervention was conducted in 2010 and the effects of age, generation and the intervention on suicide attempt rates were examined.
Results: At the start, the highest rate was found in women aged 18–24 years with 225.4 (95% CI = 208.8–242.0)/100,000. Adjustment disorder was the most prevalent diagnosis with 49.7% (n = 79), being more common in second-generation women (P = .004). Further analyses suggested an effect of the intervention in the youngest age group (trend change of ß = –1.25; P = .017).
Conclusion: Our findings suggest a particularly high rate of suicide attempts by 18–24-year-old, second-generation women of Turkish origin in Berlin. Furthermore, our results suggest a trend change in suicide attempts in women aged 18–24 years related to a population-based intervention program.

1. Introduction

Suicide attempts are one of the strongest predictors for suicide [2,24]. According to the WHO SUPREMISS survey, the lifetime prevalence for suicide attempt ranges between 0.4–4.2% [3]. Varying figures of re-attempt rates have been found, with Schmidtke et al. in 1996 reporting 20% re-attempts in the WHO/EURO multicentre study on parasuicide [29]. Similarly Owens et al. in 2002 found 15–16% re-attempting suicide within one year in a systematic review of observational and experimental studies from Europe, North America and Australasia, and estimated 0.5–2% to be fatal re-attempts [25]. Over the past decades, high suicide attempt rates have been continuously found in many ethnic minority groups throughout different European countries [6,9,10,13,34,40]. Most recently, Bursztein Lipsicas et al. in 2013 reported an analysis of the suicide attempt rates of immigrants in the centres of the WHO/EURO Multicentre Study on Suicidal Behaviour in which they found that 27 of 56 immigrant groups had higher attempt rates, while only four groups had lower attempt rates than the host populations [10]. While, overall, no clear pattern has been identified, non-European immigrant women [11] and particularly women of ethnic minority groups aged 25 years or younger have been found to have an increased risk for suicide attempts [4,8,9].

Similar findings have been reported for Germany from the WHO/EURO multicentre study of suicidal behaviour. Women of Turkish origin had an increased rate of suicide attempts with 512/100,000 persons while German women had rates of 99/100,000 persons [22]. An analysis of mortality registration data for the period 1980–1997 by Razum and Zeeb in 2004 also indicated an increased risk for suicide in girls and women of Turkish origin aged 10–17 years (relative risk = 1.79, 95% CI: 1.41–2.27) [27]. Study findings so far suggest certain differences between migrants and non-migrants in facilitating factors. In particular have interpersonal conflicts as well as culture-specific factors been indicated as explanatory factors for

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the increased risk in women with a migratory background [5,19,35]. For successful suicide prevention, specifically tailored interventions are required [15]. To inform such interventions, information is needed on rates, risks and causes in ethnic minority groups. The main objective of this study was to study:

- the incidence and motives of suicidal behaviour in women of Turkish origin in a large urban setting;
- to examine the effect of a population-based intervention programme.

2. Subjects and methods

2.1. Population and setting

The study was conducted from October 2008 to September 2011 in Berlin, Germany. Women of Turkish origin who reported to an emergency department after a suicide attempt, or were presented by emergency medical services during the study period were included in the study. The collection of data in the emergency units started in May 2009 and ended in September 2011. The aim was to include all hospital-based emergency departments that are run 24 hours offering emergency treatment for psychiatric patients and psychiatric clinics with a 24-hour emergency service. In total, 39 emergency departments (out of 40 – excluding one hospital focussed on ophthalmology) and additionally three psychiatric clinics were included. Data were collected from nursing staff and attending physicians at the emergency departments. Additional information was gathered from the attending psychiatrists at the emergency departments. Emergency department staff and attending psychiatrists were briefed at least two months prior to the start of data collection and permanent emergency department staff was trained regarding data collection and contacted twice a month by study staff. Every six months, emergency departments were visited by study staff to inform and if necessary train new staff. The study was part of a multi-modal intervention study aimed at improving care-seeking behaviour of women of Turkish origin in suicidal crises [31]. The study has been registered with ISRCTN register (ISRCTN96382348). It was approved by the Ethics Committee of Charité – University Medicine Berlin (EA1/177/08).

2.2. Intervention

The multi-modal project included a series of focus group interviews, which aimed to elicit explanatory models for suicidal behaviour in Turkish women and to help develop the intervention study [9]. Furthermore, a population-based survey with 405 women of Turkish descent and German women was conducted focussing on resilience and risk factor for mental distress, as well as suicidal behaviour [1,12]. The intervention part of the study was designed along the framework of the "Nuremberg Alliance Against Depression" and the "European Alliance Against Depression (EAAD)", community-oriented multilevel intervention programmes which aimed at increasing knowledge about depression and the reduction of suicide rates [18]. This type of multilevel community-wide interventions has been proven effective for mental health promotion in the general population [38]. The intervention started in June 2010 with a citywide media campaign, including billboards in the public space (such as the metro and a bus service running through two of the largest immigrant districts), posters, flyers, ads and articles in community newspapers and magazines. The main theme of the media campaign was the face of a young woman in distress and the slogan *End your silence, not your life.* In total, 55,000 flyers were distributed and 2500 posters were placed in Berlin. As mentioned above, a bus service running through two of the largest Turkish immigrant districts carried a billboard with the motive of the campaign for the duration of the intervention phase. Additionally, a TV spot was broadcasted regularly on the metros infotainment system "Berliner Fenster". A website (www.beende-dein-schweigen.de) which had been created for the campaign was accessed about 90,000 times during the duration of the media campaign (6 months). The billboards, posters and flyers further provided information on a telephone hotline providing services in Turkish, which was installed at the Berlin crisis hotline (Berliner Krisendienst) as part of the project. The Turkish language hotline was available from Monday to Friday from 9:00 till 16:00 within the framework of the Berlin crisis hotline which is available 24-hours. During the intervention phase, the (Turkish language) hotline had a total of 178 contacts of which 83.7% (n = 149) were directly related to crisis intervention for the target group. Most of the contacts called repeatedly. The majority of the callers were female (80.5%, n = 120), and about 48% lived in one of the districts with a large Turkish population. 28.9% (n = 44) reported suicidal thoughts at the time of the call, and about a third of the callers stated they contacted the hotline due to conflicts with either their family or their partner [30,32]. Training of key persons was the third part of the intervention. Key persons were trained regarding symptoms of suicidal crisis, their significance in the target group, provided with information on treatment and available regional mental health care services in form of a booklet. In total, 17 groups including 210 key persons were conducted. The majority of the participants were women (84.4%), and had extensive work experience with a mean of 12.4 years (SD 10.6 years). The key persons included those in close contact with the Turkish community in Berlin (such as general practitioners, community association representatives, health care workers) as well as employees of the unemployment agency and women's associations.

2.3. Measures

2.3.1. Emergency unit questionnaire

Suicide attempt was defined following the definition of the Columbia Classification Algorithm of Suicide Assessment (C-CASA) as "*. . . a potentially self-injurious act committed with at least some risk to die, as a result of act . . .*" [26]. To facilitate easy and quick use, a brief questionnaire was used inquiring about age, year of migration, intent, methods used, treatment, clinical diagnoses (by psychiatrist), migration status and psychosocial strains. Suicide methods were categorised along the ICD-10 codes for intentional self-harm (X60–X84). The questionnaire also gathered information on the type of immediate treatment and whether further treatment was recommended and initiated in intensive care, internal medicine, psychiatric in-patient or out-patient care, or if no after care was provided. Consulting psychiatrists were asked to provide clinical diagnoses if applicable. Psychosocial strain was categorised as "conflict with parents", "conflict with partner or spouse", "conflict with in-laws", "problems at work/school", "financial difficulties", "domestic violence", "mental health problem", and "physical health problem".

2.3.2. Migration status

Turkish origin was defined by country of birth. Women who were born in Turkey or whose parents' or grandparents' country of birth was Turkey were included. For simplicity, the term "Turkish origin" is used throughout the text. This term is preferred over "ethnicity" since the population of Turkish origin in Germany constitutes a wide variety of ethnical groups, which cannot be accounted for in this study. For further analyses, information about country of birth was used to stratify groups by generation of migration: first-generation includes persons who migrated themselves and second-generation includes those whose parents had migrated to Germany.