Review Article

Youth Suicide in Germany: A review of the literature

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Abstract. Although in the last 15 years suicide in Germany has constantly decreased, it is still the second cause of death among young Germans. This paper aims to point out the status of research on youth suicide in this country. Considering the importance of culture on human behaviour, it is important to study the topic of youth suicide in its cultural setting.

Keywords: Youth, young people, suicide, self-harm, Germany, culture.

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INTRODUCTION Suicide is now among the three leading causes of death for both sexes aged 15-24 years in Europe. Germany's youth suicide rate is positioned below the European average and in the last 15 years suicide rates constantly decreased. However, suicide is still the second cause of death among 15-24 years olds. In Germany, 409 (330 males and 79 females) individuals between 20 and 25 years old died by suicide and self-inflicted injury during the year 2011 (Bundesministerium fuer Gesundheit, 2013).

In order to know the actual state of research on youth suicide in Germany, the available literature was explored through the databases PsychInfo (Note 1) and MedLine (Note 2) (considering the earliest year of publication for both databases until 2011). A literature research was also done through the library of Ulm University, in order to collect local papers, books and reports (written in original language) or literature not indexed in the databases used. Considering the importance of suicide as a cause of death among young Germans, it would have been reasonable to expect a quite large amount of research on this topic. On the contrary, publications are rather scarce and most of them focus on epidemiological data or clinic samples, aiming more to the description of the at-risk population rather than understanding reasons leading to suicide. The scientific literature on suicide in Germany refers mostly on general rates among adults (Atlhaus & Hegerl, 2004; Bronisch et al, 2005; Hegerl, 2005; Heim & Lester, 1990; Merbach et al, 2001; Müller & Bach, 1994; Pajonk et al, 2002; Wolfersdorf et al, 1992). Some papers compared suicide rates between Germany and other countries, mainly Europeans (Carta et al, 2004; Chishti et al, 2003; Domino, 2005; Fekete & Schmidtke, 1995; Fekete et al, 2001; Kirkcaldy & Furnham, 2000; Kitamura, 1982; Lester, 1988; Lester, 1998; Lester, 2003; Madge, 1999; Pritchard & Hansen, 2005; Weissmann et al, 1999). Three papers focused on the difference between East and West Germany (Dinkel & Goertler, 1994; Wiesner, 2004; Wiesner & Casper, 1993) and two on railway suicidal rates (Erazo et al, 2005; Ladwig & Baumert, 2004). One paper addressed the relationship between suicide and internet (Pfeiffer-Gerschel et al, 2006), one the influence of church attendance on suicide (Siegrist, 1996), another one the association between suicide and weather (Breuer et al, 1984), and a last one on the imitation effect on suicide, the so-called "Werther effect"

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(Ziegler & Hegerl, 2002). Instead, not so many studies explored specifically the topic of youth suicide in Germany. Three studies on youth suicide in Germany reported specifically socio-demographic data on the suicidal attempters (Mauerer *et al*, 2003; Specht, 1980; Wolf, 1985). Another important topic explored was prevention of youth suicide (Bruendel, 1993; Häfner & Riecher, 1985; Olweus, 2003). Other studies reported possible causes and predictors of youth suicide (Danneel, 1975; Fatke, 1986; Hummel *et al*, 2000; Kirkcaldy *et al*, 2004; Kuda, 1990; Leyendecker & Petermann, 1993; Stober *et al*, 1982).

Although the decrease of the adolescent and young suicide rates, males' undetermined deaths in the period 1974-1999 showed that in the 1990's Germany had one of the highest rates (25 per million), immediately after England and Wales, and France. In the same period, the females' suicide rates were statistically quite low, even though Germany showed the third highest rate (8 per million) for undetermined deaths, again after England and Wales, and France. The biggest problem related to undetermined deaths is that those rates may include hidden suicides (Pritchard & Hansen, 2005).

Furthermore, from one side, it must be noticed that Germany reduced its adolescent and young suicidal rates, from the other it must be taken in consideration that Germany started in the 1970's from a very high number of suicides in this age group (Pritchard & Hansen, 2005).

Only a very few of the manuscripts reviewed addressed youth suicide from a cultural point of view. Particular attention needs to be given to the importance and necessity of understanding the cultural meaning of suicide and not to take for granted that the meaning, interpretation and mental representation of suicidal behaviour remain the same in different (sub)cultures (Colucci, 2009; 2013). First of all, suicide rates of different countries tend to be relatively stable over time and very different from one another: this data points to the possible role of cultural factors. Many scholars recognise that suicide is a phenomenon that needs to be studied and understood in its social and cultural milieu. Despite this agreement with the relevance of what suicide means to people belonging to different sociocultural backgrounds, the study of its meaning is an unjustifiably missing area in suicide research (for a further discussion on the cultural meaning of suicide see Colucci, 2006; 2013).

Next section will describe some of the findings from the reviewed literature relevant to the topic of youth suicide in Germany.

YOUTH SUICIDE IN GERMANY The regions showing higher suicide rates for the general population are Sachsen, Sachsen-Anhalt and Thueringen for males; Sachsen-Anhalt, Bayern, Schleswig-Holstein for females (Weinacker *et al.*, 2003; Wiesner, 2004).

In Germany, young people with developmental crisis are the fourth group at highest suicidal risk, immediately after people with mental disorders, people with previous suicide attempts and old people isolated and/or affected by chronic illness (Wolfersdorf *et al*, 2002). Weinacker, Schmidtke and Loehr (2003) reported the highest rates of suicide attempts for the younger groups, especially for young females 15-30 years old.

In 1998, 50 children (10-15 years old) and 294 adolescents within the 15-20 years range died by suicide; the attempted suicide rate was eight to ten times higher and attempted suicides were repeated in 25% of the cases (Kirkclady *et al.*, 2004).

Blüml (1996) reported that in Germany every day one child and three adolescents take their own life. Furthermore, 40 children and/or adolescents attempt suicide. In the same paper, Blüml showed how youth suicide concerns cities twice more than the rural areas, affecting especially Berlin and Frankfurt. Moreover, females attempt suicide three times more often than males, but males carry out suicide three times more often than females, mainly because they choose "harder means" (e.g. shooting or hanging themselves). Suicide rates seem to be influenced also by occupation: suicide risk is higher among students than among workers or trainees.

In regard to the method, the WHO Multicentre's studies showed that in 25% of the suicidal events recorded in Germany, more than one method was used. The most frequent combination of two methods was drug and alcohol and the most frequent combination of three methods was drug, alcohol and cutting (Michel *et al*, 2000).

Eight out of ten young persons who died by suicide have talked about their decision to someone: therefore Blüml (1996) stated that it is incorrect to think that people who talk about suicide will never do it. The author reported that 85% of people who attempted suicide will attempt it another time, mostly within 12 months; among these attempts, 10% will succeed. Only one young person every ten who suicide leaves a farewell-letter: therefore, it is extremely difficult to explore the reasons for their act.

The German Society for Suicide Prevention (DGS, Nationales Suizidpräventionsprogramm für Deutschland Deutsche Gesellschaft für Suizidprävention), in collaboration with the WHO-Europe Multicentre, reported that it is very likely that in the weeks immediately before the suicide act, the person looked for a doctor more often than usual, but normally the suicidal risk is not acknowledged. The DGS's study showed also that after the suicide attempt, an average of five professionals gets in touch with the person who attempted suicide although, as the authors argued, it would be better a continuative treatment with just one professional.

The association between mental disorders and suicide is well established. Althaus and Hegerl (2004) reported that 90% of the suicides in Germany are a consequence of a mental disorder: particularly at risk of suicide seem to be patients discharged after a hospital psychiatric treatment. A few other studies focused on the role played by mental disorders among young Germans who attempted suicide, particularly on the connection between suicide and depression (Atlhaus *et al*, 2004; Pfeiffer-Gerschel *et al*, 2006), bulimia (Nickel *et al*, 2006), social anxiety disorder (Stein *et al* 2001), mania and hypomania (Bronisch & Wittchen, 1994).

On the other side, there is a scarcity of studies focusing on non-clinical adolescent samples (Kirkcaldy et al, 2004). In a research on European countries, Lester (2003) claimed that it is unlikely that a successful adolescent would suicide. Many adolescents who killed themselves were suffering from psychiatric disorders, especially personality disorders; they typically came from dysfunctional families in which the parents had behavioural and psychological problems. At the same time, the media were offering to these marginal adolescents the success, especially material success, of other adolescent, fictional and real (Lester, 2003). In a comparison between Germany and Lettonia, Kolves, Varnik, Schneider, Fritze and Allik (2006) reported that recent unfavourable life events are normally associated with increased risk of suicide: younger age groups experience more often interpersonal losses, conflicts and financial troubles. Also Fiedler and Lindner (2001) explored the role of external events, claiming that they lead to suicide only after a long time of devaluating feelings, internal anxiety, emotional dependence from the parents. Lester (1988; 1998; 2003) claimed that nations with higher quality of life have higher suicide rates: when the quality of life is good people, including adolescents, have fewer external sources to blame for their unhappiness and so become depressive and suicidal. Thus, even in societies with a high quality of life, adolescents who feel that they have not achieved the success of others and who have no one to blame for this state of affairs but themselves, may be at risk for suicide. This data shows how many factors can possibly lead to suicide, and that these factors differ from country to country, depending on their quality of life and other features.

Ziegler and Hegerl (2002) reported the data on Germany concerning the suicide for imitation, the so-called "Werther effect". At the end of the 19th century, Goethe's masterpiece, the Sorrows of Young Werther, caused an epidemic of suicides in the whole Germany and Europe. In 1981, the second most important German TV channel showed a series called Death of a Student, a 6-episodes-documentary on a student who suicided on a railway. In that period, the railway suicide rates for 15-19 years old students had a 175% increase compared to the previous year rates. The biological and social features of these youths were very similar to Claus Wagner's ones: the 19 years old student who was described in the documentary. Despite the advices of many psychiatrists, the documentary was showed again a year and half later, causing another incredible increase of the suicide rates among 15-19 years old students (115%). Scholars agreed that this television-mediated-effect leaded to suicide adolescents who, otherwise, would not have killed themselves (Ziegler & Hegerl, 2002). The Werther effect showed how important is the role of media in suicide prevention programs: since 2001, Germany is involving the media in these programs through a project on youth suicide carried out by the Bundesministerium fuer

Bildung und Forschung³ (i.e., Federal Ministry of Education and research). Furthermore, considering the importance of internet in our time, social support is also given through suicide forums (Winkler et al, 2005).

Three studies are particularly useful to the aim of this paper, as they focused in depth on youth suicide in Germany from a preventive perspective. Considering that there was no community survey that, at the European level, had estimated the prevalence and correlates of suicidal ideas and attempts, Bernal et al (2007) carried out a survey on the non-institutionalised population in six countries (Belgium, France, Germany, Italy, Netherlands and Spain). In Germany, 8.6% of the young people (i.e., 18-24 years old) reported a lifetime suicidal thoughts (the highest rate among all the age groups) and 1.8% lifetime suicide attempts. The authors claimed that lifetime suicidality was more present among younger ages, women and people living in large urban areas. Suicidal thoughts and attempts may have appeared for first time at any age, with suicidal thoughts having had the highest rate of first presentation during teenage years and young adulthood.

Kirkcaldy and colleagues (2004) tried to identify psychological and social predictors of suicidal ideation among young adolescents by giving questionnaires on a sample of 988 German students 14-18 years old, with an almost equal proportion of males and females. The data were collected from nine to ten secondary schools in the Westfalia area of Germany, a typical semi-rural area in the northern, Protestant part of Germany. The questionnaires explored socio-demographic variables, family dimensions, mental well-being and physical health. Almost three-quarters of males reported not having wished they were dead, in contrast to less than one-half of the females. Since this item was better associated with "fantasies about death" rather than suicidal ideation, the authors concluded that females were twice more likely to express fantasies about death than males. Suicidal ideation appeared to be twice as common among female than male adolescents (8.9% of the males reported having contemplated suicide vs. 19.3% of the females). The authors reported a ratio of approximately three to four times as many females who had purposely tried to inflict physical injury or made suicide attempts. The authors observed that suicidal ideation and fantasies about death and dying are more commonplace than we think, and appeared to be more frequent among females. For male adolescents, the inclination towards addiction and parental nurturance (low parental acceptance and high maternal rejection) emerged to be the major predictors of deliberation of death (death wish or fantasy). On the other side, a favourable and positive self-image and educational competency appeared to be significant factors inhibiting death wishes. Female adolescents shared addiction and negative self-image as major predictors of death-wishes, but neither parental nurturance nor poor scholastic achievement were significant predictors. The authors reported four main conclusions deriving from their findings. Firstly, suicidal ideation is surprisingly common even in non-clinical sample (54% of females and 28% of males). However, these figures need to be related to the figures on actual suicide, which indicated that only approximately one adolescent every 10,000 killed him/herself. Secondly, females reported much higher levels of suicidal ideation and of self-injurious behaviour. Thirdly, the most general predictors of suicidal ideation were anxiety/depression in both genders, the incidence of common colds in males, educational threat and circulatory ailments in females. Finally, there were some paradoxical findings: greater suicidal ideation was expressed among female adolescents who displayed low maternal rejection, less social problems and less physical exhaustion.

Lastly, Schmidtke, Weinacker, and Loehr (2004) reported the results from the WHO/EURO Multicentre Study on Suicidal Behaviour. This centre in Germany was located in Wuerzburg, which is a governmental site and the centre of the administrative district of Lower-Franconia (Unterfranken), southern Germany, counting 127,000 inhabitants. The official suicide mortality figures were obtained from the Statistical Bureau Germany, whereas the information on attempted suicides were based on the data collected on the referrals to a clinic or a medical institution in the catchment area. Data were collected for a period of 11 years, from 1989 to 1999. The age distribution followed the so-called "Hungarian pattern": there was a strong correlation between suicide risk and age, with much higher suicide figures for both sexes in the elderly, despite suicides among the younger age groups being the second most frequent cause of death. The study also showed that towards the last year of the past century, the total suicide rates had been decreasing for males and females (from the period 1976-1980).

to the period 1995-1999 suicidal rates decreased by 34% for males and 54% for females). The decrease in the suicide rates after the reunification of Germany seemed to be a continuation of the general trends since the late 1970s rather than a consequence of the reunification (Schmidtke et al, 2004). The most frequent suicide method in Germany was hanging (58% for males, 41% for females; more than 80% already in the younger age groups), the second one was self-poisoning (12% for males and 23% for females). From 1st of December 1988 to 31st of December 1999, data for 1582 suicide attempt episodes acted by 1384 persons were collected. The highest rates were found in the younger age groups (i.e. 15-24 years old), especially among females. In general a long-term increasing tendency for the total rates was observable: over the 11-year period, the rates for most of the age groups increased. In the age group 15-24 years old between the periods 1989/1993-1995/1999 the increase was of 44% for males and 37% for females. The suicide attempt methods were mostly the so-called "soft" methods (e.g., poisoning, cutting, jumping and so on). Suicide rates differed significantly within the various states of the Federal Republic of Germany with significantly higher rates for the Eastern States (above all Saxonia, Saxonia-Anhalt and Thuringia) and lower rates for the Western states (Schmidtke et al., 2004). The intention of the suicide attempt covaried with age and sex. More "seriously" rated suicide attempts were found in the older age groups and among males, while more demonstrative suicide attempts were prevalent in the younger age groups and among females. More specifically, 34% of the suicide attempts of the 15-29 years-old males were rated as "serious", whereas for 15-29 year-old females the rate was 46%. Other variables were analysed across age. For instance, 64% of the suicide attempters listed "Catholic" as their formal religious membership, the second religious membership listed was "Protestant", other religions were rare; "no religion" was given by 8% of the males and 6% of the females. Another important finding was that the suicide attempt repetition rate during the period of 1989 to 1999 decreased, for both genders, from 49% to 37%. This decrease was presumably caused due to the increase of therapeutic possibilities (more hotline services and crisis intervention agencies) and the improvement of prevention strategies, mainly for persons who have already committed one suicide attempt (Schmidtke et al., 2004).

Life satisfaction in young Germans (11-16 years old) has been shown to predict mental health problems and somatoform problems as well as suicide. The inclusion of life satisfaction assessments in prevention programs for adolescents might be useful to detect early signs of a suicidal crisis (Goldbeck, et al, 2007).

In Germany suicide is strongly linked with deliberate self-harming among young people, as shown by a study carried out by Brunner, Parzer, Haffner, Steen & Roos (2007). The strong link between deliberate self-harming and suicidal behaviour may serve as a forewarning to school counsellors and public health authorities.

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH In the

last decades, the German government has given attention to the topic of youth suicide: the Bundesministerium fuer Bildung und Forschung (Federal Ministry of Education and Research) is carrying out some projects to prevent youth suicide. The most important agency for the prevention of suicide in Germany is the DGS (**Note 4**), which was founded in 1972 and since then has put efforts to better understand this phenomenon. In 2002, the DGS, in collaboration with the European Network on Suicide Research and Prevention and with the World Health Organization, has started a National Program to prevent suicide in Germany (Nationales Suizid Praeventions Programm (**Note 5**)).

Although these are very important steps, the causes leading a young German to kill him/herself are still rather unclear, as it is in any other country. In a research on psychosocial wellbeing and psychiatric care in the European community, Carta and colleagues (2004) showed how Germany is last in the ranking of number of child psychiatrist per inhabitants, only 0.9 per 100,000 inhabitants, even though research has shown a connection between suicide and psychiatric disorders (Atlhaus *et al*, 2004; Althaus & Hegerl, 2004; Bronisch & Wittchen, 1994; Nickel *et al*, 2006; Pfeiffer-Gerschel *et al*, 2006; Stein *et al*, 2001).

No study has tried to understand the way in which cultural factors might be related to youth suicidal behaviour. Being suicide a topic mostly unknown, it is important trying to fulfil this lacuna, focusing on the social representations, values, beliefs, attitudes and meanings that young Germans attribute to suicide. A research project carried out by Tarchi and Colucci (under submission) collected sociodemographic data and opinions expressed by German students on these aspects of suicidal behaviour, considering them fundamental elements to develop culturally-sensitive suicide prevention and intervention strategies.

NOTES

- ¹ This database was explored using the keywords: "german* AND suicid* AND (adolescent* OR young* OR student*)". This research gave 169 results, within which 44 were relevant for the aims of this paper. These papers were published between 1915 and 2010.
- ² This database was explored using the keywords: "german* AND suicid*" with a limitation for the age: 13-44 years old. This research gave 134 results, of which 20 papers (published between 1975 and 2011) were considered relevant.
- ³ More information can be found at http://www.bmbf.de/en/index.php
- ⁴ For more information see http://www.suizidprophylaxe.de/
- ⁵ More details on http://suizidpraevention-deutschland.de/Home.html

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