

The role of general practitioners in prevention of depression-related suicides

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Suicide is a ubiquitous phenomenon present in every country, and a function of the constellation of multiple risk and protective factors. The relatively low occurrence of attempted and completed suicide in the general community makes its research and consequentially prediction and prevention difficult, however, suicide events are common among psychiatric patients who contact their general practitioners some weeks or months before their suicidal act. Major depressive episode is the most common current psychiatric diagnosis among suicide victims and attempters (56-87%), and successful acute and long-term treatment of depression significantly reduces the risk of suicidal behaviour even in this high-risk population. The point prevalence of unipolar and bipolar major depressive episode encountered in general practice is more than 10% but unfortunately about half of these cases remain unrecognized, untreated or mistreated. As over half of all suicide victims contact their general practitioners within four weeks before their death, primary care physicians play a key role in suicide prediction and prevention. Several large-scale community studies show that education of general practitioners and other medical professionals on the recognition and appropriate pharmacotherapy of depression, particularly in combination with psycho-social interventions and public education significantly improves identification and treatment of depression and consequentially reduces the rate of completed and attempted suicide in the areas served by trained doctors.

(Neuropsychopharmacol Hung 2012; 14(4): 245-251; doi: 10.5706/nph201212005)

Keywords: depression, General Practitioners, primary care, suicide, suicide attempt, suicide prevention

PREVALENCE AND RECOGNITION OF DEPRESSIVE DISORDERS IN PRIMARY CARE PRACTICE

Unipolar and bipolar major depressive episodes are the most common current diagnoses in suicide victims and attempters, and these are also among the most common psychiatric illnesses in the community and in a variety of clinical settings as well (Hawton and Heeringen, 2000). The lifetime, 1-year and point prevalence rates of unipolar major depression in the general population are on average 12%, 7% and 4% respectively, with additional figures for minor depression and dysthymic disorder in the same magnitude (Rihmer and Angst, 2005), indicating the widespread prevalence of mood disorders in the community.

Furthermore, the lifetime, 1-year and current prevalence rates for all bipolar disorder subtypes in the community are around 4%, 1% and 0.6% respectively (Rihmer and Angst, 2005). Depression is more frequent among primary care attendees (with prevalence rates between 10% and 20%) than in the general population (King et al., 2008; Mitchell et al., 2009; Taricone et al., 2012). Only about 35-50% of all depressed patients seek medical help, but the diagnosis of the majority of those who consult their general practitioners (GPs) remains un- or misrecognised (for details see below); and only 15-60% of those subjects who are identified as depressed receive active treatment; consequently these patients are also under- and/or mistreated (Lecrubier, 1998; Lecrubier and Hergueta, 1998; Davidson and Meltzer-Brody, 1999; Mitchell

et al., 2009). Accordingly, the WHO Collaborative Study conducted in more than 25,000 primary care patients from 14 countries in 1991 reported that approximately 50% of ICD-10 major depressive episode patients were recognised as suffering from some kind of mental disorder by their GPs, but only 15% of major depressives were recognised as having depression, and fewer than half of them were prescribed antidepressants for their depression (Lecrubier, 1998; Lecrubier and Hergueta, 1998; Lecrubier, 2001). Studies performed 5-10 years later reported much higher rates of recognition of depression in primary care (62-85%) and 33-50% of them were treated with antidepressants (Lecrubier, 2001; Wittchen et al., 2001; Berardi et al., 2005) indicating that the situation does appear to be improving as a consequence of steadily increasing awareness of depression. At the same time, a recent meta-analysis of 41 studies – published from 1985 to 2009 – that assessed the accuracy of diagnosis of depression by GPs also found that only about 50% of cases were correctly identified (Mitchell et al., 2009).

Around half of depressed patients report painful physical symptoms making diagnosis of depression more difficult (Garcia-Cebrian et al., 2006). The majority of patients with depression consult their GPs primarily for somatic reasons, either because of their somatic comorbidity or because of the predominant somatic symptoms of their depression (Tylee, 1999; Lecrubier, 2001). Furthermore, major depression is frequently associated with chronic physical disorders (cardiovascular diseases, hypertension, stroke, cancer, epilepsy, Parkinson's disease, HIV infection/AIDS, etc.) which further increase the risk of suicidal behaviour. Several patient- and physician-related factors are likely to affect the recognition of major depression in primary care. Patient factors associated with non-recognition of depression include comorbid psychiatric (anxiety, substance abuse and personality) disorders, comorbid (mostly chronic) medical disorders, low degree of disability, less severe depression, predominantly somatic symptom-presentation, male gender, younger or older age, and married marital status (Rihmer and Rutz, 2009). On the other hand, high level disability, lack of comorbid psychiatric and medical disorders, more severe depression, higher number of depressive symptoms, presenting depression predominantly with psychological symptoms (depressed mood, poor concentration, fatigue, psychomotor retardation), middle age-range, female gender and separated or divorced marital status increases the chance of correct identification (Tylee, 1999; Wittchen et al., 2001; Szadoczky

et al., 2004). Physician-related factors of poor recognition of depression in primary care include lack of experience, insufficient or suboptimal knowledge about the symptoms, treatment and good prognosis of treated depression, prejudices about mental illness, lack of postgraduate psychiatric training, insufficient interview-skills, lack of cooperation with psychiatrists and low levels of empathy (Rutz et al., 1997; Tylee, 1999; Lecrubier, 2001; Wittchen et al., 2001). Studies showed that specific organisational interventions and postgraduate training programmes improve the recognition and treatment of depression in primary care (Appleby et al., 2000; Mann et al., 2005; Szanto et al., 2007). Short screening instruments, some of them designed specifically for primary care (Davidson and Meltzer-Brody, 1999; Lecrubier, 2001; Szadoczky et al., 2004) are also helpful, but they do not replace a well-performed and competent clinical interview.

CLINICALLY DETECTABLE SUICIDE RISK FACTORS IN PRIMARY CARE

Suicide is associated with a number of psychiatric/medical disorders, psychosocial and demographic risk factors of varying prognostic utility, and although the statistical relationship between the different psychosocial and demographic risk factors and suicidal behaviour is well documented, their predictive value is very weak in individual cases (Rihmer, 2007; Nock et al., 2008). However, because suicidal behaviour is very rare in the absence of current major psychiatric disorders, psychiatric/medical suicide risk factors, particularly current major depression with a prior suicide attempt are the most powerful and clinically explorable predictors of suicidal behaviour, especially in the presence of psychosocial and demographic suicide risk factors (Beautrais et al., 1996; Hawton and Heeringen, 2000; Wasserman, 2001). Studies from different countries of the world consistently show that more than 90% of suicide victims or attempters have at least one (mainly untreated) major mental disorder, most frequently unipolar or bipolar major depressive episodes (56-87%), substance-use disorders (26-55%) and schizophrenia (6-13%). Comorbid anxiety and personality disorder as well as concomitant serious medical disorders are also frequently present, but they are rarely the only or principal current diagnosis among suicide victims (Beautrais et al., 1996; Hawton and Heeringen, 2000). Considering the very high rate of current major mental disorders among people with suicidal behaviour, in the early 1980's Khuri and Akiskal (1983) considered that much of the

putative psychosocial and demographic suicide risk factors were not modifiable in the frame of individual healthcare and they proposed that suicide prevention should focus on the treatable contributory psychiatric disorders involved in such behaviour (Khuri and Akiskal, 1983; Akiskal, 2007).

RECOGNITION OF THE SUICIDAL PATIENT IN PRIMARY CARE

Suicidal behaviour (attempt or completed suicide) in major mood disorder patients occurs mostly during major depressive episodes (79-89%), less frequently in the frame of dysphoric (mixed) mania (11-20%), but practically never during euphoric mania and euthymia (0-1%) (Isometsa et al., 1994; Rihmer, 2007), indicating that suicidal behaviour in mood disorder patients is a state-dependent phenomenon, and emphasizing the role of recognition and treatment of depression in suicide prevention (Khuri and Akiskal, 1983; Mann et al., 2005). Since more than half of suicide victims contact their GPs 4 weeks before their death it is very likely that at these visits the vast majority of the patients are clinically depressed. The characteristic features of suicidal depression include agitation, severe anxiety, hopelessness, insomnia, appetite and weight loss, comorbid substance-use disorders and bipolar depression (i.e., depression with past hypomania or mania) while recent psychosocial stressors and acute alcohol use even in non-alcoholic depressives also increase the current risk of suicidal behavior (Hawton and Heeringen, 2000; Nock et al., 2008; Sher et al., 2009). Depression is often masked by secondary alcoholism, and also by aggressive, impulsive, and abusive behaviour, so these individuals are better known to legal and social welfare agencies than to their GPs (Angst et al., 2002; Rihmer and Rutz, 2009). Although 34-66% of suicide victims visit their GPs in the four weeks before their death which is three times more frequent compared to nonsuicidal patients and 20-40% of them in the last week, and the number of GP visits significantly increases before attempted and completed suicide (Michel et al., 1997; Luoma et al., 2002; Fekete et al., 2004), even among those with medical contact, the frequency of persons who communicate explicitly their suicidal intention is only around 20%, and even less do so in primary care (11%) and in other (non-psychiatric) specialist settings (6%). On the other hand, it has also been reported that only 3% of the GPs were interested to inquire about suicidal ideation at least in old-age depressed patients (Wasserman, 2001).

Although no questionnaires or inventories can replace the optimal physician-patient relationship with the right questions in a highly professional and empathic atmosphere, short screening instruments, like the Beck Scale for Suicide Ideation (an interviewer-rated 19-item scale) and the Beck Hopelessness Scale (a 20-item self-reported questionnaire) are useful in clinical practice for detecting actual suicide risk (Hawton and Heeringen, 2000; Wasserman, 2001). Asking simple questions (“what do you think about the future?”, “do you feel that life is not worth living?” etc.) can easily facilitate further, more deep and honest discussion on the topic of suicide.

MANAGEMENT AND PREVENTION OF DEPRESSION-RELATED SUICIDES IN PRIMARY CARE

To discuss the possibility of suicidal behaviour with the patient and family members as a common but preventable complication of acute severe mental disorders is very important. Asking questions about suicidal ideation and past suicide attempts does not trigger suicide, especially if accompanied by explaining that depressive disorders can be successfully treated, and suicidal intent will vanish after (or even before) the recovery from depression (Hawton and Heeringen, 2000; Gould et al., 2005). This is beneficial, as many patients think they are alone or unique in their suicidal ideas. Leaflets, posters, and fliers posted in the waiting room indicating the main symptoms and dangers of depression as well as information on good prognosis of treatment may prompt people to ask for help (Rihmer and Rutz, 2009).

Because the risk of suicide is extremely high during the first few days and weeks after the discharge from an inpatient psychiatric department (Hawton and Heeringen, 2000; Wasserman, 2001; Qin and Nordentoft, 2005) GPs should be alert when a patient dismissed recently from a psychiatric clinic/ward seeks help. Furthermore, a significant part of depressive patients stop their medication during the first four weeks of the treatment (Lin et al., 1995), therefore aftercare of recently discharged patients with depression is essential for improving compliance and to maintain efficacy.

Several large-scale studies investigated the impact of GP training on the recognition of depression and prevention of suicide. The pioneering Gotland Study, performed in the early 1980's showed that 2 years after a 2-day postgraduate educational program on the diagnosis and treatment of depression for GPs,

suicide rates decreased by 60%, prescription of antidepressants increased from 50% to 80% of the Swedish average, while utilization of non-specific medications (benzodiazepines, antipsychotics) decreased by 25% compared to the Swedish average. Most importantly the rate of depressive suicides among all suicides decreased significantly after the program (from 42% to 16%, $p < 0.01$) (Rutz et al., 1995; Rutz et al., 1997). However, the overall favourable effect of the education faded in a few years, but repeated education in 1993 and 1995 again led to another marked decrease in suicides (Rutz et al., 1997).

The Nuremberg Alliance Against Depression, a 2-year intervention program performed in Nuremberg, including GP training, public relations campaign, cooperation with community facilitators such as teachers and priests, and support for self-help activities for high-risk groups resulted in a significant reduction in the frequency of all suicidal acts compared to a control region, but no significant difference if only completed suicides were taken into account (Hegerl et al., 2006). Later, using similar intervention methods and study settings (e.g. using control regions), the results of the pilot project in Nuremberg were replicated in Regensburg (Hubner-Liebermann et al., 2010).

In a continuing medical education consisting of 8 seminars spanning 7 years between 1995-2002 in Jamtland, Sweden, mean suicide rates decreased by 36% in the intervention period (1995-2002) compared to a 30% decrease of Swedish suicide rate over the same period, while use of antidepressants in Jamtland increased from 25% below the Swedish average to the same level. In line with the greater reduction of suicide rate in Jamtland county the use of antidepressants increased by 161% in this county while the same figure for the whole Sweden was "only" 108% (Henriksson and Isacson, 2006).

In The Kiskunhalas GP depression management program a 16% decrease of mean annual suicides were observed in a 5-year postintervention period compared to a 5-year preintervention period. Suicide mortality of subjects seen only by GPs in the last year of their life decreased significantly (by 26%) compared to those who contacted other health-care services (internal medicine, cardiology, rheumatology, psychiatry, pulmonology, etc.) or with no medical contact at all. Furthermore, the decrease in annual suicide rate was significantly greater in the intervention region (9.8 per 100.000) compared with the county minus intervention region (6.9 per 100.000) and compared with all of Hungary (4.5 per 100.000) (Szanto et al., 2007; Rihmer and Rutz, 2009).

The Hungarian Depression Recognition and Suicide Prevention Program in Szolnok was implemented in 2005 with the primary aim of educating all local professionals (including GPs, psychiatrists, psychologists, telephone help service providers, pharmacists, teachers, clergy, police officers, family nurses, geriatric care providers etc.) about the recognition of depression and suicide risk and basic intervention methods (Torzsa et al., 2009). In 2005, the first year of the program, absolute number of suicides decreased by 57%, while in 2006 by 47% compared to the average number in the previous 9 years in the town of Szolnok. The significant improvement was observable in 2007, the year following the completion of the program, however, in 2008 it returned to the rate observed in previous years (Torzsa et al., 2009).

A recently published study with a randomized, controlled setting and a two-year follow-up period from Australia also demonstrated that during follow-up the odds of reporting self-harm behavior (defined as suicide ideation and attempts) was lower for individuals treated by educated GPs compared to those treated by control GPs (numbers of involved GPs and elderly patients were 373 and 21762, respectively) (Almeida et al., 2012; Maxwell, 2012).

These healthcare-based educational programs indicate the importance of GPs and also other healthcare workers in decreasing suicide rates. It should be noted, however, that improved GP education in isolation does not have any significant long-term effect, and only complex educational and organisational interventions that incorporate continuous clinician education, an enhanced role of nurses and social workers, as well as high level of integration between primary and secondary (psychiatric) care (consultation-liaison) are beneficial. It is also worthy of note that some studies were not able to show the beneficial effects of educational interventions targeting primary care physicians on detection/treatment of depression (Thompson et al., 2000).

Furthermore, better management of depression requires not only improved recognition and treatment skills from doctors, but also good compliance from the patients, since non-adherence to antidepressant therapy is one of the most common causes of treatment failure. About one-third of patients stop taking antidepressants during the first 4 weeks of therapy, and around half of them take them until the end of the third month (Lin et al., 1995). The better side-effect profile and less toxic nature of SSRIs and other new antidepressants, and the recently increasing practice of GPs to prefer these drugs over tricy-

tic antidepressants is also beneficial for improving the quality of care and reducing the risk of death in the case of overdose (Lin et al., 1995; van Os et al., 2002). Using simple psycho-educational messages (i.e. why, how, and how long to take antidepressants and what to do in case of side effects, to optimise the clinical response) both in oral and written form increases the adherence of patients to antidepressant therapy (Lin et al., 1995). Management of depressed patients in primary care should follow established international and national guidelines (van Os et al., 2002). Anxiety, agitation or insomnia should always be controlled with concomitant use of high-potency benzodiazepines, which hasten the clinical response if combined with antidepressants (Furukawa et al., 2001). Regular aftercare with fixed appointments and permanent psychological support are also recommended, particularly for those patients with prior suicide attempts. This is important, since the actual clinical picture immediately after suicide attempt is often misleading, due to the cathartic effect of self-aggression, resulting in a short-lived but sometimes marked improvement of the depression (Jallade et al., 2005).

Acutely suicidal patients usually need inpatient treatment even of involuntary nature, however, after an open discussion with the patient and relatives, involuntary admission is rarely needed. If acute hospitalisation is not indicated, a close observation by family members and removing possible means of suicide as well as consultation with a local outpatient psychiatrist is advised. Outpatient psychiatric consultation is also helpful in case of differential diagnostic problems, treatment resistance and comorbid substance-use disorder regardless of whether the patient is suicidal or not. If long-term/prophylactic pharmacotherapy is needed (bipolar disorder, recurrent unipolar major depression) the GP may refer the patient to a psychiatrist for optimizing the therapy (Hawton and Heeringen, 2000; Wasserman, 2001; Tylee and Rihmer, 2004).

CONCLUSION

Prevention of depression-related suicidal behaviour in primary care is not easy, but achievable. In the majority of the cases GPs are the first to meet depressed patients and should be trained in diagnostics and up to date use of antidepressants and non-pharmacologic interventions. Although specific depression-targeted psychotherapies exceed the frame of primary care, psycho-education and supportive psychotherapy is

needed and it is essential to offer this kind of treatment in primary care settings. Regardless, GPs should have knowledge about the identification and treatment of depression and they also should collaborate with psychiatric services.

Unfortunately, we cannot prevent all suicides. However, the majority of depression-related suicides are preventable, even in primary care, where a great proportion of suicidal patients show up before their act. Suicidal behaviour usually does not occur in the very early stages of depression and this allows enough time to make a precise diagnosis to consult psychiatrists if needed and to start appropriate treatment. Continuing medical education with a special focus on mood disorders for GPs improves detection and recognition of depressive symptoms (including current suicidal ideation), and increases (adequate) treatment of depression.

Acknowledgement. During the preparation of this manuscript Peter Dome was a recipient of the Bolyai Janos Scholarship of the Hungarian Academy of Sciences

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A depresszióval összefüggő öngyilkosságok megelőzése a háziorvosi gyakorlatban

Az öngyilkosság a világ valamennyi országában ismert jelenség, melynek rizikóját számos kockázati és védőfaktor együttállása határozza meg. Bár az általános népességben az öngyilkosság és az öngyilkossági kísérlet ritka, ami jelentősen megnehezíti az ezzel kapcsolatos kutatást és így az öngyilkosság előrejelzését és prevencióját is, az öngyilkossági események viszonylag gyakoriak pszichiátriai betegek körében, akik gyakran keresik fel háziorvosukat az öngyilkossági cselekményt megelőző hetekben. Az öngyilkosságot megkísérlők és elkövetők között a major depressziós epizód a leggyakoribb pszichiátriai diagnózis (56-87%), azonban a depresszió sikeres akut és hosszútávú kezelése még e magas rizikójú csoportban is szignifikánsan csökkenti az öngyilkos magatartás kockázatát. Az unipoláris és bipoláris major depresszív epizód pontprevalenciája a háziorvosi gyakorlatban több mint 10%, azonban ezen esetek mintegy fele felismeretlen és kezeletlen marad, vagy nem megfelelően kezelik. Mivel az öngyilkosságot elkövetőknek több mint a fele keresi fel háziorvosát a halálát megelőző négy hét során, a háziorvosok kulcsfontosságú szerepet játszanak a fenyegető öngyilkosság felismerésében és megelőzésében. Számos nagy vizsgálat eredménye igazolja, hogy a házi-orvosok és egyéb egészségügyi dolgozók képzése a depresszió felismerésével és megfelelő gyógyszeres kezelésével kapcsolatban, különösen pszichoszociális beavatkozások és közösségi ismeretterjesztés mellett, szignifikánsan javítja a depresszió felismerését és a kezelés hatékonyságát, így csökkentve az öngyilkossági kísérletek és befejezett öngyilkosságok számát a képzésen résztvevő háziorvosok ellátási területén.

Kulcsszavak: depresszió, háziorvosok, háziorvosi ellátás, öngyilkosság, öngyilkossági kísérlet, szuicid prevenció