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Suicidal behaviours: explanations, current practices and difficulties of health professionals and the impact of a patient suicide.

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This thesis is dedicated to politicians and policy makers, health professionals, researchers, professors, students and others for whom suicide prevention is one of their interests and concerns.

RESUMO

Os comportamentos suicidários são reconhecidos como um dos maiores problemas de saúde pública do mundo ocidental, representando um grande desafio para os profissionais de saúde. Psicólogos e médicos podem ter um papel crucial na prevenção clínica do suicídio, sendo para isso decisivo a detecção atempada do risco e a adopção de uma série de medidas clínicas exigentes para o profissional de saúde. A investigação tem identificado falhas e barreiras no cuidado prestado às pessoas suicidas relacionadas com os profissionais de saúde. A pesquisa sobre os profissionais que lidam com comportamentos suicidários na sua prática clínica apresenta um grande campo por investigar. O seu desenvolvimento pode contribuir para a definição de medidas baseadas na evidência empírica no sentido de melhorar o trabalho clínico com pacientes suicidas. O objectivo geral deste doutoramento foi o de contribuir para a constituição de uma base de dados inicial e de referencia, que não existia até à data em Portugal, através do estudo das explicações, práticas e dificuldades de psicólogos e médicos perante comportamentos suicidários, incluindo o estudo do impacto do suicídio de um paciente. Este doutoramento teve 349 participantes: 242 psicólogos, psiquiatras e médicos de medicina geral e familiar Portugueses e 107 psiquiatras Belgas, que preencheram questionários de auto-resposta. A parte empírica desta investigação foi organizada em 5 estudos, apresentados em 5 artigos científicos publicados, aceites, sob revisão ou submetidos para publicação. O **primeiro estudo** investigou as explicações atribuídas pelos profissionais de saúde Portugueses aos comportamentos suicidários, encontrando 5 modelos explicativos. O sofrimento psicológico foi o mais provável de explicar os comportamentos suicidários e foram encontradas diferenças significativas entre os grupos profissionais. Usando a mesma amostra o **estudo 2** focou-se nas práticas clínicas dos profissionais com pacientes suicidas, mostrando que as variáveis específicas relacionadas com suicídio, como a formação e a experiencia com pacientes suicidas, tem efeitos positivos nas práticas de avaliação de risco e no suporte e envolvimento das famílias. Foi verificada uma tendência para a Psicoterapia ser a modalidade de intervenção com maior probabilidade de ser aconselhada. No **estudo 3** foram investigadas as dificuldades percebidas pelos psicólogos e médicos portugueses perante pacientes suicidas, acrescentando também dados empíricos sobre as percepções dos profissionais de saúde

acerca das suas de competências e necessidade de formação em intervenção nesta área. Os médicos de medicina geral e familiar foram os que relataram mais dificuldades. Os profissionais de saúde com formação específica e com mais experiencia com pacientes suicidas apresentaram menores níveis de dificuldades.

O **estudo 4** e o **estudo 5** descrevem o impacto do suicídio de um paciente em profissionais de saúde portugueses e em psiquiatras Flamengos, respectivamente. Estes estudos acrescentam evidencias de que o suicídio de um paciente é uma experiencia frequente e difícil e mostram que uma percentagem alta de profissionais de saúde operaram mudanças na prática clínica como consequência do suicídio. Estes estudos disponibilizam informação acerca dos recursos efectivamente usados como suporte quando um paciente morre por suicídio e sobre utilidade dos mesmos sob o ponto de vista dos profissionais. A inexistência de um sistema formal de apoio para os profissionais que experienciam o suicídio de um paciente é comum nos locais de trabalho, tanto em Portugal como na Flandres.

Este doutoramento reflecte o estado actual do conhecimento em Portugal na área específica da Suicidologia que estuda os profissionais que lidam com comportamentos suicidários, fornecendo dados empíricos sobre conceitos, nível de formação, práticas, dificuldades, competências e necessidades percebidas dos profissionais de saúde. Os cinco trabalhos empíricos que o constituem são consistentes relativamente a uma das implicações chave para as politicas de saúde e prevenção: a formação e a educação em comportamentos suicidários dirigida a profissionais de saúde é fundamental para melhorar a avaliação e acompanhamento dos pacientes e ajudar as suas famílias. A formação específica em comportamentos suicidários deve ser implementada através de um plano nacional que deve priorizar os médicos de medicina geral e familiar e deve ser adaptado às necessidades de cada grupo profissional.

ABSTRACT

Suicidal behaviours are recognized as one of the largest public health problems of the western world. In addition, suicidal behaviour poses a major challenge to health professionals. Psychologists and doctors can have a crucial role in clinical suicide prevention. Timely recognition of risk and the adoption of a set of clinical measures are decisive. Investigation has identified failures and barriers in the care of suicidal people related to health professionals. Having a vast field of investigation research about the health professionals who deal with suicidal behaviours may contribute for setting up evidence-based measures that improve clinical work with suicidal patients. In Portugal these data are non-existent. The general goal of this PhD was to contribute to this baseline data, studying explanations, practices and difficulties of professionals facing suicidal behaviours in clinical practice, including the impact of a patient suicide. This PhD study had 349 participants: 242 Portuguese psychologists, psychiatrists and general physicians and 107 Belgian psychiatrists who filled-out self-reported questionnaires. The empirical research was organized into 5 studies, each presented in a scientific article either published, accepted, under review or submitted for publication.

The **first study** investigated suicidal behaviours' explanations of Portuguese health professionals finding five explanatory models. The psychological-suffering was the most likely to explain suicidal behaviours in the thinking of health professionals and significant differences were found between professional groups. Using the same sample, **study 2** focused on intervention practices of health professionals with suicidal patients, demonstrating that specific suicide-related variables, as training and experience with suicidal patients have positive effects on risk assessment practices and on supporting and involving families. Professionals were more likely to advise psychotherapy than other interventions. **In study 3** perceived difficulties of Portuguese psychologists and doctors facing suicidal patients were surveyed and provided empirical data about health professionals' perceived skills and training needs in suicide intervention. GPs were those who reported more difficulties. Health professionals who had specific training on suicide and a higher experience level with patient suicide attempts presented lower levels of difficulties. **Study 4** and **Study 5** described the impact of a patient suicide on Portuguese

health professionals and on Flemish psychiatrists, respectively. The studies added further evidence that patient suicide is a frequent and difficult experience and showed that a high percentage of health professionals performed changes in clinical practice as a consequence of the event. These studies provided information about the sources of support effectively used in the aftermath of a patient suicide and about their usefulness. The non-existence of a formal system of support for professionals experiencing a patient suicide is common to work places both in Flanders and Portugal.

This PhD reflects the current state of knowledge in Portugal in the specific field of suicidology that studies professionals who deal with suicidal behaviours, providing empirical data about concepts, level of training, practices, difficulties, perceived skills and needs of health professionals.

The five empirical works that constitute this PhD are consistent with regard to one of the key implications to health and prevention policies: training and education on suicidal behaviours aimed at health professionals are fundamental to improve the assessment, management and follow-up of these patients and to help their families. Specific training on suicide intervention should be implemented through a national plan, which should prioritize GPs as a target group and should be tailored to the needs of each professional group.

RESUMEN

Los comportamientos suicidas han sido identificados como uno de los mayores problemas de salud pública en occidente, siendo un gran desafío para los profesionales de la salud. Los psicólogos y los médicos pueden tener un papel crucial en la prevención clínica del suicido, siendo fundamental para logarlo, la detección temprana del riesgo y la adopción de una serie de medidas clínicas exigentes para los profesionales de la salud. La investigación ha identificado fallas y barreras en el cuidado brindado a las personas suicidas, que se relacionan con los profesionales de la salud. La investigación sobre los profesionales que lidian con los comportamientos suicidas en su práctica clínica es un área de la que poco se conoce. Su desarrollo puede contribuir a la adopción de medidas basadas en evidencia empírica, que permitan mejorar el trabajo clínico con pacientes suicidas. El objetivo general de este doctorado fue contribuir para la elaboración inicial de una base de datos de referencia, que hasta la fecha no existía en Portugal, a través del análisis de las explicaciones, prácticas y dificultades de los psicólogos y médicos ante los comportamientos suicidas, incluyendo el estudio del impacto del suicidio de un paciente. En este doctorado participaron 349 personas: 242 psicólogos, psiquiatras y médicos de medicina general y familiar de Portugal y 107 psiquiatras de Bélgica, que cumplimentaron cuestionarios auto-administrados. La parte empírica de esta investigación está organizada en cinco estudios, que son presentados en 5 artículos científicos publicados, aceptados, en revisión o enviados para publicación. El **primer estudio** investigó las explicaciones brindadas por los profesionales de salud portugueses a los comportamientos suicidas, encontrándose 5 modelos explicativos. El sufrimiento psicológico es el factor que explica en mayor medida los comportamiento suicidas y se encontraron diferencias significativas entre los grupos de profesionales. Empleando la misma muestra, el **Estudio 2** analizó las prácticas clínicas de los profesionales con pacientes suicidas, mostrando que las variables específicas relacionadas con el suicidio, como la formación y la experiencia previa con pacientes suicidas, tiene efectos positivos en las prácticas de evaluación del riesgo y en el soporte e involucramiento de las familias. Se observó que la psicoterapia es la modalidad de intervención que más se aconseja. En el **Estudio 3** se investigaron las dificultades percibidas por los psicólogos y médicos portugueses ante los

pacientes suicidas, incluyendo asimismo datos empíricos sobre las percepciones de los profesionales de la salud sobre sus competencias y necesidades de formación e intervención en el área. Los médicos de medicina general y familiar fueron lo que manifestaron más dificultades. Los profesionales de salud con formación específica y con más experiencia con pacientes suicidas presentan menores niveles de dificultad.

El **Estudio 4** y el **Estudio 5**, describen el impacto del suicidio de un paciente en los profesionales de salud portugueses y en psiquiatras flamencos, respectivamente. Estos estudios aumentan la evidencia de que el suicidio de un paciente es una experiencia frecuente y difícil. También señalan que un alto porcentaje de los profesionales de la salud realizan cambios en su práctica clínica como consecuencia de un suicidio. Estos estudios brindan información sobre los recursos de apoyo efectivamente utilizados cuando un paciente muere por suicidio y sobre la utilidad de los mismos, tal como lo perciben los profesionales. Tanto en Portugal como en Flandes, se identificó la carencia de sistemas formales de apoyo ante el suicidio de un paciente, dentro de los ámbitos laborales de los profesionales.

Este doctorado refleja el estado del arte en Portugal en el área específica de la Suicidiologia, que estudia a los profesionales que se enfrentan a comportamientos suicidas, brindando datos empíricos sobre los conceptos, nivel de formación, prácticas, dificultades, competencias y necesidades percibidas de los profesionales de la salud. Los cinco trabajos empíricos que lo componen son consistentes en señalar una de las implicaciones clave para las políticas de salud y prevención: es fundamental la formación y educación en comportamientos suicidas, dirigida a los profesionales de la salud, para mejorar la evaluación y el acompañamiento de los pacientes y ayudar a sus familias. La formación específica en comportamientos suicidas debe ser implementada mediante un plan nacional que debe priorizar a los médicos de medicina general y familiar, y debe ser ajustada a las necesidades específicas de cada grupo profesional.

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Esta tese, o produto evidente do doutoramento, é resultado de um período longo, exigente e intenso de trabalho, contando com a colaboração e apoio de várias pessoas. Gostaria de deixar o meu expresso agradecimento a todos aqueles que, de uma forma directa ou indirecta, colaboraram de forma importante na sua consecução:

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"The goal is to stitch suicide into the body of academic psychology"

Shneideman (1987, p. 177)

"Suicidology is similar psychology, that is, suicidology is the science of self-destructive behaviours, thoughts, feelings, and so on, in the same way that psychology is the science dealing with the mind and mental processes, feelings, desires and so on." (Maris, 2000 p.4)

"*A good writer, and one who writes with care, often finds that the expression he's [she's] spent a long time hunting for without finding it, and which he [she] finds at last, turns out to be the simplest and most natural one, which looks as if it ought to have occurred to him [her] at the beginning, without any effort*." (Jean de la Bruyère**,** from *Les Caractères ou les moeurs de ce siècle,* 1688, in Mann et al., 2005, p.2074)

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GENERAL INTRODUCTION

This PhD is about health professionals, who deal with suicidal behaviours in clinical practice. It investigates the explanatory models whereby health professionals interpret suicidality, analyses the clinicians' practices and difficulties towards suicidal patients and studies the emotional and professional impact of patient suicide. The general goal of this PhD is to provide baseline data on these subjects in order to contribute to the establishment of evidence-based actions aimed at the improvement of suicidal behaviours prevention. In this PhD suicidal behaviours prevention is considered from a broad and policy-oriented perspective that supports multifaceted and multilevel answers to the problem, including measures aimed at health professionals. The underlying theoretical paradigm to this research is social psychology, namely its conceptual model of the social representation theory and its concepts of social and professional representations.

The thesis is divided into three main parts: general introduction, empirical studies and general discussion.

The introduction is in turn organized in eight sections. The first discusses the definitional issue and related concepts. The second reports suicidal behaviours as a public health and a clinical problem providing some statistics. The first and second sections were labelled as *Approaching the problem*. The third section of the introduction briefly describes theoretical models of suicide and suicidal behaviours presenting their main conceptualizations and relations using an illustration for each model. This section was named *Explaining the problem*. The fourth, fifth and sixth sections under the general label of *Responding to the problem* provide an overview of intervention on suicidal behaviours describing principal aspects of prevention, clinical intervention and postvention, respectively. The fourth section is dedicated to the prevention and the training of health professionals, in the fifth section clinical intervention and barriers related to health professionals are approached and in the sixth section a brief review of patient suicide impact studies is presented and postvention aspects are described. This introduction ends with the specific aims of the PhD and an overview of the empirical studies conducted (sections 7 and 8).

Next, the empirical part is presented through five scientific articles: to date three of them were published, one was accepted under review and the other was submitted for publication.

The third and final part of this thesis – the discussion - is organized in fourth sections: main results; general discussion; policy recommendations and methodological limitations and suggestions for further research.

Beyond the discussions presented in each paper, in this part of the thesis the main results are summarized and discussed according to a global perspective.

I - Approaching the problem

1. Definitional challenge

Accurate definitions are essential and the first step of any scientific research. In the field of suicidology definitional and terminology obstacles, resulting from the complexity and broad range of outcomes that the suicidal term encompasses, have impaired Suicidology, crossing its epistemic triad: research area, clinical practice and public health (e.g. De Leo, Burgis, Bertolote, Kerkhof & Bille-Brahe, 2004, 2006; Silverman, 2006). One of the major problems in the assessment, treatment, and prevention of suicides is the absence of a consistent and a consensual classification for suicidal behaviours (Maris, 2002).

Different health professionals called to describe the same self-injury behaviour of an hypothetical patient/ client will likely do it in different manners: some will say it was a suicidal act, others will state it was a self-harm behaviour and others still will declare that it was a suicide attempt or a parasuicide. Less prepared professionals may even describe it as an accident. If we have a large sample, terms like self-injury behaviour, self-inflicted life-threatening behaviour and self- inflicted intentional action will probably arise.

In the last years, different efforts were carried out in order to establish the key elements to a standardised nomenclature and to provide answers to different applications of definitions and terminology (e.g. Dear, 2001; DeLeo, et al., 2004, 2006; Marusic, 2004; O'Carroll et al., 1996; Silverman, Berman, Sanddal, O'Carroll & Joiner, 2007a, b). In our country one of the first goals of the recent national suicide prevention plan (PNPS) (DGS, 2013) is the establishment of a standard nomenclature, in order to overcome barriers of suicidal behaviours registers and to promote an accurate characterization of the phenomenon.

A clear terminology and definition are essential elements for the constitution of a standard nomenclature that in turn allows effective communication between professionals in clinical settings and in different contexts (e.g. clinical and research). It is also fundamental to enable advances in research and knowledge in suicidology, to improve the efficacy of clinical interventions.

The discussion about whether the motives, methods and concepts such as the intention to die, should be included or not in the definitions remains a current debate (e.g. De Leo et al., 2004), which has recently been revived by the preparation and release of DSM-V, specifically by the debate about whether or not to include non-suicidal self-injury (NSSI) as a separate diagnostic category in the manual. This discussion enlivened both the last European and the National Symposiums on suicide and suicidal behaviours through the congressmen Apter and De Leo (2012) and Saraiva (2013), respectively. The current discussion has been focusing the benefits and harms of this inclusion, the distinction between NSSI and suicidal behaviour (e.g. Klonsky, Muehlenkamp, Lewis, & Walsh, 2011) and the distinction between borderline personality disorder (BDP) diagnosis and NSSI (e.g. Selby, Benderm, Gordon, Nock & Joiner, 2012).

In the title of this PhD we used the term suicidal behaviours, referring to behaviours that share the features of intentional and deliberated self-harming independently of resulting or not in death. Thus the term suicidal behaviour includes the act of fatal suicide and a heterogeneous variety of non-fatal suicidal behaviours, called suicide attempts, that can range from attempts with high lethality (in which survival is unlikely) to attempts with low lethality (in which the probability to be rescued is very high). In this study the terms used throughout the data collection and self-report questionnaire were suicidal behaviours, suicide attempt and suicide terms. This is a pragmatic approach facing the complexity and controversial issue of suicidal intent or intention to die. Indeed in the majority of cases of suicide or suicide attempt the motives and the intention of dying involve ambivalence and thus can be very difficult to access in an unequivocal way (Hawton & van Heeringer, 2000). According to Shneidman (1985, 1986, 1987), the psychologist considered the father of contemporary suicidology, the common cognitive state in suicide is ambivalence. The author explains this common psychological characteristic as being present in most suicidal behaviours through the illustrative image of an individual that cuts the throat and simultaneously asks for help, being genuine in both actions.

The suicidal intent is a controversial concept and it can have various interpretations. The suicidal intention may be: to cause death, to stop life or live otherwise, to provoke changes, to end the unbearable suffering. Further, the suicidal intentionality can change along the suicide process - this is the period of time from the suicidal behaviour to the result (death, injury or another such as asking or accepting help). The intention can change due to the person who engages in the behaviour, someone else's intervention (e.g. emergency staff) or both.

With regard to suicide Silverman (2006) identified fifteen frequently referred definitions in the scientific literature and De Leo et al. (2006) pointed out eight frequently reported definitions. The set of suicide definitions can be summarized in three types (1) suicide as a deliberate act of self-destruction that results in death; (2) suicide as a conscious self-directed act with the intent to die; or (3) suicide as an intentional self-inflicted life-threatening act resulting in death (Marusic, 2004; Silverman, 2006).

Faced with the difficult task of choosing a suicide definition for this first section of the thesis - approaching the problem – a statement was selected, which has three underlying requirements considered essential to a definition with practical implications for health professionals. The three main requisites are: (1) awareness of the potential lethality of the action taken; (2) intention to die or to cause changes in the present life circumstances perceived as unbearable; and finally, (3) seeking the best or the only available solution for an unaffordable situation, as highlighted by Shneidman (1985) and Baechler (1980, 1996). Thus the following definition was selected:

> *"Suicide is an act with fatal outcome, which the deceased, knowing or expecting a potentially fatal outcome, has initiated and carried out with the purpose of bringing about wanted changes."* (De Leo et al., 2006, p. 12).

This selection is also based on the fact that the present definition results from the empirical and theoretical work performed along several years (since the 80s), in different countries, by an interdisciplinary team of suicidologists, including psychologists, psychiatrists and sociologists – the WHO/EURO multicentre study (De Leo, Bille-Brahe, Kerkhof, & Schmidtke, 2004; Schmidtke, Bille-Brahe, De Leo, & Kerkhof, 2004)

The task of defining non-fatal suicidal acts is even more complicated because it comprises "unsuccessful" suicides (also called frustrated suicides) and other suicide-related behaviours motivated by a wish to live in a different way rather than by a wish to die (e.g. De Leo et al., 2004). It includes behaviours with and without physical harm or injuries and with lethality ranging, in an imaginary scale from greater than zero and less than 100% (O' Carrol et al., 1996).

So, the suicidology problem of having a proper and unambiguous nomenclature, which allows to know correctly what constitutes suicidal behaviour, deliberate self-harm, suicide-related behaviour, parasuicide and to define suicide and suicide attempt actually remains unsolved (Silverman, 2006; Silverman et al., 2007a, b).

Based on De Leo et al. (2004, 2006) we suggest a guiding diagram for nomenclature, adapting the proposal of a flow chart and adding the NSSI and 3 levels that can facilitate the registration tasks and diagnosis.

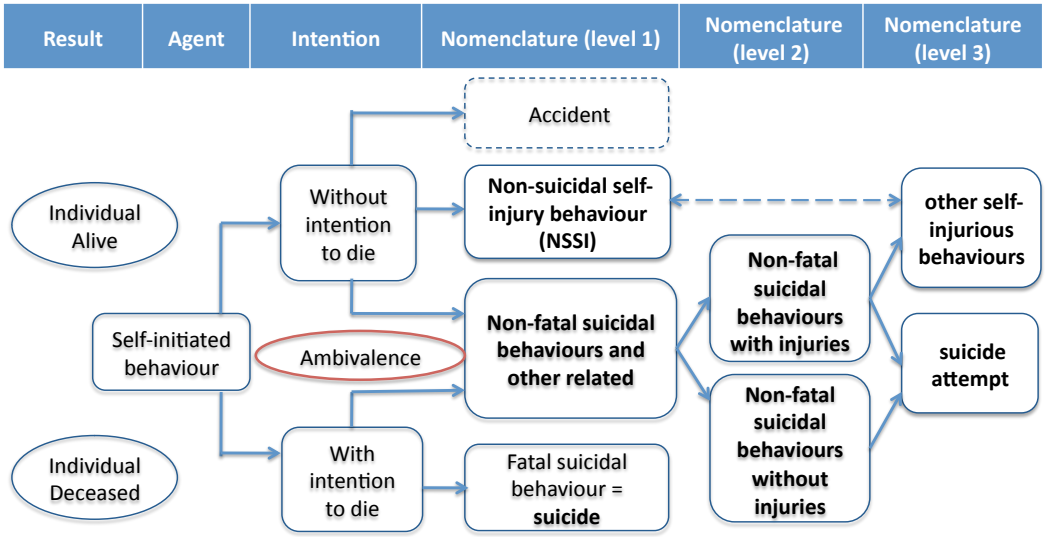

Figure 1. Definitional diagram of suicidal behaviours and other related (adapted from De Leo, Burgis, Bertolote, Kerkhof, & Bille-Brahe, 2004, p. 34).

This approach is partially in conflict with the recent nomenclature proposed in the PNPS (DGS, 2013). No nomenclature will be free of limitations. De Leo et al. (2006) highlighted that professionals who do the registration are obviously and generally more concerned with the physical consequences and/ or with psychiatric or psychological stabilization rather than with the intention of the act. Thus a differentiation of suicidal behaviour and other related by levels is suggested (as shown in the diagram above). In terms of notifications a system as simple as possible is needed to promote that emergency professionals classify acts in a standardized way and based on components with the minimum possible errors and doubts. With regard to the clinical intervention a nomenclature is required that helps health professionals to identify the problem of each client/ patient in order to provide the most suitable intervention.

Two final notes have to be done in this section of the thesis: one related to NSSI and the other one to the national glossary proposal in the recent national suicide prevention plan (PNPS) (DGS, 2013).

Nock and Favazza (2009) presented the definition:

> *"Non-suicidal self-injury (NSSI) is the direct, deliberate destruction of one's own body tissue in the absence of suicidal intent"* (Nock & Favazza, 2009, p. 9).

The main differences between NSSI and suicidal behaviours were well explained by Nock and Favazza (2009) and later on in a very useful and practical way for health professionals by Klonsky, Muehlenkamp, Lewis and Walsh (2011). A non-lethal intent, a less severe physical damage and a very common or frequent behaviour (tens or hundreds of times) in the cases of NSSI are among the main guidance for differential analysis. There is a general consensus among researchers and clinicians that non-suicidal self-injury is associated with an increased risk for suicide and other suicidal behaviours (e.g. Hamza & Willoughby, 2013; Klonsky et al., 2011; Nock, 2010). Even more, NSSI and suicidality can simultaneously occur, and removing suicidal thoughts or intents is among the most common functions of NSSI (dashed line added in the flow chart represents this association) (cf. section 3, p. 29 - the *Interpersonal–psychological theory of suicidal behaviour* and its essential concept of fearlessness of physical pain (Joiner, 2005)). The clinical peril of NSSI designation remains on the term *non-suicidal*, which can remove the suicidality risk of the mind of health professionals. Given what was stated above it is of vital importance that training on suicidal behaviours highlights the imperative of understanding the person beyond a preliminary and evident diagnosis.

The glossary of PNPS includes an important and useful synthesis about the four principal components of suicidality nomenclature: method, outcome, lethality and intention, highlighting both psychological characteristics of subjective lethality and ambivalence in the intention of suicidal behaviours. However, the proposal for a national standardised terminology does not appear to take into account what is stated above. Five concepts are proposed: suicidal ideation, self-injury behaviours, suicidal acts that comprise suicide attempt and suicide. The term suicide attempt is defined as a frustrated suicide thus using in our opinion, a very restricted definition of suicidal behaviours (or acts, as proposed in the glossary) and of suicide attempt. This is even more objectionable because self-injury behaviours are defined as behaviour without suicidal intention, including beyond tissue cuts taking drugs (licit and illicit) with the goal of self-injury and jumping from heights. The risk is clear: failure to see associated suicidality in several behaviours when using the term 'non-suicidal', when in fact the most probable is the presence of ambivalence and levels of suicidality, which can range from low to very high. The risk is to ignore the presence of the cry - *help me I don't want to live in this way anymore and I don't have a solution*.

2. Suicidal behaviours as a public health and clinical problem

Suicidal behaviour constitutes a major public health problem and a huge cost at societal and individual levels in many countries. According to WHO (2012) the global annual rate of suicide is about 15 per 100000 individuals, which means that approximately one million people worldwide die by suicide each year and it is estimated, based on current trends, that in 2020 this figure will reach 1.53 million people. In Europe, suicide is the cause of death of about 19 per 100 000 inhabitants (HEN, 2004; WHO 2012) and in the group aged 15–35 years suicide is the second most common cause of death after traffic accidents (HEN, 2004; WHO, 2012b).

Further, in most European countries, the global rate of suicides is higher than the global rate of deaths by traffic accidents, homicides and AIDS (HIV-disease). Concretely, between 2000 and 2010 in the 27 countries of the European Union (EU) the mean rate of suicide was 10.88 (*sd*=.70), while the mean rate of deaths by traffic accidents was 9.56 (*sd*=1.78), by homicide was 1.12 (*sd*=.18) and by AIDS was 1.09 (*sd*=.20) per 100 000 inhabitants (Eurostat, 2013). These data are illustrated in the figure 2.

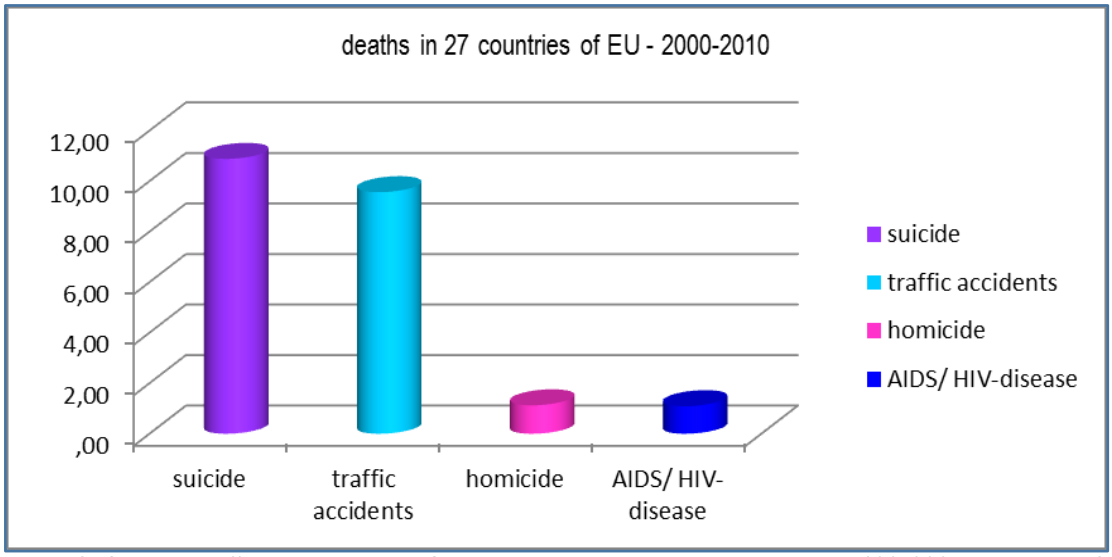

Figure 2. Suicide, traffic accidents, AIDS and homicide mean rates in EU per 100 000 inhabitants, 2000-2010.

Suicide worldwide is estimated to represent about 2% of the total global burden of disease (HEN, 2004) and recent epidemiological studies conclude that it is an important cause of potential years of life lost (PYLLs), accounting for 11% of PYLL in men and for 5% of PYLL in women (Doessel, Williams & Whiteford, 2009).

Furthermore annual rates of non-fatal suicidal behaviour, which also cause physical and psychological, suffering at individual and family level, are 10–20 times higher than those of completed suicide (e.g. Nock et al, 2008; Kerkhoof, 2000; WHO, 2012). Thus a new measure of calculating the burden of disease of suicide behaviours, which includes nonfatal suicide attempts, was recently proposed as more appropriate, consequently raising suicidal behaviours in the ranking of health problems (Kerkhof, 2012). These figures should be taken into account for setting priorities in health care and investment decisions in research (Kerkhof, 2012). Moreover, for each suicidal behaviour several people are directly affected. Family members are profoundly affected by the event, enhancing even more the burden of the problem. Suicidal behaviours can also have a harmful effect on health professionals who deal with suicidal people, particularly, when the patient/ client dies by suicide (cf. section 6, p. 65).

Prudence and a critical approach are recommended when looking at international comparisons given the variation of quality of suicide statistics between countries and also the different population structures. This issue was first raised by Stengel in the 60s of the last century and resumed over the years by different authors (e.g. Gusmão & Quintão, 2013; Rockett & Thomas, 1999; Tollefsen, Hem & Ekeberg, 2012; Varnik et al., 2010). In order to overcome the different population structures standardised rates have been provided (e.g. Chisthi, Stone, Corcoran, Williamson, & Petridou 2003; Gusmão & Quintão, 2013; Varnik et al., 2010).

According to the mean of the last available data in Europe the suicide rate per 100 000 inhabitants ranges from approximately 3 in Cyprus and Greece to 33 in Lithuania (Eurostat, 2013; WHO, 2012a, b). Figure 3 shows the position of Portugal and Belgium, the two settings of data collection of this PhD, in the European panorama. It displays the mean by 100 000 inhabitants of standardised suicide rates, adjusted to a standard age distribution[1], between the years of 1999-2010 for thirty-two countries (Eurostat, 2013). Portugal is comparable to Belgium in terms of population, respectively 10.6 and 10.8 million people, and both are western democratic countries and members of EU and NATO (PwC, 2011).

[1] Suicide figures vary significantly with age and sex, the use of standardized suicide rates improves comparability over time and between countries, as they aim at measuring suicide rates independently of different age structures of populations. The standardized suicide rates used in the Eurostat database are calculated on the basis of a standard European population (defined by the World Health Organization) (Eurostat, 2013).

But the two countries are different in several psychosocial well being indicators: Portugal has a higher unemployment rate, a greater inequality in income distribution, a lower number of physicians and hospital beds, among other differences in social and quality life indicators (PwC, 2011). Another dissimilarity between the two countries is the suicide rate, which is a macro indicator of the psychosocial wellbeing of communities (Varnik et al., 2012). Portugal is recognized as one of the European countries with lower suicide rates, while Belgium ranks among the nations with higher ones, as illustrated in figure 3 (Eurostat, 2013; WHO, 2012a, b). Despite the fact that in recent years Belgium's suicide rate has tended to decrease (Scheerder, 2009; Van Heeringer, Meerschaert & Braecmank, 2004) it remains high when compared to other European countries.

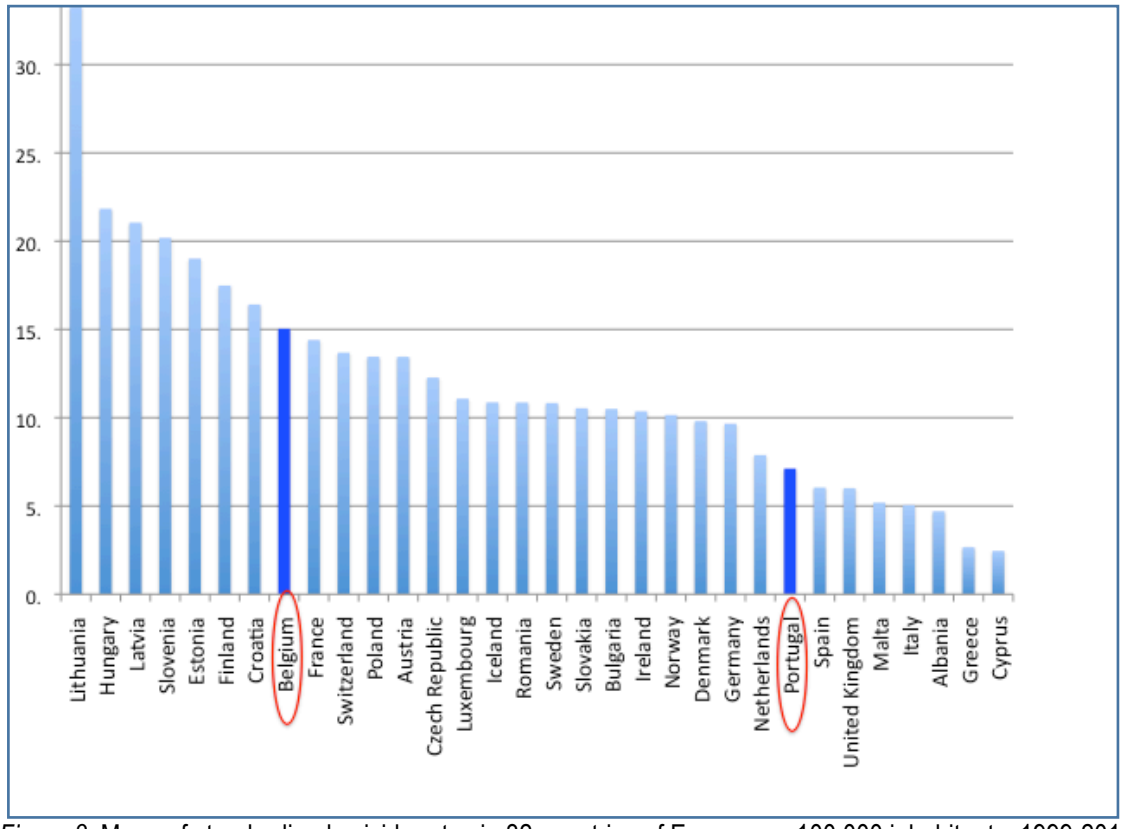

Figure 3. Mean of standardized suicide rates in 32 countries of Europe per 100 000 inhabitants, 1999-2010.

Suicide rates are not distributed equally throughout the general population. In all the countries considered the incidence of suicide is higher in men than in women, as shown in figure 4 (Eurostat, 2013; WHO, 2012a, b). In fact, the only well established exception to this pattern is in China, where suicide rate in females are higher than in males (e.g. Bertolote & Fleischman, 2004).

Another important demographic marker of suicide risk is age. Despite the fact that Alte da Veiga and Saraiva (2003) have identified four age patterns of suicide according to different regions of Europe and Girard (1993) according to different regions of the world, there is a clear global tendency for suicide rates to increase with age (SPS, 2013; WHO 2012a, b). Figure 5 shows the upward-sloping tendency in the global figures of suicide.

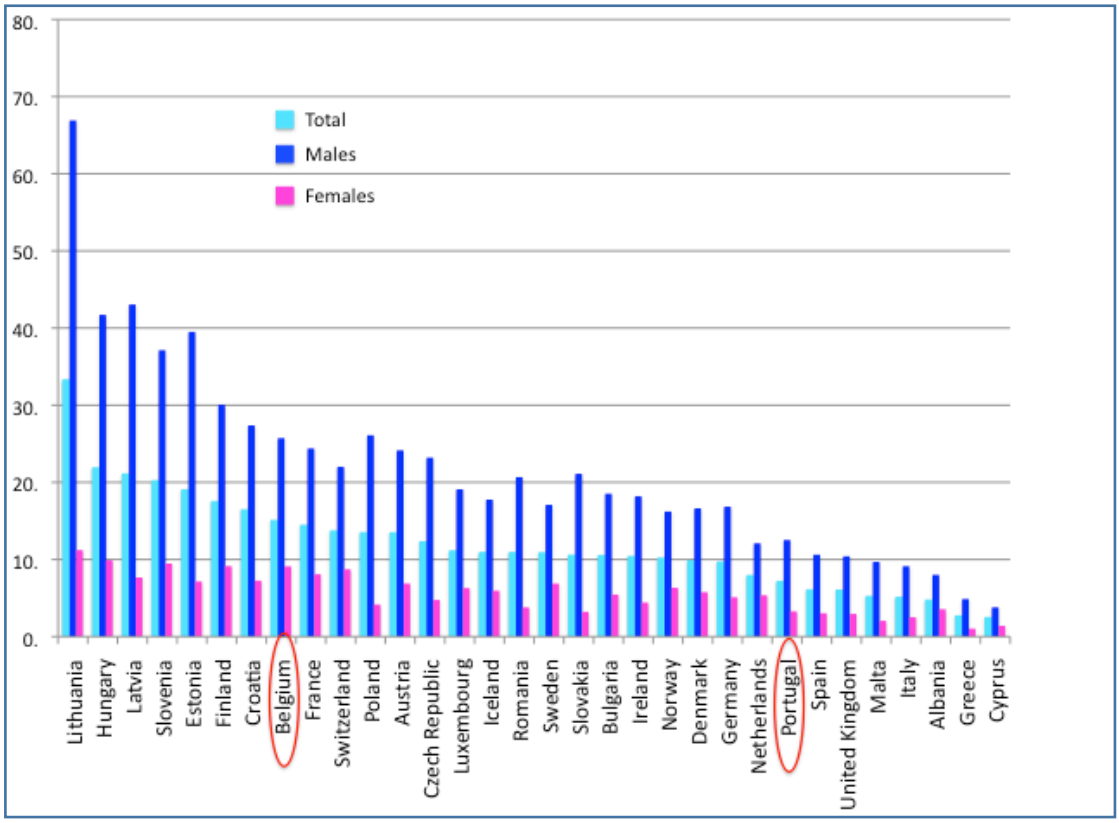

Figure 4. Mean of standardized suicide rates in 32 European countries by gender per 100 000 inhabitants, 1999-2010.

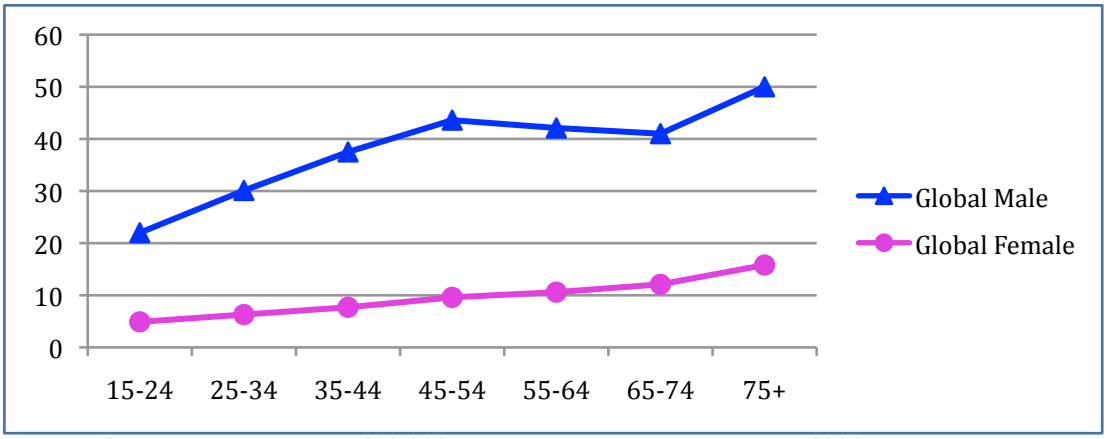

Figure 5. Global suicide rates per 100 000 inhabitants by age and gender in 2000.

With regard to Portugal, the figures along 110 years show that global suicide rates have varied between about 4 and 13 per 100 000 inhabitants (INE, 2013; WHO-MDB, 2013). Men die an average of 3-4 times more by suicide than women. Nevertheless the oscillations of men and women across time are similar and according to the global variation even if the range of variation in men is larger than in women, as illustrated in figure 6 (INE, 2013; WHO-MDB, 2013).

An increasing tendency between 1902-1913 is observed, followed by a relative stabilization and a great growth in the 30s, corresponding to the highest peak of this temporal window from 1902 to 2011. Then a tendency to stabilization appears until the end of the century where a decreasing trend is visible from 1996 to 2000. A second peak of suicide rates between 2002 and 2004 marks the beginning of the 21st century, followed by a general trend of stabilization but with higher values than in the beginning of the last century.

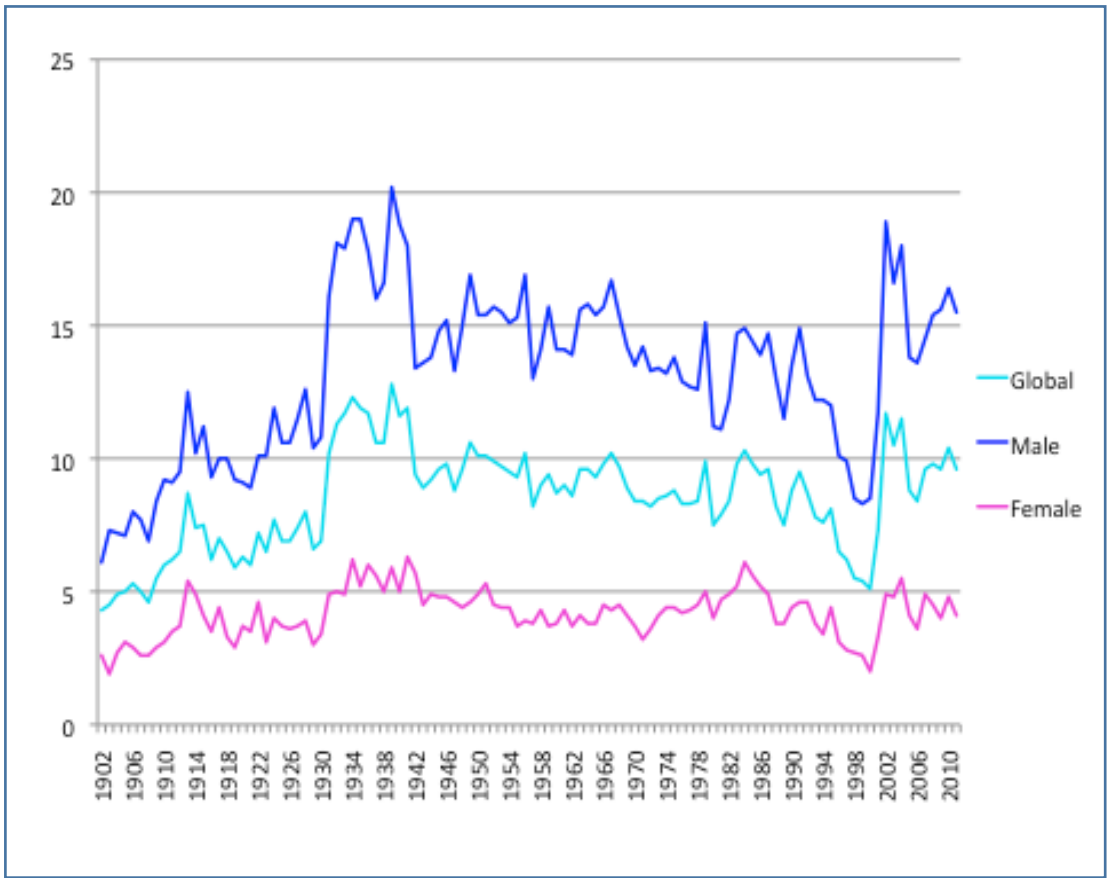

Figure 6. Suicide rates in Portugal per 100 000 inhabitants and by gender, 1902-2011.

These fluctuations have been critically discussed by different epidemiological studies (e.g. Campos & Leite, 2002; Carvalho & Natário, 1998; de Castro, Pimenta & Martins, 1989; Freitas, 1982; Gusmão & Quintão, 2013; Ramalheira, 2013).

Changes in the registration method and adjustments in the classification system have been pointed out as important facts to take into account in the analyses of suicide rates along time and some socio-economical and political features have been advanced as reasons for some salient discontinuities.

The great depression of the 30s in the last century and the period of the beginning and consolidation of the Portuguese dictatorship are potential explanations for the peak in suicide rates from 1931 to 1941 (e.g. Campos & Leite, 2002; Freitas, 1982). But the changes operated in 1931 in the causes of death nomenclature should also be taken into account in the interpretation of these figures (e.g. Freitas 1982; Ramalheira, 2013). It is also known that the second peak (2002-2004) is associated to a change in the registration procedures implemented by a task force aiming at decreasing the number of deaths attributed to undetermined causes (Gusmão & Quintão, 2013; Ramalheira 2013; Varnick et. al., 2011).

According to the global tendency, in Portugal the age pattern of suicide risk is a positive function that seems well established as illustrated by the clear upward sloping in figure 7 (SPS, 2013; WHO 2012a, b).

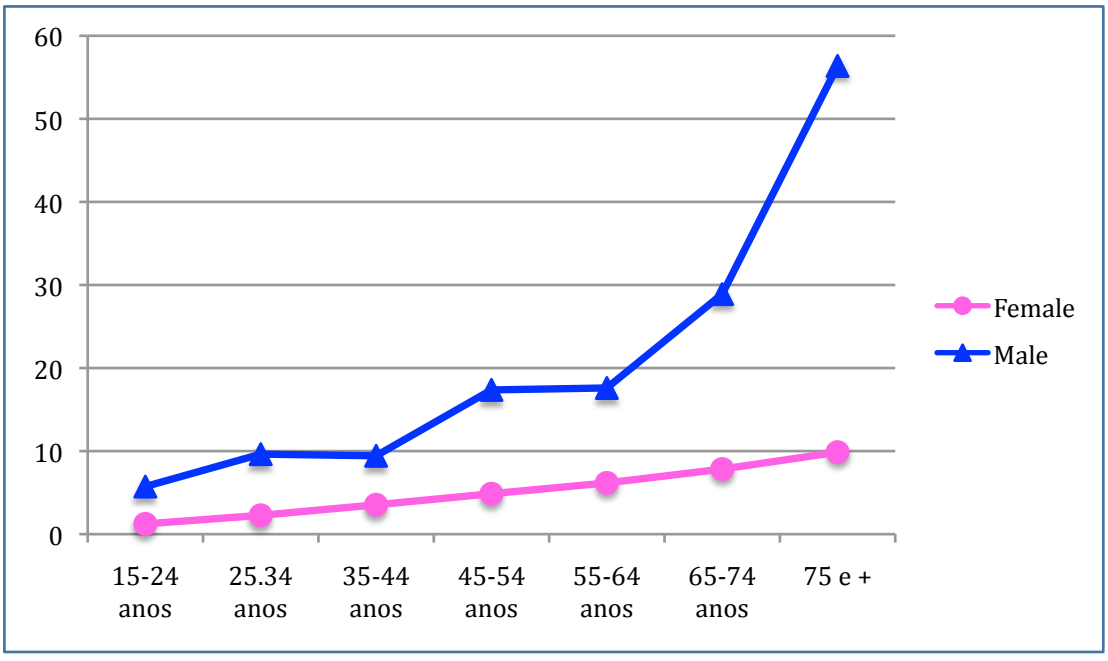

Figure 7. Mean of suicide rates per 100 000 inhabitants in Portugal by age and gender, in 2003, 2006 and 2009.

There are also marked differences in suicide rates between different country regions (e.g. Carvalho & Natário, 1998; Freitas, 1982). The last available data shows that Alentejo, Algarve and Madeira present the highest suicide rate, followed by Açores, then by the Lisboa region, the Centre and finally the North region

with the lowest suicide rate (INE 2013; Gusmão & Quintão, 2013). Figure 8 shows this unequal distribution of suicide rates by regions.

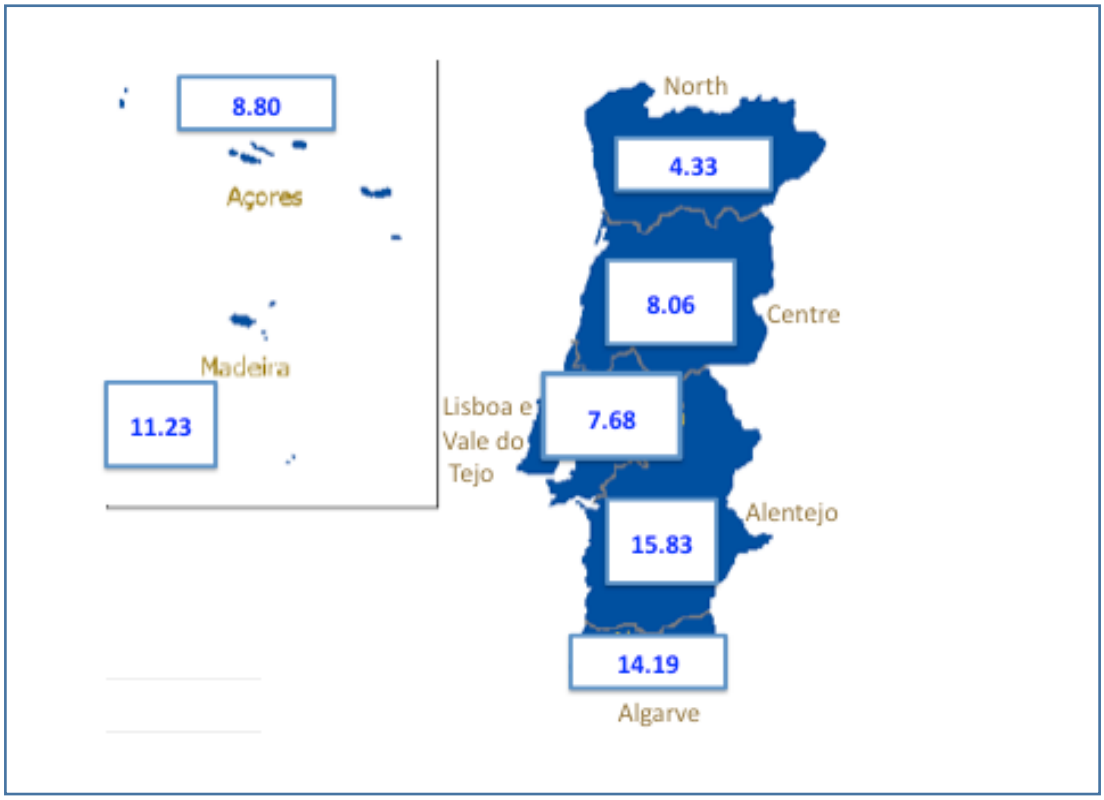

Figure 8. Standardized suicide rate per 100 000 inhabitants in Portugal by region (mean of 2000-2009).

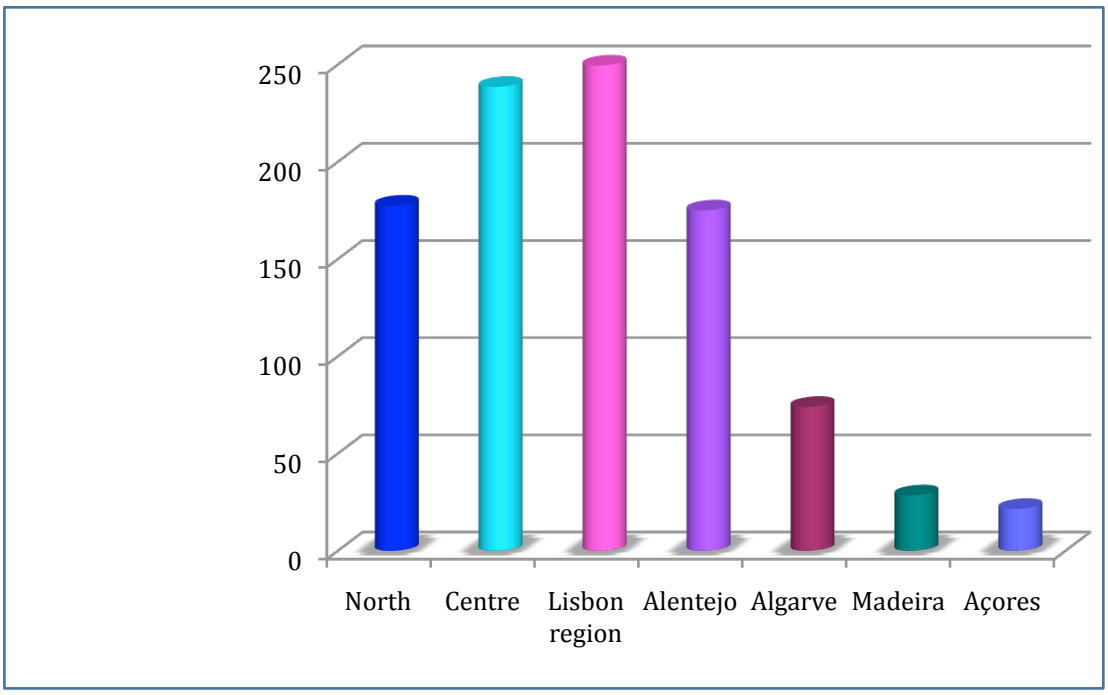

Figure 9. Mean of absolute numbers of suicide by region between 2000-2009.

As highlighted by Bertolote and Fleischman (2004), when comparing data across regions with important demographic differences, it is also useful to analyze the absolute numbers. As indicated in the map the highest suicide rates are in Alentejo however the largest numbers of suicides are found in the Centre and Lisboa region (figure 9).

Suicide is a recognized underreported phenomenon due to the heavy heritage of religious and sociocultural stigmatization and due to failures and difficulties on the suicide registration procedures and practices. It is often related to the possibility of misclassification of suicides as accidental death or event of undetermined cause. This is a common problem of different countries that in Portugal seems to have a particular impact on suicide figures (Chishti et al., 2003; de Castro, et al., 1989; Gusmão & Quintão, 2013; Varnik et al, 2010, 2012). Portugal has been among the EU countries with the highest values of death of undetermined aetiology (Chishti, et al., 2003; Varnick et al., 2010; WHO - MDB, 2013).

At the moment, our country is implementing a new system – the Information System of Death Certification (SICO) – in order to improve the quality of certification procedures of deaths. One of the fundamental goals of the first national suicide prevention plan is to achieve a more accurate characterization of the phenomenon (DGS, 2013). It seems very likely that a certain percentage of deaths recorded as undetermined deaths are in fact deaths by suicide. It is known that between 2001 and 2003 a taskforce of the Directorate-General of Health (DGS) focusing on coding and registration issues resulted in an effective reduction of undetermined deaths and an inverse increase in deaths by suicide.

Figure 10 presents the changes in suicide and undetermined death across thirty-two years in Portugal (standardized rates from WHO – DBM, 2013).

Despite the results of the study of Chishti et al., (2003) that observe a small and not significant correlation between suicide and undetermined death rates in Portugal, in the period 1984-1998, more recent data, extending the years on analysis, show an inverse significant correlation between the two set of rates, in the period ranging from 1980 to 2009 (Gusmão & Quintão, 2013). Expanding the analysis to 2011 and calculating the *Pearson* coefficient we confirm the medium negative correlation found by Gusmão & Quintão (2013) and with a coefficient of determination of 0.23, in other words the variation of undetermined death rates helps to explain about 23% of the variance in suicide rates across the years.

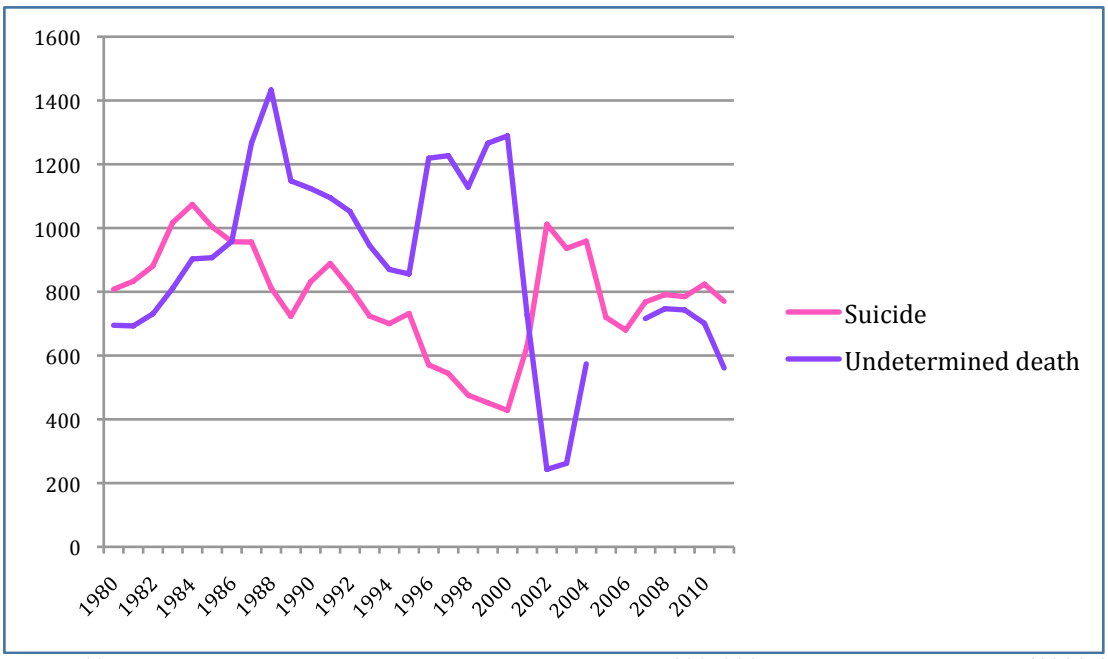

Figure 10. Mortality by suicide and undetermined death per 100 000 inhabitants in Portugal (1980-2011) (WHO - MDB, 2013; note: no data available for 2005 and 2006 of undetermined death).

With regard to **suicide attempts**, it is even more difficult to have an accurate picture of the problem and to have reliable comparisons. The lack of uniform definitions, the absence of standardised inclusion or catch criteria and the unavailability of appropriate national data are the principal reasons for the fact.

The WHO/ EURO multicentre study on attempted suicide, an epidemiological research conducted in several countries from 1989 on, constitutes a landmark in the knowledge of non-fatal suicidal behaviours in Europe (Schmidtke, Bille-Brahe, De Leo, Kerkhof, 2004a).

In contrast to fatal suicide, suicide attempts are more frequent in females than in males and the highest rates were found among younger age groups. One exception was found in the Philippines, where nonfatal suicidal behaviour rate is higher among males (De Leo et al., 2013).

Despite the fact that Portugal did not participate in this international research, a team from Coimbra Hospitals led by Saraiva performed an important epidemiological study from 1994 to 1997, using a methodology similar to the other European participant centres, allowing the comparison of its results with the outcomes of the WHO/ EURO study (Craveiro et al., 1998; Saraiva et al, 1996). The authors observed that Portugal attained one of the first ranks regarding suicide attempt rates, especially in females, as is illustrated in figure 11.

The global person-based attempt suicide rate found in Coimbra, a county which can be considered representative of the country in several socio-demographic characteristics, was 204 per 100 000 inhabitants. The Portuguese suicide attempt rate for females was 270 per 100 000 (Craveiro et al., 1998), while the average European rate was 209 per 100 000 (Schmidtke, et al., 2004b). In the case of males the suicide attempt rates were 126/ 100 000 and 170/ 100 000 in Portugal and in Europe, respectively (Craveiro et al., 1998; Schmidtke, et al., 2004b). The highest female suicide attempt rate in Portugal was found in the group aged under 25 years (about 600/ 100 000), while in males it was in the group aged 30-35 (about 300/ 100 000) (Craveiro et al., 1998).

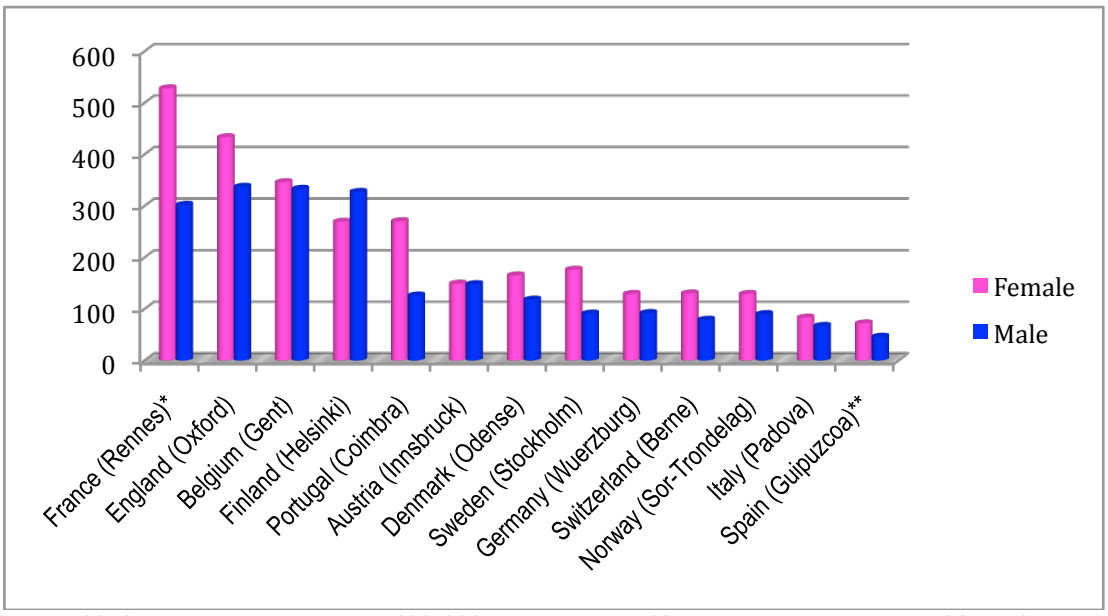

Figure 11. Suicide attempt rate per 100 000 inhabitants in 12 centres included in WHO/EURO study from 1995-1999 and in Portugal (Coimbra) from 1994-1997; * data from 1995- 1998; ** data from 1989-1993.

Some of the centres participating in the WHO/EURO survey withdrew from the study and some other were not included from the beginning. However, considering the total period of the study it is reliable to conclude that the highest suicide attempt rates were observed in England, Belgium and Finland (Schmidtke et al., 2004b). France participating through three catchment areas - Bordeaux, Cergy-Pointoise and Rennes – is also placed at the top of the ranking showing high suicide attempt rates, mainly in females (Bille-Brahe et al., 1996; Batt, Eudier, Phillipe & Pommereau, 2004). The lowest rates were found in Italy, Spain and Turkey (Ankara) (Bille-Brahe et al., 1996; Schmidtke et al., 2004b).

Literature reports that after a first suicide attempt there is a high probability of repetition as well as an increased risk of fatal self-injury (e.g. Groholt & Ekeberg, 2009; Kerkhof & Arensman, 2004; Owens, Horrocks & House, 2002), highlighting the great importance of health professionals providing adequate interventions after a suicide attempt. Psychological autopsy studies allow concluding that up to 44% of those who died by suicide had already had previous suicidal behaviours (Kerkhof & Arensman, 2004).

Studies dedicated to the prevalence, timing and kind of contact with health services and to the treatment received before a potential and after a suicidal behaviour showed that at the time of the suicide attempt a high percentage of individuals was receiving health care (Fekete, Osvath & Michel, 2004; Groholt & Ekeberg, 2009; Haw, Houston, Townsend & Hawton, 2002; Suominen, Isometsa, Martunnen, Ostamo & Lonnqvist, 2004; Suominen, Isometsa, Ostamo & Lonnqvist, 2002). For example, among depressed individuals about 70% was in contact with psychiatric services or with general practitioner due to mental health problems before the suicide attempt (Haw et al., 2002).

With regard to the help provided after a suicide attempt studies concluded that despite the fact that the majority of attempters was referred to psychiatric care or long-term support, levels of compliance were low and insufficient to an effective intervention (Groholt & Ekeberg, 2009; Haw et al., 2002).

Moreover, review studies of psychological autopsies and studies that used medical and medical-legal registers show the rates of contact with health professionals of individuals before they died by suicide. In a review of forty studies Luoma, Martin and Pearson (2002), concluded that 20% of those individuals had contacted mental health services and 45% primary health care the month before their fatal act, while Andersen, Andersen, Rosholm and Gram (2000) found that 66% had contacted a general physician and 7-13% had visited the hospital. In a previous systematic review the results reveal that for 20% of the deceased the last contact with a general physician was the day before their death (Pirkis & Burgis, 1998). In a recent Slovenian study the authors found that 39% of the individuals had had an appointment with their general physician the month before their suicide (Rodi, Rorkar & Marusic, 2010). Table 1 systematizes data about the contact with health services before suicide in the general population.

Table 1 Contact with health professionals before suicide

Time	Luoma et al., 2002		Pirkis & Burgess, 1998			Andersen et al., 2002		Rodi et al., 2010
	Mental health services	Primary care services	Hospital inpatient	Community psychiatric care	General physician	General and psychiatric hospital	General physician	General physician
Year before	33%	75%	41%	11%	83%			
Month before	20%	45%				7-13%	66%	39%
Week before								18%
Day before			9%	4%	20%			

The rates of contact with health professionals of the elderly and people with mental illness before suicide are higher than those of the general population: about 50% of elderly suicidal people visited a physician in the week preceding suicide (Juurrlink, Herrmann, Szalai, Kopp & Redelmeier, 2004) and more than 30% of individuals with mental illness was seen by a health professional between one and four weeks before the suicide (Pearson et al., 2009).

Additionally it is known that the health professionals most sought by Portuguese people who seek help due to a psychological or emotional problem are general practitioners, followed by psychiatrists and then by psychologists (Eurobarometer, 2006, 2010). According to the last data available for Portugal, out of the 21% who sought professional help, the majority (81%) received treatment from a general practitioner, 14% sought help from a psychiatrist and 10% from a psychologist (Eurobarometer, 2010).

The European picture is similar but with the difference that in many countries the pharmacists also assume a relevant role (Eurobarometer, 2006, 2010).

This PhD research is focused on health professionals, concretely in psychologists, psychiatrists and general practitioners who deal or have a high probability of dealing with suicidal behaviour in clinical practice.

Suicide and suicide attempt are a serious public health problem with great economical and psychosocial costs (McDaid et al., 2010; Yang & Lester, 2007). In addition suicidal behaviours pose a major challenge to health professionals due to their multiplicity of probable causes and limited predictability (Hawton & van Heeringen, 2009). The contact of people at risk of suicidal behaviours with health professionals is a

necessary but not sufficient condition to provide appropriate help and treatment. The data about the contact of suicidal individuals with health professionals can be interpreted as a loss of opportunities to prevent suicidal behaviours and it indicates the existence of health professionals' barriers to an effective intervention with suicidal patients (Goldsmith, Pellmar, Kleinman, & Bunney, 2002; Scheerder, 2009), as approached in sections 5 and 6 of this thesis.

II - Explaining the problem

3. Theories and models of suicidal behaviours

There is no substitute for theory in research (Leenaars et al, 1997, p. 139).

In the 14th European Symposium of suicide and suicidal behaviours of International Association of Suicide Prevention (ESSSB14, 2012) international top experts from different approaches claimed the need for research investment in the development of explanatory models.

The study of suicidal behaviours has been approached from a wide spectrum of theoretical perspectives and models, ranging from macro perspectives (sociological theories) to micro perspectives (biological studies), and across psychological approaches.

Although the knowledge about risk factors is substantially greater now than half a century ago, identifying risk factors of suicidal behaviour is not the same as explaining this behaviour (Diekstra, 2002). Generally speaking, a bio-psycho-social theory that explains suicidal behavior does not exist yet. Actually, despite the large scientific production in suicidology there is no universally accepted explanatory theory of suicide and one may never be achieved, due to the nature of suicidal behaviour. With regard to this, Shneidman (1987) states that the effort for universal formulation for all suicides is a chimera.

Throughout the last decades, since Durkheim (1897/ 2005) or Freud (1917/ 1957) respectively the fathers of sociological and psychodynamic approaches of suicidality, a diversity of explanatory theories has been developed. And especially since the birth of contemporary suicidology by the psychologists Shneidman and

Farberow these theories have been revised and adapted and new explanatory models were developed through evidence-based knowledge.

The recognition of multidimensionality is a common ground in current suicidology. Different contemporary models built in order to develop an integrative theory, incorporate the interaction of sociological, psychological and biological variables in the aetiology of suicide. However the key factors vary among models with implications for prevention.

The main concepts of the three broad perspectives - sociological, psychological and biological - are briefly described below. Seven integrative models are shortly explained and depicted through images (specifically developed for this thesis or by their original authors, when available).

Sociological perspectives claim that social factors prevail over individuals' characteristics in the genesis of suicide. Durkheim (1897/2005), the founder of this approach, defended that suicide rate was determined by the levels of social integration and regulation. The social integration is the connection to social networks and the social relationships, which link the individual to the group. The social regulation corresponds to the normative values and social rules required to belong to a social group. Very high or very low levels of these two social dimensions would increase suicide rate. Based on these two social concepts Durkheim established a typology with four types of suicide – egoistic, altruistic, anomic and fatalistic - that became the most visible contribution of this French sociologist for the study of suicidal behaviours. The egoistic and altruistic suicides are on the integration axis, the former correspond to situations of prevailing individualism with low levels of integration into society. The latter is situated at the opposite pole, ie, there is no place for the statement of individuality and an excessive integration in community exists. Anomic and fatalistic suicides, in turn, are on the social regulation axis. Anomic suicides are situated on the pole of lack of rules, crisis and instability moments. Instead, fatalistic suicides are situated in an overregulated environment that removes the subject's autonomy (e.g., prisons and other total institutions).

Sociological literature shows that for several years Durkheim's theory was not subjected to major changes (e.g. Halbwachs, 1930/ 1978; Maris, Berman, Silverman, 2000; Stack 1982, 2000a, b). However diverse authors that followed Durkheim's work introduced some discontinuities. Halbwachs (1930/ 1978), reproducing the statistical study of Durkheim introduced the need of articulation between social factors and

stated that the genesis of suicidal behaviour can be found both in organic disorders (analysing mental illness and alcoholism) or in ruptures in social stability (analysing the economic and political crises). Henry and Short (1954 in Crepet, 2000, Maris et al., 2000, Shneidman, 1987) added the psychological and idiosyncratic notions to the central social dimension. Gibbs and Martin (1964 in Maris et al, 2000, Shneidman, 1987) stressed the importance of empiricism in the social study of suicide, trying to achieve an operational definition of social integration. But the major break with Durkheim was performed by Douglas in *The social meaning of suicide* (1967). Douglas's work can be summarized in four main ideas: suicide has many different meanings; official statistics (e.g. suicide rates) are unreliable; the best way to study suicide is to observe suicidal individuals (their statements and behaviours) and it is not possible to predict suicide in abstract collective terms (Maris et al, 2000).

Maris's work is another landmark, expanding both sociological suicidology, particularly in *Pathways to suicide* (1981), and his own work attempting to create an integrative model (cf. *Interdisciplinary causal model* p. 32-33). Maris (1981) established four types of variables for setting up a systematic theory: biological factors, personality factors, social context and *temporality*, which corresponds to the idea of *suicide developmentally*, which was conceptualized as the notion of suicide careers. The author used a systematic sample of survivors, a control group, explored new social variables, such as religion, thereby launching the sociological theories into a new period of development and upgrading.

Current sociological empirical research advocates relations between suicide and several indicators of social integration or regulation such as: religious networks (e.g. Pescosolido, 1990; Stack & Lester, 1991; Wray, Colen & Pescosolido, 2011), marital status (e.g. Stack, 2000b; Wray, et al., 2011), emigration and to belonging to ethno racial subgroups (e.g. Maris, 2000) and unemployment and economical crisis (e.g. Luo, Florence, Quispe-Agnoli, Ouyang, & Crosby, 2011; Noh, 2009; Platt, 1984; Stuckler, Basu, Suhrcke, Coutts & Mckee 2009; Walsh & Walsh, 2011). The study of socio-economical factors as potential determinants of suicidal behaviours was revitalized by the international economic crisis of 2008, which has been promoting a fruitful, even though not conclusive, scientific debate involving national authors about the association between unemployment and suicide and its potential moderator or mediator variables. On this subject, we would like to highlight the recent exchange of letters in the scientific journal *Lancet* between Karanikolos,

Rechel, Stuckler and McKee (2013) and Ayuso-Mateos, Barros and Gusmão (2013), among others suicidologists.

Another research line, mostly disclosed by Phillips (1974) known as the Werther effect studies, puts the core of suicidal behaviours' explanations on social copycat and on the influence of mass media, contradicting Durkheim's idea that suicides are not contagious or imitative. This research area constitutes one of the most fruitful contributions of research on suicide and yielded consistent results about the effects of suicide media report on fatal suicide and other suicidal behaviours and generated evidence based prevention recommendations for the media (cf. section 4, p. 40-41). For an overview of "classical" studies see e.g. Crepet (2002), Saraiva (1999, p. 37-38) or Rothes (2006, p. 45-52) and for more references see the reviews carried out by Gould (2001) or by Pirkis and Blood (2001a,b), in which the authors respectively summarize the results of seventy-one and seventy-six previous studies stating that the existence of suicide contagion is well-established. In these reviews both news reports of nonfictional suicides and fictional suicide stories were used, including the pioneer study of newspaper reports of Motto (1967), Philips' works (e.g. Philips 1974; Phillips & Carstensen 1988), the famous study in the subway of Viena (Etzersdorfer & Sonneck, 1998; Sonneck, Etzersdorfer, & Nagel-Kuess 1994), among others. Gould (2001), a North American psychiatrist advises that further research should focus on distinguishing which specific elements contribute to contagion and which can be useful for prevention; the latter was recently named as *Papageno effect* in a study about the potential positive effects of media in the prevention of suicidal behaviours (Niederkrotenthaler et al., 2010 a, b) (cf. section 4, p. 40-41).

Psychological perspectives propose that the genesis of suicidal behaviour can be found on cognitive processes and affective states. Even though Freud has not directly written about the topic of suicide, he is considered the father of psychological explanations putting the essence of suicide in the mind. Within psychological models we found three main approaches, which correspond to the three major schools of psychology: the psychodynamic, the cognitive and the systemic one.

For psychodynamic explanations, suicide is related to the intrapsychic substrate and is sign of an unconscious conflict or of problems in the developmental phase of separation-individualization. The original main psychodynamic assertion about suicide was that the aggressive and hostile side turns itself against the

internalized person when the frustration and ambivalence of the identification with the objects of their own love are present (Shneidamn, 2001). Contemporary psychoanalysis enlarges its view beyond hostility factor, including in the predisposing factors rage, guilt, anxiety, dependency and feeling of abandonment among others (Shneidman, 2001). Suicide also can result from pathology. Freud has not developed a specific theory of suicide, however he developed the conceptual bases of the psychodynamic perspective on suicide, concretely, through the death instinct concept. In what is considered a landmark work in the field of psychodynamic perspective of suicidal behaviours, Karl Menninger (1933, 1938), using Freud's concept of death instinct, defends that the existence of a strong self- destruction tendency is part of every human being. These trends give rise to suicidal behaviours when facing specific factors and circumstances. Menninger (1938) argues that suicide includes three components: the desire to kill, the desire to be killed and the death wish and the author distinguishes three types of suicide: chronic, focal and organic. Zilboorg (1936, 1937, 1996) is another author who expanded the psychoanalytic perspective, adding to the unconscious hostility the incapacity to love the others, stating that in the genesis of suicide there are both intrapsychic and external components. As stated by Hendin (1991) the meanings of suicide should be classified according to the conscious and unconscious meanings given to death by the suicidal individual: death as reunion, death as rebirth, death as retaliatory abandonment, death as revenge and death as self-punishment or atonement.

The cognitive authors value the meanings that individuals assign to the events and to the environment. Within the cognitive perspective there are 3 main explanations for suicidal behaviours: (1) the ones that advocate hopelessness as a mediator variable between depression and suicide (e.g. MacLeod et al., 2005; Minkoff, Bergman, Beck, & Beck, 1973; O'Connor, O'Connor, O'Connor, Smallwood, & Miles, 2004; Saraiva 1999, 2010); (2) the ones focused on coping processes and problem-solving skills (e.g., Pollock and Williams, 1998; Saraiva 1999, 2010; Williams, Barnhofer, Crane, & Beck 2005) and (3) the ones that put the dichotomous thinking or other cognitive distortions in the genesis of suicide (e.g., Litinsky & Haslam, 1998; Neuringer, 1965, 1974; Saraiva 1999, 2010).

Systemic theories emphasise relations between suicidal behaviours and family problems, such as role conflicts and blurring of boundaries, dysfunctional relationships, destructive family interaction, family rigidity or family tension and dysfunctional family communication (e.g. Carris, Sheeber, & Howe, 1998; Frazão,

Santos, & Sampaio, 2014; Johnson, Brent, Bridge, & Connolly, 1998; Orbach, 1989, 2007; Richman, 1979; Sampaio, 2002; Santos, Saraiva, & Sousa, 2009)

Aldridge (1984) reviewed a set of studies about suicidal behaviours in the context of the family. The author identified 8 major family characteristics: (1) marked hostility, (2) role disturbance and role failure (3) escalation of conflict towards developmental family changes or family life-cycle transitions, (4) a very close relationship between partners without individual autonomy, (5) intolerance of crisis, (6) relationship between the management of crises, family conflict and family organization, (7) suicidal behaviour as way of communication and (8) a family tradition of crisis management by symptoms.

Santos (2007) through an empirical work with Portuguese families of suicide attempters focusing on expressed emotion found an emotional over-involvement, a greater criticism and hostility in these families, concluding that expressed emotion can be a useful predictor of recurrent suicidal behaviours.

Biological theories focus on the existence of a biological basis for the suicidal behaviours and it was Asberg that initiated this research line in the seventies (Asberg, Träskman & Thorén, 1977). In addition to the biological susceptibility, which is behind the psychopathology (claimed as being present in about 90% of suicides), suicide requires some neurobiological additional predisposition. The biological perspective includes an extensive set of studies involving neurotransmitter and neuroendocrine studies, genetic research (twins and adoptive studies), aggression and alcohol studies and the use of several methods and techniques, such as analyses of cerebrospinal fluid, blood, urine, postmortem brain tissues, imaging and radiological procedures (e.g. Maris, 2002). Both post-mortem brain studies (e.g. Asberg, Träskman & Thorén, 1976, 1997; Arango, et al., 2001) and more recent studies - in vivo brain imaging studies (e.g. Van Heeringen, Bijttebier, Godfrin, 2011) have been accumulating scientific evidence of an association between structural or functional brain characteristics and suicidal behaviour. Genetic studies using twins and adoptive studies have been providing support for a genetic influence on suicidal behaviour, even if sample size is a traditional problem in these studies (e.g. Roy, Segal, Centerwall, & Robinette, 1991). Genetic tendencies or mutations and biochemical changes, especially in the serotonin system but also in others neurotransmitters (noradrenaline, adrenaline and dopamine systems) and in the neurotrophins have been the bases of the association between biological characteristics and suicidal behaviour (e.g., Arango, et al., 2001; Asberg, et

al., 1976, 1997; Mann, 2002, 2005; Maris 2002; Saraiva, 1999, 2010; van Heeringer, Bijttebier, Godfrin, 2011; van Heeringer Godfrin & Bijttebier, 2011).

With regard to psychopathology empirical evidences have been collected along the years about the association between suicide and the presence of mental disorder (e.g. Bertolote, Fleischmann, De Leo & Wasserman, 2004; Cavanagh, Carson, Sharpe & Lawrie, 2003; Costa-Santos, 1999; Jamison & Hawton 2005; Vijayakumar, Nagaraj & John, 2004). In a systematic review on psychological autopsy studies, Cavanagh et al. (2003) revealed that the percentage of suicides with mental disorder ranges between 88% and 95%. In the review of studies of Bertolote et al. (2004) mostly from Europe and the US, the percentage of suicides with a diagnosis of mental disorder achieves 98%. In a work about suicide and its prevention in developing countries Vijayakumar et al. (2004) found that 60 to 80% of people who died by suicide had a mental illness. In a Portuguese sample of 431 suicides mental disease was found in 66% of the post-mortem examined (Costa-Santos, 1999).

Some theoretical and methodological limitations have been pointed out regarding psychological autopsies raising doubts about these high percentages of psychopathology (Bertolote et al., 2004; Cutcliffe & Santos, 2012; Hemjland, Dieserud, Dyregrov, Knizek, & Leenaars, 2012; Pouliot & De Leo, 2006).
Biological approaches are made in laboratories but should be applicable to clinic. Thus it is fundamental to integrate these data into a broader integrative perspective.

Next the key elements of seven integrative models are described. Four of the models emphasize the psychological processes of suicidal behaviour, one of them integrates and emphasizes the biological vulnerabilities and the other two are broad models that support multifaceted and multilevel answers to the problem.

3.1 *Cubic model* (Shneidman, 1985, 1987)

Based on the logic of living systems theory and on the Murray's theory of personality, a framework about basic psychological needs of human being, Shneidman developed the Cubic theory of suicide, graphically represented by a cube made up of 25 mini cubes on each plan (5 squares in each row and in each column) (figure 12). The three visible plans (top, front and side) represent the fundamental components of suicide:

press (pressure), pain and perturbation, being suicide the final result of the combination of a maximum of pain, perturbation and pressure. In this broad cube there is only one unit - the filled one that represents suicide and corresponding to these three maximums (with coordinates 5 5 5) (Shneidman, 1987).

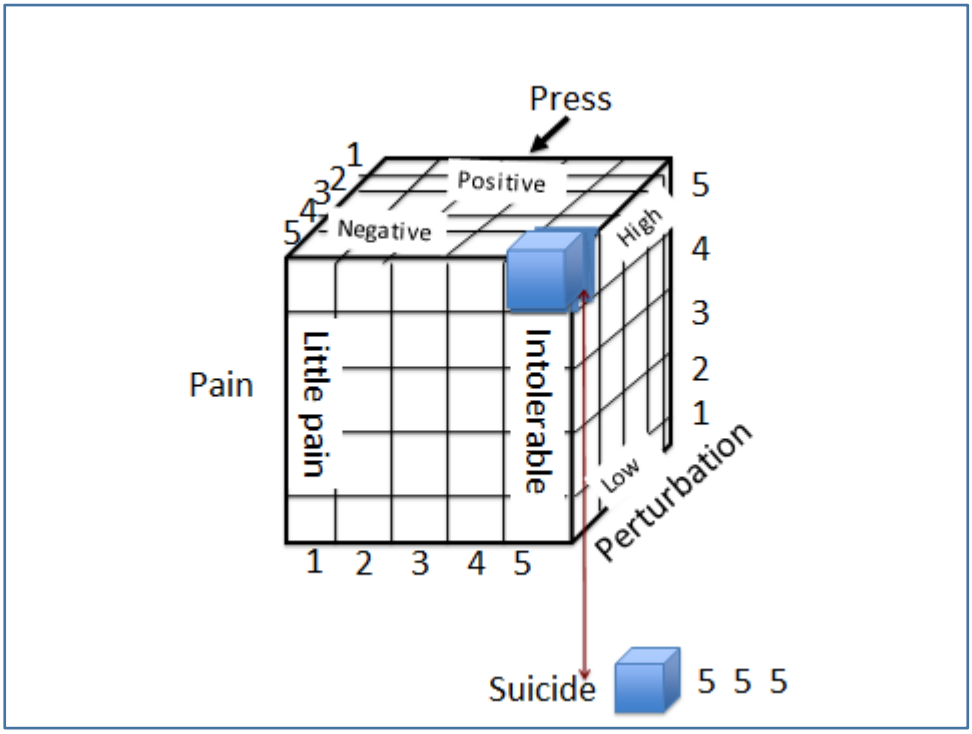

Figure 12. Cubic model of Suicide (Shneidman, 1987, p.175).

Press refers to the features from internal and external environment that affect the individual, inducing personal reactions. Negative press is related to suicide and can be factual or perceived (e.g. being rejected or humiliated; the loss of a loved one; diagnosed disease; powerlessness or even success). Pain corresponds to psychological pain resulting from psychological needs that were not satisfied. In the image, pain is progressive from left to right, little pain to intolerable pain, later on called *psychache*, a new term coined by Shneidman (1993). The author stresses that some psychological needs are particularly related to suicide (the need for achievement, autonomy, recognition and avoidance of humiliation, shame and pain) and gives an important statement for intervention: repaired thwarted needs will result in the recovery of the motivation to live (Shneidman, 1987).

Perturbation refers to both the reduction of the individual's perceptual and cognitive range and the tendency or the precipitation to self-destruction. Perturbation includes constriction of thought and perception with the options field circumscribed to two (dichotomous thinking) that at the worst scenario evolve to one option.

Although Shneidman stressed that the three features - pressure, pain and perturbation - are strictly interrelated and, in some way, overlapping (in the sense that, for example, pain is part of perturbation or pain and perturbation is a kind of pressure), the author defends that pain is the central aspect in suicide and consequently the key to prevention is to reduce this psychological pain.

Another important contribution of Shneidman was what he named by commonalities of suicide (1985, 1987). He suggested the study of the most frequent or common characteristics and identified ten common psychological characteristics, including ambivalence as the common cognitive state in suicide, an absolutely critical factor in clinical prevention (cf. section 1, p. 2-6). The commonalities of suicide identified by Shneidman[2] and the examples used to describe them through patients' direct speech can be very useful for the education of health professionals, concretely to help clinicians to understand and to look for each suicidal person as a unique and idiosyncratic case.

3.2. *Para-suicide model* (Saraiva, 1999)

Saraiva's model (Figure 13) is based on empirical data from a study with 165 suicide attempters. The author intersects neurophysiologic, cognitive and social factors to explain differences between suicide attempters with few attempts (one or two) (designated by "*non-recurrent*") and many attempts (three or more) (named by "*major-recurrent"*) and the eventual pathway to suicide. Saraiva's model could be renamed by rejection-escape model. According to this model the core of all suicidal behaviours is rejection, reflecting an affective disorder. Escape is also a common feature, however there are four different types of escape according to specificities of the suicidal behaviour: (1) the circular escape, corresponding to *non-recurrent* suicidal attempters, (2) the elliptic escape, to those who had three or more suicide attempts (*major-recurrents*); (3) the parabolic escape relating to the religious or sacrificial suicide and (4) the linear escape to completed suicides. Hostility is another central aspect of the model. In *non-recurrents*, hostility seems to reflect an

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2

1. The common purpose of suicide is to seek a solution
2. The common goal of suicide is the cessation of consciousness
3. The common stimulus in suicide is intolerable psychological pain
4. The common stressor in suicide is frustrated psychological needs
5. The common emotion in suicide is hopelessness-helplessness
6. The common cognitive state in suicide is ambivalence
7. The common perceptual state in suicide is constriction
8. The common action in suicide is egression (the action of going out or leaving a place)
9. The common interpersonal act in suicide is communication of intention
10. The common consistency in suicide is with life-long coping patterns (Shneidman, 1987, p. 167)

interpersonal and intermittent conflict while in the *major-recurrents* hostility seems to express a personal and permanent anguish.

The emotional threatening felt by the non-recurrents originates the feeling of revolt/ refusal. A severe but intermittent rejection originates what Saraiva called by *appeal-interpersonal hostility complex*, which in turn leads to *circular escape*, an escape that intends to achieve a change – the recovery of the lost or threatened emotional role and power. The feeling of abandonment and a persistent rejection are associated to the *major-recurrents*, generating the repeated *appeal- general hostility complex* and the subsequent *elliptic escape*, claiming a change in life as outcome.

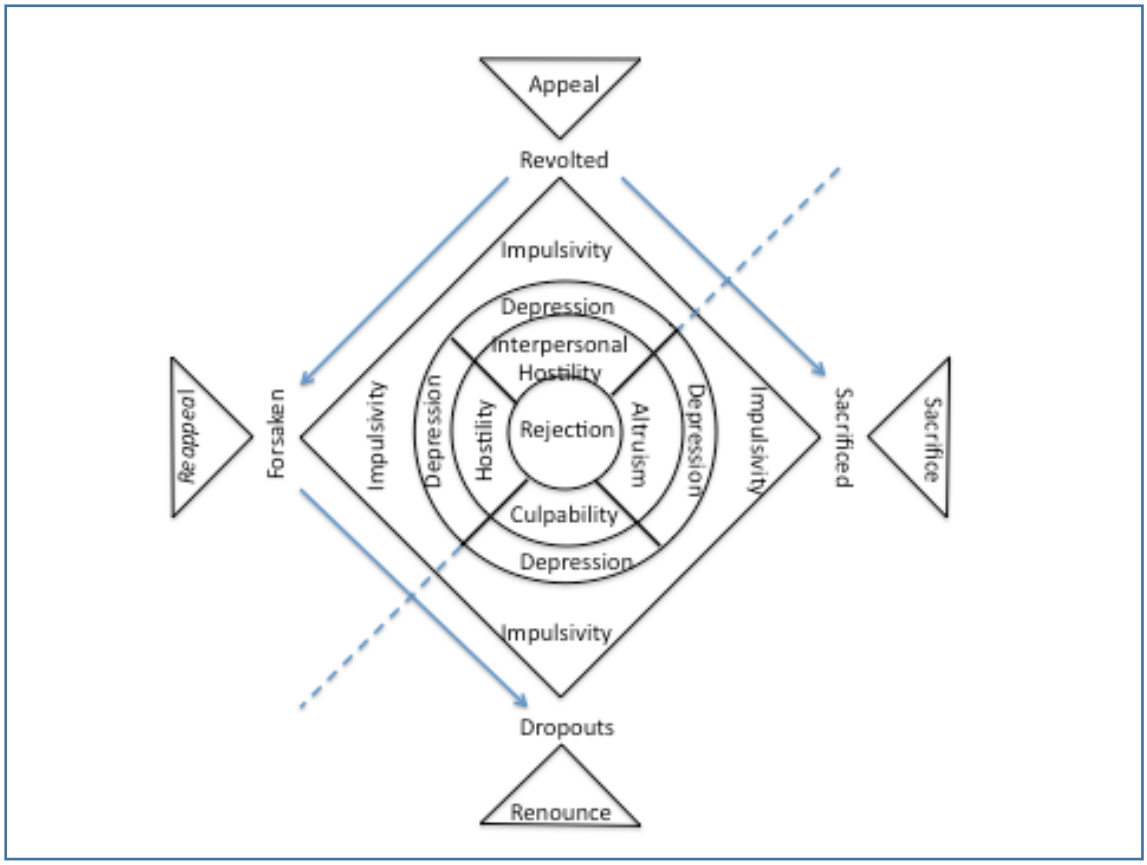


Figure 13. Saraiva's model of parasuicide (Saraiva, 1999, p. 312).

The two finite lines (circle and ellipse) represent outcomes in life (the finitude of life); the infinite lines - parabola and line - correspond to death, altruistic suicide and suicide respectively. The sacrificial suicide is associated to a desire to change the ones left behind. Suicide is associated to culpability and to a desire of a distant escape. Depression and impulsivity are also common features. According to this model depression

arises associated to serious social problems. Impulsivity derived from hostility is the trigger to all suicidal behaviour.

3.3. *Interpersonal-psychological model* (Joiner, 2005)

The interpersonal–psychological theory of suicidal behaviour (Joiner, 2005) highlights the key difference between suicidal ideation and suicidal behaviour. Joiner's theory posits the interplay between three fundamental constructs in the genesis of suicidal behaviour: belonging sense, burdensomeness and fearlessness of death or physical pain (Joiner, 2005; Ribeiro & Joiner, 2009, 2011). Specifically, the model proposes that suicidal ideation as desire for suicide (which is different from suicidal behaviour) results from the interaction of two perceived psychological states: (1) the belonging sense and (2) the feeling of being a burden to others – burdensomeness. Each of these states can independently produce the desire for suicide, however the interaction of both increases this probability (figure 14).

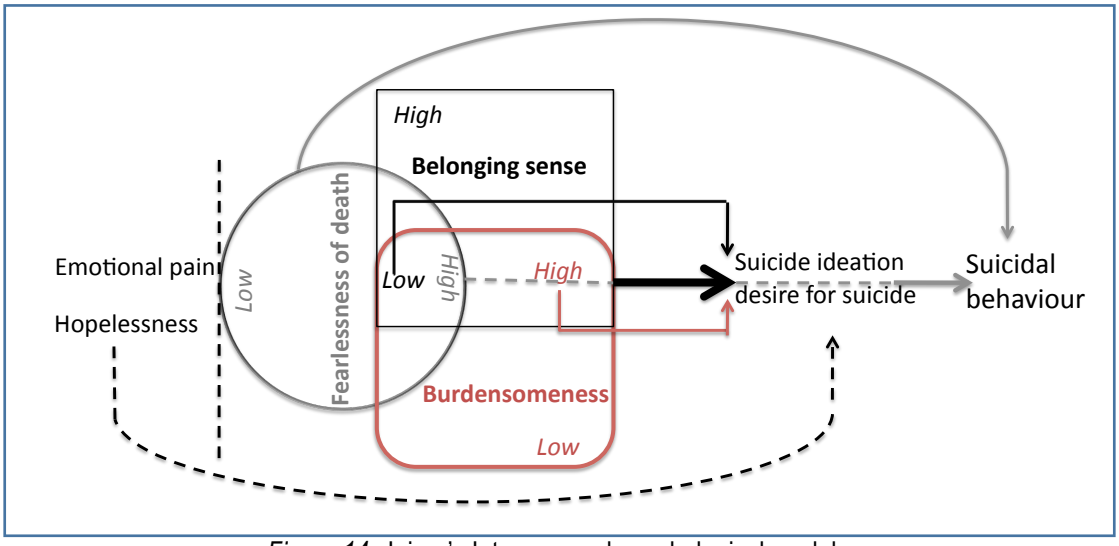


Figure 14. Joiner's Interpersonal-psychological model.

According to this model a low belonging sense and a high burdensomeness are the mediators between emotional pain and hopelessness, considered more general categories, and a desire to die or suicidal ideation. (3) The third construct is learned fearlessness about physical pain, physical injury, and death. This acquired capability explains the path from severe suicidal ideation to suicidal behaviour. This concept of the acquisition of the ability to engage in lethal self-injury of Joiner's model explains the higher suicide risk of recurrent suicide attempters and of those who engage in NSSI behaviours.

3.4. *Integrated motivational-volitional model* (O'Connor, 2011)

The Integrated Motivational–Volitional (IMV) Model of Suicidal Behaviour put forward by O' Connor (2011) is a three-phase model (figure 15) that incorporates principal components from different models of suicidal behaviour considered predominant by the author (e.g. cubic model of suicide by Shneidman, 1985; clinical model of Mann, 1999; interpersonal-psychological model of Joiner, 2005). The IMV model intends to make differential predictions of suicide ideation and intention and suicidal behaviour. The model distinguishes suicide *ideators* and suicide attempters.

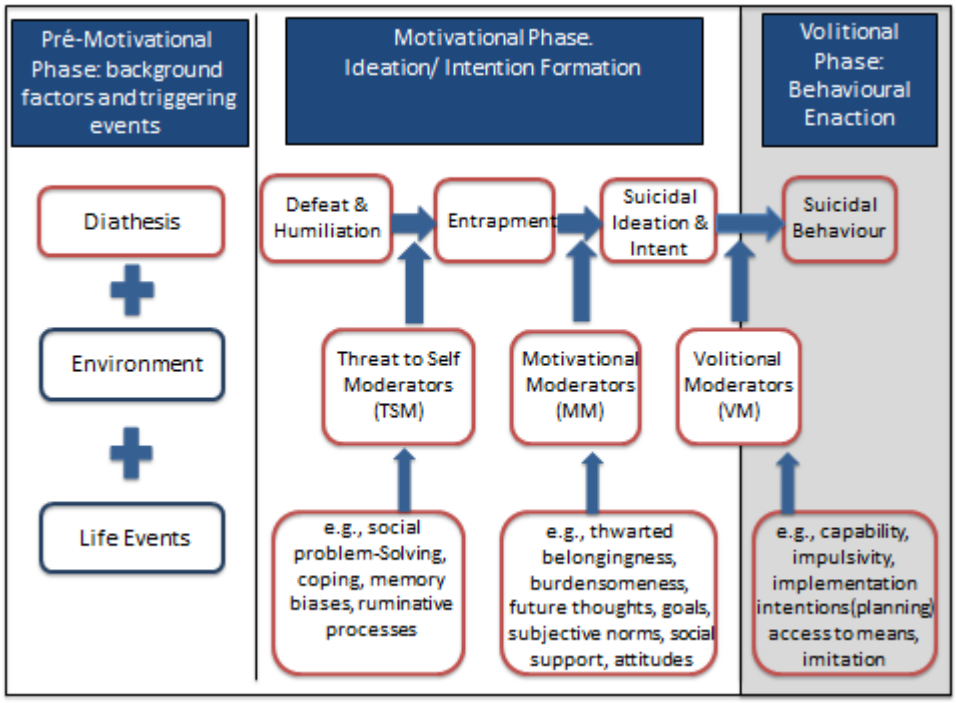


Figure 15. Integrated motivational-volitional model (O'Connor, 2011, p. 184, figure 11.1).

Suicidal behaviour results from a complex interaction of factors, in which suicidal intention is the proximal predictor. In turn, suicidal ideation results from the feeling of entrapment and the view that suicide is the solution to a life situation. Perceptions of defeat and/ or humiliations are on the basis of the feeling of entrapment. The transitions between stages (from defeat/ humiliation to feelings of entrapment; from entrapment to suicidal intent; from ideation to suicidal behaviour) are determined by moderators, specifically by threat to self-moderators (e.g. social problem solving), motivational moderators (e.g. thwarted belongingness, burdensomeness) and volitional moderators (e.g. impulsivity, access to means), respectively.

3.5. *Diathesis-stress model* (Schotte e Clum, 1987; Mann, 2002; Van Heeringer, 2004)

The stress-diathesis model (Figure 16) was originally developed in the scope of cognitive approach, in which vulnerability corresponds to a cognitive deficit in problem solving or cognitive rigidity (e.g. Schotte & Clum, 1982, 1987). Later on the diathesis concept was extended to other psychological and biological features.

According to the current stress-diathesis model suicide is the result of an interaction of trait-dependent and state-dependent characteristics (e.g. Hawton & Van Heeringer, 2009; Mann, 2002; Mann, Waternaux, Haas, & Malone, 1999; Van Heeringen, Portzky, & Audenaert, 2004; Wasserman, 2001). Trait-dependent factors involving biological and psychological characteristics can be explained as a vulnerability or predisposition (diathesis) for suicidal behaviour.

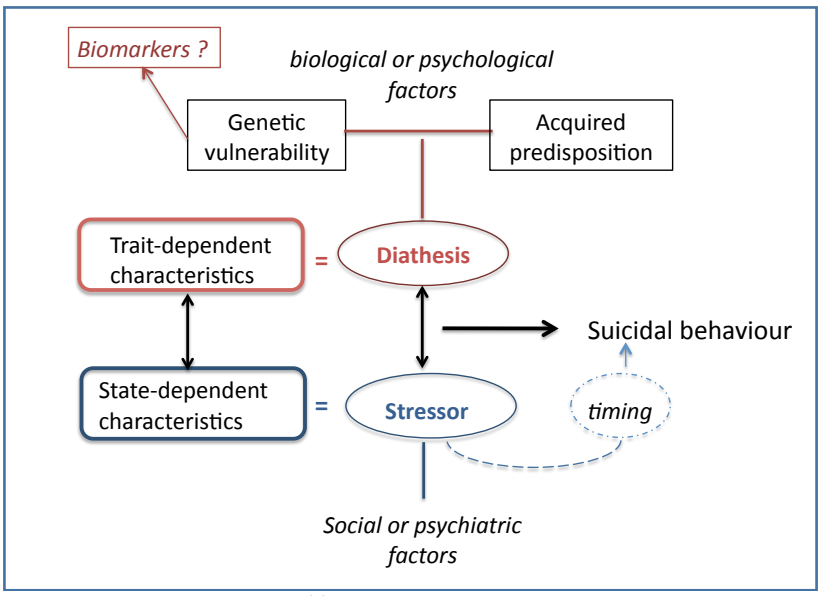


Figure 16. Diathesis-stress model.

State-dependent characteristics including social or psychiatric features, for example, correspond to stressor-induced factors and determine the timing of the suicidal act. Diathesis or constitutional predisposition can result from the genetic constitution or from an acquired predisposition. Under the framework of the stress-diathesis model, neuropsychological studies of suicidal behaviour have been proposing a causal relation between brain functioning and suicidal behaviours, identifying potential biomarkers. Namely, deficits in attention, memory, fluency, mental flexibility, problem solving and decision-making have been identified as vulnerabilities for suicidal behaviours (van Heeringen, Godfrin & Bijttebier, 2011). According to this conceptualization of suicidal behaviours, prevention may depend on the capacity to change specific

characteristics of the brain. Nevertheless, results from different studies are only partially in accordance. Several methodological limitations hamper conclusions and further research is needed (van Heeringen et al., 2011). And thus, the success of prevention strategies is far from being dependent on biological advances and brain studies outcomes.

3.6. *Interdisciplinary causal model* (Maris, 1981, 1992)

According to the multivariate interdisciplinary causal model of Maris depicted in Figure 17, the aetiology of suicide includes four overlapping domains: (1) psychiatry including diagnosis; (2) biology, family history, genetics and neurochemistry; (3) psychology, personality and (4) sociology, economics and culture (Maris, Berman, Maltsberger, & Yufit, 1992).

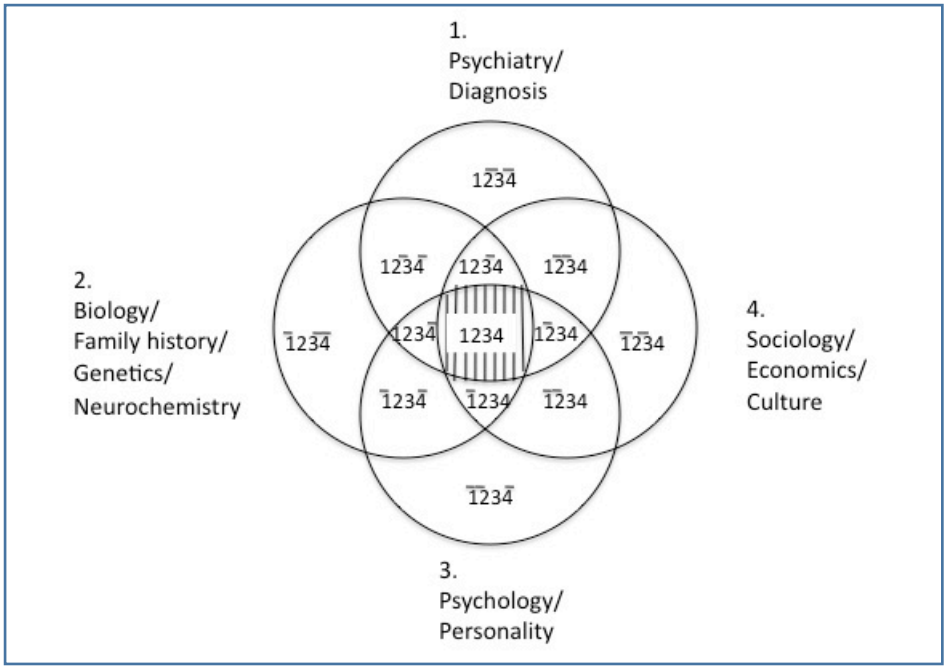


Figure 17. Multivariate interdisciplinary causal model for suicide. *A bar over a number indicates that this number is not a factor in a particular section of the diagram* (Maris et al., 1992, p. 645, figure 32.1).

Each domain contains several predictors of suicide. For instance, the first domain includes major depressive episodes, the second one comprises, for example, low brain serotonin and suicide in the family. The psychology and personality domain contains cognitive rigidity and hopelessness among its predictors. Finally, the fourth domain includes for example, opportunity of means (e.g. gun availability) and negative life events.

Maris' interdisciplinary model states that the most common suicides are determined by an overlap of the four domains (as illustrated in the figure 17 by the set 1234, at the centre), but several other combinations are possible including one single domain determining particular cases of suicide. Maris also explains that variables are not exclusive of one domain and claims the importance of taking the lifespan into account, using the concept of suicidal career. The author also stresses that lot of interactions between variables remain uncharted (Maris et al., 1992).

Maris unfolds his Venn diagram to a more complex and completed plan scheme named general model of suicidal behaviours, where the suicidal career concept and suicidal behaviours intervention/ prevention are included (Maris et al., 1992; Maris 2002) (figure 18).

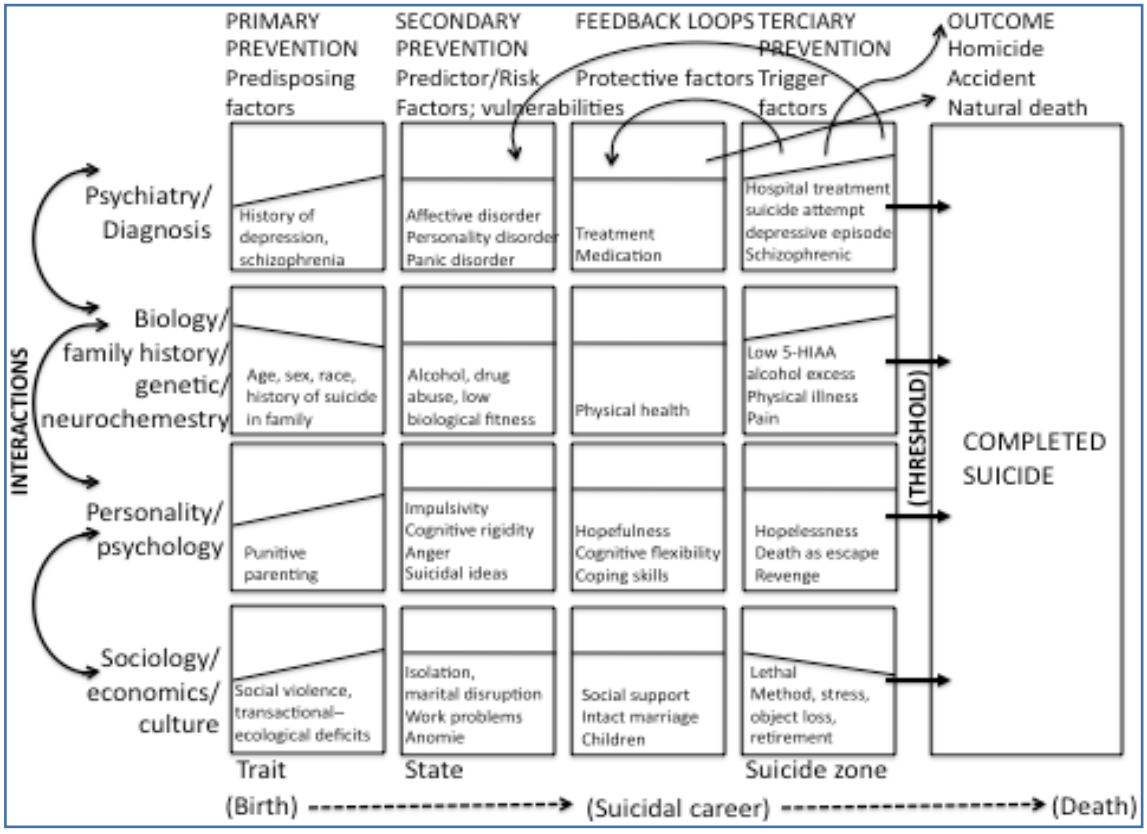


Figure 18. General model of suicidal behaviours (Maris, 1992, p. 668, fig. 32.3).

3.7. *Ecological human model* (e.g. Henry et. al., 1994, WHO, 1998)

Bronfenbrenner's ecological systems theory (1979) applied to the suicidal behaviours is another attempt to create an integrated model. The human ecological theory provides a multidisciplinary approach, in which risk factors related to suicidal behaviours are examined at six different interacting levels or systems: individual system, microsystem, mesosystem, exosystem, macrosystem and chronosystem, depicted through the

adaptation of the well-known image of the ecological human system (figure 19). This model has been mainly applied to adolescent suicidal behaviours (e.g. Henry, Stephenson, Hanson & Hargett, 1994; Perkins & Hartless 2002). Suicidal behaviours result from independent but interrelated factors, including elements from the individual system, the immediate environmental system and social and cultural systems. Based on empirical studies various demographic and psychological characteristics were indicated as individual level predictors (e.g. depression, feelings of hopelessness, sense of personal inadequacy). At the microsystem level, family factors have been the main research focus (e.g. loss of a family member; suicide attempts in family history; inadequate interaction patterns and problems in family communication; divorce; being abused or neglected, among several others).

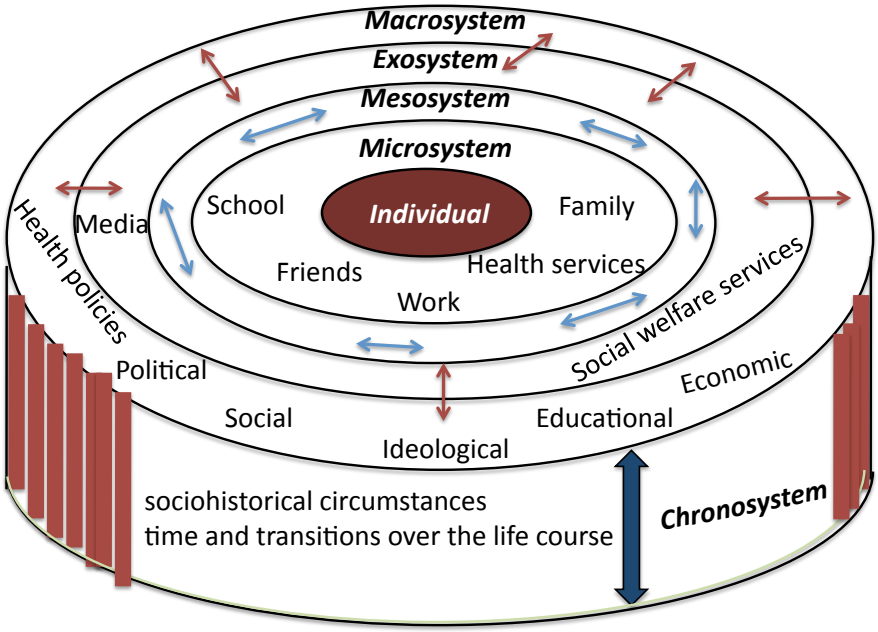


Figure 19. Human ecological model of suicidal behaviours.

However factors from other microsystems – school, peers, work setting - have been studied and related to suicidal behaviours (e.g. rejection, love problems, high academic expectations, problems at work). While predictor factors from the different levels found empirical support, several results are contradictory. For example, with regard to school, some investigations found positive relation between success or high performance school and more serious suicidal behaviours (e.g. DeMan & Leduc, 1993; Garfinkel & Golombek, 1983 in Henry et al., 1994), others found the opposite result, i.e., a high risk of suicide between adolescents with poor school performance (e.g. Borowsky, Ireland & Resnick, 2001).

Health services and health professionals should also be included at the microsystem level. Different researches have shown that a substantial number of individuals who died by suicide had been in contact with health professionals (e.g. Luoma, Martin & Pearson, 2002) (cf. section 2, p.17-18). Further, there are data suggesting that actions aimed at health professionals may contribute to suicide prevention (e.g. Isaac et al., 2009; Jacobson, Osteen, Jones, & Berman, 2012, Mann et al., 2005; Van der Feltz-Cornelis et al., 2011) (cf. section 4 and 5). Moreover, it is known that availability/ accessibility of health services has impact on mental health outcomes.

The mesosystem refers to the relations between different microsystems or connections between contexts. The interplay between predictor factors from different microsystems or from different levels places individuals at a higher risk for suicide; this concept of cumulative risk is fundamental to the ecological model of suicide (Perkins & Hartless, 2002). The exosystem corresponds to factors in the broader environment, involving the social settings in which the individual does not have an active role but which can have influences on his individual life. At this level the influence of mass media on suicidal behaviours is the most studied factor.

Macrosystem level predictors refer to the broad social, ideological, economic, educational, health general policies, and political contexts, which indirectly can influence the suicidal process of the individual.

Finally, the cronosystem level corresponds to socio-historical circumstances and also to time and transitions over the life course. The ecological human model supports a broad prevention strategy incorporating multilevel interventions as endorsed by WHO (1998, 2012), recommended by empirical revisions of prevention strategies (e.g. Mann et al., 2005; Van der Feltz-Cornelis et al., 2011) and applied to the existent national prevention programmes, including the Portuguese prevention plan (DGS, 2013).

In a help relation with a suicidal person the theoretical models of suicidality can be essential to guide the health professional's comprehension of the client/ patient. Health professionals' explanations about suicidal behaviours interfere with the capacity to master knowledge and skills required for the therapeutic intervention. Moreover it is important to the establishment of the therapeutic relation that the therapist adopts a multifactorial perspective and is aware of both the psycho-ecological factors and the biological vulnerabilities, in the genesis and evolution of the suicidal process. A suitable and broader conceptualization

can facilitate the understanding and relation with the person at risk, promoting the co-construction of interpretations adapted to each person, while an inadequate or restrict model of suicide may enhance the risk for the patient (Michel, 2010).

Despite the relevance of the explanatory models of the therapists to the clinical process, so far, few studies were dedicated to health professionals perceived explanations of suicidal behaviours. In our knowledge, only four studies about health professionals' explanations are available.

In our previous qualitative research with 30 doctors and psychologists six thematic subjects emerged in the thinking of health professionals as explanations of suicidal behaviours: maladjustment and demand for change; negative internal states, personality traits and biological factors; relational difficulties; external socio-demographic factors; communicative factors and family difficulties (Rothes, 2006; Rothes & Henriques, 2008).

In the qualitative study of Tzeng and Lipson (2005) performed with 22 psychiatric team members suicide was perceived as resulting from psychopathology (psychosis and schizophrenia), personality disorders, mental deficits and the combination between psychopathology and high levels of education.

Zadravec, Grad and Socan (2006) using a broad sample composed by Slovenian general population, suicide attempters and health professionals (including general practitioners and psychiatrists), concluded that doctors organized their thinking about explanations of suicidal behaviours through five explanatory models: personality, sociological, medical, crisis and genetic. Medical, crisis and genetic models are the most emphasized by health professionals, however moralist and judgmental explanations, such as "weak, spoiled" and "ambitious people", are also present in the mind of Slovenian doctors, which is a concerning outcome. The authors highlight the lack of studies and advise further research in the area.

There is still another important study about health professionals' explanations, but specifically focused on self-poisoning behaviours (Bancroft & Hawton, 1983). Using the explanations of 50 psychiatrists facing transcribed interviews of patients who had taken an overdose four groups of reasons were identified: directed at some significant person, help-seeking, self-referring and suicidal intent. The authors recommend the use of lists of reasons in future research.

In the scope of perceived explanations it is also pertinent to consider researches that have explored the motives of patients for their suicidal behaviour.

In the WHO European multicentre study the unbearable psychological pain and the lack of escape alternatives were the most important motives reported by the majority of suicide attempters, while the communicative motives and other interpersonal reasons as manipulation and revenge were described with much less frequency and importance (Chopin, Kerkhof, & Arensman, 2004; Hjelmeland et al., 2002).

In the earlier study about reasons for taking overdoses considerable differences were found in patients' and psychiatrists' explanations (Bancroft & Hawton, 1983; Bancroft, Hawton, Simkin, Kingston, Cumming & Whitwell, 1979). The reasons most frequently chosen by the patients - "relieving a state of mind" and "escape from an impossible situation" - were seldom pointed out by the psychiatrists. Vice-versa, the most consensually reported by psychiatrists – communicating hostility and influencing others - were the reasons least chosen by the self-poisoners, being reported by less than 20%. Seeking help was described by one third of the patients.

In a more recent study suicide attempters endorsed the severe distress as the best explanation for suicidal behaviour, followed by mental disorders, as well as adverse life events and social pressure (Zadravec et al., 2006). The authors found that suicide attempters and health professionals shared psychological crisis or suffering and psychopathology as common explanations for the suicidal behaviours.

In this PhD we pay explicit attention to the health professionals' perceived explanations of suicidal behaviours.

III – Responding to the problem

A pressing concern in suicide science is the topic of prevention and intervention or clinical approach in general, in which health professionals can have a critical role. This section is focused on approaches and strategies aimed at preventing and decreasing suicidal behaviours and its impact. The response to the suicidal problem should be in the interface between clinical and public health levels and can be divided into prevention, intervention and postvention headings.

4. Prevention and training of health professionals

Prevention is a comprehensive term that encompasses a wide spectrum of interventions. The prevention model in psychological and behavioural sciences is usually based on the public health model, namely on the major and well-known distinction between primary, secondary and tertiary prevention (Felner, Jason, Moritsugu & Farber, 1983; Negreiros, 1998). Primary prevention intends to reduce the incidence of new cases of a specific illness or problem by acting on its risk factors. Secondary prevention aims at reducing the prevalence and duration of the illness, and to avoid repetition or chronic development. It is related to detection and intervention with people at risk who have an already developing or existing illness or problem. Tertiary prevention concerns the intervention in order to avoid relapse, additional damage and to promote quality of life despite the existence of clinical or adverse conditions, and it corresponds to the management of disease states (e.g. Brás, Cruz, & Saraiva, 2014; Negreiros, 1998). The application of these concepts to preventive psychiatry and mental health was originally developed by Caplan (1964). More recently, a new concept emerged - the quaternary prevention - that aims at avoiding an excess of interventionism and its iatrogenic consequences. Detecting individuals at risk of overtreatment (e.g. hyper medication) to protect them from inappropriate interventions is the principal goal of quaternary prevention (e.g. Almeida, 2005). Another category also used is primordial prevention, which in essence is the promotion of positive life conditions and well-being, through the prevention of social, economic and cultural patterns associated with an increased risk of disease. It involves policies and programmes, which promote positive determinants of health, directed at the general population, groups or individuals (e.g. Almeida, 2005).

Another well-known distinction in prevention is related to the target group of interventions: universal, selective and indicated (Gordon, 1983). Universal prevention targets the general population regardless of the degree of risk. Selective prevention focuses on groups that are likely to be at increased risk due to socio-demographic or clinical characteristics. Indicated prevention targets individuals who are already known to be vulnerable to the development of the disease or maladjusted behaviour, in the specific case of suicidal behaviours, people who have attempted suicide (e.g. Brás, Cruz & Saraiva, 2014; Gordon, 1983; WHO, 2012). Therefore indicated prevention and clinical intervention and treatment are very close or even overlapping domains.

Suicide prevention strategies involve different types and levels of intervention and target populations. They can be summarized into three main categories: (1) public education; (2) measures to reduce the availability and lethality of suicide means and (3) training of health professionals and gatekeepers.

4.1. Public education

Public education comprises public awareness campaigns, school and community-based programs and cooperation with the media. Public campaigns are health interventions addressed to improve knowledge and attitudes towards suicidality and depression in order to increase recognition of suicide risk, help seeking and to reduce stigmatization towards depression, other mental illnesses and suicidality (e.g. Dumesnil & Verger, 2009; Mann et al., 2005). Despite the advice to invest in education aimed at the general population given by different organizations and national prevention plans, including WHO orientations and a recent review of systematic reviews of Van der Feltz-Cornelis et al. (2011), empirical results only demonstrate modest effects on public knowledge and attitudes towards suicidality and depression. Moreover, the durability of these modest changes was not evaluated and no data has clearly shown that such measures improve care seeking or decrease suicidal behaviour (Dumesnil & Verger, 2009; Mann et al., 2005).

School-based programmes aimed at children and youth are psycho-educational programmes about depression and suicide incorporated in school curricula in order to increase awareness about the relationship between mental conditions and risk factors and suicidal behaviour with the purpose of stimulating help-seeking behaviour. Reviews of this type of preventive strategy established that prevention curricula-programs improve knowledge and attitudes related to suicide but do not find sufficient evidence to support the efficacy and effectiveness of prevention of suicidal behaviours (Balaguru, Sharma & Waheed, 2013; Brás & Santos, 2014; Guo & Harstall, 2002; Mann et al., 2005; Ploeg et al., 1996). Moreover some studies found harmful effects on attitudes related to suicide (e.g. Ploeg et al., 1996).

Besides school-curricula programmes, other prevention activities have been implemented at schools, namely gatekeeper training (see below) and screening programmes, which appear to be the most promising interventions for schools (Robinson et al, 2013). Screening programmes are aimed at detecting individuals

with mental illness or suicide risk in a determined context or community (e.g. school) in order to refer them to a specialized health professional.

In the Portuguese context the suicidal prevention programme *Mais contigo* is an example of good practices in schools (Santos, Erse, Façanha, Marques & Simões, 2014; Santos, Erse, Simões, Façanha & Marques, 2013).

Cooperation with the media has been identified as an important measure due to the potential influence in a positive or negative direction. The media can be promoters of public education or conversely can have a perverse effect facilitating the suicide by copycat and social contagion of vulnerable individuals, mainly young people and people with depression. Given the number and consistency of evidence about the relation between suicide media report and subsequent suicidal behaviours (cf. section 3, p. 22), to inform and to train the media professionals has been identified as one effective suicide prevention strategy (e.g. Beautrais, 2012; Mann et al., 2005; Pirkis, Burgess, Francis, Blood, & Jolley, 2006; Pirkis, et al., 2009; Van der Feltz-Cornelis et al., 2011)

Journalists and mainly editors-in-chief (of print or internet media, television or radio) must be aware that the risk of imitative suicide increases when the coverage is prominent, the deceased is famous, and the news include suicide method details and characteristics of the individual who died, enhancing the probability of someone identifying with the deceased. Also the repetitive reporting was recognized by research has having potential negative effects (e.g. Beautrais, 2012). More recent research found that the use of expert opinions, suicide facts and figures or presenting suicide myths in order to refute them, also seems to increase suicidal behaviours risk (Niederkrotenthaler et al., 2010a, b).

With regard to the potential positive effects of the media in suicidal behaviours prevention, Niederkrotenthaler et al. (2010) provide evidences indicating helpful outcomes of media stories about individuals who thought about suicide but who did not have any suicidal behaviour describing ways in which people overcame suicidal thoughts.

There are consistent findings across different countries, methodologies and media types demanding both vigilance about suicide coverage and collaborative work between suicidologists and communication

professionals (Michel, 2000; Pirkis et al., 2006). The communication between health and media professionals is not easy. In order to establish a facilitating dialog with media professionals, not only do suicidologists have to be more aware of communicational science subjects but also journalists have to become more aware of the potential effect of suicide reporting.

4.2. Measures to reduce the availability and lethality of suicide means

Measures to reduce the availability and lethality of suicide means are among prevention strategies with evidence-based effectiveness (Florentine & Crane, 2010; Mann et al., 2005; Sarchiapone, Mandelli, Iosue, Andrisano & Roy, 2011; WHO, 2012; Yip, et al., 2012). A sizeable number of different researches, performed in different countries support the effectiveness of means restriction as a suicide prevention strategy, targeting the reduction of availability or lethality of methods, concretely domestic gas detoxification (e.g. Lester, 1990), catalytic converters in motor vehicles (e.g. Routley, 2007), firearms restriction (e.g. Loftin, McDowall, Wiersema, & Cottey, 1991), pesticides restrictions (e.g. Mann et al., 2005), barriers at jumping sites (e.g. Bennewith, Nowers & Gunnell, 2007), safe rooms in institutional settings to prevent hanging (e.g. Gunnell, Bennewith, Hawton, Simkin, & Kapur, 2005), changes in medication, such as changes in analgesic packages, introduction of lower toxicity antidepressants, and restrictions on the barbiturates prescription and sale (Mann et al., 2005).

Despite the fact that suicide means are not only influenced by the availability but also by cultural and social factors (Klieve, Barnes, & De Leo, 2009), it seems consistently demonstrated that to limit the access to methods has positive effects. The majority of the evidence supporting suicide means reduction as an effective preventive strategy comes from ecological studies that analyse the relationship between suicide rates in general or in the method-specific rates and population-level reduction of the availability of lethal means of suicide (Mann et al., 2005; Sarchiapone et al, 2011).

These findings are important not only at the policy and legislative measures level aimed at general population, but also at the level of prevention actions aimed at individuals at risk. To effectively evaluate and treat the patient who is at risk of suicide clinicians should discuss the availability of lethal means with their

patients (e.g. Berman, 2006; Bryan, Stone, & Rudd, 2013). Thus it is important that health professionals and other staff are educated about this issue (e.g. Betz et al., 2013; Bryan, Stone, & Rudd, 2011).

4.3. Training aimed at health professionals

Indeed training aimed at health professionals is considered one of the most effective or promising strategies for suicide prevention (Beautrais et al., 2007; Mann et al., 2005; Van der Feltz-Cornelis et al., 2011), even if more consistent evidences in decreasing suicidal behaviours are required (Isaac et al., 2009; Pisani, Cross, & Gould, 2011).

Research about the effects of training in this area can be systematized according to the target-group of professionals, the focus of the educational programmes and the evaluation indicators and results. Further, the training initiatives can be divided into isolated enterprises (e.g. Cais, Silveira, Stefanello, & Botega, 2011) or integrated in multilevel programmes (e.g. Hegerl, Althaus, Schmidtke, & Nillewsji, 2006).

General practitioners (GPs) and other primary care health professionals have been the most common target group of training aimed at reducing suicide rates directly or indirectly (e.g. Cais et al, 2011; Michel & Valach, 1992; Rutz, Carlsson, von Knorring, & Wålinder, 1992a; Rutz, von Knorring, & Walinder, 1989, 1992b; Rutz et al., 1989; Rutz, 2001). One of the most well known studies on impact of training GPs is the research performed in the Swedish island Gotland, a large-scale intervention aimed at all GPs consisting in a two-day programme on the management of depression (Rutz et al., 1989, 1992a, b; Rutz, 2001). By drawing attention to the importance of interventions directed at health professionals the Gotland study constituted a landmark for suicide prevention.

Recently it has been highlighted that even the mental health professionals have limited training in the assessment and management of suicidal patients (e.g. Schmitz et al., 2012). Syllabus on suicidology is not usual both in psychology and medicine graduate and postgraduate programmes, thus low levels of specialized training are found among health care workers (e.g. Hawgood, Krysinska, Ide & De Leo, 2008; Palmieri et al., 2008; Sher, 2012), including mental health professionals (Cramer, Johnson, McLaughlin, Rausch, & Conroy, 2013; Palmieri, et al., 2008; Schmitz et al., 2012). Palmieri et al. (2008) found that 70% of psychiatrists and 82% of psychiatric nurses revealed having received no training in the recognition and

management of suicidal risk. Among this Italian multidisciplinary sample of health professionals only 12% have specific training in suicide intervention, about 25% considered themselves sufficiently trained for work with suicidal patients and 85% reported the need to improve skills on managing suicidal patients.

Among Swedish mental health professionals about 30% of psychiatrists perceived themselves as insufficiently trained to deal with suicidal patients, while among psychiatric nurses this rate ranged from 43% to 25% (Ramberg & Wasserman, 2003; Samuelsson, Asberg, & Gustavsson, 1997).

In a Belgium sample of community and health professionals, including mental health staff nearly half of the participants (47%) self-rated their skills in dealing with suicidal patients as very poor to poor (Scheerder, Reynders, Andriessen, & Van Audenhove, 2010).

Up to date, there were no available data in Portugal about the level of training in suicidology of psychologists, psychiatrists and general physicians, neither about their perceived competence in suicide risk assessment and need for training. Suicide programmes have been overlooked by our faculties and other training centres that prepare health professionals. In line with international data, low levels of specific training on suicidal behaviours intervention are predictable among Portuguese doctors and psychologists. To our knowledge, only one national study provided data on health professionals' training in suicidal behaviours, namely about hospital nurses revealing low levels of specific education (Santos, 2001).

Other groups, designated by gatekeepers (e.g. Capp, Deane, & Lambert, 2001; Cross, Matthieu, Lezine, & Knox 2010; Isaac et al., 2009; Keller et al., 2009), community professionals or community facilitators (e.g. Hegerl et al., 2006; Scheerder, 2009; Scheerder et al., 2010) have been identified as having a potential role in suicide prevention, namely in the early risk detection and suitable referral and thus have been considered targets of training programmes to improve suicide intervention skills. Training has been performed and studied in different target groups, including the military workforce (e.g. Oordt, Jobes, Fonseca, & Schmidt, 2009), the police (Mishara & Martin, 2012), school and universities staff (Chagnon, Houle, & Marcoux, 2007; Cross et al., 2010; Wyman et al., 2008), volunteers of crisis centres and helplines (e.g. Neimeyer & Bonnelle, 1997), pharmacists (e.g. Scheerder, 2009), healthcare providers in care settings for the elderly (e.g. Huh et al., 2012), aboriginal communities (Capp et al., 2001), among others. Thus, gatekeepers have been

classified into two types: the designated ones that correspond to health or social workers and the emergent ones who are community members without formal training in health or social areas but with a potential role in prevention given their community position (Isaac et al, 2009).

With regard to the training focus, despite the diversity of educational models and syllabus, they can be summarized in two main groups: interventions focused in the detection and treatment of depression (e.g. Hegerl et al., 2006; Rutz et al, 1989, 1992a, b) and training specifically centred on suicide risk evaluation and management (e.g. Appleby et al., 2000; Cais et al., 2011).

The training of general practitioners in depression as a suicide prevention strategy is based on the following facts: (1) depression is among the high risk factors of suicide; (2) the contact of people at risk with general clinicians prior to the fatal act is frequent (cf. section 2, p. 17-18) and (3) depression remains under recognized and not sufficiently addressed at the level of primary care services (Hegerl et al., 2006; Mann et al, 2005; Scheerder, 2009). Gotland's study is a milestone on the study of the impact of training about depression (Rutz et al., 1989; 1992 a, b; Rutz, 2001).

Nevertheless some authors recommend that professionals' training directed at reducing suicidal behaviours should be focused on the risk assessment and management of the suicidal person rather than on depression (e.g. Appleby et al., 2000). Skills on suicidal behaviour evaluation and management are defined as the general clinical ability comprising the set of knowledge, attitudes and skills required to deal and to help people at risk of suicidal behaviours (Pisani et al., 2011).

Some training programmes are focused on particular high-risk subgroups, as older adults (e.g. Huh et al., 2012), youth (e.g. Chagnon et al., 2007; Keller et al., 2009), military staff (Oordt et al., 2005, 2009) and the police (Mishara & Martin, 2012).

Literature shows a wide variability in the training programmes with regard to duration, contents and know-how and experience of the trainers, which does not facilitate the comparability between studies and their results.

Regarding the assessment of training impact different indicators have been used to evaluate the effects of the programmes aimed at health professionals. Changes in specific skills, knowledge assessment, confidence or self-efficacy and attitudes towards the suicidal patient are among the most used indicators (e.g. Appleby et al., 2000; Cais et al., 2011; Isaac et al., 2009; Jacobson, et al., 2012). Prescription of antidepressants and number of inpatients are also used as benchmarks (Mann et al., 2005). The analysis of feasibility of the training and cost-effectiveness estimates can also be found as evaluation of the training program in some studies, for example in the evaluation of the STORM project - Skills-based Training on Risk Management - a programme developed by the University of Manchester and widely implemented in the UK (Appleby et al., 2000; Gask, Dixon, Morriss, Appleby, & Green, 2006; Green & Gask, 2005). Only few studies handle with changes on suicidal behaviours rate as an indicator of training effect (e.g. Hegerl et al., 2006; Rutz et al., 1989, a, b; Szanto, Kalmar, Hendin, Rihmer & Mann, 2007) Indeed this criterion is difficult to evaluate because of the low base rates.

With regard to the evaluation of training on depression aimed at general practitioners some studies achieve positive results in the recognition of depression and other psychiatric disorders by doctors (e.g. Hannaford, Thompson, & Simpson, 1996; Rutz et al., 1992a, b). However in other studies the educational programme was not associated with increased detection and improved treatment of depression (e.g. Valentini et al., 2004).

Pisani, Cross and Gould (2011) performed a comprehensive review of UK' and US' studies about training programmes targeted at improving general clinical competences in assessment and management of suicide risk aimed at health professionals, including psychiatrists and clinical psychologists. The authors have concluded that educational programmes improve knowledge and attitudes but that more empirical evidence is still required to accurately evaluate changes in skills.

Most of the literature on suicidology is positive with regard to the effects of suicide prevention training aimed at health professionals, showing improvements in knowledge (e.g. Cais et al., 2011; Simpson, Franke, & Gillett 2007; Smith, Silva, Covington, & Joiner, 2014), in attitudes (e.g. Gask et al., 2006; Jacobson et al., 2012), in confidence or self-efficacy levels (Capp et al., 2001; Gask et al., 2006; Keller et al., 2009; Matthieu,

Cross, Batres, Flora, & Knox, 2008) and also in skills (e.g. Jacobson et al., 2012; Pasco, Wallack, Sartin, & Dayton, 2012). However some studies show limitations and failures in the achievement of training goals (Levav et al., 2005; Pisani et al., 2011) not fully eliminating doubts about whether or not training causes effective changes in clinical suicide prevention skills (e.g. Cross et al., 2010) and mainly in the lasting of the effects (e.g. Gask et al., 2006; Isaac et al., 2009; Levav et al., 2005; Moore, Cigularov, Chen, Martinez, & Hindman, 2011). Further research in order to inform a more tailored training is needed.

With regard to the effect of training on suicide and suicide attempt rates in a given population, some research reported promising results with a significant reduction in suicide attempts and deaths by suicide (e.g. Rutz et al., 1989, 1992a, b; Hergel et al., 2006). However other studies with non-significant results (e.g. Szanto et al., 2007) show that more consistent and unequivocal evidences about the effect of training are still lacking (Isaac et al., 2009). The Gotland research conducted in the 80's consisted in an educational two-days programme about depression aimed at all general practitioners and it was evaluated in detail both in immediate and in long-term effects (Rutz et al., 1992a, b). The authors concluded that the educational program for GPs had pronounced immediate effects on the health care system, including a decrease in suicide rates. However the inspiring outcomes of the Gotland study have important limitations: the decrease in suicide rates was verified mainly in women, who frequently attend GPs; there was no control region and baseline suicide rates were low thus not allowing to clearly assign the rate changes to training effects. In other words this could be a consequence of other factors and/ or random fluctuations. Moreover training should be repeated every two years to achieve prolonged effects in time (Rutz, et al., 1992a, b).

Training integrated in multilevel actions seems to be more effective than isolated initiatives, however the effect on suicidal behaviours of the training alone remains unclear (Isaac et al., 2009). Indeed it is very difficult to isolate training from the other factors that can influence suicide rates in order to demonstrate its effectiveness.

Pisani et al. (2011) concluded that there is very limited knowledge about needs and current practices of mental health workers with regard to intervention with suicidal patients, asserting that this information can be crucial to the improvement of training in the area of suicidal behaviours. Also Isaac et al. (2009) propose further research on the action of health professionals or gatekeepers.

Literature is not consensual as to which training model and focus is more suitable for reducing suicidal behaviours. There is a great diversity in method and contents in the scope of training assessment and a gap namely in needs assessment taking into account the perception of professionals about their clinical practice with suicidal patients.

This PhD is explicitly focused in the current practices, difficulties and needs of psychologists, psychiatrists and general practitioners, from the point of view of the health professionals themselves.

There is a clear need to empirically identify what difficulties health professionals feel in clinical practice and which their current practices are when facing a patient at potential risk. This is even more important when there are only few studies on the area of suicide training that included psychologists in their samples (Jacobson et al., 2012; Oordt et al., 2009). Moreover, in the best of our knowledge, only one study investigated perceived difficulties of health professionals, specifically this research studied New Zealanders doctors, psychiatrists and nurses from general and psychiatric hospitals (Gibb, Beautrais, & Surgenor, 2010). Gibb et al. (2010) analyzed the responses of 195 health professionals to the open question: *"what is the most difficult thing about working with self-harm patients?"* (p. 716). The authors listed the most specific difficulties of doctors and nurses when working with self-harm patients in hospital setting. They classified the answers in major themes: patient behaviour, including the recurrent self-harming and feeling patients as being difficult, frustrating or manipulative; communication difficulties (not knowing what to say); time pressure; lack of knowledge about mental illness and about effective interventions.

Clinical practices and options are also poorly researched thus empirical data on actual practices of health professionals facing a suicidal patient are lacking (Jacobson et al., 2012). This kind of data could better inform prevention policies.

5. Intervention and barriers related to health professionals

Suicidal people can be treated effectively (Leenaars, 2004, p. xv).

Suicidal behaviours intervention comprises the early recognition and assessment of risk, the immediate response or management of a suicidal crisis, the eventual referral to specialized care, the longer-term care or support that can include pharmacotherapy, psychotherapy and follow-up care. The intervention with suicidal people can be outpatient or inpatient and can also be called clinical prevention. This section of the thesis briefly addresses the research that has been performed in the scope of barriers to the intervention at the health professionals level. It also approaches some fundamental aspects of clinical prevention of suicidal behaviours focusing mainly on issues related to the health professionals' practices.

As presented in section 2 (p. 17-18), a high percentage of people who died by suicide had a recent contact with health professional before their death, including general physician and mental health professionals. At the time of the suicide attempt a high percentage was also receiving health care. The contact of an individual at risk with a health professional previous to a suicidal behaviour is an opportunity to prevent it and the contact after a suicide attempt can provide a possibility that the individual engages on a treatment intervention. But clinical work with suicidal patients is recognized as a very challenging and demanding task and research has identified barriers to the detection and intervention on suicidality at the level of health professionals, including both the primary and the mental health caregivers (e.g. Anderson, Standen, & Noon, 2003; Fox, 2011; Murphy 1975; Neimeyer & Pfeiffer, 1994b; Sheerder 2009; Sheerder et al., 2010; Saunders, Hawton, Fortune & Farrelet, 2012; Schmitz, et al., 2012; Smith et al., 2014).

The domain of suicidology focusing on health professionals as subject of investigation offers an enormous field for exploring. This specific area of research may have implications for clinical prevention of suicidal behaviours and as such should be developed. Clinical prevention requires specific skills and knowledge, as mentioned in the previous section, namely in the field of risk assessment, of crisis intervention, of mental health issues, as well as relational and communication abilities aimed at emotional containment, the sharing of suffering and of suicidal thoughts. In addition, clinicians and psychologists should know which therapeutic measures work, the advantages and disadvantages of each strategy, its limits, reach and the eventual

precautions to take. Further the health professional's competence in suicidal cases has a special importance (Jobes, Rudd, Overholser, & Joiner, 2008; Overholser, 1995). Among the reasons for this are the risk of injury or death of the patient, which has a greater weight when compared with other kinds of death (cf. section 6, p. 65-75).

There is a growing frame of research investigating the barriers that hinder the pivotal role that health professionals can have in risk detection, assessment and intervention with suicidal patients (e.g. Goldsmith et al., 2002; Neimeyer & Pfeiffer, 1994b; Sheerder 2009). Research in the area has been studying variables related to health professionals that can influence, hamper or facilitate the therapeutic work with suicidal people. Studies specifically focus on the attitudes towards suicidal patients, the knowledge about suicidal behaviours and suicide intervention and also the skills of health professionals to deal with suicidality, namely the communication competence (e.g. Anderson, Standen, Nazir, & Noon, 2000; Botega et al., 2005; Gibb, et al., 2010; Hammond & Deluty, 1992; Neimeyer, Fortner, & Melby, 2001; Neimeyer & MacInnes, 1981; Saunders, et al., 2012; Scheerder et al., 2010; Santos, 2001; Samuelsson et al., 1997; Smith et al., 2014; Swain & Domino, 1985).

Within this area of research about health professionals who deal with suicidal problems, the domain of **attitudes** towards suicidal patients and behaviours seems to be the field that produced more empirical data, as well as valid instruments aimed at health professionals.

The study of attitudes towards suicide began in 1922 with Bayet, a French scientist and philosopher, follower of Durkheim, who published "Le suicide et la morale", a work about the development of attitudes in the West over more than 20 centuries (Diekstra & Kerkhof, 1989). The author distinguished two moral categories to suicide: the first involves an absolute negative and prohibitive attitude regardless of the circumstances of who commits the act; the second category involves an attitude that condemns suicide under certain circumstances and understands and accepts it under other conditions (Diekstra & Kerkhof, 1989).

In the contemporary studies on attitudes towards suicidality two references are very usual: one North American – Domino et al. (1980; 1982) - and the other European - Diekstra and Kerkhof (1989). The first authors developed *the Suicide Opinion Questionnaire SOQ* (Domino, Gibson, Poling, & Westakle 1980;

Domino, Moore, Westlake, & Gibson, 1982), an instrument that has been revised and applied to different samples, including health professionals (Domino, 2005; Kodaka, Poštuvan, Inagaki, & Yamada, 2011; Swain & Domino, 1985). The second authors, Dutch psychologists, highlighting the limitations of *SOQ* and of its construction, created the *Suicide Attitudes Questionnaire SUIATT*, a self-report instrument with 63 items and using three different referents to the assessment of attitudes towards suicide: the own respondent, a significant person and people in general (Diekstra & Kerkhof, 1989). Other studies of construction and validation of questionnaires for assessing attitudes towards suicide and suicidal people were performed including specific instruments aimed at health professionals or at least applied to this population (e.g. Botega et al., 2005; Jenner & Niesing, 2000; Renberg & Jacobsson 2003; Samuelsson et al., 1997; Suokas e Lonnquist, 1989). Actually, there are about 18 scales available with unique designations that measure attitudes and related issues (Kodaka et al., 2011). Furthermore a considerable set of researches assessing health professionals' attitudes towards suicidality used questionnaires developed for their own study without naming them (Saunders et al., 2012).

In a recent review of 74 studies, Saunders et al. (2012) concluded that attitudes of health professionals towards suicidal patients are often negative, affecting their clinical practice and consequently the therapeutic process. Surprisingly, the authors found little difference over the time analysing studies from 1971 to 2010, despite the increasing research and guidelines about suicidality and its intervention over these years. This result from Saunders et al. (2012) reinforces the need to better understand the health professionals' actuation with suicidal patients, studying innovative variables and under new perspectives. Howsoever, late studies focused on health professionals who deal with suicidal behaviours found positive attitudes toward suicide prevention, even if with room for improvements (Jacobson et al., 2012).

Moreover many of the studies on attitudes, its results and discussion are performed around two poles: negative vs. positive, acceptance vs. rejection/ condemnation or favourable vs. unfavourable, alluding to the initial work of Bayet. In light of the complexity of the clinical work and relationship with suicidal clients these dichotomies may be reductive and poor in terms of contributions for improving training and practice. Thus other variables related to health professionals should be studied.

As approached in the previous section the low-level of **skills** revealed by health professionals, including mental health staff is among the principal barriers to suicide intervention and that has been a subject of investigation, mainly linked with the training effects (e.g. Scheerder et al., 2010; Schmitz et al., 2012; Smith et al., 2014). Furthermore, a distorted self-evaluation of the ability to respond appropriately to suicidal people by health care workers, namely an overestimation of their skills level was also identified as a potential obstacle to effective intervention (Scheerder et al., 2010), stressing the pertinence of exploring self-perceptions of health professionals with regard to the work with suicidal patients.

In this line, another important variable that has been recognized by research as possibly facilitating or hindering clinical work with people at suicide risk is the **confidence** of clinicians and psychologists in their capacity to detect and to deal with suicidal patients (e.g. Capp et al., 2001; Gask et al., 2006; Jacobson et al., 2012; Keller et al., 2009; Matthieu et al., 2008).

Research on the area has also explored the differences on attitudes and skills of health professionals according to professional group, gender, age, years of experience and contact with suicidal behaviours (e.g. Neimeyer et al., 2001; Scheerder et al., 2010) providing important clues about the influence of the socio-demographic and professional characteristics on the so far underexplored variables of difficulties and practices of health professionals. These data supplied directions to the elaboration of the hypotheses of the empirical studies of this PhD on health professionals' practices and difficulties with suicidal patients (cf. studies 2 and 3, p. 101-125 and 127-140). The studies of attitudes found differences between health professionals groups and according to gender, while with regard to age and experience results were not conclusive (Saunders et al., 2012). The doctors of different specialities, particularly of general hospital were found to display more negative attitudes than psychiatrists and than nurses (Saunders et al., 2012). In turn, psychologists were among the most accepting in their attitudes and most knowledgeable about suicidality (e.g. Hammond & Deluy, 1992; Jeffrey & Warm, 2002). In different studies female health professionals expressed more positive attitudes than male health professionals (e.g. Anderson et al., 2000; Samuelsson et al., 1997), even if methodological limitations associated to these results may be indicated (Saunders et al., 2012). However some studies found that attitudes were not significantly associated with gender (e.g. Gibb et al., 2010).

Specific experience with suicidal patients seems to be associated with more positive attitudes, a greater self-efficacy and higher levels of intervention competencies (Botega et al., 2005; Neimeyer et al., 2001; Neimeyer & MacInnes, 1981; Samuelsson et al., 1997; Scheerder et al., 2010). Nevertheless, there are few studies analyzing the effects of this variable, many of the few existing are specifically related to staff nurses and emergency personnel, and not all of them agree on their conclusions (Friedman et al., 2006; Saunders et al., 2012). Furthermore, the difference between general experience (years of practice) and specific experience in the sense of clinical contact with suicidal patients is not always clear. Scheerder et al. (2010) highlighted this differentiation in their study on suicide intervention skills of community and health professionals, including general practitioners and psychologists in the sample. These Belgian authors using the Suicide Intervention Response Inventory (SIRI-2; Neimeyer & Bonnelle, 1997; see ahead brief description) found that intervention competencies were strongly and positively related to specific experience with suicidal patients, but not to years of experience as a health or community professional. The study also found differences between professional groups, namely that nurses were an exception presenting only average SIRI-scores despite a high frequency of contact with suicidal patients. Scheerder's results are in line with previous studies using SIRI, which observed that beyond experience with suicidal patients, the level of specific training and death acceptance attitude were also positively related to suicide intervention skills (Neimeyer et al., 2001; Neimeyer & MacInnes, 1981). Differences in the skills score between groups were also found with psychiatrists scoring higher than general practitioners (Pamieri et al., 2008).

The role of **therapeutic alliance**, **collaborative approach** and positive and empathetic **communication** as key aspects of suicide clinical prevention have been emphasized by different authors, highlighting the approach of the AESCHI working group (e.g. Jobes, 2000, 2006; Leenaars, 2004, 2006, 2009, 2011; Michel & Jobes 2010; Michel, et al., 2002), but also by various other suicidologists (e.g. Donaldson, Spirito, & Overholser; Fox, 2011; Joiner, Van Orden, Witte, & Rudd, 2009b; Meyer & Simon, 2006; Perlman, Neufeld, Martin, Goy, & Hirdes 2011; Wolk-Wasserman, 1985). Communication of suicidal intent is recognized as an important element for suicide prevention/ intervention and therefore it has been studied by different researches (e.g. De Leo & Klieve, 2007; De Leo, Milner, & Sveticic, 2012, Isometsa et al., 1994; Wasserman et al., 2008; Zhou & Jia, 2012). Notwithstanding communication of suicidal intent be an interactive process,

studies on suicidal communication have been much more focused on patients' variables than on health professionals' factors, strengthening the pertinence of studies focusing on variables of health staff as well.

A landmark in the field of communication with suicidal patients is the already above mentioned work of the North-American Neimeyer and colleagues, namely through the development of an instrument – the SIRI, to assess the ability of counsellors and later of health professionals to recognize appropriate responses to suicidal clients (Neimeyer & Bonnelle, 1997; Neimeyer & MacInnes, 1981; Neimeyer, Fortner & Melby, 2001; Neimeyer & Pfeiffer, 1994a). The SIRI questionnaire is a self-administered instrument comprising 24 items that health professionals have to rate. Each item includes a comment of a suicidal patient and two possible responses - one is considered appropriate or promoting effective intervention and the other option is inadvisable. SIRI has been translated and validated into different languages, for example Italian (Palmieri et al., 2008) and Dutch (Scheerder et al., 2010) and taken as a measure to study suicide intervention skills.

Potentially related to the communication problems with suicidal clients/ patients there is a set of specific difficulties felt by health professionals but so far, poorly studied and clearly in need to be investigated. Indeed in the best of our knowledge only one study explored the specific difficulties of health professionals, expressly studying hospital doctors and nurses (Gibb et al., 2010), as approached in the previous section of the thesis.

In this same line some researchers identified **emotional reactions** by health professionals as barriers to the work with suicidal patients, specifically, frustration towards patients (e.g. Anderson et al., 2003; Friedman et al., 2006), hostility and distance (e.g. Anderson et al., 2003; Wolk-Wasserman, 1985), anxiety and fears (Saunders et al., 2012) and reporting that it is difficult to work with this patients (e.g. Gibb et al., 2010; Ramberg & Wasserman, 2003).

Anderson et al. (2003) performed a qualitative study about nurses' and doctors' perceptions of suicidal behaviour in young people. The authors using 45 semi-structured interviews highlighted the experiences of frustration in the practice with these patients, as well as relational difficulties and specific needs in this field. Distance, in the sense of non-understanding, was one of the problems identified as a relational barrier. Friedman et al. (2006) analysing 63 questionnaires about attitudes of health professionals (mainly nurses)

towards patients who use self-laceration found high levels of staff frustration, with more than half of the participants reporting this feeling. Wolk-Wasserman (1985) surveyed 96 health professionals, including physicians and nurses, using non-directive and semi structured interviews about their reactions and feelings towards suicidal patients. She concluded that hostility and distance were among the reactions of health staff and communication difficulties were also identified. The study however was focused on professionals who had limited or no training on psychiatric and psychological issues. Actually there is a general lack of data about psychologists who deal with people who engage in suicidal behaviours. One of the exception in this panorama is the work of Kleespies, Penk, and Forsyth (1993). The authors studied the impact of suicidal behaviours' clients on psychologists concluding that there are not so many differences in the emotional reactions caused by fatal behaviour and by non-fatal behaviour (cf. section 6, p. 68-70)

The current public health system existent in Portugal, as well as in many other countries makes primary care a critical setting for recognition of suicidal behaviours risk, as well as for detection of depression disease and others risk factors, such as previous suicide attempts or abuse of alcohol and drugs. Murphy (1975) in one of the first studies highlighting the double potential role of physicians in suicidal behaviours intervention – facilitate or hinder - observed inadequacy in the detection of suicide risk by physicians. This result about failures of GPs to recognize suicide risk or to discuss the subject with patients has also been underlined in more recent literature (e.g. Bryan & Rudd, 2011; Houston, Haw, Townsend, & Hawton, 2003; Lewis, 2004; Marquet, Bartelds, Kerkhof, Schellevis, & van der Zee, 2005; Pan, Lee, Chiang, & Liao, 2009). However the barriers to effective intervention at the level of health professionals are not limited to GPs and can also be related to mental health professionals, as psychiatrists and clinical psychologists. This should be a target of attention for further research (e.g. Schmitz et al., 2012).

But so far little attention has been paid to the effective practices and options of health professionals in suicide intervention and their actual difficulties towards suicidal patients, namely giving voice to the professionals themselves.

In health settings the objective of intervention with suicidal people, after crisis stabilization is to develop, initiate and maintain a treatment plan, in which initial and ongoing risk assessment is essential. Next, some

of the key aspects of clinicians' intervention are briefly approached into 4 mains headings: assessment, psychotherapy, psychopharmacology and hospitalization.

5.1. Assessment of suicidal risk

To assess suicide risk, a fundamental judgment for making clinical decisions, is a difficult task for health professionals. This difficulty is related to several factors such as the complex and interactive process of suicidal intent communication, as already addressed above, as well as the multiplicity of risk factors, and the difference between distal factors, as vulnerabilities and proximal factors, as precipitating elements. Further, the related need to distinguish between imminent risk and risk assessment, and between who is at risk and at what moment he/ she is at risk are among the difficulties of the assessment process. Indeed when facing a person who needs help concerning a potential suicide risk, the health professional has to assess and distinguish between (1) imminent risk, that means suicidal behaviour within the next 48 hours, also called by suicide crisis, (2) short-term risk, i.e., suicidal behaviour within days or weeks and (3) long-term risk (Hirschfeld, 2001). Other elements contributing to the complexity of the assessment are the need of a specific clinical interview and the variety of instruments that can be useful and complementary tools with different aims (detection, risk assessment or characterization of the suicidal behaviour) (cf. Brown, 2000 and Goldston, 2000, for risk assessment instruments for adults and young people, respectively; cf. also EACOS - a Portuguese instrument from Coimbra University, Saraiva, 1998).

To assess suicide risk health professionals should address risk factors from different nature: socio-demographic, psychological and psychiatric, general health, including drugs and alcohol use, developmental and family, personality, circumstantial factors, as current problems and previous suicidal behaviours. A key point of the assessment of imminent suicide risk is to explore the desire of death and the existence of a plan with the presence of the means. Health professionals should explicitly discuss the availability of means with the patient (e.g. Berman, 2006; Bryan, Stone & Rudd, 2011; Joiner, Van Orden, Witte, & Rudd, 2009c; Santos & Neves, 2006; Saraiva, 1999; Saraiva e Garrido, 2014; Simon, 2006) (cf. section 4, p. 41-42).

To decide if a person is at imminent risk of suicide one of the appropriate ways is to ask her or him directly (e.g. Hirschfeld, 2001; Santos & Neves, 2006). Further, to ask appropriately about the death ideas makes the person feel his or her suffering recognized (e.g. Santos & Neves, 2006).

Moreover the assessment of suicide risk must be regarded by the health professionals as part of the therapeutic process providing an opportunity to exchange views between the clinicians or psychologists, the patient with suicidal problems and his or her family (e.g. Michel & Valach, 2011; Perlman et al., 2011).
In a study performed with 26 suicide cases the authors concluded that despite the fact that the majority of patients in treatment gave indications of imminent suicide risk, it was frequent for health professionals not to identify the crisis situation (Hendin, Maltsberger, Lipschitz, Hass, & Kyle, 2001).

Adequate assessment of risk requires a range of skills, knowledge, attitudes and tools and, additionally, the awareness that assessment is not an exact task (Cooper & Kapur, 2004; Lewis, 2004; Simon, 2006).

Risk assessment instruments can be very useful but they should be considered a part of the assessment task integrated in a more comprehensive process. They should be incorporated in the clinical interview and after the therapeutic relationship is guaranteed, because communication and collaboration are fundamental to the process of suicide risk assessment (e.g. Jobes et al., 2008; Perlman et al., 2011).

Jobes, Eyman and Yufit (1995) conducting a study about suicide risk assessment practices in the USA verified that health professionals rarely used formal instruments and psychological tests. In Portugal there is no data available about the use of formal instruments or protocols in the risk assessment task neither in intervention. For example, it is unknown if no-suicide contracts are or not an actual option for health professionals when facing a suicidal patient.

The **no-suicide contracts** are a long-standing tool used in the suicide clinical prevention, widespread in the USA and also in Australia (e.g. Royal Australian and New Zealand College of Psychiatrists, 2004), but nowadays its utility is under a contentious debate hampered by the lack of empirical data (e.g. Bartlett, Carney, & Talbott, 2009; Edwards & Harries, 2007; Edwards & Sachmann, 2010; Goldblatt, 1994; Hyldahl & Richardson, 2011; Jacobs et al., 2003; Jobes et al., 2008; Kroll, 2000, 2007; McMyle & Pryjmachuk, 2008; Range et al., 2002; Rudd, Mandrusiak, & Joiner, 2006; Weiss, 2001).

The general idea supporting the no-suicide contracts' intervention is based on the process of negotiating with people at risk of suicide and on the recommendations to do it, dating back to the 50s and 60s by names as Shneidman and Farberow or Ewart (Rudd et al., 2006). Explicitly mentioned for the first time in literature by Drye, Goulding, & Goulding (1973) a non-suicide contract, also named in literature as suicide prevention contracts, among other similar designations, can be defined as "*an agreement between the patient and clinician in which patients agree not to harm themselves and/or to seek help when in a suicidal state and they believe they are unable to honour the commitment*" (Rudd et al., 2006, p. 244). Or by other words, and perhaps in a more clinical language "*as decisions between a practitioner and suicidal patient to undertake pre-defined tasks to keep the suicidal patient safe, usually until the next scheduled follow-up appointment*" (Edwards & Harriers 2007, p. 484). Some authors had suggested the change of the term *contract* by *commitment* arguing that the second is more appropriate to the therapeutic principles and goals, while the first term is more related with medico legal concerns (Rudd et al., 2006).

Three main criticisms to the use of no-suicide contracts have been pointed out. First, there is a lack of empirical data supporting the efficacy of this clinical technique. Second there is an absence of a conceptual/ theoretical model that supports its clinical use. And third there is a set of risks or limitations associated to this intervention strategy that is mandatory taking into account when pondering its eventual use (Edwards & Harries, 2007; Edwards & Sachmann, 2010; Goldblatt, 1994; Jacobs et al., 2003; Leitner, Barr, & Hobby, 2008; Range et al., 2002; Rudd et al., 2006).

In short, the therapeutic benefits and risks of the use of suicide prevention contracts depend on how doctors and psychologists use and regard them rather than on the simple use or not. The technique cannot be used as a routine administrative procedure and never as substitute of the assessment or treatment process. An informed and trained use of no-suicide contracts can be a facilitator for the establishment of a therapeutic alliance and a collaborative work, as well as for promoting a positive and open communication, namely about suicidality. This tool can also help patient and health professional to jointly establish security steps in case of increased levels of risk. This co-work allows the formulation of tailored safety plans and commitments for each singular case.

Other potential advantages of suicide prevention commitments are to decrease the anxiety both of suicidal clients and therapists, to facilitate formulating short-term goals, and even to aid in risk assessing and suicidality comprehension. In contrast, an uninformed use of this tool implies the risk of negatively interfering in the patient-health professional relation, promoting feelings of anger and distance and inhibiting the sharing and discussion of suicidal ideas and plans. The patient can potentially feel the proposed contract as a coercive action, interpreting it as a negative judgment of his/ her suicidal thoughts inhibiting the sharing of difficulties (e.g. Goldblatt, 1994; Range et al., 2002; Rudd et al., 2006).

Literature on the subject warns that no-suicide agreements cannot just have the purpose of reducing the anxiety of the health professionals when facing a suicidal patient. It is also fundamental that clinicians are aware of why they are using no-suicide contracts, which are the goals and limits of their use, how they are perceived by the patient and what they mean for the clinician (e.g. Goldblatt, 1994; Range et al., 2002; Rudd et al., 2006).

5.2. Psychotherapy

> *From time to time, psychotherapy researchers have complained that their findings have not impacted sufficiently on the practitioner or on the policy- maker* (Parloff, 1979, p. 296).

Different studies, including meta-analyses have been providing evidence of the effectiveness of psychotherapy and other psychosocial interventions with people at risk of suicidal behaviours (Comtois & Linehan, 2006; Guthrie et al., 2001; Joiner, Orden, Witte, & Rudd, 2009a; Mann et al., 2005; Tarrier, Taylor, & Gooding, 2008; Winter, Bradshaw, Bunn & Wellsted, 2013).

Despite the variety of interventions, the differences in methodologies, including the population and the outcome measures used, and also the set of methodological limitations, as for example too small samples, there are promising outcomes for psychotherapy in reducing suicidal behaviour and associated risk factors, as well as in increasing therapy adherence (Goldsmith et al., 2002; Comtois & Linehan, 2006; Mann et al., 2005; Winter et al., 2013).

Winter et al. (2013), for example conducted a broad study in this area that includes a review of 15 previous systematic reviews and meta-analyses about psychotherapy and other psychological interventions with people at risk of suicide, a meta-analysis of more than 60 studies and a narrative review of 17 studies considered relevant but that had not the criteria for formal analyzes. The authors concluded that psychological interventions for people at risk of suicide have empirical evidence of effectiveness.

The existing research in the area is mainly within the cognitive-behavioural field, which has proven to be more effective than interventions without the component of psychotherapy, including cognitive therapy (e.g. Davidson et al., 2006; Samaraweera, Sivayogan, Sumathipala, Bhugra, & Siribaddana, 2007), problem-solving therapy (e.g. Eskin, Ertekin, & Demir, 2008; Hawton et al., 1998) and dialectical behaviour therapy (e.g. Leitner et al., 2008; Linehan et al., 2006). In these researches the compared interventions include different treatments as pharmacological treatments, intermittent supportive care and referral to the general practitioner (Goldsmith et al., 2002; Hawton et al., 1998; Winter et al., 2013). They are commonly designated as *treatment as usual* or *standard aftercare*.

With regard to the outcome measures a wide variation among studies is also detected, including suicide rate (e.g. Crawford, Thomas, Khan, & Kulinskaya, 2007), suicide attempt (e.g. Davidson et al., 2006), suicidal behaviour or self-harm repetition (Hawton et al., 1998), suicidal ideation (e.g. Samaraweera et al., 2007) and scores in depression and hopelessness scales (e.g. Rudd et al., 1996; Winter et al., 2013).

Beyond cognitive therapies other approaches have been found effective, as for example brief psychodynamic interpersonal therapy (Comtois & Linehan, 2006; Guthrie et al., 2001).

Despite these results more research is demanded in order to overcome the limitations of assessment related to both the small number of subjects in the existing studies and the difficulties of assessing long-term interventions (Comtois & Linehan, 2006; Hawton et al., 1998). Further more data is requested about some psychological interventions with promising findings but still insufficiently researched (Winter et al, 2013; Guthier et al., 2001).

Hitherto certain psychotherapies seem to be more effective in reducing suicidality than others, but some other interventions are under-investigated. In this scope another aspect that should be taken into account is

the importance of the therapeutic alliance regardless of the type of therapy. Nowadays, the vital importance of the therapeutic relationship in the therapeutic change process, originally and particularly emphasized by Rogers (1957) finds support in the most varied and extensive literature on psychotherapy research (e.g. Goldfried, 2013; Joiner et al., 2009b). This fact strengthens the pertinence of the health professionals' variables and their study in order to inform suicide clinical prevention.

5.3. Psychopharmacology

> "*Psychopharmacotherapy does not target suicide per se. There simply is no anti-suicide pill*" (Maris et al., 2000, p. 525).

Suicidality is a multidimensional phenomenon that cannot be reduced to a chemically changed brain (Saraiva, 2006a). Medication is an important element of the current therapy but research advises that a pharmacological intervention alone does not have empirically supported efficacy in the reduction of suicide risk (e.g. Jobes et al., 2008). When psychiatrists or general practitioners prescribe medication to someone that attempted suicide or is at suicide risk, they have to integrate the pharmacological intervention in a comprehensive therapeutic programme. The medication prescription has to be justified by the presence of psychopathology rather than by the suicide ideation per se (e.g. Cutcliff & Santos, 2012; Gil, 2006; Goldsmith et al., 2002).

Despite the formulated criticism to the extremely high values of psychopathology found by psychological autopsies (e.g. Hemjland et al., 2012; Pouliot & De Leo, 2006), the association between mental disorder and suicidality is a fundamental point to take into account by clinicians. The intervention on psychiatric illness is an important component of suicide prevention, and in turn the use of medication is an important part of the treatment of mental disorders (Mann et al., 2005; Goldsmith et al., 2002). At the same time, health professionals have to be aware that the majority of mental patients will not die by suicide, while a number of individuals without any psychiatric condition will. The percentages of suicide cases without any identified psychiatric diagnosis varies from 7% up to 30% (Pouliot & De Leo, 2006).

The potential adverse effects of medication should also be considered. For antidepressants these possible paradoxical effects are particularly well studied as approached for example by Gil (2006, 2014) and

Goldsmith et al. (2002). These authors provide particular aspects that doctors should contemplate in the prescription act when the patient has suicidal risk, like the prescription of small amounts of the drug at the beginning of the treatment and the election of the less toxic medicines.

Simultaneously, it is important that clinicians and other health professionals involved consider it a prejudice without clinical and empirical support to state that antidepressants and anti-psychotics are in the genesis of suicidality (Gil, 2014).

Several studies have been performed to detect the effects of pharmacological interventions on suicide or suicide attempts providing wide constantly updated knowledge. These data has been systematized by different authors into the headings of the principal psychopharmacological groups - mood stabilizers, (highlighting the lithium substance), antidepressants, anti-psychotics and anxiolytic medications - supplying useful information for the clinical practice of doctors (e.g. Gil, 2006, 2014; Goldsmith et al., 2002; Kim, Marangell, & Yudosfsky, 2006; Schifano & De Leo, 2002). Nevertheless important questions regarding medication effects still remain and others are far from consensus.

Concerning antidepressants empirical data can be divided into: (1) positive results of the increased use of antidepressants in suicide rates (e.g. Mann et al., 2005) and (2) findings of no significant differences in the rates of suicide between individuals who received antidepressants, placebos or no treatment at all (e.g. Gunnel & Asbhy, 2004; Van Praag, 2003). Several reasons have been pointed to explain the failure of antidepressants in suicidality treatment. Among these is the hypothesis that health professionals neglect psychological and social factors and consequently do not use antidepressants in conjunction with psychotherapy (Van Praag, 2003). In this context, it is important to emphasize that no antidepressant has demonstrated so far unequivocal and consistent anti-suicidal action (Gil, 2006, 2014).

The use of anxiolytic medications justified by the presence of anxiety in many mental disorders, including depression and its increased risk of suicidal behaviours, poses problems yet unanswered. Benzodiazepines are an effective medicine to relieve anxiety but empirical evidences have showed an association between its use and an increased risk of suicide (Gil, 2006; 2014). However some authors argue that this association may be distorted by the fact that benzodiazepines are often used as a mean for suicidal behaviour

(Goldsmith et al., 2002). Some authors advise the substitution by anti-psychotics in the treatment of anxiety, others suggest the use of benzodiazepines with short-term action and prescriptions of very small amounts and/ or in a safe and monitored context (Gil, 2006, 2014).

Regarding mood stabilizers, medicines used in the treatment of bipolar disorder, different studies have empirically demonstrated that lithium significantly reduces suicide rates (Baldessarini et al., 2006; Gil, 2006, 2014; Goldsmith et al., 2002; Schifano & De Leo, 2002).

Research has suggested that anti-psychotic medications can be effective in the reduction of suicidal behaviour when suicidality is a feature of psychosis in schizophrenia. Particularly consistent results were found for clozapine (Gil, 2006, 2014; Goldsmith et al., 2002).

In short, empirical data have demonstrated that psychopharmacology alone is not sufficient for treating mental disorders and even less for responding to suicidality problems, despite its unquestionable significance for treatment (e.g. Goldsmith et al., 2002; Jobes et al., 2008). This underlines the need of balance between psycho-environmental and biological contributors to suicide, as well as the important role and competence of health professionals in the establishment of a therapeutic relationship and in intervention planning.

5.4. Hospitalization

A high percentage of psychiatric inpatient admission is related to an imminent and high suicidal behaviour risk assuming that hospitalization can provide the most effective treatment or at least is the most effective suicidal crisis management (e.g. Coimtois & Linneham, 2006). The option for an inpatient treatment of someone who is at suicide risk or who made a suicide attempt implies the need of high protection and intensive therapy. However there is very little research about inpatient treatment of people at risk of suicidal behaviours (Ellis, Green, Allen, Jobes, & Nadorff, 2012; Coimtois & Linehan, 2006; Goldsmith et al., 2002). Namely, there is an absence of empirical data about the protective and the risk effects of hospitalization that are important for clinicians, patients and families to take informed decisions.

The decision for inpatient treatment has to be based on the best scientific evidence rather than in faith-based interventions or established practices due to psychiatric history. Furthermore, when a doctor has to decide

about the hospitalization of a patient who is at suicide risk he has to take into account different factors related to the risk assessment and psychosocial features of the person at risk, as well as the benefits and risks involved. So it is a complicated decision for health professionals (Goldblatt, 1994) but perhaps even more difficult in the cases when the final decision is that the patient does not need to be hospitalized (Hirschfeld, 2001).

Nowadays and despite the lack of research in the area it is accepted that outpatient intervention having less impact on the individual's daily functioning should be the first option. However in extreme cases of very high risk of lethality, very serious psychiatric pathology and a very poor support network the inpatient intervention is the best option. The main goals in the psychiatric hospitalization are to decrease suicidal ideation, to stabilize emotionally, reducing anxiety and other potential symptoms related to the self-injury behaviour; the patient' safety is the first priority (e.g. Cruz & Sampaio, 2014; Goldsmith et al., 2002; Hirschfeld, 2001; Joiner, Van Orden, Witte, & Rudd, 2009d; Santos & Neves, 2006, 2014). Thus when a health professional is involved in an inpatient treatment decision he should also consider safety aspects during the hospitalization, transportation to the hospital and after discharge. Saraiva (2006b) strengthened that inpatient criteria have to be adapted to each particular case and have to take into account the underlying psychopathology and risk factors. The author presented a stance conciliatory between who defend hospitalization after a suicidal behaviour and who criticize this option.

The existing studies about efficacy of intervention are mostly focused on people treated as outpatients (Ellis et al., 2012; Hawton et al., 1998). However there are two kinds of empirical data related to inpatient and suicidality that should be taken into account in this section of the thesis. First, it is known that 4% to 7% of suicides occurred during the hospitalization and that the vulnerability is at its highest peak in the first week (e.g. Ellis et al., 2012; Goldsmith et al., 2002; Rousset & Vacheron, 2007). This relatively high percentage cannot be separated from the fact that patients who required psychiatric hospitalization are usually severely ill or at very serious risk of suicidal behaviour.

Second there are consistent empirical evidences about the increased risk following hospital discharge mainly in the first week and until three months after leaving inpatient care (e.g. Appleby et al., 1999; Bickley et al.,

2013; Kan, Ho, Dong, & Dunn, 2007; Large, Sharma, Cannon, Ryan, & Nielssen, 2011; Pirkola, Sohlman, & Wahlbeck, 2005; Rousset & Vacheron, 2007). Further, studies show that a short admission (less than a week) is among the risk factors of a suicide after discharge, while an immediate and enhanced aftercare is a protective factor (Bickley et al., 2013).

An important component of intervention related to hospital discharge either after an inpatient treatment or an emergency intervention is the **follow-up care** provided to the person who had a suicidal behaviour, in the sense of a continued monitoring. Under this heading are various forms of psychosocial interventions, as for example regular contacts through letters or telephone (e.g. Motto & Bostrom, 2001) and specialized care after discharge by a suicide intervention counsellor (e.g. Aoun, 1999). Although more research is needed to establish the efficacy of different forms of follow-up care in reducing suicidal behaviour, health professionals should take into account that long-term follow-up care after hospitalization has positive results in reducing deliberate self-injurious behaviours (Asarnow et al., 2011; Goldsmith et al., 2002).

Deciding which therapeutic actions are the best ones facing a person who needs help regarding suicidal behaviours or other self-injury problems seems to be a complicated task for health professionals. It is even more difficult to include patient and family in these reflections. Each strategy encompasses positive effects but also the risk of harmful consequences. Health professionals have to take the different aspects of the problem in each specific case into account in order to decide with the patient and/ or the family, which is the appropriate intervention.

This PhD research asks psychologists, psychiatrists and general practitioners about the practices they would adopt when facing a client/ patient with suicidal problems, as well as the difficulties they feel towards this demanding clinical problem.

6. Posvention and the impact of patient suicide

Posvention refers to the activities performed after the traumatic event aimed at reducing the adverse effects of suicide on survivors facilitating the bereavement process, preventing suicidal tendencies, which are known to be at increased risk in those bereaved by suicide, helping them to live better, more productively, and with lower levels of stress (Shneidman, 1981).

When someone dies by suicide several other people are deeply and directly affected, including family, friends and the health professionals who followed the case, among other significant. The term posvention created by Shneidman, originally aimed at bereaved family members, is currently recommended to a wide set of people, designated as survivors. Besides the family it includes health professionals, friends, work or school colleagues, other patients or prisoners, and specific target groups as school class, sports team, or other specific communities affected by the suicide of one of its members. It can also be someone unknown to the deceased but affected by the event due to particular circumstances, for instance cases of suicide reported by the media or of representative personalities of a specific community. Posvention is a specialized intervention after the suicide and includes general care and support, as well as the specific treatment that survivors may need. Posvention must encompass both the immediate support and the extended support in order to facilitate the mourning process (Shneidman, 1981).

So health professionals may simultaneously have a preponderant role in postvention support programs while being themselves survivors as professional caregivers.

The systematic study of health professionals as survivors began in the 60s with Litman (1965), one of the three founders of modern suicidology and of the Los Angeles Suicide Prevention Center, a research reference centre and precursor on suicide studies. To study patient suicide impact Litman (1965) interviewed 200 psychotherapists, highlighting the coexistence of two kinds of reactions: a personal reaction - a common process of mourning - and a reaction according to the specific social role – the professional reaction. The author highlighted suffering, guilt, depression and anger as the most common reactions of psychotherapists and defends the team case review as a useful resource to deal with the event. In this precursor study Litman

mentions that professionals' reactions are influenced by patient characteristics and also by the established relationship. Litman also refers the possibility that patient suicide may be a learning experience.

Since Litman's pioneer study (1965), international literature on the impact of the suicide of a patient in health professionals has considerably grown with particular productivity in the last 30 years (as other subfields of suicidology). Currently, the existent literature in patient suicide impact can be summarized in four main focuses: (1) frequency of patient suicide experience; (2) emotional and professionals reactions and consequences; (3) post-suicide management measures and the role of health professionals; and (4) related factors which may influence the patient suicide experience. Next each of these topics is approached.

6.1. Patient suicide frequency

Available studies show a broad range in patient suicide frequency: between 33% (Brown, 1987a) and 82% in the case of psychiatrists (Cryan, Kelly, & McCaffrey, 1995) and between 11% (Kleespies, Penk & Forsyth, 1993) and 22% for psychologists (Chemtob, Hamada, Bauer, Kinney & Torigoe, 1988a). In the study of Brown (1987b) 14% of the psychologists surveyed reported having experienced a patient suicide. Patient suicide is also recognized as a professional risk for general physicians, however few studies analyzed the impact in this group (Davidsen, 2011; Hallingan & Corcoran, 2001; Kendall & Wiles, 2010). In an Irish sample of general physicians the authors found that 86% of doctors had had at least one patient who had died by suicide (Hallingan & Corcoran, 2001). Nurses are another professional group where patient suicide is documented as a professional hazard; in a Japanese study, for example, 55% of nurses reported such an experience (Takahashi et al., 2011).

In the studies using multidisciplinary samples the frequencies of patient suicide range from 19% (Gaffney et al., 2009) to 86% (Linke, Wojciak, & Day, 2002).

Table 2 displays a systematization of patient suicide frequencies found in 25 international studies about patient suicide impact on health professionals.

However data on frequencies came from different types of studies, namely cross-sectionals (e.g. Chemtob et al., 1988a, b; Landers, O' Brien, & Phelan, 2010) and longitudinal studies (e.g., Brown, 1987; Ruskin, Sakinofsky, Bagby, Dickens, & Sousa, 2004), therefore it should be taken into account that they may

Table 2 *Patient suicide frequencies in 25 studies*

1st Author, data		Participants	Patient suicide frequency %	**N** with patient suicide experience	Country
Brown 1987a	Psychiatrists	Psychiatrists (residents)	33	13	USA
Yousaf et al., 2002		Psychiatrists (residents)	43	23	England
Ruskin et al., 2004		Psychiatrists	50	74	Canada
Chemtob et al., 1988b		Psychiatrists	51	131	USA
Courtenay & Stephens,2001		Psychiatrists (residents)	54	109	England
Pikilton & Etkin, 2003		Psychiatrists (residents)	61	121	Canada
Alexander et al., 2000		Psychiatrists	68	167	Scotland
Pieters et al., 2003		Psychiatrists (residents)	69	79	Belgium
Landers et al., 2010		Psychiatrists	80	143	Ireland
Cryan et al., 1995		Psychiatrists	82	89	Ireland
Wurst et al., 2010	Psychiatrists and Psychologists	Psychologists, Psychiatrists and some Social workers	35	61	Switzerland
Wurst et al., 2011		Psychologists, Psychiatrists and some Social workers	69	123	Germany
Kleespies et al., 1993	Psychologists	Psychologists (trainees)	11	33	USA
Chemtob et al., 1988a		Psychologists	22	81	USA
Gaffney et al., 2009	Multidisciplinary	Doctors, Psychologists, Social workers and Nurses	19	83	Ireland
Brown, 1987b		Psychiatrists, Psychologists, Nurses, Other Mental Health workers, Social workers	21	33	USA
Gulfi et al., 2010		Doctors, Psychologists, Social workers and Nurses	70	275	Switzerland
Linke et al., 2002		Community mental health team, Nurses, Social, workers Psychiatrists; Psychologists and Occupational therapists	86	38	England
Pope & Tabachnick, 1993	Others	Psychotherapists	29	82	USA
Jacobson et al., 2004		Mental Health Social workers	33	230	USA
Menninger, 1991		Psychotherapists	39	41	USA
Takahashi et al., 2011		Nurses	55	292	Japan
Halligan & Corcoran, 2001		General physicians	86	103	Ireland

correspond to different epidemiological measures – prevalence and incidence - respectively.

Furthermore, the frequencies correspond to different periods of practice: residency or trainee (e.g. Courtenay & Stephens, 2001; Kleespies et al., 1993; Yousaf, Hawthorne, & Sedgwick, 2002), total years of practice (e.g. Ruskin et al., 2004) or a specific period of time (Wurst et al., 2010). Comparisons are of limited value also due to differences in the number of participants and the composition in the multidisciplinary samples.

Despite its relevance few studies explored the differences in patient suicide frequency according to gender, years of practice or specific training in suicidal behaviours. With regard to gender Pope and Tabachnick (1993) found that in a therapists' sample more men than women experienced patient suicides, while Chemtob et al. (1988a) and Kleespies et al. (1993) did not find gender differences in the frequency of client suicide. Among American and Swiss psychiatrists and psychologists there seems to be no association between years of practice and number of patient suicide (Chemtob et al., 1988a, b; Wurst et al., 2010).

There are very few evidences about the relationship between the number of patient suicide and health professional's training. Chemtob et al. (1988a, b) found that more training was associated with a significant lower rate of suicide for both psychiatrists and psychologists, however the type of training is not mentioned. In short, studies reveal that patient suicide is a frequent experience for health professionals and that the relationship between patient suicide frequencies and socio-demographic characteristics show no conclusive evidences.

6.2. The impact of patient suicide - emotional and professional reactions and consequences

The study of health professionals' reactions when a patient dies by suicide has been performed through different data collection methodologies: semi-structured interviews (Goldstein & Buongiorno, 1984; Kendall & Wiles, 2010; Knox, Burkard, Jackson, Schaack, & Hess, 2006; Litman, 1965), questionnaires with open questions and *likert* scales (Alexander, Klein, Gray, Dewar, & Eagles, 2000; Yousaf et al., 2002), and visual analogical scales (VAS) (Hendin, Lipschitz, Maltsberger, Haas, & Wynecoop, 2000; Wurst et al., 2010). Stress assessment using the *Impact Event Scale* IES (Horowitz, Wilner & Alvarez, 1979) was included in several studies (Chemtob et al., 1988 a ,b; Jacobson, Ting, Sanders, & Harrington, 2004; Pieters, De Gucht, Joos, & De Heyn, 2003; Ruskin et al., 2004; Takahashi et al., 2011; Yousaf et al., 2002). Another source of

information about this experience are case studies carried out by therapists who describe their experience after a patient suicide (Carter, 1971; Gitlin, 1999; Grad & Michel, 2005; Valente, 2003).

Despite methodological and target population differences the studies agree that death of a patient by suicide is a significant and disturbing experience. Guilt and self-blame, anger, shock, fear, concerns, loss of self-confidence and feelings of incompetence or failure are among the most usual emotional reactions reported by health professionals in the international literature (e.g. Chemtob et al., 1988a, b; Cryan et al., 1995; Landers et al., 2010; Pieters et al., 2003; Ruskin et al., 2004; Gaffney et al., 2009; Gulfi, Dransart, Heeb, & Gutjahr, 2010; Kleespies et al., 1993; Kleespies, Smith, & Becker 1990; Linke, Wojciak, & Day, 2002; Wurst et al., 2011).

Guilt and failure are indicated as feelings with a particular intensity and meaning for health professionals in the aftermath of a patient suicide. The percentage of professionals who describe self-blame ranges from 29% in a multidisciplinary sample (Gaffney et al., 2009) to 79% in a sample of psychiatrists (Landers et al., 2010). In an English study the proportion of psychiatric trainees who report feelings of blame was 70% (Yousaf et al., 2002).

An important indicator of patient suicide impact and of its recovering process is the duration of the negative emotional reactions. Adverse feelings persisting longer than three months were described by 29% of Scottish psychiatrists (Alexander et al., 2000) and 7% of Canadian psychiatrists (Ruskin et al., 2004).

Studies agree that only a minority of health professionals generally present clinical levels of stress towards patient suicide. However a large variation between researches is found: in Chemtob's study (1988b) clinical levels were present in 53% of the psychiatrists, while Pieters et al. (2003) obtained clinical scores only for 9% of the resident psychiatrists. Table 3 shows the proportion of health professionals who attain clinical scores in the two sub scales of IES – intrusion and avoidance- in different studies.

Despite few studies making reference to the persistence of symptoms, the trend seems to be a decrease over the time of the rates of health professionals with clinical levels of stress (Chemtob et al., 1988a; Yousaf et al., 2002). However it is not negligible that 29% of resident psychiatrists maintain clinical levels after two

years and three months of the event, the mean time elapsed between the suicide and the questionnaire completion (Yousaf et al., 2002).

Table 3 *Health professionals' percentage with clinical levels of assessed using IES towards patient suicide*

Studies	Intrusion scale	Avoidance scale
Chemtob 1988a	49%	27%
Yousaf 2002	33%	29%
Ruskin 2004	25%	23%
Pieters 2003	12%	7%

Impact studies highlight another common consequence of patient suicide – changes in the professional practice (e.g. Chemtob, 1988a, b; Gulfi et al., 2010; Takahashi et al., 2011; Yousaf et al., 2002). Increased attention to risk signs, greater tendency to hospitalize, search for specialized information and training, seeking out colleagues to discuss cases and increased attention to legal issues of the clinical practice, have been among the most frequent changes reported by health professionals (e.g. Chemtob, et al., 1988a, b; Hendin et al., 2000; Yousaf et al., 2002).

6.3. Post- suicide management

In the aftermath of patient suicide the role of health professionals comprises both providing support to the bereaved family, to other patients and to other staff members, as well as ensuring support resources for therapists themselves. It is fundamental that the health professional re-establishes personal and professional well-being in order to be able to provide support to other survivors. Thus, support resources should be available and should be previously known by health professionals (Berman, Jobes, & Silverman, 2006b; Campbell, 2006; Campbell & Fahy 2002; Farberow, 2005; Hodelet & Hughson, 2001; Michel, Armson, Fleming, Rosenbauer, & Takahashi, 1997).

Literature considerations about management of patient suicide can be divided into (a) actions prior to the event and (b) post-suicide measures. (a) The former include training actions, which anticipate patient suicide as a probable professional risk, preparing health professionals for responsibility issues, clinical practice limits, the role of the health professional, posvention good practices and the needs of families, children,

adolescents, health professionals and other specific survivor groups (e.g. Berman et al., 2006b; Brown, 1987a; Menninger, 1991; Michel et al., 1997; Pieters et al., 2003; Ruskin et al., 2004). Brown (1987a) in the scope of a survey with resident psychiatrists discussed patient suicide as a possible positive learning experience and suggested a training model aimed at resident psychiatrists based on five phases: anticipation; acute impact; clarification and working through; reorganization – relative resolution vs ongoing doubts - and preparation for reactivation and post-training practice. The first phase corresponds to the anticipation of the real possibility of a patient suicide experience, encouraging trainees to imagine the event and to share what they think and feel about the death by suicide of one of their patients or of a colleague's patient. The author explained that this measure would decrease anxiety towards the event. This phase also includes approaching the issues of responsibility, beyond the more usual syllabus about suicidal behaviours (e.g. epidemiology). The four subsequent phases (already related to point b) are indicated as post-suicide measures comprising immediate supportive actions – starting hours after the suicide notification - until integration activities occurring several months later, constituting a guide program to patient suicide for health professionals (Brown, 1987a).

(b) With regard to the second point – post-suicide measures – empirical studies on patient suicide and specially postvention literature advocate, beyond specialized training, the support of colleagues, supervision, team case review, contact with patient family and funeral attendance as suitable actions to deal with patient suicide. However few studies investigated the perceived usefulness of each resource or activity effectively used by health professionals in the aftermath of patient suicide.

The support of colleagues appears to be the most used action by health professionals across empirical studies, including both informal and formal approaches (e.g. Chemtob, 1988a, b; Gaffney et al., 2009; Goldenstein & Buongiorno, 1984; Landers et al., 2010; Linke et al., 2002; Menninger, 1991; Pieters et al., 2003; Ruskin et al., 2004) and consistently mentioned on postvention literature (e.g. Campbell & Fahy, 2002; Campbell, 2006; Hodelet & Hughson, 2001; Tanney, 1995).

Despite the fact that up to the moment supervision in cases of patient suicide has only been poorly studied and the few existent empirical data are mainly about residents (Fang et al., 2007), literature, taking into

account how health professionals cope in this situation, suggests that supervision can play a useful role in the recovery process of health professionals when a patient dies by suicide (Campbell & Fahy, 2002; Ellis, Dickey, & Jones, 1998; Kleespies et al., 1990, 1993; Knox et al., 2006; Lafayette & Stern, 2004; Ruskin et al., 2004).

Team case review is recognized as a support resource to cope with a patient suicide (e.g. Litman, 1965; Alexander et al., 2000; Linke et al., 2002) that must be performed in a supportive, non-blaming and learning atmosphere (Berman et al., 2006b; Litman, 1965). Some authors advice the guidance of an external consultant and recommended that it should happened three weeks later rather that immediately after the event (Berman et al., 2006b; Hodelet & Hughson, 2001; Brown, 1987a). In the qualitative study of Goldstein and Buongiorno, (1984) twelve of the 20 participant psychotherapists reported that the review of the case aggravates doubts rather than helps in the recovery process, particularly when it is carried out immediately after the suicide notification.

Psychological autopsy, an original idea from Curphey (1967 in Costa-Santos, 2006) but mainly developed and disclosed by Shneidman (1969, 1981) and also by Farberow and Litman, is indicated as a suitable methodology of revising the suicide case (e.g. Berman et al., 2006b; Goldstein & Buongiorno, 1984; Hodelet & Hughson, 2001; Landers et al., 2010; Michel et al., 1997).

The contact with the deceased's family should be among the priorities of health professionals in the aftermath of a suicide of one of their patients (e.g. Kleespies et al., 1993; Sakinofsky, 2007). In general the meeting between therapist and bereaved family is useful and supportive to both sides, through the discussion of the circumstances that surrounded the suicide. And it is also an opportunity for the health professional to provide information about the support available for families as survivors (e.g. Kleespies, et al., 1993) even if in some cases anger, rejection or accusations of guilt by families can be an obstacle in the encounter. Despite patient family contacts being consistently recommended in postvention literature there is a scarcity of empirical data about health professionals' contact with relatives of patients who died by suicide (Fang et al., 2007).

Also few studies are focused on the usefulness of the support of the health professionals' own family in the aftermath of a patient suicide (Alexander et al., 2000; Landers et al., 2010; Linke et al., 2002; Pieters et al., 2003; Ruskin et al., 2004). The percentages of professionals who perceived the support of their own family as helpful to cope with patient suicide vary between 20% (Landers et al., 2010) to 85% (Alexander et al., 2000).

In the same line, considering funeral attendance is a recommended post-suicide procedure, which can be positive for both the self-recovery process and the family support (e.g. Campbel, 2006; Fang et al., 2007; Michel et al., 1997). However, empirical data show that only a minority of health professionals participated at burial ceremonies: 15% of Scottish psychiatrists (Alexander et al., 2000), 17% of psychiatric trainees (Pieters et al., 2003) and 18% of psychologists (Kleespies et al., 1993).

Some empirical studies also make reference to the importance that informal support from family and friends can have in the recovery process of health professionals (e.g. Gaffney et al., 2009; Golstein & Buongiorno, 1984; Kleespies et al., 1993; Menninger, 1991).

6.4. Factors related to patient suicide impact

The knowledge about factors related to patient suicide experience is the less consistent topic among empirical studies. Table 4 systematizes the outcomes of different studies with regard to the association between health professionals' characteristics and the emotional reactions or changes in practice.

The empirical data show that women tend to express feelings of shame, guilt and self-blame, failure and defeat more often than men and they also question more frequently their professional competence than men (Gaffney et al., 2009; Grad, Zavasnik, & Groleger, 1997; Wurst et al., 2010). Wurst et al. (2010) found that those who suffer from severe distress, measured using a visual analogue scale, were mostly female. In the Gaffney's study (2009) chi-square analyses revealed that men are more likely than women to report that patient suicide did not have an effect on them and professional self-doubt was expressed more often by women. In the same vein Gulfi et al. (2010) discovered that the impact of patient suicide was significantly more pronounced among female professionals. Grad et al. (1997) detected that female psychologists and psychiatrists more often sough emotional support than their male colleagues.

Table 4 *Association between professional characteristics and patient suicide impact (emotional reactions and/ or changes in practice)*

Studies			Variables				
1st author	year	Sample	Gender	Age	Years of practice	Professional Group	Work place
Chemtob	1988a	Psychologists	-	No	No	-	-
Chemtob	1988b	Psychiatrists	-	Yes	Yes	-	-
Grad	1997	Psychiatrists and Psychologists	Yes	-	No	No	-
Hendin	2000	Psychotherapists	-	No	No	-	No
Gaffney	2009	Multidisciplinary	Yes	-	-	-	-
Wurst	2010	Psychiatrists and Psychologists	Yes	No	Yes	Yes	No
Gulfi	2010	Multidisciplinary	Yes	Yes	_	Yes	No

With regard to the variables age and years of practice, different studies achieved different results. Outcomes from Chemtob' studies (1988a, b) indicated a decreasing impact with increasing age and years of practice among psychiatrists, while in the similar survey with psychologists there were not significantly differences according these two independent variables. Gulfi et al. (2010) found age differences in the tendency to operate changes in practice among health and social professionals, while this was not found to be the case regarding the intensity of reactions. Swiss young professionals tended to make greater changes in their practice than older colleagues (Gulfi et al., 2010). Wurst et al., (2010) in its study with also Swiss psychologists, psychiatrists and some social workers found that psychiatrists in training felt more guilty, shocked and insufficient than their experienced colleagues, but they did not find significant relations between patient suicide experience and years of practice in general. The authors stated that these findings are in line with previous studies citing Hendin' studies (2000, 2004). Hendin et al. (2000) underlined that trainees question their ability to help, however experienced psychiatrists thought that their experience would be protective of fear and self-confidence and thus they felt disturb by realizing that it was not so. The authors concluded that the intensity of reactions in the aftermath of patient suicide was independent of age and years of experience (Hendin et al., 2000) and in the subsequent study (Hendin, Haas, Maltsberger, Szanto, & Rabinowicz, 2004) they also did not find significant relationship between years in practice and intensity of distress. However the authors hypothesize that the non-significance is justified by the small sample.

Litman (1965) in their precursor study stated that "*many therapists have stated that the suicide of a patient in a institution (…) is much easier to tolerate than one which occurs in the course of the private practice*" (p. 574) but in contrast following studies didn't find differences between institutional and private settings (Gulfi et al., 2010; Hendin et al., 2000, 2004; Wurst et al., 2010), probably there exist moderator variables in this relationship, as colleagues support and professional network. With regard to the professionals group Grad et al. (1997) did not find differences between Psychiatrists and Psychologists, whereas in contrast in the Wurst's study (2010) psychiatrists were significantly more distressed than psychologists. In Gulfi's study there are significant differences in practice changes according to the professional group: social workers were more disposed to make changes than nurses.

Despite specialized training has been recommended as measure to deal in a positive way with patient suicide event (e.g. Brown, 1987) their impact on emotional and professional reactions has not yet been explored.

The literature reviewed demonstrated that patient suicide is a likely event and it is a very disturbing and demanding experience of the clinical practice. Despite the researches advances the impact of patient suicide on health professionals remains insufficiently investigated, as demonstrated above, specifically with regard to the support resources effectively used by professionals, its recovery process and also about factors, which can influence the experience. At the national Portuguese level the topic has been discussed a few times at scientific meetings (Frazão, 2008; Gil, 2008; Sampaio, 2010) showing the interest, the concern and the relevance of the subject. However no empirical data exist about frequency and impact on Portuguese health professionals of patient suicide. Similar fact was found in Flandres, where despite the high prevalence of suicide (cf. section 2, p. 8-10) to our knowledge, only one study about the experience of patient suicide is available and it is specifically on psychiatric trainees (Pieters et al., 2003).

This PhD includes two studies, which investigated the patient suicide impact on Portuguese psychologists, psychiatrists and general practitioners and on Flemish psychiatrists.

7. Aim of this PhD research

In Portugal the prevention of suicidal behaviours has recently been on the political agenda. It is among the priorities of the two last national mental health plans and the first national plan for suicide prevention had been released a few months ago (DGS, 2013). Based on international evidences and WHO orientations this national plan recognizes the importance of investing at health professionals' level.

However, in our country very little is known about health professionals who deal with suicidal behaviours. Concretely their training level, their current practices, their difficulties and needs and their experience with suicidal behaviours in clinical practice are unknown. Thus, there is an unquestionable need of baseline data in order to establish evidence-based strategies at health professionals' level and to set up tailored measures to our professional and cultural context. The existence of barriers to prevention of suicidal behaviours and to care of suicidal people at the level of health professionals has been supported by different findings. Namely empirical data demonstrate that high percentages of those who attempted or completed suicide had contact with health professionals days to months before their self-injurious behaviour (cf. section 2, p. 17-18). Subsequently, the need to study professionals' variables has been broadly acknowledged in international literature (e.g. Goldsmith et al., 2002; Scheerder, 2009; Neimeyer et al., 2001; Pisani et al., 2011).

The aim of this PhD is to contribute to the knowledge of this specific field of suicidology through the study of issues related to clinical practice with patients at risk of suicidal behaviours, focusing on psychologists, psychiatrists and general practitioners, the three professional groups most sought by Portuguese people due to a psychological or emotional problem (Eurobarometer, 2006, 2010).

More specifically, a first focus of this PhD research is the conceptualisation made by health professionals about suicidal behaviours' explanations. Explanatory models of suicidal behaviours have an important role at the intervention level and may be a barrier or a facilitator in the therapeutic process (e.g. Michel, 2010) (cf. section 3, p. 35-37). Professional representations have been indentified as a factor that significantly affects the professionals' action, especially in contexts of high complexity (e.g. Blin, 1997).

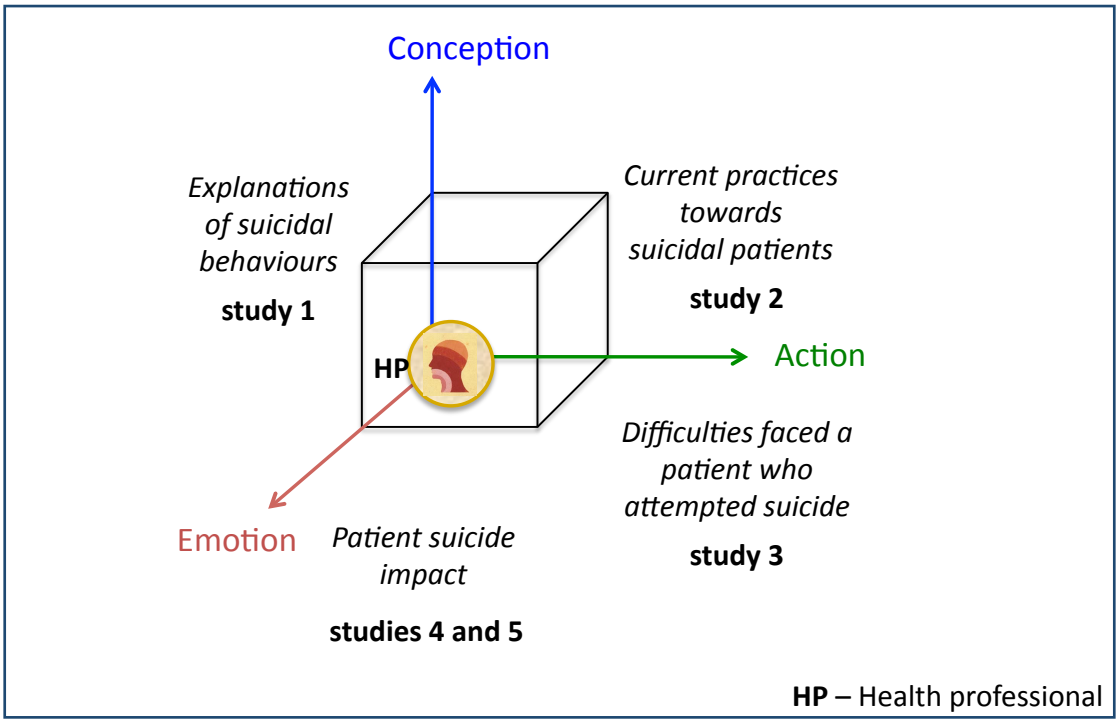
However this is a poorly studied subject at international level, particularly under the perspective of health professionals.

A second main focus of this research is the current practices and difficulties related with the clinical work with people at suicide risk or with suicide attempt. International research has been investigating professionals' characteristics that may be barriers to an effective clinical suicide intervention such as attitudes (e.g. Botega et al., 2005; Jacobson et al., 2012; Saunders et al., 2012) and skills (e.g. Neimeyer et al., 2001, Scheerder et al., 2010) (cf. section 5, p. 48-55). But so far little attention was paid to the effective practices of health professionals in suicide intervention and their real difficulties towards suicidal patients, namely exploring the perceived intervention practices and difficulties.

A third major subject of this PhD is the professional and emotional impact of a patient suicide. Comparatively, more attention has been paid to this issue than to the previously mentioned explanations, practices and difficulties (cf. section 6, p. 65-75). Nevertheless the paucity of data on suicide impact on general physicians and psychologists, on sources of support effectively used by health professionals and on factors related to the demanding experience of patient suicide, warrants more research on the subject. Moreover, in Portugal there is no data available about frequency and impact of patient suicide on health professionals. Therefore it is important to enhance knowledge to inform postvention strategies and policies. In Flanders, the second setting of this PhD, some work in the field of health and community professionals has been providing relevant outputs in the field of attitudes and skills (Scheerder, 2009; Scheerder et al., 2010) (cf. section 4 and 5). However empirical data about patient suicide impact and postvention are lacking and this area was identified as an important domain to improve knowledge (Pieters et al., 2003).

Additional aims of this PhD and concretely of this thesis are to stimulate research in suicidology in the scope of psychology and to bring suicidology into academic psychology.

In fulfilling these objectives this PhD research comprises five studies, which can be framed into three dimensions of human behaviour/ functioning: conception, action and emotion, represented by figure 20.



8. Overview of the studies

This PhD includes five studies that investigate professional representations about suicidal behaviours' explanations, current strategies of intervention and difficulties towards patients at risk of suicidal behaviours, including the study of patient suicide impact. The research was performed with two different samples: one constituted by 242 Portuguese health professionals, including psychologists, psychiatrists and general practitioners from the entire country, including the two archipelagos, and the other by 107 psychiatrists of the Dutch-speaking part of Belgium – Flanders.

Given the scarcity of data in the specific areas under study data collection was performed using instruments constructed for this propose.

In **study 1**, suicidal behaviours' explanations of Portuguese health professionals were surveyed in a sample of 128 psychologists, 53 psychiatrists and 61 general practitioners using the *Explanations of Suicidal Behaviours Questionnaire* (ESBQ). This study explored the components of the explanations of health professionals and investigated the effects of professional group, of theoretical intervention model of psychiatrists and psychologists and of patient suicide experience in the health professionals' explanations.

Study 2 using the same sample investigated the most probable practices of doctors and psychologists towards a patient that seeks their practice following a recent suicide attempt, using the *Intervention Strategies towards Suicidal Behaviours Questionnaire* (ISBQ) for data collection. The study compared intervention options among the three professional groups under study and investigated the effects of specific training on suicide intervention. It also analysed the effect of specific clinical experience measured through the number of patient suicide attempts on the self-reported practices. Further more it studied the influence of gender, age and years of practice on the different components of intervention.

Study 3 investigated the perceived difficulties of dealing with suicidal patients. The participants were the 196 psychologists and doctors who had clinical experience with patients who attempted suicide or were at serious suicidal risk of the 242 participants. In this study an instrument was developed - the *Difficulties in Suicidal Behaviours Intervention Questionnaire* (DSBQ) to enable the assessment of the health professionals' difficulties and to identify the health professionals' perceived skills and needs with regard to training in suicide. A pilot study of the psychometric characteristics of DSBQ was done. Further this study analyses the relation between health professionals' perceived difficulties and central practices and professional and demographic variables: specific clinical experience with suicidal behaviours, specific training, gender, age and years of practice. Finally the differences on perceived difficulties according to the professionals group were examined.

The next two studies – **study 4** and **study 5** – reported the experience of health professionals when a patient dies by suicide, studying the emotional reactions and the changes performed in clinical practice as consequences of patient suicide. The impact studies also explored the sources of support that psychologists, psychiatrists and GPs used due to the patient suicide event and how they evaluated the usefulness of these resources. Additionally, factors related to patient suicide experience were explored, namely training, age, gender and years of practice. The *Patient Suicide Experience Questionnaire* (PSEQ) – Portuguese and Flemish version – used to investigate patient suicide impact on health professionals was used in a sample of 64 Portuguese psychologists, psychiatrists and GPs and in a sample of 107 Flemish psychiatrists.

Next, the 5 studies are presented through five articles (published, accepted, under review or submitted for publication in blind peer review scientific journals). Each of them corresponds to a study with a specific

research goal. Some replication and/ or discontinuity may be present because each manuscript has been written to be published independently but being part of the same global research - this PhD project.

STUDY 1

Health professionals' explanations of suicidal behaviour: effects of professional group, theoretical intervention model and patient suicide experience.

This article has been submitted for publication

Rothes, I. A. & Henriques, M. R. (*submitted for publication*). Health professionals' explanations of suicidal behaviour: effects of professional group, theoretical intervention model and patient suicide experience.

Health professionals' explanations of suicidal behaviour: effects of professional group, theoretical intervention model and patient suicide experience.

Abstract

The objectives of this study were to identify health professionals' explanations of suicidal behaviours and to study the effects of professional group, theoretical intervention models and patient suicide experience in professionals' representations. Two hundred forty-two health professionals filled out a self-report questionnaire. Exploratory principal components analysis was used. Five explanatory models were identified: *psychological-suffering*, *affective-cognitive*, *socio-communicational*, *adverse life events* and *psychopathological*. The *Psychological-suffering* and *psychopathological* models were the most valued while the *socio-communicational* was seen as the less likely to explain suicidality. Differences between professional groups were found. The training on theoretical models aimed at health professionals is needed.

Key words: suicidal behaviours; explanatory models; health professionals

1. Introduction

Suicidal behaviours are among the most serious public health problems in the occidental world. Health professionals can have a fundamental role in suicide prevention (e.g. Mann et al., 2005). Social psychology, especially through the social representation theory (Moscovici, 1976), and medical anthropology, through the concept of explanatory models (Kleinman, 1980) lead us to the importance of health professionals' explanations on suicidal behaviours, providing a framework for understanding the thinking of professionals practicing in this area. Explanatory models are the ideas by which illness and its treatment are interpreted by all those engaged in the clinical process (Kleinman, 1980). Social representations "*are forms of knowledge, socially elaborated and shared with practical purposes and contributing to the construction of a common reality to a social group*" (Jodelet, 1989b, p.36) and professional representations are a particular category corresponding to the representations elaborated within the professional actions about meaningful objects to the profession, interfering with practice (e.g. Bataille, Blin, Mias et al., 1997).

Professional representations of suicidal behaviours emerge from a relationship between the knowledge that actors develop in the action of their professional practice and the theoretical (scientific and technical) knowledge of reference. Representations are also influenced by institutional and social rules related to the role of the professional.

In professional practice individuals communicate and act on significant objects, which presupposes the existence of a shared knowledge about them. Not all objects are relevant and therefore there is a selection of material arising from the attribution of meaning and usefulness by professional actors.

The dispersion of information related to a specific object – in this case the suicidal behaviours -, due to the complexity of social, cultural and scientific barriers, is one of the conditions that affect the emergence of the social or professional representation. This dispersion refers to the gap between the information that is necessary to understand an issue and the available information in terms of quantity, quality, complexity or consistency. The need to communicate and act on the object compels the individual, in this case the health professional, to eventually fill the gaps of his knowledge about the subject or problem. Another important aspect in the emergence of representations is that the specific position of the group facing the object or

problem leads to focusing on certain aspects of the object. The interests, resources and involvement of each individual or group influence the emergence of the representation (Moscovici, 1976).

Professional representations are constituted by a set of elements from different domains, being significant and structured entities that interfere in the professional practice. The specific professionals' representations of a professional context are defined as the set of descriptive, prescriptive and evaluative cognitions regarding the significant and useful objects to the professional practice and organized into a structured field having a global significance (Blin, 1997). Health professionals' explanations about suicidal behaviours may interfere with the capacity to master knowledge and skills required for intervention. The interpretation of suicidal behaviours has been approached through a wide spectrum of theoretical perspectives and models, ranging from macro perspectives (sociological theories) to micro perspectives (biological studies) and including psychological approaches corresponding to the three main psychological schools – psychodynamic, cognitive and systemic theories. Further, a set of integrative models that recognize the multidimensionality of suicidal behaviours has been developed. These models incorporate factors from different approaches in order to build an empirical suicidology aiming the prediction of suicidal behaviour. Some of these models emphasize the psychological processes of suicidal behaviour, as for example: the cubic theory of Shneidman (1986, 1987, 1993, 2004); the suicide as escape from self of Baumeister (1990); the interpersonal–psychological theory of suicidal behaviour developed by Joiner (2005) and the integrated motivational–volitional model of suicidal behaviour put forward by O' Connor (2011). Others integrate and emphasize the biological vulnerabilities, as the current stress-diathesis model (Hawton & Van Heeringer, 2009; Mann, 2002; Van Heeringen, Portzky & Audenaert, 2004) originally developed in the scope of cognitive approaches (Schotte & Clum, 1982). Moreover, there are broad models that support multifaceted and multilevel answers to the problem, as for example the multivariate interdisciplinary causal model of Maris (1992, 2000, 2002) and the human ecological model of suicide (e.g. Henry, Stephenson, Hanson & Hargett, 1994), however it is very difficult to gather empirical support for these models given their complexity and extent. The effort to set up an integrative theory does not restrain itself to these examples as many others could be referred (e.g. O'Connor, 2011). Despite the existence of an overarching theoretical body to date there is no universally accepted explanatory theory of suicide. No single theory per se can entirely explain this behaviour, thus there is not one dominant and consensual model and maybe there will

never be one due to the nature of suicidal behaviour. The acknowledgement of the interaction between biological, psychological, social and cultural dimensions in the aetiology of suicidal behaviours seems to be a consensual point in current suicidology, however the key factors vary among models and authors with implications at intervention level.

For a real comprehension of suicidal behaviours and an appropriate health care a consistent theory is fundamental (Chopin, Kerkhof & Arensman, 2004). So there is a set of conditions that are present promoting the emergence of professional representations about the explanations of suicidal behaviours. Professional representations' functions include guiding the practices and professional conducts through the configuration of the cognitive steps required for the significant tasks. Therefore the professional representations have a mobilizing role, which includes evaluative and attitudinal components. Another function of professional representations is to substantiate the options and the professional practices, i.e., explaining and legitimizing the practices. Professional representations are a specific type of social though, thus determined by the group and its values, norms and ideologies (Blin, 1997).

Professional representations together with other cognitions participate in the construction of professional knowledge allowing the communication and action by the professional actors involved in the same context and activity. Thus they constitute a professional communicational basis. The less structured and complex is a scientific knowledge, the more the experiential mastery takes action, having a prescriptive role for the professional activity (Blin, 1997).

In the case of suicidal behaviours and clinical care, in a coexistent and apparently paradoxical way, the dominant paradigm of clinical practice seems to be the biomedical-illness model. As consequence of the prevalence of the biomedical-illness paradigm health professionals traditionally focus on the recognition of the suicidal person's pathology and on its subsequent treatment (Valach, Young & Michel, 2011). *"Inadequate models of suicide may put the patient at risk*" (Michel, 2010, p. 184) whereas proper suicide conceptualizations can facilitate the understanding and relation with the person at risk of suicide.

Despite the relevance of explanatory models to the therapeutic development few studies about health professionals' explanations of suicidal behaviours are available (Tzeng & Lipson, 2005; Zadravec, Grad & Socan, 2006). In a qualitative study with 22 psychiatric team members, Tzeng and Lipson (2005) found that suicide is perceived through four main types of explanations: (1) psychopathology (psychosis and

schizophrenia), (2) personality disorders, (3) mental deficits and (4) the combination between psychopathology and high levels of education. Zadravec et al. (2006) using a mixed sample with health professionals, general population and suicide attempters identified five explanatory models: personality, sociological, medical, crisis and genetic. The authors found that general practitioners as well psychiatrists emphasized medical, genetic and crisis models on their explanations for suicidal behaviour.

The present study had two major objectives. The first was to identify explanatory models of suicidal behaviours of health professionals. The second goal was to study the effects of professional group, theoretical intervention models and patient suicide experience in health professional' perspectives. Specifically, with regard to differential analyses, the goals were: (1) to identify differences on explanatory models according to psychology, psychiatry or general practicing background; (2) to identify differences on explanations according to the elected theoretical intervention model of psychologists and psychiatrists: cognitive-behavioural, constructivism, humanistic/ existential, psychodynamic and systemic; (3) to identify differences on explanatory models between health professionals with and without patient suicide experience.

2. Method

Participants

Two hundred and forty two health professionals participated in the survey, including 128 psychologists, 53 psychiatrists and 61 general practitioners. Seventy percent of the participants were female and 30% were male. The mean age of the respondents was 38.5 years (*SD*=11.8) and the mean years of practice was 13.1 (*SD*=10.8). Psychologists and psychiatrists were invited to choose among 6 options, the theoretical model they consider closer to their practice: 39% chose the cognitive-behavioural model, 14.7% indicated the psychodynamic, the same percentage selected systemic orientation, 11.3% mentioned the humanistic or existential model and 9% constructivism. Eleven percent indicated that their orientation was organicist or biological. With regard to the patient suicide experience, 64 health professionals had at least a patient suicide.

Survey instrument development – Explanations of Suicidal Behaviours Questionnaire – version for psychologists and doctors ESBQ

To identify the explanations on suicidal behaviours of health professionals a questionnaire was developed based on the results of a previous qualitative study conducted with 30 professionals

(psychologists, psychiatrists and general practitioners). In this previous study, the free association technique was used as a method for data collection, in order to gather the spontaneous responses of participants, using as stimuli *causes* and *meanings* of suicide and suicide attempt. Frequency analysis and correspondence factor analysis were the statistical techniques used to select the most important explanations reported by health professionals (Rothes, 2006). For the construction of the *ESBQ* the most important statements were transformed into items and additional items were added based on literature. The *ESBQ* resulted in 51 explanations each scored on a five-point Likert scale from 1 (not likely at all) to 5 (very likely of being the explanation of suicidal behaviours). The following instructions were given to the participants: "A prior study – using free association - collected several statements made by health care professionals on explanations for suicidal behaviours. Based on that study a list of items was assembled, which we would now like you to rate. Tell us to what extent it is likely or not that a suicidal behaviour is explained by the following items, therefore using the option that suits your opinion best on a scale from 1 (not likely at all) to 5 (very likely). Although answers may vary according to different patients, try answering in the most general and frequent way, choosing the one that best fits your thoughts".

The questionnaire also collects information about patient suicide experience, the intervention model that professionals consider closer to their practice and socio-demographic and professional data. *ESBQ* is available on request.

Procedures

Prospective participants - psychologists, psychiatrists and general practitioners - were approached in order to gather participants from the entire country and from different workplaces. A mixed methodology in the sampling process was used: targeted sampling (Watters & Biernacki, 1989) and snowball sampling (Browne, 2005). In the first technique target work settings were identified (such as hospitals, health centres, community intervention centres) according to a previous geographical mapping: in each district of the country (18 plus two islands) three or four work settings were designated for data collection, where health professionals were invited to participate in the survey. Associations of psychotherapy and the Portuguese Society of Suicidology were also contacted and their members were invited to participate. The second sampling method, snowball, is characterized by participants recruiting other potential participants through their professional or personal networks. In order to select a more representative sample than traditional

snowball technique enables, an additional set of methodological procedures recommended in literature was used: (1) professionals helped recruiting in two ways: they directly invited other colleagues to participate and they designated prospective participants, sending their contacts to the researchers; (2) part of the participants had the number of professionals that they could recruit limited to 3-5 colleagues and (3) a set of inducements to promote participation was used (e.g. customized letter) (Heckathorn, 2002). This set of procedures has an advantage when compared to traditional snowball, promoting the composition of samples that converge and reach equilibrium after a relatively limited number of recruitment chains, independently of the initial sample. Despite the non-random selection the bias introduced is progressively eliminated. Moreover the additional procedures reduce the biases resulting from differences in the size of personal networks and from the designated voluntarism.

Data were collected in 2010 and 2011 through both a web survey and a mail survey. The cover letter, participation invitation and questionnaire were sent by email or by mail, including the link to the online version or the paper version, respectively. One hundred and seventy six participants answered by web and 66 by mail. Anonymity and confidentiality of data collected were guaranteed. The study protocol was approved by the Portuguese Society of Suicidology and by the Ethics Committee of the hospital Centro Hospitalar do Nordeste, E.P.E., Bragança, Portugal.

3. Results

1. Explanatory models of health professionals

The correlation matrix revealed the existence of 71.4% correlations with statistical significance, the Kaiser-Meyer-Olkin value was 0.84, exceeding the recommended value of 0.6 and the Barlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix (p=.000). Communalities range between 0.513 and 0.753, indicating that 242 questionnaires are sufficient to continue and to converge on the appropriate solution. To determine the final number of factors, the retention of five, six and seven factors was explored. The most theoretically interpretable and consistent solution consisted of 44 items into 5 factors, explaining a total variance of 42%. The Cronbach's alpha coefficient ranges between 0.73 and 0.84, revealing a good internal consistency (table 1). Taking into account statistical criteria seven items were excluded: four items due to having double saturation with very similar loadings or low factor

loading on all factors and two items were eliminated because their removal increased reliability of the factor. Although the item "*Cry for help*" had double saturation, very similar and higher than .37, it was kept because of the importance of its content and the coherence with the factor.

The first factor was named "*Psychological-suffering model*" and includes 10 items highlighting severe or unbearable psychological distress and extreme states of mind (*despair*, *hopelessness*, *depression*) or states involving psychological suffering (*loneliness*, *isolation*, *not finding alternatives*) as explanation of suicidal behaviour.

The second factor was labelled "*Affective-cognitive model*" and contains 13 items. Besides the *affective deprivation* this model combines explanations from social psychology (as social relationships, family problems, process of adaptation to school and peer group) with explanations emphasized by cognitive psychology (as difficulties in coping strategies and problem-solving and negative emotional states including frustration and abandonment).

The third factor called "*Socio-communicational model*" comprises 12 items, associating the phenomena studied by sociological researches, as social copycat or the influence of Internet, with the communicative function of suicidal behaviour, including the desire for change. The model also includes traits of perfectionism and aggressiveness.

The fourth factor categorized as "*Adverse life events model*", contains 5 items, corresponding to negative events as working or financial problems, death or difficult process of mourning, illness or relation breakdown as explanations of suicidal behaviours.

The fifth factor labelled "*Psychopathological model*" includes 4 items and argues that suicidal behaviour is associated to an altered state of mind due to mental disorder (psychosis, personality disorder) or due to drugs and alcohol use.

The results show that there are statistical significant differences between all the five explanatory models (V =0.84, $F(4, 238) = 316.32$, p=.000). The actual difference in mean scores between the models was very large (multivariate partial eta η_p^2=.842). The means and standard deviation are presented in table 2.

Table 1 *Factor analysis – Explanatory models of health professionals*

Component label	Items – Explanations	F1	F2	F3	F4	F5
1. Psychological-suffering	Despair	.697				
	Hopelessness	.695				
	Loss of the meaning of life	.658				
	Way of taking away the suffering/ the pain	.633				
	Depression	.618				
	Not finding alternatives	.591				
	Loneliness	.540				
	Isolation	.492				
	Giving up	.452				
	Sadness	.448				
2. Affective-cognitive	Affective deprivation		.596			
	Frustration		.575			
	Difficulties in solving problems		.533			
	Anguish	.372	.529			
	Emotional instability		.526			
	Difficulties on interpersonal relationships		.525			
	Negative body self-image		.524			
	Family problems		.513			
	Traits of intolerance to failure		.477	.401		
	School failures		.461		.410	
	Abandonment		.458			
	Anxiety		.432			
	Difficulties in dealing with life transitions		.431			
3. Socio- communicational	Social copycat			.701		
	Angry/ revenge			.683		
	Immature death concept			.674		
	Blackmail			.607		
	Perfectionism			.604		
	Wish of rebirth			.572		
	Challenge/ testing the limits			.562		
	Internet influence			.497	.462	
	Existence of aggressive traits			.487		.417
	Cry for help	.371		.390		
	Way of expressing discomfort			.374		
	Way of seeking attention			.372		
4. Adverse life events	Problems at work				.725	
	Financial problems				.720	
	Unsolved grief				.632	
	Physical illness				.463	
	Loving relationship breakdown				.383	
5. Psychopathological	Personality disorders					.695
	Psychosis					.687
	Drugs and/or alcohol use					.647
	Psychopathology					.642
% explained variance (42.34)		10.57	10.05	9.51	6.84	5.37
Cronbach's alpha		.83	.84	.82	.76	.73

Table 2 *Descriptive statistics for suicidal behaviour' explanations on the five explanatory models*

Models	N	Mean	Standard deviation
Psychological-suffering	242	4.14	.50
Psychopathological	242	3.95	.66
Affective-cognitive	242	3.53	.50
Adverse life events	242	3.39	.61
Socio-communicational	242	2.82	.54

2. Effects of professional group, theoretical intervention models and patient suicide experience.

Professional group

There was a significant effect of professional group on the explanatory models of suicidal behaviours (*V*= .14 *F*(10,472)=3.66, p=.000), and the magnitude of the effect was moderate (partial η^2=.07).

Separate univariate ANOVAs on the outcome variables revealed significant differences between professional groups on *psychological-suffering* model (p=.020 partial η^2=.03); on *affective-cognitive* model (p=.005 partial η^2=.04) and on *adverse life events* model (p=.040 partial η^2=.03). These results with correspondent post-hoc tests are reported in table 3.

Theoretical intervention model of psychologists and psychiatrists

There was a significant effect of the theoretical intervention chosen by psychologists and psychiatrists on the explanatory models of suicidal behaviours (*V*=.24, *F*(25,855)=1.71, p=.016), despite the actual effect size being small (partial η^2=.05). However, separate univariate ANOVAs on the outcome variables only revealed significant effects on *adverse life events* model (F(5, 171)=2.84, p=.017, η^2=.08 (medium effect) with post-hoc tests indicating significant differences only between humanistic (M=3.59 sd=.54) and psychodynamic psychologists and psychiatrists (M=3.02 sd=.58) and no differences between the other intervention models options.

Moreover, there were no significant differences on suicidal behaviours' explanations between biologically oriented and non-biological psychiatrists.

Patient suicide experience

There were no differences on explanatory models of suicidal behaviours according to having or not experienced patient suicide.

Table 3 *Effects of professional group on suicidal behaviours' explanations*

	Psychologists	Psychiatrists	GPs				Post-hoc (p Values)		
Explanatory models	**M (sd)**	**M (sd)**	**M (sd)**	**F(2,241)**	**p**	**η2**	**Psychologists vs Psychiatrists**	**Psychologists vs GPs**	**Psychiatrists vs GPs**
Psychological-suffering	4.22 (.51)	4.01 (.51)	4.07 (.45)	4.00	.020	.03	.030	n.s.	
Affective-cognitive	3.60 (.47)	3.34 (.53)	3.56 (.48)	5.50	.005	.04	.003	_	
Socio-communicational	2.81 (.55)	2.88 (.54)	2.82 (.53)	0.31	.737	.00	_	_	
Adverse life events	3.38 (.63)	3.24 (.57)	3.53 (.58)	3.26	.040	.03	n.s.	n.s.	
Psychopathological	3.97 (.63)	4.06 (.64)	3.80 (.73)	2.57	.079	.02	_	_	

Significant level at .05; n.s. not significant

Discussion

Due to the wide spectrum of explanatory theories, the multiplicity of possible causes and the limited knowledge in its prediction and in its prevention, suicidal behaviours are a major challenge to health professionals (Hawton & Van Heeringen, 2009). This study investigates the health professionals' explanations for suicidal behaviours through a questionnaire developed based on a previous qualitative analysis, supplying data under the form of "*likely to explain*".

The main findings of this study were: (1) Health professionals explained suicidal behaviour according to five different models: *psychological-suffering*, *psychopathological*, *affective-cognitive*, *adverse life events* and *socio-communicational*; (2) In the thinking of health professionals the *psychological-suffering* and *psychopathological* models were the most likely to explain suicidal behaviours while the *socio-communicational* model was seen as the less likely to explain suicidality; (3) There were differences on *psychological-suffering*, *affective-cognitive* and *adverse life events* explanatory models according to the professional group; and (4) There were generally no differences on explanations of suicidal behaviours

according to the theoretical intervention model of psychologists and psychiatrists, or according to having or not experienced patient suicide.

Suffering is at the core of every suicide according to Shneidman (1987) and he coined the word *psychache* to describe psychological pain, resulting from psychological needs that were not satisfied. Severe or unbearable psychological distress, extreme states or means to escape from these painful states included in the *psychological-suffering* model are in line with Shneidman theory and subsequent ones. Baumeister's model (1990), for example, presents the escape from painful self-awareness as main motivation for suicidal behaviours. Shneidman's concept of perturbation, which includes constriction of thought and perception, another crucial element of his theory, is also integrated in the *professional psychological-suffering model* and represented by the item *not finding alternatives*.

In this study the *psychopathological model* is the second most likely to explain suicidal behaviours in the minds of health professionals. This association is strongly supported by empirical evidences (e.g. Bertolote, Fleischmann, De Leo & Wasserman, 2004; Jamison & Hawton, 2005) and also by economic interests in the medicalization of suicidal behaviours. In the last years suicidology and behavioural sciences have grown in a biological direction, threatening the role of social psychiatry and other related disciplinary branches. Nevertheless the interpersonal and cultural context of mental disorder and mental wellbeing is crucial to suicide comprehension and prevention (Hjelmeland, 2011). Our study shows that the interpretation of suicidal behaviour by health professionals is carried out not only through the model announced as the dominant one - the psychopathological or bio-medical- but also and predominantly by the model whose great precursor was Shneidman, and which emphasized the importance of psychological pain. Several interpersonal and cognitive elements of the affective cognitive model, the third model most valued by professionals in their suicidality explanations have been highlighted by theoretical integrative models as central vulnerabilities (e.g. Schotte & Clum, 1982) as well as intermediate moderators on the motivational phase of suicidal process (O' Connor, 2011).

In a recent review of psychological autopsies studies carried out by Foster (2011) about adverse life events preceding adult suicide he concluded that nearly all suicides had experienced at least one adverse life event within the last months. Among the events that increase suicide risk are relationship break-up,

physical illness, job and financial problems and bereavement. There are overlaps between the *adverse life event* model of Portuguese health professionals and the events found by Foster (2011).

The *socio-communicational* model combining social copycat effects, interpersonal communication and traits of personality (perfectionism and aggressiveness) was seen by health professionals as the less likely to explain suicidal behaviour. This result is somewhat surprising, given the status of the "*cry for help*" and the "*expectations of changes*" conceptions (e.g. Stengel, 1962, 1965; Farberow & Shneidman, 1961; Kreitman, 1977) and the popularity of copycat studies in the scope of psychosocial suicidology (e.g. Phillips, 1974, Phillips & Carstensen, 1988). Shneidman (1987) stressed that in 80% of the cases the suicidal individual previously gave clues to the fatal action. Further, the author added that the appeal is not always for help and it can be an autonomy appeal or a call for change, stressing that "*in most cases of suicide, the common penultimate act is some interpersonal communicative exchange related to that intended final act"* (Shneidman, 1987, p. 173).

In a methodological similar study the results revealed that Slovenian health professionals also organized their suicidal behaviours' explanations in five different models (Zadravec, Grad & Socan, 2006). In four of them – crisis, medical, genetic and sociological- parallelisms can be found with the explanations of Portuguese health professionals. The crisis model is related to the *psychological-suffering* of our study, the medical and the genetic models correspond to the *psychopathological model*. The sociological model presented in the Slovenian study is mainly connected to the *adverse life events model* and partly to the *socio-communicational model*. The model named by Slovenian authors as *personality* actually corresponds to moralist and judgmental explanations such as *weak, spoiled* and *ambitious* people, and thus creating an inhibitive attitude of a successful clinical intervention. One upsetting result of Zadravec's study is the fact that this model is shared by lay people and also by GPs and psychiatrists, even if doctors valued these types of explanations less when compared to the other models and to the other participants. In our research *intolerance to failure*, *perfectionism* and *aggressiveness* were the personality traits mentioned but they did not constitute an autonomous factor.

As in the Slovenian study, which found differences between psychiatrists and general practitioners in the crisis, sociological and personality models, in our study differences between professional groups were found in *psychological-suffering*, *affective-cognitive* and *adverse life events* models. Psychologists valued

the *psychological-suffering model* as the explanation of suicidal behaviour more than psychiatrists; psychiatrists in line with their Slovenian colleagues valued the psychopathological conditions more than any other type of explanations and they think that *affective-cognitive* vulnerabilities are less likely to explain suicidal behaviours than other professionals. General practitioners are the group for whom *adverse life events* have a higher weight on suicidal explanations when compared with psychiatrists. However the reported effect sizes show that professional group contributes only moderately to weakly to the explanatory models variability.

In line with the Slovenian outcomes no differences were found in the *psychopathological* model according to professional groups, illustrating the relative hegemony of the medical model.

The acknowledgement of the multidimensionality of suicidal behaviours, seems to contribute much more to the elaboration of suicidal explanations than both theoretical intervention models and clinical practice. Indeed, differences were only found between humanistic and psychodynamic backgrounds in the *adverse life events* model and patient suicide seems to have no influence on suicidal behaviours' representations even though it is a disturbing experience for health professionals (e.g. Rothes, Scheerder, Van Audenhove & Henriques, 2013).

It is almost banal to affirm that health and well being emerge from the interactions of individual and environmental context and that suicidal behaviours are a paradigmatic example of the interface of multiple factors including biological, psychological, social and cultural dimensions. Elaborated theoretical approaches are much more than a compilation of risk factors. The theoretical conceptualization of suicidal behaviours is a necessary precondition to prevent it (Maris, 1981). The training and subsequent reflection on the subject can raise the professionals' awareness of the need of multifaceted interventions. Moreover, the theoretical exercise broadens health professionals' perspectives, facilitating the understanding and the co-construction of an explanatory model adjusted to the person at risk and taking into account the idiosyncrasies of each case. The goal is making the clinicians and psychologists more capable of an empathetic and comprehensive intervention, in which persons at risk are actively part of the process (Michel, Dey, Stadler & Valach, 2004).

This study found that health professionals are not exclusively focused on psychopathological explanations despite the hegemony of the traditional medical model in suicidology mainstream.

Simultaneously results indicate that clinicians and psychologists devalued the communicational function of suicidal behaviours. Research on suicidality demonstrated that it is essential to understand suicidal communication, ambivalence and interpersonal contexts (e.g. Bertolote et al, 2004). It is also fundamental to recognize the need for sharing the painful inner experience in a reassuring therapeutic alliance context to revert the suicidal process to a positive outcome (e.g. Michel, et al., 2004; Michel, Maltsberger, Jobes, Leenaars, Orbach, Stadler et al., 2002). In a research about difficulties of health professionals towards suicidal patients in clinical practice the relational and communicational difficulties were perceived as the less frequently felt when compared to technical, emotional, family approaching and logistic ones (Rothes, Henriques, Leal & Lemos, 2013). The authors discuss this result under the assumption that it may be easier to be aware of external technical difficulties rather than relational and communicational ones.

Findings from this study suggest a need for further education of health professionals, specifically, the results recommend training in theoretical models, including approaches that emphasize communicative issues of suicidal behaviours.

There are some methodological limitations to this study. First, representativeness cannot be guaranteed with the used sampling process (targeted and snowball). However a systematic bias is unlikely since additional methodological procedures were used. Second, due to the originality of the instrument *ESBQ* we could not directly compare its components to previous research. Third, although the internal consistency of each factor was high and most items with a meaningful loading on a component conceptually fit well, a deeper analysis of the psychometric properties of the questionnaire is required. Finally, there can be some limitations related to the restricted choices of theoretical intervention models of psychiatrists and psychologists.

Future research should consider the effects of training on suicidal behaviours' explanations and explore the relationship between explanations of suicidal behaviours and current practices of health professionals. Suicidal behaviours explanations of patients should also be explored.

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STUDY 2

Health professionals' practices toward suicidal patients: the effects of professional group, specific training and experience with suicidal patients.

This article has been submitted for publication

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Health professionals' practices toward suicidal patients: the effects of professional group, specific training and experience with suicidal patients.

Abstract

The care of suicidal patients can be complicated, however little is known about health professionals' practices in these cases. The objectives of this study were to: (1) describe the practices of health professionals towards suicidal patients and (2) test the effects of professional group and specific suicide-related variables on practices. Method: A self-report questionnaire was filled out by 239 health professionals. Exploratory principal components analyses were used. Results: The factor analysis identified 5 components: assessment; protocols; family; psychotherapy and inpatient and medical treatment, explaining a total of variance of 51%. Psychotherapy is the modality most likely to be advised. Positive effects of specific suicide-related variables were found. Conclusion: Clinicians' practices, namely assessment procedures can improve through an experiential-learning training.

Key words: health professionals, suicidal patients, clinical practices

1. Introduction

Suicide prevention is among the most important challenges of public and mental health. The contact of an individual at risk with a health professional previous to a suicidal behaviour is an opportunity to prevent it and this contact after a suicide attempt can provide a possibility to the individual to engage in a therapeutic intervention.

Research showed that a high percentage of individuals was receiving health care at the time of the suicide attempt (Groholt & Ekeberg, 2009; Haw, Houston, Townsend & Hawton, 2002; Suominen, Isometsa, Martunnen, Ostamo, & Lonnqvist, 2004; Suominen, Isometsa, Ostamo, & Lonnqvist, 2001). Similarly the rates of contact with health professionals of people who died by suicide before the fatal behaviour are high (Andersen, Andersen, Rosholm & Gram, 2000; Juurrlink, Herrmann, Szalai, Kopp & Redelmeier, 2004; Luoma, Martin and Pearson, 2002; Pearson et al., 2009; Pirkis & Burgis, 1998; Rodi, Rorkar & Marusic, 2010).

Decisions regarding the care of suicidal patients can be complicated to take. Health professionals reported difficulties from different nature in the clinical work with suicidal patients including lack of knowledge about suicidality and about effective interventions (Gibb, Beautrais, & Surgenor, 2010; Rothes, Henriques, Leal, & Lemos, 2014).

When facing a patient who has suicidal problems health professionals have to make choices and decisions regarding the care to provide, which can have significant consequences to the person at risk (Schmitz et al., 2012). The intervention with suicidal patients comprises the assessment of risk, the eventual management of a crisis situation, the specialized and long-term care that can consist of pharmacotherapy and psychotherapy, provided in outpatient or inpatient care (e.g. Goldsmith et al., 2002; Joiner et al., 2009).

Suicidology has provided evidence that health professionals can have a crucial role in clinical suicidal behaviours prevention but simultaneously research on the area has demonstrated the existence of barriers to an effective intervention associated to characteristics, attitudes or behaviours of health professionals (e.g. Anderson, Standen, Nazir & Noon, 2000; Botega et al., 2005; Gibb, et al., 2010; Hammond & Deluty, 1992; Neimeyer, Fortner, & Melby, 2001; Neimeyer & MacInnes, 1981; Neimeyer & Pfeiffer, 1994a,b; Scheerder,

Reynders, Andriessen, & Audenhove, 2010; Samuelsson, Asberg, & Gustavsson, 1997; Saunders, Hawton, Fortune, & Farrell, 2012; Smith, Silva, Covington, & Joiner, 2014)

The research studying the health professionals who deal with suicidal people in clinical practice is an expanding domain but with a great field yet unexplored. Its development may bring improvements for the intervention with suicidal people.

Within this area of research the study of attitudes towards suicidal patients and behaviours seems to be the most productive field (e.g. Andersson, et al., 2000; Botega et al. 2005, Saunders et al., 2012; Swain & Domino, 1985). Attitudes of health professionals towards suicidal patients often remain negative (Saunders et al., 2012) despite the increasing research and guidelines literature about suicide intervention over the last years. This empirical fact strengthens the need for studying innovative variables under new perspectives in order to have better knowledge about the health professionals' actuation with suicidal patients.

Another prolific set of studies is about health professional's skills on suicidal behaviour assessment and intervention and the effects of training in its enhancement (e.g. Neimeyer et al., 2001; Palmieri et al., 2008; Scheerder et al., 2010; Smith et al., 2013). Empirical data indicate that actions aimed at health professionals have a promising efficacy on the reduction of suicidal behaviours (e.g. Isaac et al., 2009; Mann et al., 2005; Van der Feltz-Cornelis et al., 2011). However more research in the area is claimed. In a recent systematic review about training programs aimed at clinical competence in the assessment and management of suicide risk Pisani, Cross, and Gould (2011) concluded that in general training is effective, increasing knowledge and changing attitudes in a positive direction but with regard to the effects on the clinical process, research needs to deepen knowledge. The authors advise studies about needs and current practices of health workers when facing suicidal patients, advocating that this data can be helpful when planning training on the area. In the same line, Isaac et al. (2009) propose further research about the work of health and social professionals with suicidal persons.

Studies have found differences in attitudes and skills according to professional groups and specific suicide-related variables, such as experience with suicidal patients and specific training on suicide intervention (e.g. Neimeyer et al., 2001; Scheerder et al., 2010). According to these results Rothes et al. (2014) regarding

difficulties and needs with suicidal people in a clinical setting observed that a higher number of patient suicide attempts were associated with lower levels of difficulties felt by health professionals, as well as having training in suicide intervention.

Psychiatrists, general practitioners, and psychologists are among the health professionals most sought by people who have a psychological or emotional problem (Eurobarometer, 2010).

The goals of this study were (1) to describe the current practices of psychologists, psychiatrists and general practitioners towards suicidal patients and (2) to test the existence of differences in practices due to health professionals' characteristics, namely professional group, having or not specific training in the suicide area, suicidal behaviours experience in clinical practice, age and gender.

According to the different therapeutic resources of the health professionals - psychologists, psychiatrists and general practitioners - differences in the intervention approaches are expected, namely, in the evaluation of psychotherapeutic and psychopharmacological interventions. Based on previous researches differences are also expected between professionals with and without specific training and according to the experience with suicidal patients, namely in the procedures of detection and assessment of risk.

With regard to differential analyses we formulated the following hypotheses:

1. Psychologists and Psychiatrists are more likely to refer to psychotherapeutic intervention than GPs.

2. Medical intervention is more probable to be recommended or used by Psychiatrists and GPs than Psychologists.

3. Health professionals with specific training on suicide are more likely to perform a whole assessment than the health professionals without training.

4. Health professionals with specific training are more likely to use formal instruments in the assessment and intervention with suicidal patients than the professionals without suicide education.

5. Health professionals with more suicidal behaviours experience in clinical practice are more likely to carry out a complete assessment than health professionals with less experience.

6. Health professionals with more suicidal behaviours experience in clinical practice are more likely to use formal instruments than health professionals with less experience.

2. Method

Survey instrument development – Intervention Strategies towards Suicidal Behaviours Questionnaire – version for psychologists and doctors ISBQ

To identify the current practices of health professionals towards a suicidal patient a questionnaire was developed based on the results of a previous qualitative study conducted with 30 professionals (psychologists, psychiatrists and general practitioners). In this previous study, the free association technique was used as a method for data collection, in order to gather the spontaneous responses of participants, using as stimuli *what to do* and *what not to do* towards a patient who attempted suicide. Frequencies analysis and correspondence factor analysis were the statistical techniques used to select the most important answers of health professionals (Rothes, 2006; Rothes & Henriques, 2008). For the construction of the *ISBQ* the most important statements were transformed into items and additional items were added based on literature. The *ISBQ* resulted in 42 items each scored on a five-point Likert scale from 1 (not likely at all) to 5 (very likely of being adopted as intervention strategy with a patient that seeks help following a recent suicide attempt). The questionnaire also collects socio-demographic and professional data and information about suicidal patient experience.

Participants and Procedures

Prospective participants - psychologists, psychiatrists and general practitioners - were approached in order to gather participants from the entire country and from different workplaces. A mixed methodology in the sampling process was used: targeted sampling (Watters & Biernacki, 1989) and snowball sampling (Browne, 2005; Faugier & Sargeant, 1997). In the first technique target work settings were identified (such as hospitals, health centres, community intervention centres) according to a previous geographical mapping. In each of these settings a presentation of the research was carried out (in presence, by email or letter) in order to invite the professionals to participate. Associations of psychotherapy and the Portuguese society of suicidology were also contacted and their members were invited to participate in the survey. The second sampling method, snowball, is characterized by participants recruiting other potential participants through

their professional or personal networks. In order to select a more representative sample than traditional snowball technique enables, an additional set of methodological procedures recommended in literature was used: (1) professionals helped recruiting in two ways: they directly invited other colleagues to participate and they designated prospective participants, sending their contacts to the researchers; (2) part of the participants had the number of professionals that they could recruit limited to 3-5 colleagues and (3) a set of inducements to promote participation was used (e.g. customized letter) (Heckathorn, 1997, 2002; Negreiros & Magalhães, 2009). The additional set of procedures used brings an advantage in relation to traditional snowball, promoting the composition of samples that converge and reach equilibrium after a relatively limited number of recruitment chains, independently of the initial sample (the seeds). This way, despite the non-random selection the bias introduced is progressively eliminated. Moreover the additional procedures reduce the biases resulting from differences in the size of personal networks and from the designated voluntarism.

Data were collected in 2010 and 2011 through both a web survey and a mail survey. The cover letter, participation invitation and questionnaire were sent by email or by mail, including the link to the online version or the paper version, respectively. Anonymity and confidentiality of data collected were guaranteed.

The study protocol was approved by the Portuguese Society of Suicidology and by the Ethics Committee of the hospital Centro Hospitalar do Nordeste, E.P.E., Bragança, Portugal.

Data analysis

Statistical analyses were carried out using *SPSS* version 19 (IBM Statistics). Descriptive statistics were calculated. Principal components analysis PCA (a first and a second order exploratory factor analysis) was performed in order to reduce the large number of items to a more manageable number. Component loadings of at least 0.4 were considered meaningful. To determine the number of components a Cattell's scree-plot method was used and different possible solutions were explored. Varimax was used to rotate the components to simple structure and obtain orthogonal solutions. The reliability (internal consistency) was calculated by Cronbach's alpha and by the mean inter-item correlation. Factor scores were obtained by the mean of items with a meaningful loading on the respective components. Each factor was taken as a different set of intervention strategies (dependent variable) and to investigate the mean differences among

intervention strategies set a one-way repeated measures ANOVA was conducted followed by a *post-hoc* multiple means comparison with Bonferroni adjustment.

Differences in practices between professional groups and according to socio-demographic and professional characteristics (gender, age, years of practice, having specific training on suicide, experience with suicidal patients) were determined by independent samples *t*-test and by one-way between groups ANOVA followed by Tukey's HSD post-hoc comparisons. Bonferroni adjustment was applied to these comparisons. For these analyses, age, years of practice and number of patient suicide attempts were re-coded into interval categories.

3. Results

1. Participants' characteristics

A total number of 242 health care professionals filled out the questionnaire, but 3 were eliminated because a high level of missing answers, considering 239 participants. Participants' characteristics are reported in Table 1.

2. Practices of health professionals

The direct questions most commonly rated by doctors and psychologists as probable or very probable to be used in clinical practice with suicidal patients were about: current problems (92%), prior attempts (84%), alcohol and drugs use (77%), family suicide background (74%) and the desire to die (73%). Among the practices most likely to be used by a large proportion of health professionals are also the exploration of the meanings and triggers of the act (93%), the existence of a suicide plan (84%) and the circumstances of the attempt (83%). Trying to understand the style of coping of the patient was also considered as likely or very likely by a significant proportion of participants (72%).

Depression assessment was indicated by 93% of the health professionals as a probable or very probable procedure, while the evaluation of hopelessness was considered with high likelihood by 66% of the participants.

Table 1 *Participants' Characteristics*

	N	%
Participants (N=239)		
Psychologists	126	52.7
Psychiatrists (general and child)	53	22.2
General Practitioner	60	25.1
Gender (N=239)		
Female	166	69.5
Male	73	30.5
Age (N=239) range *23-77 years M=38.5 SD=11.8*		
Younger ≤31	83	34.7
Middle aged 32-40	77	32.2
Older ≥41	79	33.1
Years of practice (N=239) range *1-48 years M=13.1 SD= 10.8*		
Low experienced ≤6	92	38.5
Middle experienced 7-14	70	29.3
High experienced ≥15	77	32.2
Specific training in suicide (N=239)		
Yes	43	18.2
No	193	81.8
Experience with suicidal behaviours in clinical practice (N=234)		
Patient suicide attempt or serious risk of suicidal behaviour	195	83.3
Patient suicide	64	26.9
Number of patient suicide attempts (N=186)		
Few ≤3	83	44.6
Moderate 4-8	43	23.1
Many ≥9	60	32.3

To refer to a psychiatrist was rated by 84% of the participants as probable or very probable, while a referral to a psychologist by 76% and to a GP by 20% of the health professionals. A continued or long-term care, regardless of the caregiver's speciality was rated by 90% of the respondents and psychotherapy was considered by 74% of the health professionals as probable or very probable. Inpatient care was considered by 26% of the participants as a probable option.

The Kaiser-Meyer-Olkin value was 0.83, exceeding the recommended value of 0.6 and the Barlett's Test of Sphericity reached statistical significance, supporting the factorability of the correlation matrix (p=.000). Communalities range between 0.491 and 0.842, indicating that 239 questionnaires are sufficient to continue and to converge on the appropriate solution. To determine the final number of factors, the retention of four or five factors was explored. The most theoretically interpretable and consistent solution consisted of 37 items into 5 factors, explaining a total variance of 51%. The Cronbach alpha coefficients and the mean inter-item correlation, calculated to the dimension with low number of items, revealed a good internal consistency

(table 2). Five items were excluded due to not having a meaningful loading on any component. The 3 items with meaningful loadings on 2 components were assigned to the component on which they loaded highest.

The first factor was named "*Comprehensive assessment*" and contains 21 items corresponding to a wide set of actions including the evaluation of a crisis situation or imminent risk, intentionality, lethality, risk factors (e.g. drugs and alcohol use, eventual mourning and other current problems) and triggers. It also includes coping style, depression and hopelessness assessment.

The second factor was labelled *"Protocols of assessment and intervention*" including 5 items corresponding to the use of formal instruments in the evaluation process and intervention, including the use of written contracts and personality assessment.

The third factor called "*Family*" comprises 3 items about the support provided to the family of the suicidal patient and the involvement of the family in the process of assessment and management of suicide risk.

The fourth factor was categorized as "*Psychotherapy and psychological support* " and contains 3 items, corresponding to the referral to psychotherapy, to psychology and to continuous monitoring or treatment.

The fifth factor labelled "Hospitalization and *medical treatment*" includes 5 items focused on inpatient care, pharmacotherapy, psychiatric following, general physician intervention and referral to a professional who has training in this area.

In three of the five factors the Cronbach's alpha coefficient ranges from 0.92 to 0.79, and in the other two (with alpha below .7), the mean inter-item correlation is 0.33 and 0.21, i.e., between the optimal value recommend (0.2 to 0.4), revealing a good internal consistency.

The *ISBQ* also presents a good sensibility - answers to 30 items ranged from the lowest to the highest value (1 to 5), answers to 5 items scored from 2 to 5 and answers to 2 items scored from 3 to 5.

Table 2 *Principal components of health professionals' practices towards suicide attempters*

Component label	Items – Intervention	F1	F2	F3	F4	F5
1. Comprehensive Assessment	I ask if he wants to die	.759				
	I try to find out about the methods used in the attempt	.746				
	I ask what he expected when attempting suicide	.730				
	I explore the existence of an elaborate suicide plan	.651				
	I ask how he/she feels about having survived	.647				
	I approach the theme of death	.644				
	I try to understand the motives that triggered the attempt	.620				
	I ask what reasons he/she has for living and for dying	.619				
	I ask about prior suicide attempts	.617				
	I assess the circumstances in which the attempt was carried out	.572				
	I ask questions about problems he may be experiencing	.566				
	I assess the risk factors	.533				
	I try to understand the meanings of the suicide attempt	.520			.508	
	I try to find out at what time the suicide attempt was carried out	.499		.421		
	I ask about the two days prior to the suicide attempt	.475				
	I assess depression	.472				
	I ask about the alcohol and drugs consuming habits	.455				
	I assess the hopelessness	.447				
	I ask about the family suicidal background	.441				
	I try to understand if there is a non-solved or current mourning process	.438			.410	
	I try to understand how the patient usually solves his/her problems	.416				
2. Protocols	I use specific suicidal behaviour assessment instruments		.852			
	I use specific intervention protocols for suicidal behaviours		.852			
	I use formal instruments to assess suicide risk		.798			
	I set written suicide prevention contracts		.575			
	I carried out a personality evaluation		.436			
3. Family	I provide counselling to the family			.765		
	I conduct a family interview			.758		
	I engage the family in the process			.741		
4. Psychotherapy	I refer to psychotherapy				.673	
	I refer to psychological counselling				.640	
	I advise a continued treatment				.475	
5. Hospitalization and medical treatment	I try that the patient be hospitalised					.622
	I refer to psychiatric counselling/ monitoring					.605
	I prescribe medication/ I refer to a professional who can prescribe medication					.540
	I refer to the general practitioner					.519
	I refer to a colleague who is better prepared in this area					.518
	% explained variance (51.22)	19.47	10.14	9.22	6.58	5.82
	Cronbach's alpha	**.915**	**.836**	**.794**	.606	.545
	Mean inter-item correlation	-	.47	.56	**.33**	**.21**

F=factor

There are statistically significant differences between the intervention components (Wilks' lambda=.218 F(4,235)=210.77, p=.000). The difference in the mean scores between the five types of intervention was very

large (multivariate partial eta squared η_p^2=.782 (table 3). The differences between intervention components are all statistically significant at level p=.000, with one exception between F3 *Family support and involvement* and F5 *Hospitalization and medical treatment*, among which there are no differences.

Table 3 *Descriptive statistics on the five practice's components*

	N	Mean	Standard deviation
Assessment	239	4.12	.57
Protocols	239	2.77	.96
Family	239	3.45	.87
Psychotherapy	239	4.27	.69
Hospitalization and medical treatment	239	3.43	.68

3. Factors related to health professionals' practices

Professional group

As expected, intervention practices with suicidal people were statistically significantly related to the professional group (F(10, 466)=23.50, p=.000; Pillai's Trace=.670) and the magnitude of the effect was large (partial η^2=.34). Separate univariate ANOVAs on the outcome variables revealed significant differences between professional groups in all intervention components, except in the family involvement component. The magnitude of the differences was moderate to large. These results with correspondent post-hoc tests are reported in table 4. The three professional groups (psychologists, psychiatrists and GPs) showed significant differences in all intervention components, except in the family involvement component. Psychiatrists reported as more likely to engage in risk detection and assessment than psychologists and GPs. With regard to the use of protocols in the assessment and intervention with patients at risk of suicidal behaviours results showed that Psychologists are the most likely to use them. They are also more prone to providing or referring to psychotherapeutic intervention. Thus the formulated hypothesis 1 is only partially confirmed. Finally with regard to the medical intervention there are no differences between Psychologists and Psychiatrists and the GPs are the professional group most likely to recommend psychopharmacological intervention, as well as inpatient care, which means that hypothesis 2 is also partially accepted.

Table 4 *Differences in practice components according to professional group*

	Psychologists	Psychiatrists	GPs				Post-hoc (p Values)		
Variables	**M (sd)**	**M (sd)**	**M (sd)**	**F(2,236)**	**p**	**η2**	**Psychologists vs Psychiatrists**	**Psychologists vs GPs**	**Psychiatrists vs GPs**
Comprehensive assessment	4.02 (.05)	4.43 (.07)	3.87 (.07)	15.08***	.000	.11	.001	.022	.000
Protocols of intervention and assessment	3.14 (.08)	2.42 (.12)	2.31 (.11)	23.48***	.000	.17	.000	.000	.784
Family	3.43 (.07)	3.72 (.12)	3.26 (.11)	4.24 n.s.	.016	.04	_	_	_
Psychotherapy and psychological counselling	4.45 (.06)	3.91 (.09)	4.22 (.09)	12.88***	.000	.09	.000	.074	.031
Hospitalization and medical treatment	3.28 (.05)	3.18 (.08)	3.98 (.08)	35.53***	.000	.22	.555	.000	.000

Significant level at .01 (Bonferroni adjustment); n.s. not significant

Table 5 *Differences on practices according to specific training on suicide*

Variables	**YES M (sd)**	**NO M (sd)**	**t(234)**	**p**	**η2**
Comprehensive assessment	4.44 (.51)	4.05 (.56)	4.21***	.000	.07
Protocols of intervention and assessment	2.94 (.78)	2.75 (.99)	1.38n.s.	.170	.01
Family	3.78 (.71)	3.39 (.89)	2.69***	.008	.03
Psychotherapy and psychological counselling	4.29 (.59)	4.27 (.72)	0.15n.s.	.883	.07
Hospitalization and medical treatment	3.25 (.62)	3.48 (.69)	-1.98n.s.	.049	.05

Significant level at .01 (Bonferroni adjustment); n.s. not significant

Specific training on suicide intervention

There was a significant effect of specific training on the intervention practices of health professionals. Table 5 shows that health professionals with specific training on suicide are more likely to perform a comprehensive assessment than the health professionals without training and the actual difference was moderate confirming hypothesis 3. There were also differences even though with a small effect size on the involvement of family rated as more probable by health professionals with training on suicide issues. The hypothesis 4 was disconfirmed, as the use of formal protocols was not different among professionals with and without specific training.

Number of patient suicide attempts

Results showed significant differences in assessment practice according to the number of patient suicide attempts, partially conforming hypothesis 5 ($F(2,183)=7.65$, $p=.001$). Health professionals with many patient suicide attempts (≥ 9) scored significantly higher in the comprehensive assessment component (*M*=4.38 *SD*=.07) than health professionals with few (≤ 3) (*M*=4.06 *SD*=.06) and moderate (4-8) (*M*=4.01 *SD*=.08) patient suicide attempts. (Between health professionals who had few suicide attempters and who had moderate there were no differences). The actual difference in mean scores was medium ($\eta^2 = .05$). The remaining intervention components (protocols, family, psychotherapy and medical treatment) were not related to the experience with suicide attempters, thus not confirming hypothesis 6.

Gender and age

Gender has a significant effect on the use of formal protocols in the assessment and management of suicidal people with females scoring higher in this component (*M*=2.92 *SD*= .97) than males (*M* = 2.44, *SD* = .94, $t(63.87) = 3.73$, $p = .000$). However the magnitude of the differences in the means was small ($\eta^2 = .06$).

Age of health professionals has a significant effect on the use of protocols and the actual difference in mean scores between age groups is large ($F(2, 236)=11.11$, $p=.000$, $\eta^2 = .09$). Post-hoc comparisons indicated that the younger (≤ 31) rated as more probable to use formal instruments (*M*=3.14 *SD*=.85) than the middle aged (32-40) (*M*=2.69 *SD*=.93) and the older professionals (≥ 41) (*M*=2.47 *SD*=.97). The age group of professionals also seems to affect the option for hospitalization and medical treatment but with a small effect

size ($F(2, 236)=5.32$, $p=.005$, $\eta^2 = .04$). Post-hoc comparisons showed that older professionals scored significantly higher (*M*=3.60 *SD*=.08) in the hospitalization and medical treatment component than the middle-aged group (*M*=3.26 *SD*=.08). However the younger group did not differ significantly from either the middle-aged nor older health professionals.

4. Discussion

This article describes the practices more likely to be adopted by psychologists, psychiatrists and general practitioners towards a patient who seeks help after a recent suicide attempt, providing original data that were lacking in the field of suicidology.

The main findings of the study can be summarized into the following 6 items:

1. When health professionals face a patient who seeks help due to suicidal problems the intervention modality most likely to be advised or provided is psychotherapy or psychological support.
2. In general it is probable that health professionals perform a comprehensive assessment of imminent risk, depression and other risk factors.
3. The support to the family and the involvement of relatives in the therapeutic process were considered with moderate probability.
4. Inpatient modality and medical treatment, including pharmacological therapy were also rated with moderate probability.
5. The use of formal assessment instruments and intervention protocols, including no-suicide contracts is unlikely.
6. Professional group, specific training and experience with suicidal patient have significant effects on the practices of health professionals.

Research about the effectiveness of psychotherapy and other psychosocial interventions with people at risk of suicidal behaviours, mainly performed within cognitive perspectives, have achieved positive results in suicidal intervention (Comtois & Linehan, 2006; Guthrie et al., 2001; Joiner, Orden, Witte, & Rudd, 2009; Mann et al., 2005; Tarrier, Taylor, & Gooding, 2008; Winter, Bradshaw, Bunn, & Wellsted, 2013). Psychotherapies have promising effects on decreasing suicide rate (e.g. Crawford, Thomas, Khan, & Kulinskaya, 2007), suicide attempt (e.g. Davidsson et al., 2006), suicidal behaviour or self-harm repetition

(e.g. Hawton et al., 1998), suicidal ideation (e.g. Samaraweera, Sivayogan, Sumathipala, Bhugra, & Siribaddana, 2007) and in the depression and hopelessness scores (e.g. Rudd et al., 1996; Winter et al., 2013).

The Portuguese doctors and psychologists who participated in this study demonstrated to have in mind the potential of psychotherapy and psychological support in the treatment of suicidality. Medicine has proven not to be sufficient to help suicidal people by itself. Health professionals showed that their perspectives about suicidal behaviour intervention are far from being reduced to a medical intervention.

This finding somehow appeases the concerns described by different authors about the medicalization and pathologization of suicidal behaviours or its reduction to a chemically altered brain (e.g. De Leo, 2011; Hjelmeland, 2011; Saraiva 2006).

The comparison between psychologists, psychiatrists and general practitioners showed that psychiatrists had lesser tendency to provide or refer to psychotherapy than psychologists, while GPs were the most likely to advise hospitalization and psycho-pharmacotherapy, partially contradicting the expectations manifested in the hypotheses.

With regard to risk assessment, studies have been observing failures of health professionals to recognize suicide risk and to talk about the subject with patients (e.g. Hendin, Maltsberger, Lipschitz, Hass, & Kyle, 2001; Houston, Haw, Townsend & Hawton, 2003, Marquet, Bartelds, Kerkhof, Schellevis & van der Zee, 2005; Murphy, 1975; Pan, Lee, Chiang, & Liao, 2009).

Risk assessment is a demanding and essential task when facing a person who may be at suicidal risk at both the initial phase and during the ongoing therapeutic process. It is fundamental to take decisions and adjust treatment options.

In this study health professionals revealed a tendency to ask the right questions and perform the adequate evaluations in view of a comprehensive assessment, including the central differential questions about the wish to die and the existence of a suicide plan (Hirschfeld, 2001), even if with room for improvement. Asking these two questions - about the wish to die and the suicide plan - was rated as probable or very probable by 73% and 84% of the participants, respectively. This adds new data about health professionals' competence to assess patients who may be at suicidal behaviour risk. Previous researchers verified the existence of a sub-diagnosis of suicidality and associated risk factors in suicide cases. Despite this previous evidence of

failures in practice and the low levels of education on suicidal behaviours verified in our sample and identified as a common barrier for suicide prevention health professionals seem to have sufficient knowledge at least at a theoretical level to correctly perform the assessment in suicidal cases. Therefore, the combination of the results of this study with existing evidence reiterates the pertinence of experiential-learning aimed at health professionals on the field of suicidal behaviours assessment and management, as earlier advocated (e.g. Pasco, Wallack, Sartin, & Dayton, 2012; Rothes et al., 2014; Scheerder et al., 2010). This study also revealed that Psychiatrists seem to be the health professionals who are more aware of the importance of assessment practices, even if in general all the groups show a tendency to carry out a comprehensive evaluation.

In line with the few available data about the use of formal instruments in the detection and management of suicidality (e.g. Jobes, Eyman, & Yufif, 1995) this study confirms that it is not likely that health professionals use these clinical tools. The study also indicated that psychologists use suicide assessment and intervention instruments somewhat more than doctors. Formal instruments may be unknown to doctors and psychologists due to the low level of training on the area and according to the technical difficulties reported by professionals with regard to risk assessment (Rothes et al., 2014). Another possible explanation is that health professionals perceive instruments and protocols as having little usefulness for suicidality assessment and intervention. Another relevant aspect in this component of protocols is related to the use of no-suicide contracts, a controversial subject in need of empirical data about its application and effectiveness (e.g. Bartlett, Carney, & Talbott, 2009; Edwards & Harriers 2007; Hyldahl & Richardson, 2011; Kroll, 2000, 2007; Range et al., 2002; Rudd, Mandrusiak, & Joiner, 2006; Weiss, 2001). In a study with 267 North American psychiatrists Kroll (2000) verified that 57% of the participants use prevention suicide contracts as clinical strategy with patients at suicide risk. In a more recent study Edwards and Sachmann (2010) found that 37% of an Australian sample of 420 mental health professionals, including psychologists and psychiatrists used written no-suicide contracts and that the majority reported having used verbal no-suicide agreements. Among Portuguese psychologists and doctors 37% consider the use of written prevention suicide contracts, while 62% rated them as unlikely to be used. The fact that more than one third of the sample considers this clinical strategy justified that training on suicide prevention targets non-suicide contract intervention clarifying

the potential advantages and disadvantages of its use, as approached by different authors (e.g. Edwards & Sachmann, 2010; Goldblatt, 1994; Jacobs et al., 2003; Rudd et al., 2006; Weiss, 2001).

To decide between inpatient and outpatient care for a suicidal patient can be a difficult task for clinicians, who have to take into consideration several different factors, such as risk assessment, psychosocial features and environmental characteristics with regard to safety (Goldblat, 1994; Hirschfeld, 2001)

The research about intervention with suicidal people and its efficacy is much more adva; nced with regard to outpatient treatment than to inpatient care. However literature has considered the positive and negative effects of the hospitalization of suicidal patients, namely providing data about the care to take after a discharge and other useful guidelines (e.g. Bickley et al., 2013). Current works on the area call attention to the negative impact that hospitalization may have due to the change on daily functioning of the individual at risk, only defending the inpatient care in cases of very high risk of lethality, very serious psychiatric pathology and a very poor support network (e.g. Cruz & Sampaio, 2013; Goldsmith et al., 2002; Hirschfeld, 2001; Joiner et al., 2009; Santos & Neves, 2006, 2014).

In this study the health professionals are divided between those who seem to consider hospitalization a priority (26%), those who appear to have a more balanced opinion, rating hospitalization as somewhat probable (42%) and those who showed to mainly have in mind the potential harm of inpatient care (32%).

This study provides further empirical data about the significant effects that specific training on suicidal behaviours can have in the clinical work with people at risk. Concretely results showed that having training seems to enhance the probability to appropriately assess the patients and the situation in these cases and to include family in the therapeutic process

Thus, even though only a minority (18%) had specific training on suicidal issues the results of this study seem to demonstrate that the few existing education on the area works. This is an encouraging result with regard to suicidal behaviours prevention, strengthening the relevance of investing in training measures. Further the positive effect of suicidal experience in clinical practice on performing a comprehensive assessment of patients reinforces the need of planning training programmes or workshops actually based on experiential and active learning.

There are some methodological limitations to this study that should be taken into consideration. First, the sampling process used cannot guarantee representativeness. However, a systematic bias is unlikely since additional methodological procedures were used. Second, the originality of the ISBQ and the lack of previous studies do not allow comparing its components with other research. Third, although the psychometric properties are promising, a deeper analysis of the questionnaire is required. Future research should investigate the influence of suicidal patient profiles on practices of health professionals. It would also be useful to know the relationship between the current practices of health professionals and the difficulties they feel in the clinical practice with suicidal patients.

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STUDY 3

Facing a patient who seeks help after a suicide attempt: the difficulties of health professionals.

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Facing a Patient Who Seeks Help After a Suicide Attempt

The Difficulties of Health Professionals

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Abstract. *Background:* Although intervention with suicidal patients is one of the hardest tasks in clinical practice, little is known about health professionals' perceptions about the difficulties of working with suicidal patients. *Aims:* The aims of this study were to: (1) describe the difficulties of professionals facing a suicidal patient; (2) analyze the differences in difficulties according to the sociodemographic and professional characteristics of the health professionals; and (3) identify the health professionals' perceived skills and thoughts on the need for training in suicide. *Method:* A self-report questionnaire developed for this purpose was filled out by 196 health professionals. Exploratory principal components analyses were used. *Results:* Four factors were found: technical difficulties; emotional difficulties; relational and communicational difficulties; and family-approaching and logistic difficulties. Differences were found between professionals who had or did not have training in suicide, between professional groups, and between the number of patient suicide attempts. Sixty percent of the participants reported a personal need for training and 85% thought it was fundamental to implement training plans targeted at health professionals. *Conclusion:* Specific training is fundamental. Experiential and active methodologies should be used and technical, relational, and emotional questions must be included in the training syllabus.

Keywords: suicidal behaviors, health professionals, difficulties, needs, perceived skills

Psychiatrists, general practitioners, and psychologists are at great risk of encountering suicidal behaviors among their patients. Clinical practice with suicidal people was identified as one of the most stressful and anxiety-provoking areas of practice for many health professionals, regardless of their level of experience (Kleespies & Ponce, 2009; Menninger, 1990). In addition, suicidal behavior poses a major challenge to health professionals owing to its limited predictability (Hawton & Van Heeringen, 2009).

However, few data are available on the specific difficulties health professionals experience when they follow up a suicidal patient (Ramberg & Wasserman, 2003). Despite the lack of a dataset focused on the difficulties, studies from subdomains of suicidology, as referred to below, have provided support for the hypothesis of the specificity and multidimensionality of these difficulties. Research on the impact of patient suicide has shown that in addition to emotional reactions (e.g., shock, anger, guilt, anxiety, feelings of failure, fear that it happens again), professionals had technical concerns, namely, related with risk assessment skills (e.g., Brown, 1987a, 1987b; Gulfi, Dransart, Heeb, & Gutjahr, 2010; Rothes, Scheerder, Van Audenhove, & Henriques, 2013; Ruskin, Sakinofsky, Bagby, Dickens, & Sousa, 2004; Wurst et al., 2011).

Other data come from the set of studies carried out by Neimeyer and colleagues on the ability of health professionals and other caregivers to respond appropriately to suicidal persons using the Suicide Intervention Response Inventory (SIRI; Neimeyer & MacInnes, 1981; Neimeyer & Bonnelle, 1997). These and subsequent studies that also used the SIRI instrument (e.g., Palmieri et al., 2008) highlighted another potential difficulty when dealing with suicidal people – the relational difficulties in the therapeutic context. In a study about suicide intervention skills with a wide sample of professionals, Scheerder, Reynders, Andriessen, and Van Audenhove (2010) found: (1) skill scores below acceptable levels in some professionals; (2) a tendency of the low-skilled professional groups to overestimate their skills; and (3) differences between professional groups in responding appropriately to suicidal people. Moreover, higher levels of skills have been associated with higher levels of training in suicidology and more experience with suicidal patients, while no significant associations have been found with gender, age, or years of experience (Neimeyer & Bonnelle, 1997; Neimeyer, Fortner & Melby, 2001; Neimeyer & MacInnes, 1981; Scheerder et al., 2010). These results support the idea of the specificity of suicide intervention and associated difficulties.

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In a previous qualitative study on the perceived difficulties and needs of professionals toward suicidal patients, we found that a lack of specific training, the absence of a multidisciplinary team, and a perceived lack of time by the professionals were the most commonly reported difficulties by doctors and psychologists (Rothes, 2006). These results were derived from an in-depth qualitative study using a small sample, and therefore more research is recommended to understand the specificity of the difficulties and the professionals' training needs. The perceptions of health professionals about the training needed to deal with suicidal patients affect their work with these patients (Ramberg & Wasserman, 2004). To set up training guidelines in suicide prevention, it is important to identify how different sociodemographic and professional characteristics are related to difficulties. Training directed at increasing knowledge about suicidal behaviors, including risk factors, and at improving skills in suicide risk detection and in the management of suicidal individuals is not usual in psychology and medical graduate or postgraduate programs, even though suicide training is on the rise (e.g., Hawgood, Krysinska, Ide, & De Leo, 2008; Palmieri et al., 2008; Schmitz et al., 2012). Despite the lack of suicide prevention training and the recent culture of assessment of training impact, research has clearly established the positive effects of suicide prevention training aimed at health professionals. Various studies, using different assessment methodologies and types of training, have achieved similar outcomes, demonstrating effectiveness in improving knowledge, attitudes, confidence, and skills (e.g., Cais, Silveira, Stefanello, & Botega, 2011; Cross, Matthieu, Lezine, & Knox, 2010; Jacobson, Osteen, Jones, & Berman, 2012; Smith, Silva, Covington, & Joiner, 2013) and promising results in suicidal behavior reduction (Isaac et al., 2009). However, doubts remain about the changes in skills (e.g., Cross et al., 2010) and mainly in the endurance of the effects (e.g., Gask, Dixon, Morriss, Appleby, & Green, 2006; Levav et al., 2005; Moore, Cigularov, Chen, Martinez, & Hindman, 2011), reflecting the need for further research in order to inform a more tailored training.

The general goal of this study was to assess the difficulties of professionals and their training needs, in order to improve training programs in suicidology. More specifically, the study had four main goals: (1) to develop an instrument that enables the assessment of the health professionals' difficulties; (2) to describe the main difficulties of health professionals; (3) to analyze differential difficulties according to the sociodemographic and professional characteristics of the health professionals; and (4) to identify the health professionals' perceived skills and thoughts on the need for training in suicide.

With regard to differential analyses, we formulated the following hypotheses: (1) General practitioners have more difficulties than psychiatrists and psychologists; (2) health professionals with specific training in suicide have fewer difficulties than health professionals without specific training; and (3) health professionals with more experience in suicidal behaviors have fewer difficulties than those with less experience.

Method

Development of Survey Instrument: Difficulties in Suicidal Behaviors Intervention Questionnaire – Version for Psychologists and Doctors (DSBQ)

To assess the difficulties of health professionals when facing a patient who seeks help after a suicide attempt, a questionnaire was developed based on the results of a previous qualitative study conducted with 30 professionals (psychologists, psychiatrists, and general practitioners). In the previous study, the free association technique was used as a method for data collection, in order to gather the spontaneous responses of participants, using as stimuli the *needs* and *difficulties* of intervention with suicidal patients. To select the most important difficulties reported by professionals, we used frequency analysis and correspondence factor analysis (Rothes, 2006). For the construction of the Difficulties in Suicidal Behaviors Intervention Questionnaire (DSBQ), the most important statements were transformed into items and additional items were added based on the literature. The DSBQ resulted in 32 difficulties, each scored on a 5-point Likert scale from 1 (*not frequent at all*) to 5 (*very frequent*) allowing a global score to be calculated. An additional set of questions focused on specific training and on professionals' perception about the need for training in suicide. Specific training in suicide is considered training aimed at increasing knowledge about suicidal behavior and risk factors and at improving skills related to the detection of suicide risk and the management of suicidal individuals. The questionnaire also collects information about experience with suicidal behavior in clinical practice and sociodemographic and professional data. The DSBQ is presented in the Appendix.

Participants and Procedures

Prospective participants – psychologists, psychiatrists, and general practitioners – were approached in order to gather participants from the entire country and from different workplaces. A mixed methodology was used in the sampling process: targeted sampling (Watters & Biernacki, 1989) and snowball sampling (Browne, 2005; Faugier & Sargeant, 1997). In the first technique, target work settings were identified (such as hospitals, health centers, community intervention centers) according to a previous geographical mapping: In each district of the country (18 plus two islands) three or four work settings were designated for data collection. In each of these settings, a presentation of the research was carried out (11 in person and the rest by email or letter) in order to invite the professionals to participate. Associations of psychotherapy and the Portuguese Society of Suicidology were also contacted and their members were invited to participate in the survey. The second sampling method, snowball, is characterized by participants recruiting other potential participants through

their professional or personal networks. In order to select a more representative sample than the traditional snowball technique enables, an additional set of methodological procedures recommended in the literature was used: (1) Professionals helped in the recruiting in two ways – they directly invited other colleagues to participate and they designated prospective participants, sending their contacts to the researchers; (2) the number of professionals that some participants could recruit was limited to three to five colleagues; and (3) a set of inducements to promote participation were used (e.g., customized letter; Heckathorn, 1997, 2002; Negreiros & Magalhães, 2009). The additional set of procedures used has an advantage over traditional snowball techniques, promoting the composition of samples that converge and reach equilibrium after a relatively limited number of recruitment chains, independently of the initial sample (the seeds). This way, despite the nonrandom selection, the bias introduced is progressively eliminated. Moreover, the additional procedures reduce the biases resulting from differences in the size of personal networks and from the designated voluntarism.

Data were collected in 2010 and 2011 through both a Web survey and a mail survey. The cover letter, participation invitation, and questionnaire were sent by email or by mail, including the link to the online version or the paper version, respectively. Professionals who had contact with suicidal behaviors in clinical practice were invited to rate the difficulties scale. In this research, we considered contact with suicidal behaviors as contact with a patient suicide attempt, a patient suicide, and a patient at serious risk of suicidal behavior. Anonymity and confidentiality of the data collected were guaranteed.

The study protocol was approved by the Portuguese Society of Suicidology and by the Ethics Committee of the hospital Centro Hospitalar do Nordeste, E.P.E., Bragança, Portugal.

Data Analysis

Statistical analyses were carried out using SPSS version 19 (IBM Statistics). Descriptive statistics were calculated. Principal components analysis (PCA; a first- and a second-order exploratory factor analysis) was performed in order to identify the underlying dimensions and to reduce items to a more manageable set of data.

Component loadings of at least 0.35 were considered meaningful. To determine the number of components, a *parallel analysis* was conducted and different possible solutions were explored. Promax was used to rotate the components to a simple structure and obtain oblique solutions, allowing factor correlations. The reliability (internal consistency) was calculated by Cronbach's α. Additionally, a global score of difficulties was calculated.

Factor scores were obtained by the mean of items with a meaningful loading on the respective components. Each factor was taken as a type of difficulty, and to investigate the mean differences among the type of difficulties, a one-way repeated measures ANOVA was conducted followed by a post-hoc multiple means comparison with Bonferroni adjustment.

Differences in difficulties between professional groups and differences according to sociodemographic and professional characteristics (e.g., gender, age, years of practice, having specific training in suicide, experience with suicidal patients) were determined by the independent samples *t* test and by one-way between groups ANOVA followed by Tukey's HSD post-hoc comparisons. Bonferroni adjustment was applied to these comparisons. For these analyses, age, years of practice, and number of patient suicide attempts were re-coded into interval categories. To explore the impact of age and professional group on difficulties, two-way between groups ANOVA tests were carried out. The relationships between professional group and specific training, number of patient suicide attempts, patient suicide experience, and perceived skills were investigated by χ^2 analyses. Finally, the relationship between professional group and perception of training needs was analyzed by one-way between groups ANOVA followed by Tukey's HSD post-hoc comparisons.

Table 1. Participants' characteristics

	N	%
Participants (*N* = 196)		
Psychologists	94	48.0
Psychiatrists (general and child)	50	25.5
General practitioners	52	26.5
Gender (*N* = 196)		
Female	132	67.3
Male	64	32.7
Age (*N* = 196) range 24–77 years, *M* = 39.6, *SD* = 12.0		
Younger ≤ 33	70	35.7
Middle aged 34–42	62	31.6
Older ≥ 43	64	32.7
Years of practice (*N* = 196) range 1–48 years, *M* = 14.0, *SD* = 10.9		
Low experience ≤ 6	67	34.2
Middle experience 7–15	64	32.7
High experience ≥ 16	65	33.2
Specific training in suicide (*N* = 193)		
Yes	37	19.2
No	156	80.8
Experience with suicidal behaviors in clinical practice (*N* = 196)		
Patient suicide attempt or serious risk of suicidal behavior	194	99.0
Patient suicide	64	32.7
Number of patient suicide attempts (*N* = 185)		
Few ≤ 3	83	44.9
Moderate 4–8	43	23.2
Many ≥ 9	59	31.9

Results

Participants' Characteristics

A total of 242 health professionals filled out the questionnaire, but 46 provided no information on or had no contact with suicidal behaviors in clinical practice, resulting in 196 participants. The characteristics of the participants are reported in Table 1. With regard to specific training in suicide intervention, significant differences were found between professional groups (χ^2 = 12.02, df = 2, p = .002). General practitioners were the professional group with less specific training (6%) and psychiatrists were the professionals who reported having more suicide training (33%). There were also significant differences between professionals groups regarding experience with suicidal behaviors in clinical practice. The difference in proportions of psychologists, psychiatrists, and general practitioners with few, moderate, and many patient suicide attempts was statistically significant (χ^2 = 39.12, df = 4, p = .000). The proportion of psychologists with few patient suicide attempts was 56%, and those with moderate and many suicide attempts were 23% and 21%, respectively. Of the psychiatrists, 16% had few, 18% had moderate, and 66% had many patient suicide attempts. The proportion of general practitioners with few patient suicide attempts was 55%; that of general practitioners

Table 2. Principal components of health professionals' difficulties toward suicide attempters

Component label	Items – Difficulties	F1	F2	F3	F4
Technical difficulties	Lack of specific training	.942			
	Lack of technical and theoretical knowledge	.881			
	Afraid of not being able to assess suicidal risk	.755			
	Lack of specific risk assessment instruments	.724			
	Lack of specific intervention protocols	.638			
	Lack of specific intervention techniques for children	.574			
	To feel helpless	.441			
	Lack of clinical supervision	.381			.366
Emotional difficulties	To think about the case when one does not want to		.911		
	Distressed		.878		
	Preserving one's own well-being		.838		
	Burnout		.681		
	To get disturbed		.644		
	I question my professional ability to help the patient		.620		
	Afraid that patient completes suicide	.388	.541		
	Maintaining technical distance		.514	.358	
Relational and communicational difficulties	Being empathic with the patient			.880	
	Approaching the theme of death			.838	
	To accept the patient unconditionally			.739	
	Dealing with the theme of death			.696	
	How to have a dialogue with the patient about the theme			.638	
	To feel angry at the patient			.632	
	To feel rejection toward the patient			.604	
	Lack of confidence in the professional by the patient			.418	
Family-approaching and logistic difficulties	Lack of time				.711
	Having the family's collaboration				.695
	Unsuitable setting				.682
	Lack of social support structures				.660
	Working with the family				.568
	Absence of a multidisciplinary team				.521
	Providing support to the family				.487
	Cronbach's α	.89	.88	.86	.79

with moderate attempts was 29% and with many attempts was 16%. The proportion of psychologists, psychiatrists, and general practitioners who had at least one patient suicide was also significantly different ($\chi^2 = 30.71$, $df = 2$, $p = .000$): 14%, 56%, and 44%, respectively.

Health Professionals' Difficulties

The difficulties most commonly felt as frequent or very frequent by health professionals when facing a suicidal patient were: lack of intervention techniques for children (63%), absence of a multidisciplinary team (51%), lack of social support structures (48%), lack of risk assessment instruments (47%), lack of specific protocols (42%), lack of training (40%), being afraid that patient commits suicide (38%), lack of time (31%), working with patient's family (30%), lack of clinical supervision (30%), and the assessment of suicidal risk (29%). The mean global score of difficulties was 2.47 ($SD = 0.55$) with minimum 1 and maximum 4.

Parallel analysis suggested the extraction of four or five factors. To determine the final number of factors, the retention of three, four, or five factors was explored. The most theoretically interpretable and consistent solution consisted of 31 items grouped into four factors. In Table 2, the Promax-rotated results are shown. One item that did not have a meaningful loading on any component was eliminated. The three items with meaningful loadings on two components were assigned to the component on which they loaded the highest.

The first component was named *technical difficulties* and includes eight items related to the lack of specific training and lack of technical and theoretical knowledge on suicidal behaviors, namely, on suicide risk assessment and protocols of assessment and intervention in the absence of which professionals tend to feel helpless.

The second component called *emotional difficulties* contains eight items concerning the emotional impact of working with suicidal patients, such as feeling distressed, experiencing fear that the patient dies by suicide, or becoming disturbed by the case.

The third component labeled *relational and communicational difficulties* comprises eight items focused on the therapeutic relational and communicational attitude including the death theme approach.

Finally, the fourth component was named *family-approaching and logistic difficulties* and contains seven items related to work with the family, logistic conditions of intervention, and the absence of teamwork.

Cronbach's α ranged between .89 and .79, revealing a good internal consistency. The DSBQ also has a high sensitivity: Answers to 24 items ranged from the lowest to the highest value (1 to 5), and answers to six items scored from 1 to 4.

A second-order factor analysis yielded one dimension revealing that the four specific types of difficulties have an underlying common and broader difficulty factor. The loadings of the four factors were: F1 = .83, F2 = .77, F3 = .76, and F4 = .74. Cronbach's α was .78, indicating a good internal consistency.

There were statistically significant differences between all four difficulties components (Wilks' $\lambda = .254$ $F(3, 193) = 189.07$, $p = .000$). The difference in the mean scores between the four types of difficulties was very large (multivariate partial eta squared, $\eta_p^2 = .746$). Technical difficulties were the ones most frequently reported by health professionals ($M = 2.99$, $SD = 0.90$), followed by family-approaching and logistic difficulties ($M = 2.84$, $SD = 0.71$) and then by emotional difficulties ($M = 2.32$, $SD = 0.66$). Relational difficulties were perceived as the ones less frequently felt ($M = 1.77$, $SD = 0.56$).

Factors Related to Difficulties

As predicted, DSBQ scores (global score and components difficulties scores) were statistically significantly related to the professional group, to specific training in suicide, and to the number of patient suicide attempts. These results are presented in Tables 3, 4, and 5. The magnitude of differences was moderate to large. The three professional groups (psychologists, psychiatrists, and general practitioners) showed significant differences in the global difficulty score, as well as in technical, relational, and family-approaching and logistic difficulties. General practitioners reported more difficulties than psychologists and psychiatrists did. Professionals without specific training

Table 3. Differences in difficulties according to professional group

Variables	Psychologists *M* (*SD*)	Psychiatrists *M* (*SD*)	GPs *M* (*SD*)	*F*(2, 193)	*p*	η^2	Post-hoc (*p* values) Psychologists vs. psychiatrists	Psychologists vs. GPs	Psychiatrists vs. GPs
Technical	2.99 (0.96)	2.42 (0.65)	3.53 (0.60)	24.01***	.000	.20	.000	.000	.000
Emotional	2.36 (0.69)	2.10 (0.50)	2.45 (0.68)	4.21(n.s.)	.016	.04	–	–	–
Relational	1.67 (0.53)	1.65 (0.51)	2.07 (0.57)	10.94***	.000	.10	n.s.	.000	.000
Family-approaching and logistic	2.63 (0.69)	2.70 (0.55)	3.34 (0.63)	21.84***	.000	.18	n.s.	.000	.000
Global score	2.41 (0.57)	2.21 (0.42)	2.84 (0.44)	21.12***	.000	.18	n.s.	.000	.000

Notes: GPs = general practitioners. *** Significant level at .001 (Bonferroni adjustment). n.s. = not significant

Table 4. Differences in difficulties according to specific training in suicide

Variables	Yes *M* (*SD*)	No *M* (*SD*)	*t* (191)	*p*	η^2
Technical	2.32 (0.80)	3.15 (0.85)	−5.38***	.000	.13
Emotional	2.14 (0.64)	2.35 (0.66)	−1.76 (n.s.)	.081	.02
Relational	1.52 (0.42)	1.83 (0.58)	−3.70***	.000	.07
Family-approaching and logistic	2.54 (0.73)	2.91 (0.69)	−2.93 (n.s.)	.004	.04
Global score	2.12 (0.53)	2.56 (0.53)	−4.49***	.000	.10

Notes: *** Significant level at .001 (Bonferroni adjustment). n.s. = not significant.

Table 5. Differences in difficulties according to number of patient suicide attempts

Variables	Few (≤ 3) *M* (*SD*)	Moderate (4–8) *M* (*SD*)	Many (≥ 9) *M* (*SD*)	*F*(2, 193)	*p*	η^2	Post-hoc: Few vs. moderate	Few vs. many	Moderate vs. many
Technical	3.23 (0.87)	3.07 (0.92)	2.57 (0.74)	10.83***	.000	.11	n.s.	.000	.011
Emotional	2.50 (0.68)	2.21 (0.71)	2.09 (0.51)	7.64***	.001	.08	.044	.001	n.s.
Relational	1.83 (0.58)	1.81 (0.59)	1.62 (0.47)	2.69 (n.s.)	.070	.03	–	–	–
Family-approaching and logistic	2.84 (0.70)	2.87 (0.64)	2.82 (0.75)	0.05 (n.s.)	.942	.00	–	–	–
Global score	2.60 (0.56)	2.48 (0.56)	2.26 (0.48)	6.70 (n.s.)	.002	.07			

Notes: *** Significant level at .001 (Bonferroni adjustment). n.s. = not significant.

Table 6. Health professionals' needs for specialized training

Items				Fully disagree or disagree		Somewhat agree		Agree or fully agree	
N = 195	Mode	*M*	*SD*	*N*	%	*N*	%	*N*	%
I feel the need for specialized training in suicide	4	3.75	0.96	19	9.7	59	30.3	117	60.0
I believe that my experience/training makes me a suitable trainer in this area.	2	2.30	1.02	115	58.9	55	28.2	25	12.8
Implementing training plans on suicide aimed at health professionals is fundamental	5	4.37	0.78	3	1.5	27	13.8	165	84.7

reported more technical and relational difficulties and scored higher in the global difficulty score. Thus, hypotheses 1 and 2 were confirmed. Finally, results showed significant differences in technical and emotional difficulties according to the number of patient suicide attempts, but there were no differences according to having experienced a patient suicide or not. Therefore, the third hypothesis was only partially confirmed. Difficulties scores were not related to gender, age, or years of experience and age differences did not moderate the relationship between professional group and difficulties.

Health Professionals' Perceived Skills and Training Needs in Suicide

With regard to the perceived risk assessment skills, 89% of health professionals self-rated their ability as positive and results revealed significant differences according to the professional group. Psychiatrists were the group that felt more capable of assessing suicide risk (98%), followed by psychologists (90%) and general practitioners (79%; χ^2 = 9.63, *df* = 2, *p* = .008). Concerning the ability to deal with suicidal patients, half of the health professionals perceived their training as sufficient, and significant differences were also found between the groups. Seventeen percent of the general practitioners rated their training as sufficient, while this proportion was 88% for psychiatrists and 48% for psychologists (χ^2 = 50.34, *df* = 2, *p* = .000).

The perceptions of health professionals about the need for training are presented in Table 6. There were statistically significant differences between professional groups in the need for training plans (*F*(2, 192) = 5.48, *p* = .005) but the actual difference in mean scores between the groups was small (η^2 = .05). Statistically significant differences were found between the general practitioner group (*M* = 4.08, *SD* = 0.86) and the other two professional groups; psychiatrists (*M* = 4.45, *SD* = 0.71) did not differ from psychologists (*M* = 4.50, *SD* = 0.73).

Discussion

To our knowledge, this is the first survey to investigate health professionals' difficulties, specifically when facing a patient who seeks help after attempting suicide. The implications of our results for the content and format of training are discussed.

The main findings of the study were:

1. The questionnaire constructed for this study (DSBQ) presented good, albeit preliminary, psychometric properties.
2. Difficulties with suicidal people in a clinical setting are a multidimensional construct comprising four factors: (1) technical, (2) emotional, (3) relational and communicational, and (4) family-approaching and logistic difficulties.
3. As expected, specific suicide-related variables, namely, having training in suicide and a higher number of patient suicide attempts, were associated with lower levels of difficulties. General practitioners reported more difficulties than psychologists and psychiatrists did.
4. Health professionals revealed low levels of specific training, had a high perception of their risk assessment skill, held a view of their ability to deal with suicidal patients that ranged from low to high, and had a consensual perception of the need for training.

The results show that the DSBQ has good psychometric properties, presenting a high sensitivity, favorable exhaustiveness, good factorial validity, good internal consistency, and favorable construct validity, discriminating difficulties between professional groups, between professionals who had/did not have specific training, and between professionals dealing with different rates of suicide attempters.

Despite the low global score, the proportion of health professionals reporting difficulties is not negligible (63–29%) and provides important data about the particular content to be emphasized in training programs (viz., assessment of suicide risk, intervention with children, instruments and protocols, work with the suicidal patient family).

The results allow us to conclude that health professionals perceived the four types of difficulties in a different way: They reported fewer emotional and relational difficulties toward suicidal patients than technical and family-approaching and logistic difficulties. This may derive from the fact that for health professionals it could be easier to be aware of external technical difficulties than relational and communicational ones. Empirical and clinical works showed that relationship and communication skills with a patient following an attempted suicide are critical in the prevention of life-threatening behaviors and suicide (Michel, 2011; Michel & Jobes, 2011; Wolk-Wasserman, 1985). Gibbs (1990), on the basis of the literature on communicational aspects, concluded that the treatment of patients who have attempted suicide is hampered by a lack of self-awareness of the health professional. But there may be other explanations for the results of lower emotional and relational difficulties when compared with technical and family-approaching difficulties, which should be explored in future works. These aspects could be studied by adding case vignettes (e.g., Jacobson et al., 2012) to the study protocol, for example, combined with items about communication (e.g., SIRI-2, Neimeyer & Bonnelle, 1997) and items referring to the ability to "connect" with the patient or the ability to maintain a "trusting" relationship with open communication. A very important and informative finding from our study is that although only 19% of health professionals reported specific training in suicide, 89% felt competent to assess suicide risk and 50% thought they had adequate suicide training. Thus, an important clue for training can be formulated: Not only should it comprise a technical syllabus, but it should also include communicational and relational content, using case-based learning methodology and self-evaluations in order to increase self-awareness.

With regard to actual suicide intervention training, our results revealed similarity to those from other countries, underscoring that training in suicide intervention is not usual in psychology and medical graduate or postgraduate programs (e.g., Hawgood et al., 2008; Palmieri et al., 2008). For example, 12% of Italian health professionals reported having received specific training in suicide intervention (Palmieri et al., 2008).

The results of the differential analyses provide further evidence of the critical function of specific training for health professionals who deal with suicidal patients. Specific suicide-related variables, namely, having training in suicide and a higher number of patient suicide attempts, were associated with lower levels of difficulties, adding further support to the proposal of experience-based training as adequate methodology. These results are in line with reports from the literature that found significant associations between higher suicide skills and the two aforementioned variables (e.g., Neimeyer et al., 2001; Scheerder et al., 2010). However, some questions about specific suicide-related variables that may be relevant for setting up training in suicide prevention remain unanswered: What mediates the relationship between higher *number of attempts* and the lower levels of difficulties? Could it be related to apparently better skilled/more well-skilled professionals admitting higher-risk patients more often than professionals who indicate higher levels of difficulties? Or does the specific experience with suicidal patients promote the acquisition of important knowledge, thereby reducing difficulties? The confidence of health professionals has been identified as an important variable in clinical suicide prevention and has been the target of studies on training effects (e.g., Jacobson et al., 2012; Oordt, Jobes, Fonseca, & Schmidt, 2009). Which interaction effect could exist between confidence and training on perceived difficulties? These issues warrant further investigation.

Moreover, general practitioners reported more difficulties than psychologists and psychiatrists did, showing that this professional group may have special needs for training and support in this area. Indeed, general practitioners were the professional group found to have less specific training: 6% in our study and 4% in the Italian sample (Palmieri et al., 2008). This is in contrast to psychiatrists, who have higher levels of training: 33% in our Portuguese sample and 30% in a Belgian sample (Rothes et al., 2013) and in

an Italian sample (Palmieri, et al., 2008). Recent systematic reviews on evidence-based suicide prevention strategies agree that improvements at the general practitioner competence level is a crucial component of suicide prevention (Mann et al., 2005; Van der Feltz-Cornelis et al., 2011) or at least a promising strategy to reduce suicide rates (Isaac et al., 2009).

In line with other research, in our study the proportion of respondents who rated the adequacy of their training as sufficient varied according to the professional group (ranging between 88% for psychiatrists and 17% for general practitioners). Swedish studies also found differences in perceived skill between groups: 74% of the psychiatrists considered themselves sufficiently trained for their work, while in nurses and assistant nurses this number ranged between 43% and 25% (Ramberg & Wasserman, 2003; Samuelsson, Asberg & Gustavsson, 1997). In a wide Belgian sample, the authors concluded that highly skilled groups have a realistic view of their competence in intervention with suicidal people, while low-skilled groups tend to overestimate their skills level (Scheerder et al., 2010).

In our study, the difference between the ability to assess suicide risk and adequacy of training to deal with suicidal patients, particularly pronounced in general practitioners (79% and 17%), but also evident in psychologists (90% and 48%), suggests that the clinical competency perception of health professionals in suicide prevention includes two apparently different components: the recognition of suicide risk and the perception of the ability to manage suicidal patients effectively.

This finding is supported by the research of Inman, Bascue, Kahn, and Shaw (1984), who studied the relationship between suicide knowledge and intervention skills; nevertheless more recent studies on perceived suicide prevention skills did not seem to take into account this distinction perceived by health professionals (Palmieri et al., 2008; Ramberg & Wasserman, 2003; Scheerder et al., 2010). It is important to promote awareness that the risk assessment process cannot be made by a simple identification and compilation of risk factors. In order to be reliable, this assessment has to be made in the therapeutic and relational context of confidence. In other words, clinical management of suicide risk by mental health gatekeepers, such as general practitioners, is needed.

Emotional difficulties were found to be independent of professional group and specific training. With regard to professional group, our results are in line with studies on patient suicide impact that did not find differences in emotional reactions or distress levels between professional groups (e.g., Grad, Zavasnik, & Groleger, 1997; Wurst et al., 2011). However, our results are not consensual: A study with Swiss and German therapists found that psychiatrists were significantly more distressed than psychologists (Wurst et al., 2010). Beyond informational units, specific training must include a practical component monitored by health professionals with know-how in suicidal behaviors that enables confrontation with specificities of how to effectively manage suicidal patients. We suggest case-based learning combined with role-play strategy, as a methodology for overcoming the limitation of not having enough actual practice opportunities. This proposal is in line with the importance of experiential learning in the field of suicide prevention underlined by other authors (e.g., Neimeyer & Bonnellle, 1997; Pasco, Wallack, Sartin, & Dayton, 2012; Scheerder et al., 2010).

The results also show that health professionals perceive a need for training in suicide both for themselves and for health professionals in general, anticipating the willingness and interest of professionals to be involved in training.

There are some methodological limitations to this study that should be taken into consideration when drawing implications from these results. First, representativeness cannot be guaranteed with the sampling process used. However, a systematic bias is unlikely since additional methodological procedures were used. Second, owing to the originality of the DSBQ and the lack of studies on the specific area, we could not directly compare its components with previous research. Third, although the psychometric properties are promising, a deeper analysis of the questionnaire is required. Future analyses of the DSBQ should introduce items in order to clarify the interpretation of *to feel helpless*, which may be taken either as a consequence of technical limitations (component 1) or as representing an inability to "connect" with the patient (component 3). More specific items approaching communicational/relational issues should also be included, as discussed above. Future research should investigate the eventual existence of different clusters of professionals in relation to the difficulties, using cluster analysis, and study the relationship between the current practices and difficulties of health professionals and the influence of patient profiles on difficulties.

The results of the study reinforce that:

1. Specific training in suicide prevention aimed at health professionals, especially at general practitioners, is fundamental.
2. Planning of training programs should take into account the specific difficulties of the professional group at whom training is addressed. The DSBQ can constitute a basic element for performing the needed adjustment in training.
3. Experiential and active strategies and clinical case discussions should be used as learning methodologies.
4. The training content should focus on risk assessment and management and also on family issues, addressing technical, relational, and emotional questions.

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Appendix: Difficulties in Suicidal Behaviors Intervention Questionnaire – Version for psychologists and doctors (DSBQ)

1st Part – Professional and sociodemographic characterization

1. Gender	Female 1 ◯	Male 2 ◯	
2. Age	_____	years	
3. Years of practice	_____	years	
4. Professional group	Psychologist 1 ◯	Psychiatrist 2 ◯	General practitioner 3 ◯
5. Work place	_____		
6. District of work	_____		

Training

7. My training to deal with suicidal patients is:	Sufficient 1 ◯	Insufficient 2 ◯
8. I feel capable of identifying a patient at risk of suicide	Yes 1 ◯	No 2 ◯
9. I have specific training in the area of suicidology	Yes 1 ◯	No 2 ◯

If your answer to Question 9 was *YES*, choose your type of training	Yes	No
Epidemiology	◯	◯
Forensic sciences	◯	◯
Detecting and management of suicide risk	◯	◯
Crisis intervention	◯	◯
SOS hotlines	◯	◯

10. For each statement, choose the option that suits your opinion best on a scale from 1 to 5

	Fully disagree				Fully agree
I feel the need for specialized training in suicide	◯	◯	◯	◯	◯
I believe that my experience/training makes me a suitable trainer in this area.	◯	◯	◯	◯	◯
Implementing training plans on suicide aimed at health professionals is fundamental.	◯	◯	◯	◯	◯

2nd Part – Contact with suicidal behaviors in clinical practice

1. Did (or do) you have any patient/client who has made one or several suicide attempts?

Yes 1 ◯ How many patients/clients? How long ago was the last case? Years
No 2 ◯

2. Have you had a patient/client suicide?

Yes 1 ◯ How many patients/clients? How long ago was the last case? Years
No 2 ◯

3. Have you ever had a patient representing a serious risk of suicide or suicide attempt even though he/she hasn't carried it out?

Yes 1 ◯ How many patients/clients? How long ago was the last case? Years
No 2 ◯

If your answer to questions 1, 2, and 3 was NO, i.e., if in your professional practice you NEVER had any contact with suicide or suicide attempts, nor with patients at serious suicide or suicide attempt risk, your QUESTIONNAIRE IS FINISHED. We thank you for your collaboration

If your answer to questions 1, 2, or 3 was *YES*, i.e., if in your professional practice you already had contact with suicide or suicide attempts or with patients at serious suicide or suicide attempt risk, please answer the last part of the questionnaire.

3rd Part – Difficulties

To what extent is it frequent or not to feel the following difficulties when facing a patient who seeks your help after a suicide attempt. Even though answers may vary depending on each case, try to answer according to the most general and frequent situations. Don't give too much thought to your statements. Spontaneous answers are the more valid ones.

Difficulties	Not frequent at all 1	Not frequent 2	Somewhat frequent 3	Frequent 4	Very frequent 5
1. I feel difficulties in working with the family	○	○	○	○	○
2. I get disturbed/upset with the case	○	○	○	○	○
3. I easily feel burnt out	○	○	○	○	○
4. I haven't got the right setting to see the patient	○	○	○	○	○
5. I lack the time that a case like this requires	○	○	○	○	○
6. There is a lack of social structures to offer support	○	○	○	○	○
7. I'm afraid that I might not be able to assess suicidal risk correctly	○	○	○	○	○
8. I lack specific training for cases like this one	○	○	○	○	○
9. I'm afraid that the client might die by suicide	○	○	○	○	○
10. I experience difficulties in having the family's collaboration	○	○	○	○	○
11. I lack technical and theoretical knowledge on suicidal behaviors	○	○	○	○	○
12. I feel it difficult to accept the patient unconditionally	○	○	○	○	○
13. I have difficulties in dealing with the theme of death	○	○	○	○	○
14. I feel the absence of a multidisciplinary team	○	○	○	○	○
15. I feel rejected by the patient who attempted suicide	○	○	○	○	○
16. I experience difficulties in providing support to the family	○	○	○	○	○
17. I experience difficulties in being empathic with the client	○	○	○	○	○
18. I have difficulties in approaching the theme of death	○	○	○	○	○
19. I get disturbed by the patient	○	○	○	○	○

20. There is a lack of specific intervention protocols	○	○	○	○	○
21. I don't know how to talk to the patient about death	○	○	○	○	○
22. I feel difficulties in maintaining technical distance	○	○	○	○	○
23. Managing adherence to therapeutic counseling is difficult	○	○	○	○	○
24. I feel helpless about this case	○	○	○	○	○
25. I have a hard time preserving my well-being	○	○	○	○	○
26. I feel a lack of clinical supervision	○	○	○	○	○
27. I feel a lack of confidence and this is felt by the client	○	○	○	○	○
28. I think about the case when I don't want to	○	○	○	○	○
29. I question my ability/skill to help the patient	○	○	○	○	○
30. I feel distressed by the case	○	○	○	○	○
31. There is a lack of specific risk assessment instruments	○	○	○	○	○
32. There is a lack of specific intervention techniques for children	○	○	○	○	○

Thank you very much for your collaboration and contribution!

STUDY 4

Patient suicide: The experience of Portuguese doctors and psychologists

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Suicídio de um paciente: a experiência de médicos e psicólogos portugueses

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INFORMAÇÃO SOBRE O ARTIGO

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RESUMO

Objetivo: Descrever o impacto do suicídio de um paciente em profissionais de saúde portugueses (psicólogos, psiquiatras e médicos de medicina geral).
Método: Foi usado um questionário de autoresposta sobre características, experiência e impacto do suicídio de um paciente.
Resultados: Duzentos e quarenta e dois profissionais responderam ao questionário e 64 tiveram, pelo menos, um paciente que se suicidou. Sofrimento emocional (47%), preocupações, dúvidas e medo (35%), frustração (28%), choque e surpresa (23%) foram os sentimentos mais relatados. Maior atenção, vigilância e rigor na avaliação e intervenção foram as reações mais frequentes após o suicídio do paciente (80%). Aumento da insegurança e ansiedade foram também relatados (28%). Colegas, contacto com a família do paciente e a revisão do caso foram os recursos de ajuda mais usados. Supervisor, revisão de caso e colegas foram avaliados como os mais úteis. Não foram encontradas diferenças de acordo com o género, idade ou grupo profissional na vivência deste acontecimento.
Conclusão: Os resultados mostram que o suicídio de um paciente tem um impacto profissional e emocional considerável. Porém, este acontecimento difícil também pode ser uma oportunidade de aprendizagem e crescimento profissional, levando a mudanças positivas e adequadas na prática clínica, relativamente à gestão do risco de suicídio e suas consequências.

Patient suicide: The experience of Portuguese doctors and psychologists

Keywords:
Patient suicide
Health professionals
Emotional impact

ABSTRACT

Objective: To describe the impact of a patient suicide on Portuguese health professionals (psychologists, psychiatrists and general physicians).
Method: A self-report questionnaire, which assessed the characteristics, experience and impact of a patient suicide, was used.

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Results: 242 health professionals filled the questionnaire and 64 professionals had been confronted with at least one patient suicide. Emotional suffering (47%), concerns, doubts and fear (35%), frustration (28%) and shock and surprise (23%) were the most common feelings reported by health professionals. Increased attention, vigilance and accuracy in assessment and intervention were the most frequent reaction after the patient suicide (80%). Increased insecurity and anxiety were also reported (28%). Colleagues, contact with patient's family and case review were the sources of help more frequently used, and supervisor, team case review and colleagues were rated as the most useful. There were no differences according to gender, age or professional group in the experience of this event.

Conclusion: The results show that the suicide of a patient has a considerable professional and emotional impact. However, this difficult event can also be an opportunity for learning and professional growth leading to positive and adequate changes in clinical practice with regard to the management of suicide risk and its aftermath.

Introdução

Os comportamentos suicidários constituem um dos mais graves problemas de saúde pública, com grande impacto social no mundo ocidental. Os psiquiatras, médicos de medicina geral, psicólogos ou outros profissionais de saúde que perdem um paciente por suicídio estão expostos a uma das experiências mais perturbadoras da prática clínica[1-3].

O suicídio de um paciente é reconhecido na literatura internacional como um risco dos profissionais de saúde[4-7], com acrescida probabilidade para aqueles que desenvolvem a sua atividade na área da saúde mental, tal como os psiquiatras e os psicólogos[8-14]. Paralelamente, a investigação sugere que 20-76% dos suicidas procuram um médico no mês anterior ao suicídio e que a maioria consulta o médico de medicina geral e familiar, não um psiquiatra[15-19]. Porém, a investigação acerca do impacto da morte por suicídio de pacientes em clínicos gerais tem sido negligenciada[20-22], sendo que, no contexto nacional, esta escassez empírica estende-se aos demais profissionais, não existindo, até à data, em nosso conhecimento, nenhum estudo disponível sobre o impacto do suicídio de pacientes em profissionais de saúde portugueses.

Os profissionais de saúde que passam pela experiência do suicídio de um paciente reagem enquanto pessoas que perdem alguém significativo através de reações usuais de processo de luto (reações pessoais) e, simultaneamente, de acordo com o seu papel profissional específico (reações profissionais)[23,24].

Na literatura internacional as reações apontadas como mais comuns ao suicídio de um paciente são a negação, o choque, a tristeza, a raiva, a culpa, a descrença, a angústia, o sentimento de fracasso, o medo de acusações[13,14,25-29]. Vários autores exploraram a relação entre o impacto do suicídio e diferentes características do profissional, do paciente, da relação entre estes dois e de especificidades do suicídio[5,9,10,13,25,29-32]. Em relação ao género do profissional, os estudos tendem a ser concordantes na existência de diferenças significativas: as mulheres tendem a expressar mais frequentemente sentimentos de vergonha, responsabilização ou culpa, assim como tendem a colocar mais em causa o seu conhecimento e competência profissional como consequência do suicídio de um dos seus pacientes, em relação aos profissionais homens[5,33]. Contudo, relativamente a outras variáveis, os resultados das diferentes investigações não são consensuais, revelando a necessidade de investimento neste foco específico de análise. Por exemplo, enquanto alguns estudos encontram relações significativas entre a idade dos profissionais e a intensidade das reações[10] e na mudança das práticas clínicas[6], outros estudos não encontraram estas diferenças[9,25,29]. Da mesma forma, relativamente ao grupo profissional, alguns dados empíricos apontaram para a não existência de diferenças[31], enquanto outros revelaram, por exemplo, que os psiquiatras declaravam um maior sofrimento associado ao suicídio do paciente do que os psicólogos[29]. Outros dados mostraram que determinados grupos teriam uma maior tendência para operar mudanças nas práticas profissionais após o suicídio[6].

As mudanças na prática profissional mais referidas como resultantes do suicídio de um paciente são a maior atenção a sinais de risco de suicídio, uma tendência maior para hospitalizar, mais interesse no fenómeno, procura de formação especializada na área, maior abertura à discussão de casos com colegas e maior atenção a implicações legais da prática profissional[9,10,25,26]. Os recursos de ajuda apontados como mais úteis para lidar com esta experiência são a supervisão, a formação especializada, a discussão com colegas, a revisão do caso e a participação nas cerimónias fúnebres[8-10,33,34].

Os objetivos deste estudo são: descrever as reações emocionais de psicólogos, psiquiatras e médicos de medicina geral perante o suicídio de um paciente, considerado pelos próprios com maior impacto, identificar as mudanças na prática clínica e vida pessoal decorrentes deste acontecimento, identificar os recursos de ajuda ou suporte usados para lidar com a situação e conhecer como estes profissionais de saúde avaliam a utilidade de cada suporte usado. O estudo pretende também contribuir para o conhecimento dos fatores relacionados com a experiência do suicídio de um paciente, investigando se existem diferenças nesta vivência devidas às características dos profissionais. Esperamos encontrar diferenças entre géneros e grupos profissionais. Esta investigação assume ainda particular relevância por ser

o primeiro estudo em Portugal a disponibilizar dados empíricos na área.

Método

Instrumento

Para estudar o impacto do suicídio de um paciente nos psicólogos, psiquiatras e médicos de medicina geral foi construído o *Questionário Impacto do Suicídio de um Paciente* (QISP) - versão para médicos e psicólogos (disponível em anexo). O desenvolvimento deste questionário foi baseado na revisão de literatura e nos instrumentos internacionais existentes de avaliação desta experiência[8,13,25,31-33]. O QISP é composto por três partes principais. A primeira parte recolhe informação sociodemográfica e profissional dos participantes, tal como idade, género, grupo profissional, anos de prática, local de trabalho e a existência ou não de formação específica em prevenção do suicídio. A segunda parte questiona acerca do contacto dos profissionais com comportamentos suicidários na prática clínica e na vida pessoal. Na terceira parte solicita-se aos profissionais que identifiquem e caracterizem o suicídio do paciente que maior impacto lhes causou e, através de questões abertas, que descrevam o que sentiram na altura, que reações tiveram e que mudanças profissionais e pessoais decorreram como consequência deste acontecimento. Pede-se também aos profissionais que, retrospetivamente, avaliem em que medida aquele suicídio era previsível e prevenível. Apresenta-se ainda uma lista de possíveis recursos de apoio e solicita-se que perante cada um deles os profissionais se posicionem quanto à sua utilidade. Finalmente, o questionário inclui uma questão aberta que solicita aos médicos e psicólogos que, tendo em conta a própria experiência do suicídio de um paciente, aconselhem um colega inexperiente sobre a melhor forma de lidar com a situação.

Participantes e procedimentos

Os potenciais participantes foram recrutados através de um processo de amostragem misto: amostragem focalizada (*targeted sampling*)[35] e amostragem bola de neve (*snowball*)[36,37]. No primeiro processo, amostragem focalizada, foram identificados diferentes locais de trabalho de diferentes regiões do país, tais como hospitais, centros de saúde, faculdades, instituições de intervenção comunitária, onde se apresentou o estudo (presencialmente, via email ou carta) e convidou os profissionais, psicólogos, psiquiatras e médicos de medicina geral e familiar, a participarem.

No segundo método, bola de neve, caracterizado pelos participantes do estudo recrutarem outros potenciais participantes através das suas redes profissionais ou pessoais, utilizaram-se procedimentos adicionais no sentido de obter um conjunto inicial de participantes mais representativo do que a técnica clássica permite, tal como defendido na literatura[38-40].

Estes procedimentos consistiram em: (1) solicitar aos profissionais (iniciais e intermediários) que enviassem aos investigadores contactos (email, telefone ou endereço) de profissionais potenciais participantes ou que eles próprios convidassem outros colegas a participar, ou seja, foi solicitado que nomeassem potenciais participantes mas também que os recrutassem para o estudo; (2) limitar, em parte dos participantes, o n.º de recrutados, solicitando que nomeassem entre 3-5 colegas; (3) no sentido de fomentar a colaboração efetiva dos profissionais, usou-se um sistema de incentivos na apresentação, promotores da participação (p. ex. texto personalizado, referência à importância de obter respostas naquele distrito ou zona do país). Estes procedimentos promovem composições de amostras que convergem e atingem um equilíbrio depois de um número relativamente limitado de cadeias, independentemente da amostra inicial, permitindo que se selecione arbitrariamente os primeiros participantes. Desta forma, apesar da seleção não randomizada, o viés introduzido é progressivamente eliminado, ultrapassando-se um dos problemas centrais da tradicional bola de neve - a amostra inicial aleatória - e evitando efeitos de designado voluntarismo e diferenças das redes entre profissionais.

Os dados foram recolhidos quer através de questionário on-line, cujo link foi enviado via email e colocado em sites de psicologia e medicina, quer através do questionário em suporte de papel enviado por correio e acompanhado com um envelope individual pré-pago para retorno. Os dados foram recolhidos em 2010 e 2011 e o anonimato e confidencialidade dos mesmos foram assegurados.

Análise de dados

Realizaram-se análises de conteúdo das respostas às questões abertas, usando dois avaliadores independentes para a categorização das mesmas. As análises estatísticas foram realizadas usando o SPSS versão 19. Calcularam-se estatísticas descritivas e inferenciais. As diferenças na experiência do suicídio de um paciente devidas a características do profissional foram investigadas através de análises de variância – ANOVA a um fator (*one-way*) seguidas do teste post-hoc de Tukey, do teste t de student para amostras independentes e testes qui-quadrado (com correção de Bonferroni).

Para estas análises, a idade e os anos de prática foram recodificados em variáveis categoriais de três intervalos. Foi ainda calculada uma medida global do apoio usado pelos profissionais, recodificada numa escala de três pontos: recurso a ajuda baixo ou muito baixo, moderado e alto ou muito alto. Foi também calculado um score global para a avaliação da utilidade dos recursos, através da média desta medida.

Resultados

Características dos participantes

Participaram neste estudo 242 profissionais de saúde, cujas características estão descritas na tabela 1. Cinquenta e três por cento eram psicólogos e 47% eram médicos, sendo que entre estes, 46% eram psiquiatras e 54% eram médicos de medicina geral e familiar. Quanto ao género, 70% eram mulheres e 30% eram homens. A idade média dos profissionais foi de 38 anos e a média de experiência clínica foi de 13 anos.

Em relação ao local de trabalho, 32% exercem a sua prática em hospitais, 30% em centros de saúde, 24% desenvolvem a

Tabela 1 – Características dos participantes

Variáveis sociopofissionais	N	%
Participantes (N = 242)		
Psicólogos	128	52,9
Médicos psiquiatras	53	21,9
Médicos de clínica geral e familiar	61	25,2
Género (N = 242)		
Feminino	169	69,8
Masculino	73	30,2
Idade (N = 242) variação 23-77 anos M = 38,52, DP = 11,82		
23-30	75	31,0
31-40	87	36,0
41-50	29	12,0
51-60	40	16,5
>61	11	4,5
Anos de experiência (N = 242) variação 0-48 anos M = 13, 14 DP = 10,8		
0-10	133	55,0
11-20	49	20,2
21-30	35	14,5
>31	25	10,3
Local de trabalho (N = 242)		
Consultório privado	107	44,2
Hospital	77	31,8
Centro de saúde	73	30,2
Faculdade ou escola	58	24,0
Projeto de intervenção comunitária	28	11,6
Região (N = 241)		
Norte	116	48,1
Centro	50	20,7
Sul	66	27,4
Ilhas	11	4,1

Variáveis de formação	N	%
Formação específica na área da suicidologia (N = 239)		
Sim	43	18,0
Não	196	82,0
Autoavaliação da preparação para acompanhar pacientes suicidas (N = 241)		
Suficiente	104	43,2
Insuficiente	137	56,8
Autoavaliação da capacidade de identificar risco de suicídio (N = 239)		
Sim	203	85,9
Não	36	15,1

sua atividade em faculdades ou escolas e 12% trabalham em projetos ou instituições de intervenção comunitária. Catorze por cento indicam outros locais, onde se incluem equipas de tratamento do Instituto da Droga e da Toxicodependência, Instituto Nacional de Emergência Médica e consulta de prevenção do suicídio, entre outros. Quase metade dos participantes (44%) acumula os seus locais de trabalho com a prática clínica privada. Relativamente à distribuição destes locais no país: 48% eram do Norte, 21% do Centro, 27% do Sul e 4% dos Açores e da Madeira (3 profissionais trabalham em mais do que uma região e 2 não indicaram a mesma).

Dezoito por cento dos participantes têm formação específica em suicídio, 43% classificam a sua formação como suficiente para acompanhar pacientes com comportamentos suicidários e a grande maioria dos profissionais de saúde (85%) sente-se capaz de identificar pacientes em risco de suicídio. Simultaneamente, 60% concordam que necessitam de formação especializada na área, 85% julgam que é fundamental implementar planos de formação dirigidos a profissionais de saúde e 12% avaliam-se como bons formadores na área da suicidologia.

Tabela 2 – Experiência com comportamentos suicidários

N = 235	N	%
Vida pessoal		
Tentativa de suicídio de familiar ou amigo	74	31,5
Suicídio de familiar ou amigo	48	20,4
Prática clínica		
Tentativa de suicídio de paciente	187	79,6
Suicídio de paciente	64	27,2
Psicólogos	13	20,3
Psiquiatras	28	43,8
Médicos de medicina geral e familiar	23	35,9
N.º suicídios variação: 1-9 M = 2,27 DP = 1,92		
Tempo decorrido desde último caso: variação 0-30 anos M = 4,08 anos, DP = 4,94		
≤1	22	36,7
1-4	17	28,3
>4	21	35,0

Contacto com comportamentos suicidários

A experiência dos participantes com comportamentos suicidários quer na vida privada quer na prática clínica está descrita na tabela 2. Sessenta e quatro profissionais de saúde tiveram pelo menos um paciente que se suicidou, sendo que 44% são psiquiatras, 36% são médicos de medicina geral e familiar e 20% são psicólogos. Em média decorreram 4 anos desde o último suicídio do paciente e o preenchimento do questionário (M = 4,1 anos, DP = 4,9), sendo que para alguns profissionais decorreram meses e para outros 30 anos. Ter passado pela experiência do suicídio de um paciente relacionou-se significativamente com o género do profissional de saúde (χ^2 (correção de Yates) = 17,65, df = 1, p = 0,000): a proporção de homens com esta experiência (46,5%) é significativamente superior à das mulheres (18,9%). Não se encontram, porém, diferenças significativas no número de suicídios de pacientes entre clínicos masculinos e femininos. Também foram encontradas diferenças significativas de acordo com o grupo profissional dos participantes (χ^2 = 40,99, df = 2, p = 0,000). As proporções de psicólogos, psiquiatras e médicos de medicina geral que tiveram, pelo menos, um paciente que se suicidou são significativamente diferentes: 11, 55 e 38%, respetivamente. E foram também encontradas diferenças significativas no n.º de suicídios entre grupos (F [2, 60] = 3,34, p = 0,042). As diferenças encontradas nas médias de suicídios são de magnitude moderada (Eta squared = 0,10). O teste post-hoc de Tukey revelou que a média de suicídios de pacientes entre os psiquiatras (M = 2,86, DP = 2,19) é significativamente superior à média de suicídios de pacientes entre os psicólogos (M = 1,25, DP = 0,87). A média de suicídios de pacientes dos médicos de medicina geral (M = 2,09, DP = 1,76) não difere significativamente dos restantes profissionais.

Tabela 3 – Características do suicídio e do paciente com maior impacto

	N	%
Tempo decorrido desde o suicídio (N = 63) variação 0-40 anos M = 6, 87 DP = 8,2		
≤ 1	15	23,4
1-4	14	21,9
> 4	34	53,1
Género do paciente (N = 64)		
Feminino	21	32,8
Masculino	43	67,2
Idade do paciente (N = 63) variação 13-74 anos M = 38,51 SD = 16,2		
13-20	10	15,9
21-30	10	15,9
31-40	19	30,2
41-50	8	12,7
> 51	16	25,4
Método de suicídio mais comum (N = 64)		
Enforcamento	20	31,3
Arma de fogo	12	18,8
Precipitação	12	18,8
Diagnóstico psiquiátrico mais comum (N = 44)		
Depressão	24	54,5
Esquizofrenia	6	13,6
Perturbação bipolar	6	13,6
Existência de tentativas de suicídio anteriores (N = 62)		
Sim	21	33,3
Não	41	65,1
Não sabe	1	1,6

Características do paciente e suicídio com maior impacto

Os 64 profissionais que tiveram pelo menos um paciente suicida foram convidados a fornecer informações mais detalhadas sobre o suicídio que lhes tinha provocado maior impacto (tabela 3).

Mais de metade dos pacientes que se suicidaram eram do sexo masculino (67%) e tinham idades compreendidas entre os 13-74 anos (M = 38,5, DP = 16,2). Em média, estes suicídios aconteceram há 7 anos. Para alguns profissionais decorreram meses desde o suicídio com maior impacto até ao preenchimento do questionário e para outros 40 anos. O método para cometer suicídio mais utilizado foi o enforcamento (32%), seguido da arma de fogo e precipitação (19%). Sessenta e nove por cento dos profissionais referem que o suicida tinha um diagnóstico psiquiátrico identificado, destacando-se a depressão como o mais comum (55%), seguido da esquizofrenia e perturbação bipolar (14%). Em 33% dos casos os profissionais de saúde descrevem a existência de tentativas de suicídio anteriores ao ato fatal.

Suicídio de um paciente: a experiência dos profissionais de saúde

Forma como os profisssionais tiveram conhecimento do suicídio do seu paciente

Sessenta e oito por cento dos profissionais de saúde ficaram a saber do suicídio através dos familiares do paciente que comunicaram diretamente ao profissional ou fizeram chegar a informação à instituição onde este exercia funções. Em 19% dos casos a notícia foi dada por outros profissionais, como por exemplo, a assistente social ou elementos da equipa de enfermagem. Onze por cento dos profissionais de saúde tiveram conhecimento do suicídio através de outras pessoas que conheciam o suicida (que não familiares), como vizinhos ou outros pacientes amigos. Em 5% dos casos, a notícia chegou através de notificação formal da polícia ou do tribunal. Em 3% dos casos, o profissional de saúde foi chamados ao local do suicídio, sendo confrontado diretamente com o acontecimento, e a mesma percentagem (3%) soube da notícia através de meios de comunicação social.

Tabela 4 – Perceção da possibilidade de prever e prevenir o suicídio

	N	%
Previsível (N = 64) M = 2,56, DP = 1,08		
De forma nenhuma a pouco (1-2)	34	53,1
Moderadamente (3)	17	26,6
Muito a completamente (4-5)	13	20,3
Prevenível (N = 63) M = 2,98, DP = 0,99		
De forma nenhuma a pouco (1-2)	22	34,9
Moderadamente (3)	23	36,5
Muito a completamente (4-5)	18	28,6

Perceção da possibilidade de prever e prevenir o suicídio

Mais de metade dos profissionais de saúde (53%) percecionou o suicídio do seu paciente como sendo nada ou pouco previsível e 35% consideraram que não teria sido possível preveni-lo (tabela 4).

Sentimentos perante o suicídio do paciente

Sessenta profissionais de saúde relataram o que sentiram após o suicídio do paciente. Os sentimentos descritos foram codificados em oito categorias descritas na tabela 5. O sentimento mais relatado pelos profissionais de saúde foi o sofrimento emocional ou dor psicológica, referido por quase metade dos profissionais (47%), incluindo tristeza, desespero, desgosto, sentimento de perda, dor e angústia, entre outros. A seguir, a categoria mais referida (35%) é composta por preocupações, insegurança, dúvidas e medos, quer relativos ao futuro e a

Tabela 5 – Sentimentos perante o suicídio do paciente

N = 60	N	%
1. Sofrimento emocional	28	46,7
2. Preocupações, inseguranças, dúvidas e medos	21	35,0
3. Frustração e outras emoções negativas (zanga, desilusão)	17	28,3
4. Surpresa, choque ou descrença	14	23,3
5. Fracasso ou falha	13	21,7
6. Culpa e responsabilização	11	18,3
7. Impotência ou incapacidade	10	16,9
8. Aceitação ou resignação	4	6,7

novos pacientes - «receio que voltasse a acontecer com outro doente» - quer em relação à intervenção realizada com o paciente falecido: «*Questionei-me se teria feito tudo o que estava ao meu alcance para evitar esta situação*». Vinte e oito por cento referiram a frustração ou outras emoções negativas, como zanga ou desilusão, dirigidas à situação, paciente ou familiares, e incluindo a culpabilização destes pelo suicídio. Vinte e três por cento dos profissionais de saúde sentiram-se chocados ou ficaram perplexos perante a situação. Vinte e dois por cento dos respondentes sentiram que falharam no reconhecimento dos sinais de risco ou que fracassaram na intervenção e 18% sentiram culpa e responsabilidade pelo suicídio. Sentimentos de impotência são descritos por 17% dos profissionais. E, finalmente, 7% revelaram aceitação ou resignação, sentindo o suicídio como um resultado possível, inevitável ou uma solução aceitável para uma dor insuportável e prolongada no tempo: «*Aceitei: para a utente foi o culminar de um sofrimento de cerca de 40 anos*».

Em relação à duração dos sentimentos descritos, 15% dos profissionais relataram que estes persistiram para além dos 6 meses após o suicídio do paciente, enquanto para mais de metade (57%) estes sentimentos duraram menos de um mês.

Não se encontraram diferenças significativas entre os sentimentos relatados e o género, a idade, os anos de prática ou o grupo profissional dos participantes.

Mudanças na prática e outras reações

Além da descrição dos sentimentos, 40 participantes descreveram outras reações relacionadas com o suicídio do paciente e que, correspondem, principalmente, a mudanças na prática clínica. Estas são apresentadas na tabela 6.

Oitenta por cento dos profissionais relataram que, depois de passarem pela experiência do suicídio de um paciente, tornaram-se mais atentos aos sinais de risco de suicídio e alteraram práticas de intervenção: «*Passei a dar mais atenção à fase de melhoria sintomatológica e a valorizar seriamente todas as tentativas de suicídio*»; «*maior número de cuidados junto da família*» e «*maior número de internamentos nas primeiras 2 semanas após o início do tratamento*». Paralelamente, 28% referiram uma maior insegurança e ansiedade na intervenção com potenciais suicidas e familiares, incluindo insegurança relativa às capacidades profissionais: «*Que não percebia nada de psiquiatria*», «*questionei a minha capacidade para ser psicóloga*» ou «*receio de não ter capacidade profissional para enfrentar a situação*», são alguns exemplos. A seguir a reação mais comum (18%) foi a de rever procedimentos ou refletir acerca da intervenção, nomeadamente em equipa. Treze por cento procurou formação ou informação especializada ou dedicou-se à investigação na área. Por último, 5% dos profissionais de saúde referiu que passaram a envolver mais a família nestes casos.

Tabela 6 – Mudanças na prática e outras reações após o suicídio do paciente

N = 40	N	%
1. Maior atenção, vigilância e rigor na avaliação e intervenção	32	80,0
2. Maior insegurança, incerteza e ansiedade na intervenção	11	27,5
3. Revisão de procedimentos, reflexão, incluindo revisão em equipa	7	17,5
4. Procura de formação específica e informação ou dedicação à investigação	5	12,5
5. Maior envolvimento da família do paciente	2	5,0

Quatro profissionais de saúde (7%) referiram implicações e mudanças na vida pessoal motivadas pelo suicídio do seu paciente. Uma maior capacidade de aceitação da vida em geral, vontade abandonar a psiquiatria (ainda que temporária), o ter que ir a tribunal por causa do caso e a opção pela saúde escolar, foram as implicações descritas.

Recursos de apoio e perceção da sua utilidade

Perante uma lista de possíveis apoios, relativos à experiência do suicídio do paciente, 62 profissionais de saúde (97%) indicaram quais os recursos usados e em que medida os mesmos foram úteis para lidar com a situação (tabela 7). O recurso mais usado pelos profissionais foi o apoio dos colegas (63%), seguido do contacto com a família do paciente (58%), da revisão do caso em equipa (44%) e do apoio da família do próprio profissional

Tabela 7 – Recursos de apoio usados pelos profissionais e sua utilidade

Recurso	Uso		Utilidade					
N = 62/56	N	%	Nada a pouco útil		Algo útil		Útil a muito útil	
			N	%	N	%	N	%
Colegas	39	62,9	5	12,8	5	12,8	29	74,3
Família do paciente	36	58,1	8	22,2	8	22,2	20	61,6
Revisão do caso em equipa	27	43,5	1	3,7	4	14,8	22	81,4
Família	26	41,9	7	26,9	10	38,5	9	34,6
Amigos	21	33,9	4	19,0	9	42,9	8	38,1
Profissionais anteriores	17	27,4	5	23,5	2	11,8	10	58,8
Supervisor	16	25,8	–	–	2	12,5	14	87,5
Amigos do paciente	12	19,4	3	25,0	3	25,0	6	50,0
Funeral	6	9,7	2	33,3	1	16,7	3	50,0
Psicoterapeuta	5	8,1	1	20,0	1	20,0	3	60,0
Médico de família	2	3,2	1	50,0	–	–	1	50,0

(42%). Relativamente à utilidade destes apoios, os profissionais de saúde tendem a avaliar a supervisão como o recurso mais útil, seguindo-se a revisão do caso com a equipa e o apoio dos colegas. As medidas globais de uso de apoio (baixo ou muito baixo 68%, moderado 25% e alto ou muito alto 7%) e a medida global da avaliação da utilidade de recursos usados indicam-nos que, na generalidade, os profissionais de saúde tendem a recorrer pouco aos apoios apresentados, mas quando o fazem tendem a avaliá-los como úteis. A contrariar esta tendência, surgem a família e os amigos do profissional de saúde, cujas pontuações de utilidade são as mais baixas. Não se encontraram diferenças significativas de género na medida global de recurso a apoio, nem no score de utilidade. Da mesma forma não se encontraram diferenças nestas medidas entre os psicólogos e os médicos.

A grande maioria dos profissionais (98,4%) referiram que não existe qualquer sistema formal de apoio na instituição onde trabalham, previsto para apoiar os profissionais que passam pela experiência de um paciente se suicidar.

Sugestões e outros comentários adicionais

Setenta por cento dos profissionais de saúde que passaram pelo suicídio de um paciente responderam ao desafio de aconselhar colegas inexperientes sobre a melhor forma de como lidar com este acontecimento. A sugestão mais frequente foi a de partilhar com colegas, incluindo colegas experientes e colegas de confiança (47%). Seguiram-se conselhos de rigor na intervenção, nomeadamente na identificação do risco e na atuação vigilante e imediata, e onde se inclui o internamento e o encaminhamento para profissionais especializados (29%). Proceder à revisão do caso (27%) e procurar supervisão (20%) foram também aconselhados. Aceitar que o suicídio de um paciente faz parte da profissão e evitar sentimentos de culpa foi referido por 13% dos profissionais. A mesma percentagem aconselha a que se articule com a família enlutada, incluindo a prestação de apoio, enquanto 11% salientam a importância de se manter nestes casos um distanciamento emocional do caso e da família, sendo que um dos profissionais desaconselha a participação nas cerimónias fúnebres. Por fim, 9% dos respondentes sugerem apoio interdisciplinar para o acompanhamento destes casos e que os profissionais perante o suicídio de um paciente recorram a psicoterapia.

Alguns profissionais (23%) acrescentaram um comentário adicional relativo à vivência do suicídio do paciente. Estas observações foram no sentido de reforçar este acontecimento como uma experiência provável e perturbadora - «*É uma morte que se carrega, é incomensurável*» - apesar do reconhecimento do suicídio como uma possibilidade, um risco inevitável e a impossibilidade de prevenir todos os suicídios: «*O suicídio de um paciente psiquiátrico é um mau outcome, mas provável em técnicos que lidem com pessoas em risco de suicídio*». Nestas observações é também referida a necessidade de formação específica na área da suicidologia, especificamente por parte dos médicos de medicina geral e familiar: «*É sempre uma experiência perturbante com que lido com alguma dificuldade. Os médicos de família necessitam de mais formação em saúde mental*».

Discussão

Este estudo, realizado com psicólogos, psiquiatras e médicos de medicina geral e familiar, acrescenta novos dados à suicidologia, particularmente ao estudo do impacto do suicídio de um paciente em profissionais de saúde, área, até à data, inexplorada em Portugal.

Os dados empíricos deste estudo revelam que 27% dos profissionais de saúde experienciaram o suicídio de, pelo menos, um paciente. Esta frequência, entre os estudos que usaram amostras multidisciplinares, tem uma variação muito ampla: entre 19[5]-70%[6]. Porém, diferenças na metodologia, nas taxas de resposta e na composição das amostras, em termos de grupos profissionais, limitam o valor destas comparações. Os dois estudos referenciados incluíram, para além de médicos e psicólogos, técnicos de serviço social, educadores sociais e enfermeiros como participantes, sendo este último o grupo com maior representatividade. Relativamente aos processos de amostragem, tal como no estudo português, foram identificados locais de trabalho, onde potencialmente os profissionais teriam pacientes que se tinham suicidado. Porém, no estudo com taxa mais elevada este processo incluiu uma pré-triagem destes locais, através de um questionário prévio às instituições, no sentido de identificar em quais tinha acontecido o suicídio de utentes nos últimos 5 anos. Apenas nas que responderam afirmativamente, os profissionais foram convidados a participar[6]. Ou seja, apesar de se tratarem de proporções de profissionais com pacientes que se suicidaram, a população da qual se extraíram os casos prevalentes é distinta, condicionando a comparabilidade. Num outro estudo, realizado com psiquiatras, psicólogos, enfermeiros, outros técnicos de saúde mental e técnicos de serviço social a taxa de suicídio de paciente encontrada foi de 21%, mas esta prevalência apresentada refere-se ao período de estágio ou internato destes profissionais[4].

De acordo com o esperado, e com o descrito na literatura internacional[9,28], neste estudo encontraram-se diferenças significativas na frequência de suicídio de pacientes entre os três grupos profissionais, sendo que, para os psiquiatras este é um risco acrescido. Neste estudo, 55% dos psiquiatras tiveram pelo menos um paciente que se suicidou, reforçando a evidência que esta é uma experiência comum para estes profissionais. Esta frequência é comparável às taxas obtidas em estudos realizados com psiquiatras no Canadá (50%)[13] e nos EUA (51%)[10] e inferior às taxas obtidas em estudos com psiquiatras escoceses (68%)[8], irlandeses (80-82%)[41,42] e belgas (92%)[43].

A percentagem de psicólogos portugueses que tiveram um paciente que se suicidou foi de 11%. Comparando com pesquisas norte-americanas, efetuadas com este grupo profissional, verifica-se que a taxa portuguesa é inferior à encontrada numa amostra de psicólogos (22%)[9], mas igual à obtida numa amostra de psicólogos estagiários (11%)[12].

Num estudo irlandês os autores encontraram uma frequência de 86% de médicos de medicina geral com pacientes que se tinham suicidado[23], taxa consideravelmente mais elevada que a obtida no nosso estudo (38%). No entanto, os dados empíricos disponíveis acerca da frequência do suicídio de pacientes dos médicos de medicina geral são muito escassos. Apesar desta lacuna, os estudos que procuram

determinar as taxas de contacto dos suicidas com cuidados de saúde primários fornecem indicadores indiretos de que esta frequência será elevada: em média, cerca de metade dos suicidas contactam com médicos de medicina geral durante o ano antecedente à morte[15-18] e cerca de 20% estabelecem este contacto dias antes da morte[18]. Em pacientes idosos estes números são ainda mais impressionantes: 73% visita o seu médico de família no mês antecedente ao suicídio[43]. Estes dados foram calculados a partir da revisão de estudos que disponibilizam dados do contacto com os cuidados de saúde de suicidas antes do ato fatal (incluindo autopsias psicológicas e análise de registos)[16,18], ou na própria revisão de registos médicos e médico-legais[17,44].

Para além de diferenças entre os grupos profissionais, constatou-se que era mais provável um profissional de saúde masculino ter passado pela experiência do suicídio de um paciente que uma profissional de saúde feminina. Os dados disponíveis relativos a estas diferenças de género não são consensuais. Há estudos que encontraram, tal como neste, diferenças nas proporções entre os que tiveram e os que não tiveram pacientes suicidas[45], enquanto noutros estudos estas diferenças não foram significativas[9,12]. Outros dados mostram que, dentro dos que passaram pela experiência, os homens tiveram mais suicídios de pacientes que as mulheres[43].

Este estudo mostra que o suicídio de um paciente tem um impacto emocional e profissional considerável nos médicos e psicólogos portugueses - *«é uma experiência que não nos abandona enquanto formos terapeutas, fica cá dentro»* causando sofrimento emocional e outros sentimentos negativos, tais como, medo, frustração, choque, sentimento de fracasso, culpa, entre outros, e levando a mudanças na prática clínica. Estes resultados estão de acordo com o encontrado em pesquisas internacionais.

Os resultados deste estudo permitem sintetizar o impacto do suicídio de um paciente em efeitos positivos e negativos para prática clínica, à semelhança do apresentado numa investigação com internos de psiquiatria[46]. Os efeitos positivos, referidos por uma percentagem elevada dos participantes, correspondem à experiência de aprendizagem que este acontecimento proporcionou, traduzindo-se numa maior atenção e rigor na avaliação do risco e na intervenção com eventuais suicidas. Incluíram ainda, ações realizadas com o intuito de melhorar a prática, tais como revisão de procedimentos e o investimento em formação especializada. Os efeitos negativos ou potencialmente prejudiciais para a prática clínica foram referidos por 28% dos profissionais de saúde e incluíram maior insegurança, incerteza e ansiedade ao lidar com pacientes e famílias e um enfraquecimento da confiança nas próprias capacidades profissionais. Litman[24] reforça que níveis de ansiedade excessivos perante a possibilidade de comportamentos suicidas podem comprometer a eficácia dos terapeutas nestes casos. O suicídio de um paciente, considerado como um dos acontecimentos mais perturbadores da prática clínica[1-3], pode também constituir-se como uma oportunidade de aprendizagem profissional.

Os sentimentos e reações descritos pelos profissionais de saúde deste estudo indicam a vivência de um processo de luto - *«sentimento de perda, tristeza profunda, desgosto, dor»* -. Simultaneamente, os resultados são também reveladores da existência de reequacionamento de questões profissionais, incluindo o confronto com limitações - *«fiz tudo o que podia para evitar?»* - e responsabilidades - *«reforcei o meu sentimento de responsabilidade»*. Incluí ainda a adaptação de estratégias profissionais. De acordo com Litman[24], após o suicídio de um paciente coexistem dois tipos de reação: uma reação pessoal relacionada com um processo de luto normal e uma reação relacionada com a função profissional específica.

Neste estudo 22% dos profissionais de saúde relataram sentimentos de fracasso e 18% de culpa perante o suicídio do seu paciente. Embora o tema da adaptação e *coping* pós-suicídio seja gerador de alguma discórdia na literatura, parece que poucos acontecimentos da prática clínica serão causadores de um sentimento de fracasso e culpa tão intensos como o suicídio de um paciente[47]. Perante outro tipo de mortes, nomeadamente decorrentes de doença grave não psiquiátrica, mais facilmente se considera a ocorrência como inevitável. Ao contrário, o suicídio é tendencialmente perspetivado como evitável e possível prevenir, gerando nos profissionais o sentimento de que poderiam ter feito melhor, deveriam ter estado mais atentos aos sinais ou que deviam ter sido mais rigorosos e vigilantes quanto a questões de internamento ou follow-up. Neste estudo, apenas 7% descreveu sentir o suicídio do seu paciente como um resultado inevitável ou uma solução aceitável (face a uma dor insuportável e prolongada no tempo). Simultaneamente, 53% retrospetivaram o suicídio do seu paciente como nada ou pouco previsível e 35% consideraram que não teria sido possível prevenir-lo. Estes dados parecem refletir a dificuldade que é para os profissionais equilibrarem atitudes perante o suicídio de um paciente. Ou seja, considerarem o suicídio como inevitável e imprevisível pode protegê-los da culpa e evitar uma cultura de responsabilidade excessiva. Ao mesmo tempo, esta atitude poderá promover descrença nos efeitos da intervenção clínica[8], agravada pelo fraco poder preditivo dos fatores de risco do suicídio[48,49] e pelo facto das estratégias de prevenção eficazes com base na evidência científica serem muito reduzidas[50,51].

Com este estudo ficamos também a saber que, em caso de suicídio de um paciente, não existem sistemas de apoio específicos nos diferentes locais de trabalho e que, para além disso, os profissionais de saúde tendem a não pedir ajuda nestas circunstâncias. Porém, quando recorrem a algum tipo de suporte avaliam-no, geralmente, como útil. Uma primeira possível explicação para os profissionais recorrerem pouco a ajuda é a da experiência não carecer de suporte específico. Mas os dados deste estudo contariam esta explicação: os recursos avaliados como menos úteis são, exatamente, os suportes não especializados ou específicos da situação - amigos e família do próprio profissional. Assim, outra hipótese de explicação prende-se com o estigma social e profissional a que se mantém ligado este acontecimento. O suicídio de um paciente é visto como um resultado profissional errado e associado a uma falha do clínico (como já discutido). Esta atitude pode contribuir para uma resistência na procura de ajuda e criar barreiras à adoção de ações adequadas pós-suicídio. Designadas na literatura internacional por medidas de postvention, estas ações incluem providenciar apoio à família do suicida, a outros elementos da equipa que tenham acompanhado o paciente (como por exemplo enfermeiros) e a outros pacientes (particularmente em meio hospitalar), assim como de garantir suporte ao próprio clínico[25,32,47,52-57].

De acordo com o encontrado em pesquisas empíricas anteriores[3,5,13,43,58,59], o apoio dos colegas foi o recurso pós-suicídio mais utilizado pelos profissionais de saúde e avaliado como um dos mais úteis. O recurso avaliado com maior utilidade, o supervisor, foi usado por poucos profissionais, refletindo, provavelmente, a dificuldade em aceder à supervisão, quer pelo tipo de (in) disponibilidade deste recurso em meios institucionais, quer pelo facto de implicar em muitos casos, gastos económicos consideráveis. Apesar da escassez de dados empíricos específicos, a literatura defende que a supervisão pode ter um papel importante para o profissional de saúde em casos de suicídio de um paciente[12,13,33,52,53,60,61].

O contacto com a família do suicida, tendo uma dupla função, de apoio aos familiares e de integração da experiência por parte do profissional, e a revisão do caso em equipa, ambos claramente aconselhados na literatura como práticas a seguir pós-suicídio, foram validados pelos resultados deste estudo.

Apenas 10% dos profissionais foram ao funeral do seu paciente, percentagem inferior à encontrada em amostras de psiquiatras belgas (17%)[59] (26%)[43] e escoceses (15%)[8] e psicólogos norte-americanos (18%)[12]. Na literatura é referido que, na generalidade, os profissionais de saúde não vão às cerimónias fúnebres, mas aqueles que o fazem consideram-no útil, quer para si quer para a família enlutada[12,62,63]. Neste estudo, metade dos profissionais que foram ao funeral consideraram-no útil.

Para além da revisão de caso, da partilha com os colegas, da supervisão, do contacto com a família e da presença no funeral ou envio de cartão de condolências, a literatura aconselha também a formação especializada como recurso adequado para lidar com este acontecimento[13,56,59,64]. Nesta investigação, apenas 18% têm formação especializada e mais de metade considera a sua preparação insuficiente para acompanhar pacientes suicidas. A necessidade de formação, para melhorar competências na intervenção com comportamentos suicidários, é reconhecida pela maioria dos participantes. Será assim essencial que a formação em suicidologia se generalize a mais profissionais de saúde. Esta formação, para além dos conteúdos tradicionalmente abordados (avaliação do risco, gestão da crise, epidemiologia, fatores de risco), deverá incluir procedimentos de *postvention*, assim como componentes formativas em que se antecipe o suicídio de um paciente como um risco provável, e se reflita acerca de questões de responsabilidade[3,64].

A formação suicidológica recebida nas diferentes formações académicas é escassa. Um estudo recente com profissionais de saúde portugueses revela que as dificuldades no acompanhamento de indivíduos suicidas podem situar-se em 4 níveis diferentes: nível técnico (p. ex. avaliação do risco), nível emocional (p. ex. medo que o indivíduo se suicide), nível relacional e comunicacional (p. ex. como dialogar com o paciente acerca da morte) e ao nível da abordagem da família.[1] As limitações da formação com consequências ao nível das competências de avaliação e gestão de pacientes suicidas por parte dos profissionais de saúde não é exclusiva do nosso país[65-67]. Acresce que tem vindo a ser demonstrado que uma das estratégias eficazes de prevenção do suicídio com base na evidência é a formação dos profissionais de saúde, com destaque para os médicos de família[49,50]. Juntam-se ainda dados que revelam que dada a complexidade da intervenção com pacientes suicidas é necessário formação contínua, específica e baseada na experiência[68].

Neste estudo, não se encontraram diferenças significativas entre géneros na experiência do suicídio de um paciente, ou seja, apesar de ser mais provável para um profissional de saúde homem ter tido um paciente que se suicidou, quando passam pela situação, homens e mulheres parecem ter vivenciado este acontecimento de forma semelhante. Também não foram encontradas diferenças entre géneros ao nível da utilização dos recursos de apoio pós-suicídio. Estes resultados contrastam com estudos anteriores[5,6,14,29,31,42].

Em relação ao grupo profissional a literatura não é consensual nem linear. Existem estudos que, tal como este, não encontraram diferenças entre grupos profissionais[31]. Outros obtiveram níveis de impacto emocional negativo significativamente mais elevado nos psiquiatras que nos psicólogos[19]. Outros ainda, não encontram diferenças na intensidade das respostas, mas identificaram efeitos significativos nas mudanças das práticas profissionais entre alguns grupos específicos[6].

Este estudo apresenta algumas limitações metodológicas. Em primeiro lugar, a representatividade não pode ser garantida através do processo de amostragem utilizado (focalizada cruzado com bola de neve). Porém, foram usados procedimentos metodológicos adicionais que fazem com que um viés sistemático seja improvável. Em segundo lugar, o facto de se seguir um desenho que assegura o anonimato, torna impossível verificar que percentagem, dos que não responderam, teve ou não pacientes que se suicidaram, condicionando o valor da taxa de profissionais com suicídio de pacientes. Terceiro, e porque o objetivo do estudo era descrever os sentimentos e reações perante o suicídio de paciente considerado pelos profissionais de saúde com maior impacto, o estudo poderá não ser representativo de todos os suicídios com que os profissionais lidaram. De referir ainda a impossibilidade, do cálculo da taxa de resposta ao estudo dado o desenho metodológico.

A investigação futura deverá explorar relações entre atitudes perante o suicídio e impacto do suicídio de um paciente, aprofundar o estudo dos efeitos das variáveis socioprofissionais, incluindo variáveis de formação, e ainda estudar dificuldades específicas dos profissionais perante comportamentos suicidários. Aconselha-se ainda o uso de entrevistas de profundidade no sentido de apurar fatores chave para o processo de adaptação e aprendizagem após o suicídio de um paciente.

Como referiram os profissionais de saúde, o suicídio de um paciente apesar de ser «*um risco inevitável para quem trabalha com certo tipo de população, é uma experiência muito difícil de viver*». Assim, caberá à investigação produzir mais conhecimento sobre o impacto deste acontecimento, os processos de adaptação por parte dos profissionais e os fatores que medeiam o mesmo, no sentido de promover que esta experiência difícil seja uma oportunidade de crescimento pessoal e

[1] Rothes I, Henriques M, Leal J, Lemos M. Facing a patient who seeks help after a suicide attempt: difficulties of health professionals. Crisis. 2013. Manuscript under review.

profissional e potencie intervenções futuras de qualidade com pacientes em risco.

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Os autores declaram não haver conflito de interesses.

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Apêndice. Material adicional

Pode consultar o material adicional para este artigo na sua versão eletrónica disponível em doi:10.1016/j.rpsp.2013.05.002.

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STUDY 5

Patient suicide: The experience of Flemish psychiatrists

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Patient Suicide: The Experience of Flemish Psychiatrists

Inês Areal Rothes, MA, Gert Scheerder, PhD, Chantal Van Audenhove, PhD, and Margarida Rangel Henriques, PhD

The experience of the most distressing patient suicide on Flemish psychiatrists is described. Of 584 psychiatrists, 107 filled a self-report questionnaire. Ninety-eight psychiatrists had been confronted with at least one patient suicide. Emotional suffering and impotence were the most common feelings reported. Changes in professional practice were described and included a more structured approach to the management of suicidal patients. Colleagues and contact with the patient's family were the most frequently used sources of help, whereas team case review and colleagues were rated as the most useful ones. Patient suicide leads to emotional suffering and has a considerable professional impact.

Patient suicide experience is common in psychiatrists. Previous research has shown the high prevalence rates of patient suicides among these health professionals, including both graduates and trainees (e.g., Alexander, Klein, Gray, Dewar, & Eagles, 2000; Pieters, De Gucht, Joos, & De Heyn, 2003; Pilkinton, & Erkin, 2003; Ruskin, Sakinofsky, Bagby, Dickens, & Sousa, 2004). The rates range between 33% (Brown, 1987) and 80% (Landers, O'Brien, & Phelan, 2010).

The experience of losing a patient by suicide can negatively affect both professional and personal lives. In the aftermath of a patient suicide, psychiatrists react, simultaneously, according to a common mourning process and to their specific professional role (Litman, 1965). The most usual emotional reactions reported by psychiatrists include guilt and self-blame, anger, shock, fear, concern, loss of self-confidence, and feelings of incompetence or failure (e.g., Chemtob, Hamada, Bauer, Kinney, & Torigoe, 1988; Cryan, Kelly, & McCaffrey, 1995; Landers et al., 2010; Pieters et al., 2003; Ruskin et al., 2004). Research indicates that female health professionals express feelings of shame, responsibility, and guilt more often than their male colleagues. They also question their professional competence following patient suicide more

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frequently (Gaffney et al., 2009; Grad, Zavasnik, & Groleger, 1997; Wurst et al., 2010).

The ways of dealing with patient suicide are divided into: (a) measures to carry out before the event and (b) postsuicide management actions. Measures before the event correspond essentially to training guidelines and in addition to suicide risk assessment and data on epidemiology, risk factors, and suicide dynamics, training should include anticipation of this occupational hazard and a discussion of responsibility issues as a measure of decreasing anxiety toward patient suicide (Brown, 1987; Menninger, 1991). Postvention measures comprise the role of psychiatrists when a patient commits suicide and focus both on providing support to other survivors (family, staff, other patients) as well as ensuring support resources for the clinician (e.g., Berman, Jobes, & Silverman, 2006; Campbell & Fahy, 2002; Ellis, Dickey, & Jones, 1998; Farberow, 2005; Hendin, Haas, Maltsberger, Szanto, & Rabinowicz, 2004; Hodelet & Hughson, 2001; Michel, Armson, Fleming, Rosenbauer, & Takahashi, 1997; Sakinofsky, 2007). Case review, conversations with colleagues and supervisors, and specialized training are presented as helpful resources to deal with the event. Funeral attendance is also viewed as an adequate postvention measure (e.g., Campbell, 2006; Kleespies, Penk, & Forsyth, 1993; Tanney, 1995).

The objectives of this study were to describe the psychiatrists' emotional reactions concerning their most distressing patient suicide and to identify consequent changes in clinical practice, support resources used, and their usefulness. This study is also important due to Belgium's high suicide rate (about 18 suicides per 100,000 inhabitants for the past 50 years; World Health Organization [WHO], 2011). Indeed, Belgium is among the 10 to 15 countries with the highest suicide rates in the world. Nevertheless, to our knowledge, only one study about the impact of patient suicide on Flemish psychiatrists is available and it is specifically on psychiatric trainees (Pieters et al., 2003).

METHOD

Survey Instrument

To assess the impact of patient suicide, a questionnaire was developed based on a review of the literature and instruments to describe this experience (e.g., Alexander et al., 2000; Hendin, Lipschitz, Maltsberger, Haas, & Wynecoop, 2000; Kleespies, Smith, & Becker, 1990; Ruskin et al., 2004). This questionnaire comprises three parts. The first part collects sociodemographic information such as age, gender, professional group, years of practice, and prior training with regard to suicide. The second part inquires about experience with suicidal behavior in both personal and professional life. In the third part, professionals are asked to identify the most distressing patient suicide and to indicate characteristics of this suicide. They are also invited to report their feelings, reactions, and professional and personal changes following this patient suicide through open questions, as well as their opinion about the predictability and preventability of this patient suicide scored on a 5-point Likert scale ranging from 1 *(not at all)* to 5 *(completely)*. This third part also includes a list of possible support resources (12 items), of which participants are to rate the usefulness, also scored on a five-point Likert scale ranging from 1 *(not helpful at all)* to 5 *(very useful)*. Finally, this impact section also includes an open question about the way the respondent would advise an inexperienced colleague on how to deal with a patient suicide. The questionnaire is provided in the appendix.

Participants

Data were collected through a Web survey. An invitation to participate in this study was emailed to all 584 psychiatrists of

the Flemish Federation of Psychiatrists. This invitation included a link to the online version of the survey. Data were collected in March 2011 and 3 weeks after the initial invitation a reminder was sent. Anonymity and confidentiality of study participation were guaranteed.

Data Analysis

Content analysis was performed using two independent raters in the categorization of the responses (one of them was a native Flemish speaker). Statistical analyses were carried out using SPSS version 19 (IBM Corp., Somers, NY, USA). Descriptive statistics were calculated. Independent-samples *t*-tests and chi-square analyses were used to test the existence of differences in the experience of patient suicide due to psychiatrists' characteristics: gender, years of practice, and having or not suicide training. For these analyses, years of practice were re-coded into interval categories, using the median as cut-off, and an overall score of support was used and an overall score of self-rated usefulness were calculated.

RESULTS

Participants' Characteristics

One hundred seven psychiatrists filled out the questionnaire, which corresponds to a response rate of 18%. Participants' characteristics are reported in Table 1. Fifty-one percent of participants were female and 49% were male. The mean age of the respondents was 46.2 years and the mean years of practice was 18. With regard to work setting, about half of the sample (51%) worked at a psychiatric center, 22% worked at a community mental health center, and 20% worked at the psychiatry department of a general hospital. Sixty-five percent of respondents indicated they also worked in private practice. With regard to

TABLE 1
Participants' Characteristics (N = 107)

Socio-professional variables	*n*	%
Participants		
General Psychiatrists	100	93.5
Child Psychiatrists	7	6.5
Gender		
Female	55	51.0
Male	52	48.6
Age *range* 26–74 *years* (*M* = 46.2, *SD* = 11.3)		
26–30	6	5.6
31–40	32	29.9
41–50	30	28.0
51–60	27	25.1
>61	12	11.1
Years of practice, *range* 1–45 *years* (*M* = 18.19, *SD* = 10.7)		
1–10	30	28.1
11–20	34	32.0
21–30	27	25.4
>31	15	14.0
Work setting		
Private	70	65.4
Psychiatric center	54	50.5
Community mental health center	23	21.5
Psychiatric department of general hospital	21	19.6
Province of Flanders		
West Flanders	16	15.0
East Flanders	21	19.6
Antwerp	32	29.9
Limburg	13	12.1
Flemish Brabant	37	34.6
Training variables		
Specific training in suicide		
Yes	32	29.9
No	75	70.1
Self-rated adequacy of training		
Sufficient	80	74.8
Insufficient	27	25.2
Self-rated ability to identify risk		
Yes	103	96.3
No	4	3.7
Self-rated skills in dealing with suicidal patients		
Very poor or poor	2	1.9
Moderate	22	20.6
Good or very good	83	77.6

training variables, 30% of respondents had specific training in suicide, 75% rated their training as sufficient to deal with suicidal patients, and a large majority felt able to identify patients' suicide risk (96%) and self-rated their skills in dealing with suicidal patients as *good or very good* (78%).

Experience with Suicidal Behaviors

Participants' experience with suicidal behaviors in personal life and in clinical practice is reported in Table 2. Ninety-two percent of psychiatrists experienced at least one patient suicide. There was a statistically significant difference in the number of patient suicides according to the gender and practice years of the psychiatrists. Males [$M = 6.98$, $SD = 6.78$) experienced more patient suicides than females ($M = 3.72$, $SD = 3.02$, $t(63.87) = 3.01$, $p = .004$], and the magnitude of the differences in the means was moderate ($\eta^2 = .09$). With regard to years of practice, the most experienced psychiatrists (≥ 17 years) had more patient suicides ($M = 7.57$, $SD = 6.80$) than the less experienced [≤ 16 years; $M = 3.26$, $SD = 2.29$, $t(55) = 4.07$ $p = .000$] and the magnitude of the difference was large ($\eta^2 = 0.16$). There were no differences in the number of patient suicides related to specific training on suicide.

TABLE 2
Experience with Suicidal Behaviors

	n	%
Patient suicide attempt ($N = 107$)	101	94.4
Number of patient suicides attempes range 1–200 ($M = 34.13$, $SD = 48.47$)		
Time since last case ($n = 88$) range 0–15 years ($M = 1.60$ years $SD = 2.50$)		
< 1	30	34.1
1–4	50	56.8
> 4	8	9.1
Patient suicide ($N = 107$)	98	91.6
Number of patient suicides range 1–30 ($M = 5.37$, $SD = 5.48$)		
Time since last case ($n = 92$) range 0–15 years ($M = 3.39$ years $SD = 3.42$)		
< 1	18	19.6
1–4	47	51.1
> 4	27	29.3
Frequency of contact with suicidal patients ($N = 107$)		
Never, seldom, or a few times/year	30	28.0
Monthly	30	28.0
Weekly	31	29.0
Daily	16	15.0

The Most Distressing Suicide: Patient and Suicide Characteristics

Professionals who had experienced at least one patient suicide were invited to provide more detailed information about the suicide that provoked most distress to them (Table 3). Forty-seven percent of these patients were female and 53% were male. On average, these suicides happened 6.3 years ago. The three most common suicide methods were hanging, jumping, and medication overdose. The category *others* includes strangulation with plastic bag (2) and the combination of drugs, alcohol, and other toxic substances (3). In 93% of the patients, a psychiatric diagnosis was described, the most common was depression and 21% of the cases had a comorbid diagnosis. In 45% of the cases, the patient had a prior history of suicide attempt, and in 84%, the suicide risk was attended to in clinical counseling.

The Experience of a Patient Suicide

Ways of Finding Out About the Patient Suicide and Psychiatrists' Actions Undertaken. Almost half of the psychiatrists (48%) found out about the suicide through contact with the patient's family, 19% were informed by the nurse team or hospital staff, and 10% by the police (including railway police). Other ways included: colleagues, media, general practitioner, emergency services, and by message of patient. After the psychiatrists found out

about the patient suicide, the vast majority (82%) made contact with the family, including assisting the family and discussing the case with them. Furthermore, 27% attended the funeral and 17% of the professionals discussed it with their team or colleagues, including a review of procedures and conversations with colleagues as support for themselves. To send a letter to survivors; to meet with other patients; to contact the GP, supervisor, or police; and to follow a suicide protocol were other actions reported by psychiatrists.

TABLE 3
Patient and Suicide Characteristics of the Most Distressing Suicide Case

	n	%
Mean time since suicide (N = 89), range 0–30 years (M = 6.33 years, SD = 6.60)		
< 1	9	10.1
1–4	35	39.3
> 4	45	50.3
Patient's gender (N = 92)		
Female	43	46.7
Male	49	53.3
Patient's age (N = 92), range 15–75 years (M = 37.88, SD = 15.31)		
15–24	20	21.8
25–34	25	27.1
35–44	18	19.6
45–54	14	15.3
>54	15	16.5
Suicide method (N = 92)		
Hanging	34	37.0
Jumping/precipitation	22	23.9
Medication overdose/poisoning	18	19.6
Others	5	5.3
Drowning	4	4.3
Fire weapon	3	3.3
Poisoning by pesticide or other toxic substances	2	2.2
Cutting/phlebotomy	2	2.2
Unknown by psychiatrist	2	2.2
Psychiatric diagnosis (N = 86)		
Depression	39	45.3
Schizophrenia	14	16.0
Borderline personality	11	12.8
Others (PTSD, ADHD, chronic fatigue syndrome)	10	11.6
Psychosis	9	10.5
Bipolar disorder	7	8.1
Personality disorder	7	8.1
Alcoholism or drug addiction	5	5.8
Obsessive compulsive disorder	3	3.5
Anxiety disorder	2	2.3
Previous suicide attempt (N = 92)		
Yes	41	44.6
No	45	48.9
I don't know	6	6.5

PTSD, posttraumatic stress disorder; ADHD, attention deficit hyperactivity disorder.

Perception of Preventability and Predictability. Fifty-seven percent of psychiatrists considered that the most distressing patient suicide was little or not at all preventable and 39% of them thought that the event was little or not at all predictable.

Feelings. Eighty-six psychiatrists described the feelings that they experienced after the patient suicide. The feelings reported by respondents were coded in eight categories (see Table 4).

The feeling of suffering or distress, including sadness, despair, and pain was the most commonly reported after the patient suicide. Almost half of the respondents (47%) felt like that after the suicide of the patient. Furthermore, about a quarter (26%) felt impotence or powerlessness toward the patient suicide. Concerns, doubts, fear, and anxiety compose another category of feelings described by 24% of

TABLE 4
Feelings with Regard to the Patient Suicide (N = 86)

	n	%
1. Emotional suffering or distress	40	46.5
2. Feelings of impotence, powerlessness, or helplessness	22	25.6
3. Concerns, doubts, fear, and anxiety	21	24.4
4. Guilt, self-blame, and regret	17	19.8
5. Feelings of failure or defeat	17	19.8
6. Understanding or acceptance of suicide	17	19.8
7. Surprise, shock, astonishment, stupefaction, and disbelief	16	18.6
8. Negative feelings toward the suicidal patient	13	15.1

the psychiatrists. This category includes both concerns and fears with regard to the future, i.e., that it could happen again with new patients, as well as worries about the adequacy of the treatment that was provided to the deceased patient. About 20% of respondents reported guilt and self-blame, or feelings of failure or defeat. Also, 20% of the psychiatrists described feelings of understanding or acceptance of the suicide option, which is regarded as inevitable or the result of insupportable pain. In contrast, 15% of respondents described negative feelings toward the suicidal patient, such as anger, frustration, disappointment, or misunderstanding. Finally, 19% of psychiatrists described the feeling of surprise, shock, or disbelief toward the patient suicide. In general, the feelings most reported as effects of the most distressing patient suicide were not related to psychiatrists' gender. One exception was found: feelings of failure and defeat were related to the psychiatrist' gender [χ^2 (Yates' correction) = 4.45, $df = 1$, $p = .035$]. The proportion of females that reported failure and defeat (31%) was significantly higher than males who felt these feelings toward the patient suicide (10%). There were no differences found in the feelings categories according to the years of practice nor according to having or not suicide training.

In more than half of the psychiatrists (61%), the feelings reported lasted less than 1 month and for 13%, the feelings described remained for more than 6 months.

TABLE 5
Reactions and Professional Changes after the Patient Suicide (N = 41)

	n	%
1. Increased attention or vigilance and accuracy	22	53.7
2. Procedures, reflection, team conversation, search information	9	22.0
3. Increased insecurity, uncertainty	6	14.6
4. Changes in the relation with patients	5	12.2
5. Safety measures	4	9.8

Reactions and Changes in the Clinical Practice and Personal Life. In addition to the description of these feelings, 41 psychiatrists (45%) reported other reactions related to the patient suicide, which mainly correspond to changes in clinical practice (Table 5).

More than half (54%) of the psychiatrists who answered this question described that after the patient committed suicide, they started to pay more attention or be more vigilant to potential suicidal ideation in their patients, addressing, for example, the suicide themes more directly and explicitly than before. Furthermore, they expressed increased accuracy in risk assessment and treatment, and started to use formal assessment instruments. The second most common reaction (22%) was to improve practice by team conversation or reflection, or by developing or revising (hospital) procedures to deal with suicidal patients (such as introducing standard inquiries) or by researching information about suicide and trying to learn more about it. Fifteen percent of participants became more insecure and acted with more uncertainty in the assessment and treatment of suicidal patients than before. Changes in the relationship with patients were also described by 12% of the psychiatrists and include changes such as greater distance as well as a greater empathy or a greater capacity to establish a relationship with patients in difficult situations. Finally, 10% of the psychiatrists reported that they were inclined to take more safety measures in cases of suicidality, to protect both themselves and patients; for example, "I tended to accelerate measures to provide security" or "I am much more careful in granting leave to patients who request exceptions to the rules."

With regard to personal changes, seven psychiatrists (8%) admitted changes in personal life as consequences of the patient suicide. More attention to balance work and private life, to be even more available in these cases, and general insecurity were the changes that professionals reported.

TABLE 6
Support Resources used by Psychiatrists to Deal with the Patient Suicide (N = 92)

Support	Use of		Usefulness					
			Not at all to little		Somewhat		Useful to very useful	
	n	%	*n*	%	*n*	%	*n*	%
Colleagues	79	85.9	9	11.4	10	12.7	60	75.9
Contact with patient's family	74	80.4	17	23.0	11	14.9	46	62.2
My relatives/family	59	64.1	9	15.3	12	20.3	38	64.4
Team case review	50	54.3	8	16.0	3	6.0	39	78.0
Other professionals	39	42.4	6	15.4	6	15.4	27	69.2
My friends	37	40.2	11	29.7	10	27.0	16	43.2
Supervisor	35	38.0	14	40.0	2	5.7	19	54.3
Funeral attendance	23	25.0	5	21.7	3	13.0	15	65.2
Contact with patient's friends	16	17.4	6	37.5	2	12.5	8	50.0
Psychotherapist	10	10.9	5	50.0	0		5	50.0
Others	9	9.8	3	33.3	0	_	6	66.6
General practitioner	5	5.4	5	100	0	_	0	_

Support Resources and Their Usefulness

Of 98 psychiatrists who had experienced a patient suicide, 92 (94%) responded to a list of possible support resources and rated the usefulness of each item (Table 6). The support resource that professionals used most often was colleagues, followed by contact with the family of the patient and their own family. The team case review was also used by more than half of the respondents. Regarding the rating of usefulness, the psychiatrists seem to consider the team case review as the most helpful resource, followed by the support of colleagues and other professionals who followed the suicidal patient. In general, psychiatrists had a tendency to rate the resources that they used as useful or very useful. However, there were some important exceptions. A supervisor was considered as not helpful at all or little helpful by 40% of those who used it. Furthermore, the five psychiatrists who contacted general practitioners rated them as not helpful at all. In the case of a psychotherapist as a help source, psychiatrists who used this were divided: half considered psychotherapists as not or little helpful, and half rated them as useful or very useful. The overall use of support resources measure was significantly related to psychiatrists' gender and to psychiatrists' practice years. Females used more support resources ($M = 5.52$ $SD = 2.42$) than males [$M = 3.98$ $SD = 1.95$, $t(89) = 3.37$, $p = .001$] and the magnitude of this difference was moderate ($\eta^2 = 0.11$). Less experienced psychiatrists used more support resources ($M = 5.37$ $SD = 2.43$) than most experienced ones [$M = 4.11$ $SD = 2.04$, $t(88) = 2.69$, $p = .009$], the magnitude of this difference was also moderate ($\eta^2 = 0.08$). There were no differences related to the suicide training. The overall score of usefulness of support resources used were not related to psychiatrists' gender, neither to years of practice nor suicide training.

Forty-one percent of the psychiatrists stated the existence in their work place of support systems provided for professionals experiencing a patient suicide. Team meeting, discussion, or work group; suicide protocol or hospital procedures in case of suicide; psychological support, psychotherapy, or specialized support team; information on counseling; self-help groups; and supervision were the support systems described.

Suggestions

Eighty-four psychiatrists (86%) gave advice to inexperienced colleagues about the best way to deal with a patient suicide. The suggestion that psychiatrists gave more often (66%) was to discuss it with the team, colleagues, or professionals. This could be formal conversations, but also informal talks, revising procedures in the team, or doing a psychological autopsy with the team. In second place was discussing it with the family of the patient. Even though some psychiatrists reported an atmosphere of accusation and prosecution in the contact with the family, 27% of the professionals defended that the discussion with the family is important for both parties. Sharing feelings, having the support of family, and giving yourself time to cope with it were also advised by 14% of the respondents. Sharing the patient suicide experience should be with someone (colleague or other person) they trust. Finally, other suggestions included: reflecting about the event, seeing the suicide as part of work, following psychotherapy, attending training or searching for information about suicide, and attending the funeral or sending a card to the family.

DISCUSSION

This study presents some important findings to suicidology, particularly regarding patient suicide impact on psychiatrists. It adds further evidence that patient suicide is a very common phenomenon for psychiatrists. The frequency of patient suicide experience was considerably higher in this study (92%) than in analogous studies on psychiatrists in Canada (Ruskin et al., 2004), the United States (Chemtob et al., 1988), the United Kingdom (Alexander et al., 2000), and Ireland (Cryan et al., 1995; Landers et al., 2010). These data are in line with the higher suicide rate in Belgium than in those countries and with the findings in previous research in Belgian psychiatrist trainees (Pieters et al., 2003). However, there may be a bias due to the probable greater interest of those who have had a patient suicide to participate. It should also be taken into account that data on frequency came from different types of studies, namely cross-sectionals (e.g., Chemtob et al., 1988; Landers et al., 2010), as in this study, and longitudinals (e.g., Brown, 1987; Ruskin et al., 2004). Thus, frequency is presented by different epidemiological measures: prevalence and incidence, respectively. Moreover, the available data refer to different time spans of practice: some consider residency (e.g., Courtenay & Stephens, 2001; Yousaf, Hawthorne, & Sedgwick, 2002), others, the total years of professional practice (Ruskin et al., 2004) or a specific period of time (e.g., last 5 years; Wurst et al., 2010), and others when psychiatrists become consultants (Alexander et al., 2000). In our study, male psychiatrists experienced more patient suicides than female psychiatrists. The literature is not consensual with regard to this topic. For example, Chemtob, Hamada, Bauer, Kinney, and Torigoe (1988) did not find differences between male and female psychologists in the rate of suicide among their patients, whereas Pope and Tabachnick (1993) found that more men than women experienced patient suicides in a therapists' sample. In this study, we found significant differences according to the practice years. The percentage of the variance in the number of patient suicides explained by years of experience is higher (16%) than by gender (9%). In contrast with the present research, Chemtob's (1988) studies did not find differences in the frequency of patient suicides and practice years, but found that more training was associated with a lower rate of suicide. Also in contrast with this study, Wurst et al. (2010) found no relation between number of patient suicides and years of professional experience.

Despite its relatively frequent nature, patient suicide impact should not be undervalued. Indeed, there is a general agreement in the relevant literature that death by suicide of a patient is a disturbing experience

for psychiatrists (Alexander et al., 2000; Brown, 1987; Chemtob et al., 1988; Courtenay & Stephens, 2001; Cryan et al., 1995; Landers et al., 2010; Pieters et al., 2003; Pilkinton & Etkin, 2003; Ruskin et al., 2004; Yousaf et al., 2002), as well as for others health professionals (e.g., Chemtob et al., 1988; Gaffney et al., 2009; Gulfi, Dransart, Heeb, & Gutjahr, 2010; Kleespies et al., 1990, 1993; Linke, Wojciak, & Day, 2002; Wurst et al., 2011). The literature states that guilt and self-blame, anger, shock, fear, concerns, loss of self-confidence, and feelings of incompetence or failure are among the most common reactions reported by psychiatrists whose patient committed suicide. The results of our study converge with international research. However, some differences were found.

In our study, 47% of the respondents reported sadness, despair, pain, or other feelings of suffering or distress. Feelings of guilt and self-blame appear to be lower in Flemish psychiatrists (20%) than in both Irish psychiatrists (79%; Landers et al., 2010) and English (70%) and Scottish (31%) trainees (Dewar, Eagles, Klein, Gray, & Alexander, 2000; Yousaf et al., 2002). However, we should note that some kinds of concerns and doubts (that in our study form an independent category with 21% of answers) frequently took the shape of self-questioning as the example "Still wondering whether I have done all I could to prevent this," which can also be interpreted as guilt, thus increasing this percentage. Comparing the time gap between the suicide and completion of the questionnaire, we verify a wide variation in the different studies. For example, for 13% of English psychiatrists (Landers et al., 2010) the most distressing patient suicide occurred in the year of the survey, whereas in our study, this percentage was 10%. The time between the most distressing patient suicide ranged between some months and 30 to 40 years in our study and in the English study respectively. In another study with trainees, the median time was 2.25 years, ranging from 1 month to 3 years (Yousaf et al., 2002), whereas in our study it was 3.39 for the most recent case, ranging from some months to 15 years. For the most distressing the average was 6.33, ranging from some months to 30 years. In some of the studies analyzed, these data are not available (e.g., Dewar et al., 2000). Although having stressing effects, patient suicide should not be inflated. In what is considered a landmark article on patient suicide impact, Litman (1965) concluded that therapists respond to the patient suicide as does any person toward the death of a significant other, but they also react according to their specific professional role. In line with Litman's view, Flemish psychiatrists react first as common people (e.g., feelings of suffering) and second according to their professional role (e.g., concerns about both the treatment provided and new patients). Similarly, Ruskin et al. (2004) concluded that a minority of psychiatrists present morbid levels of emotional impact but the majority of psychiatrists are capable of dealing normally with the traumatic event. In our study, Flemish psychiatrists seem to recover faster from the adverse feelings than their peers: whereas in 61% of Flemish psychiatrists the effects only lasted up to 1 month, this was only true for 40% of Scottish psychiatrists (Alexander et al., 2000) and 36% of Canadian psychiatrists (Ruskin et al., 2004). Accordingly, effects persisting longer than 3 months were reported by 18% of the Flemish psychiatrists (in 13% it persisted longer than 6 months) whereas in their Scottish peers, this rate was higher (29%). For Canadian psychiatrists, the adverse reactions persisted longer than 3 months only in 7%. In the only study with Flemish trainees available prior to this study (Pieters et al., 2003), it is highlighted that the patient's suicide does not necessarily affect the personal and professional lives of trainees.

Predictability and preventability expectations and attitude of understanding and acceptance toward the suicide seem to affect the distress provoked by patient suicide. Almost 60% thought that the suicide

was not preventable. But compared with similar research (Alexander et al., 2000; Eagles, Klein, Gray, Dewar, & Alexander, 2001), we found that the Flemish psychiatrists evaluate the most distressing patient suicide as more predictable and more preventable than their Scottish colleagues. The Scottish psychiatrists viewed the most distressing suicide as less predictable and less preventable than suicides in general. This is quite remarkable and it could be interpreted as a defense mechanism not to carry the burden of responsibility. Moreover, in our study, 20% of the participants described feelings of understanding or acceptance of the suicide, revealing that Flemish psychiatrists regarded the death by suicide as inevitable in a considerable number of cases. As in the study of Litman (1965), this acceptance corresponds to an attitude of resignation toward an insupportable pain for which treatment is unknown or nonexistent and it does not comply with any philosophical acceptance or with the objectives of clinical work. Alexander et al. (2000) pointed out that if psychiatrists consider suicide as inevitable, it may protect them from self-blame, but it also carries the danger of disbelief in therapeutic work.

The impact that patient suicide had on the Flemish psychiatrists is evident both in their emotional reactions and in their changes in clinical practice. In the present study, about 40% of the respondents reported that the patient suicide led to changes in the clinical practice, a percentage slightly lower to that found in the sample of trainees (50%; Pieters et al., 2003). These changes are almost all positive ones and aim at a more structured and knowledgeable approach to the management of patients at risk. For several participants, the patient suicide event seems to have been a learning experience: "It taught me how to make a risk assessment." This finding may have implications for psychiatrists' training, because it adds information to one of the most interesting and informative results from the study: although only 30% of psychiatrists reported specific training in suicide, 75% thought they had adequate suicide training. In a wide sample of community and health professionals, Scheerder, Reynders, Andriessen, and Van Audenhove (2010) concluded that some groups have a realistic view of their competence in intervention with suicidal people, whereas others tended to overestimate their skills level. However, the Scheerder et al. did not include psychiatrists in their study. However, the results of reactions and professional changes after the patient suicide seem to contrast with the large majority of participants indicating that their training in suicide prevention is sufficient, that their skills in dealing with suicidal patients are good, and that they feel able to identify suicide risk. One explanation could be that, not only is specific training unusual, but the current training in suicide intervention neither includes patient suicide experiences of colleagues nor prepares for an own patient suicide experience. This hypothesis is in line with the study's result of no impact differences related to specific training. Another explanation could be that dealing with suicidal patients is a very complicated and sensitive issue for which a single training is not sufficient. It has been shown that suicide intervention is a unique skill, and periodic skills or experience-based training should be mandatory for professionals that come into contact with suicidal patients (Scheerder et al., 2010). These data justify a particular investment in formal training programs, including both preparing for the experience and providing support after the event. For the patient suicide to become a learning opportunity for psychiatrists, as an experience of professional and personal growth, postsuicide support should be efficient. The suggestions given to the inexperienced colleagues reinforce some of the particular needs of psychiatrists regarding a positive postvention, such as the importance of discussing and processing the suicide in a safe and reliable environment. The fear of being judged negatively by colleagues or others seems to be one of the psychiatrists' concerns. Despite this caution, in this study

the support of colleagues was the most often used and considered one of the most helpful resources, as found in other empirical researches (e.g., Gaffney et al., 2009; Goldstein & Buongiorno, 1984; Menninger, 1991; Pieters et al., 2003; Ruskin et al., 2004) and literature about postvention (e.g., Campbell, 2006; Campbell & Fahy, 2002; Hodelet & Hughson, 2001; Tanney, 1995).

Supervision following patient suicide has been poorly studied and the majority of studies are related to trainees. Nevertheless, research investigating how health professionals cope with patient suicide suggests that supervision plays an important role in the recovery process (Campbell & Fahy, 2002; Ellis et al., 1998; Kleespies et al., 1990, 1993; Knox, Burkard, Jackson, Schaack, & Hess, 2006; Lafayette & Stern, 2004; Ruskin et al., 2004). However, in our study psychiatrists seem not to value this support, indeed only about half of those who talked with the supervisor (54%) considered this to be useful or very useful (whereas 40% considered it as not helpful at all or little helpful). Similar findings came from the study by Pieters et al. (2003) in which only 50% of the Flemish psychiatric trainees, who discussed the event with their supervisor, rated this conversation as helpful. In the light of these results, it seems that the Flemish supervisors do not fulfill their supportive role. Several studies indicate that the recovery process of a patient suicide seems to depend not only on the support measures used, but also on the timing in which they are used (VanLith, 1996), as would be expected if we take into account the existence of phases in a mourning process. This could contribute to the explanation for the intriguing results regarding supervisor support. Attending the funeral of the deceased patient is also a consensual recommendation in the literature, and it seems to have a double function for psychiatrists: for self-care (e.g., Alexander et al., 2000; Kleespies et al., 1993; Tanney, 1995) and for reaching out appropriately to the survivors of suicide (e.g., Campbell, 2006). Empirical research shows that in general, few professionals attend the funeral but those who did felt this participation was helpful. In our study, 26% of 92 psychiatrists attended the funeral, a higher proportion than the 15% of psychiatrists in Alexander's study (2000) and the 18% of psychology trainees in Kleespies' study (1993). Flemish psychiatrists seem to recognize the experience as useful both in the self-recovery process and in providing support to the relatives of the deceased patient.

In line with the few existing empirical studies on gender differences related to patient suicide reactions (e.g., Gaffney et al., 2009; Grad et al., 1997), we found differences in the emotional impact between psychiatrists' gender. Nevertheless, the differences found by Gaffney et al. and Grad et al. referred to feelings of shame, responsibility, and guilt being more often mentioned by female professionals. In our study, differences were related to women reporting more feelings of failure and defeat – (e.g., "Feeling that I had not done enough" or "Absolute defeat, even though I knew this suicide was unavoidable") Furthermore, in the present study women showed a tendency to seek more support than men, which is in line with Grad's study that demonstrated gender differences in the way of coping. With regard to the practice years there were no differences in the experience of patient suicide of Flemish psychiatrists. The few empirical data available are not consistent, revealing the need for investment in this specific focus of analysis. Some studies found a decreasing impact with increasing years of practice (e.g., Chemtob et al., 1988), whereas other studies without exclusivity of psychiatrists as participants (Grad et al., 1997; Hendin et al., 2004) showed no significant differences. Other studies found that psychiatrists' trainees felt more guilt and shock after 6 months than their experienced colleagues, but did not find significant relations between suicide patient experience and years of practice in general (Wurst et al., 2010).

There are some methodological limitations to this study. First, the percentage

of psychiatrists who filled out the questionnaire was low (18%) compared with other studies, however, there was no bias in terms of age and gender when comparing our sample to those who did not fill out the questionnaire. Second, due to the fact that the respondents remained anonymous, it was not possible to verify which percentage of the nonrespondents had or not experienced patient suicide. And there may be a bias resulting from the fact that psychiatrists would be likelier to respond if they had experienced patient suicide, leading to overestimating this rate. It also should be noted that the instrument used was constructed for this purpose, and thus their psychometric properties are unknown. Finally, and because our goal was to describe the emotional reactions toward patient suicide perceived by psychiatrists as having the greatest impact, this study may not be representative of all suicides that psychiatrists have to deal with.

Future research should explore the relationship between attitudes toward suicide and patient suicide impact and study the effects of socio-professional variables, including training and not only the years of experience, but also the type of experience. The development of guidelines and recommendations for best practices for psychiatrists should also be taken into account to develop future researches.

It will never be possible to prevent all patient suicides. Thus, it is crucial to know more about the impact, recovery process, and factors related to the patient suicide experience to allow for personal and professional growth to arise from this painful occurrence and to improve future interventions with patients at risk.

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Appendix - Patient Suicide Experience Questionnaire

1st Part – Professional and Social-demographic Characterization

1.Gender	Female 1○	Male 2○			
2. Age	_____	years			
3. Years of practice	_____	years			
4. Professional Group	Psychiatrist 1○	Child Psychiatrist 2○			
5. Workplace	Private 1○	Psychiatric centre 2○	Community mental health centre 3○	Psychiatric department of general hospital 4○	Other 5○
6. Sub region of work	West Flandres 1○	East Flandres 2○	Antwerp 3○	Limberg 4○	Flemish Brabant 5○

TRAINING

7. My training to deal with suicidal clients/ patients with suicidal behaviours is:	Sufficient 1○	Insufficient 2○
8. I feel capable of identifying a client at risk of suicide	Yes 1○	No 2○
9. I have specific training in the area of suicidology	Yes 1○	No 2○

2nd Part - Contact with Suicidal Behaviours

1. Do you have a relative or close friend who carried out one or several suicide attempts?

Yes 1 ○ How many relatives/ friends? How long ago was the last case? Years

No 2 ○

2. Do you have a relative or close friend who committed suicide?

Yes 1 ○ How many relatives/ friends? How long ago was the last case? Years

No 2 ○

3. Did (or do) you have any patient/client who has made one or several suicide attempts?

Yes 1 ○ How many patients/ clients? How long ago was the last case? Years

No 2 ○

4. Have you had a patient/ client who committed suicide?

Yes 1 ○ How many patients/ clients? How long ago was the last case? Years

No 2 ○

5. How often are you confronted with suicidal patients in your practice?	never or seldom 1○	few times/ year 2○	monthly 3○	weekly 4○	daily 5○
6. To what extent do you feel proficient in dealing with suicidal patients?	very poor 1○	poor 2○	moderate 3○	good 4○	very good 5○

If your answer to **question 4 was NO**, i.e., if in your professional practice you NEVER had any contact with a patient's death by suicide, your QUESTIONNAIRE IS FINISHED. We thank you for your collaboration. If your answer to **question 4 was YES**, i.e., if you have experienced a patient's death by suicide, please continue and answer the last group of questions of this questionnaire

3rd Part - Impact of Suicide

A patient suicide can provoke multiple emotional reactions in the professional and negatively affect both professional and personal life. We would like to ask you to answer accordingly to the client whose suicide impacted you the most, referring under what circumstances it occurred, the reactions/ effects it had on you and the resources you used to deal with the situation.

1. How long ago was the suicide? ☐ Years

2. Gender of the patient Female 1○ Male 2○ **3. Age of the patient at the time** ☐ Years

4. Method used (by the person committing suicide)

Medication overdose (poisoning 1	○	Hanging 2	○	Fire weapon 3	○
Pesticide or other toxic substances intoxication/poisoning 4	○	Jumping/ precipitation 5	○	Carbon dioxide or domestic gas 6	○
Drowning 7	○	Cutting/ phlebotomy 8	○	I don't know 9	○
Other 10	○	Which?_____			

5. The patient had a (known/identified) psychiatric diagnosis? Yes 1○ Which? _____ No 2○ I don't know 3○

6. The patient had a prior history of suicide attempt? Yes 1○ No 2○ I don't know 3○

7. Was suicide risk being taken into account/attended to in clinical counselling? Yes 1○ No 2○

8. Looking back, do you consider this suicide to have been predictable?

Not at all ○ ○ ○ ○ ○ Completely

9. Looking back, do you consider this suicide to have been preventable?

Not at all ○ ○ ○ ○ ○ Completely

10. How did you find out about the suicide?

11. At the time, what did you do about it? (we would like you to refer to things like contacting relatives (how and when), taking part in burial services, options you took regarding these matters)

12. What did you feel at the time? What do you recall feeling at the time?

For how long did you feel like that?

Less than a week ○ Between a week and a month ○ Between 1 to 3 months ○ Between 3 to 6 months ○ More than 6 months ○

13. Name other reactions or consequences your patient's/client's suicide triggered/caused in you

For how long did those reactions/consequences last?

Less than a week ○ Between a week and a month ○ Between 1 to 3 months ○ Between 3 to 6 months ○ More than 6 months ○

15. Were there changes resulting from your patient's suicide in your clinical practice? Yes1 ○ No 2 ○

If your answer was YES what were the changes occurring in your clinical practice that derived from your client's/patient's suicide?

16. Were there changes resulting from your patient's suicide in your personal life? Yes1 ○ No 2 ○

If your answer was YES what were the changes occurring in your personal life that derived from your client's/patient's suicide?

17. Choose to what extent the support measures listed below were helpful in dealing with the situation.

In case you haven't used a support measure, choose the option 'DIDN'T USE'	Didn't use	Not helpful at all 1	Little helpful 2	Somewhat helpful 3	Useful 4	Very useful 5
1. Colleagues	○	○	○	○	○	○
2. Supervisor	○	○	○	○	○	○
3. My relatives	○	○	○	○	○	○
4. My friends	○	○	○	○	○	○
5. My psychotherapist	○	○	○	○	○	○
6. My general practitioner GP	○	○	○	○	○	○
7. Contact with the suicidal patients' family	○	○	○	○	○	○
8. Contact with suicidal patients' friends	○	○	○	○	○	○
9. Contact with other professionals who had followed the suicidal patient formerly	○	○	○	○	○	○
10. Taking part in burial/memorial services	○	○	○	○	○	○
11. Discussing/ Reviewing the case with the team	○	○	○	○	○	○
12. Other. Which? _____	○	○	○	○	○	○
13. Other. Which? _____	○	○	○	○	○	○

18. Are there formal support systems for professionals experiencing a patient's suicide in your workplace?

Yes1 ○ Which? _____ No 2 ○

19. Bearing in mind your personal experience of enduring a patient's suicide, what suggestion about the best way to deal with it would you give to a colleague who comes to experience a similar situation?

Additional comments

If you have any additional comment to do on experiencing a patient's suicide, we would very much like it if you would share it with us. For that purpose, use this box.

Thank you very much for your collaboration and contribution!

GENERAL DISCUSSION

This PhD studied Portuguese health professionals who deal with suicidal behaviours in clinical practice, investigating the suicidal behaviours' explanations, practices and difficulties of psychologists, psychiatrists and general practitioners towards suicidal patients. The research also studied the impact of a patient suicide in Portuguese health professionals and in Flemish psychiatrists.

Beyond the theoretically oriented discussions presented in each paper, in this part of the thesis an integrated overview of the main results is presented. The underlying prevention paradigm to this discussion is a comprehensive and multilevel model, as for example the *Ecological human model* (e.g. Henry et al.; WHO, 1998) or the *General model of suicidal behaviours* (Maris, 1992) (cf. section 3, p. 32-35). These models support multifaceted and multilevel answers to the problem, including measures aimed at health professionals and services, as the specific training on the area (cf. section 4, p. 42).

In this section of the thesis the main findings of the research are summarized and discussed, addressing implications and providing policy recommendations and suggestions for further research. The general methodological limitations are also presented.

1. Main results

The majority of Portuguese health professionals who participated in the survey had contact with suicidal behaviours in clinical practice (81%), about one third experienced more than nine patient suicide attempts and 27% had at least one patient who died by suicide. Most health professionals had no specific training on suicidal behaviours (82%).

1.1. EXPLANATIONS OF SUICIDAL BEHAVIOURS

The survey of Portuguese health professionals' explanations regarding suicidal behaviours (study 1) showed that doctors and psychologists explained suicidal behaviours through five explanatory models: psychological-suffering, psychopathological, affective-cognitive, adverse life events and socio-communicational (table 5).

The psychological-suffering model was the most likely to explain suicidal behaviours in the thinking of health professionals whereas the socio-communicational model was the less valued as explanation for suicidal behaviours by doctors and psychologists.

Table 5 *Health professionals' explanatory models of suicidal behaviours*

Explanatory Model	Description
Psychological-suffering	Corresponds to severe or unbearable psychological distress and limit states (despair, hopelessness, depression) or states involving suffering (loneliness, isolation, finding no alternatives).
Affective-cognitive	Combines lack of affection and explanations from social psychology and explanations emphasized by cognitive psychology.
Socio-communicational	Associates social copycat with communicative function of suicidal behaviour and traits of perfectionism or aggressiveness.
Adverse life events	Corresponds to negative life events such as working and financial problems, illness, relation breakdown and difficult mourning process.
Psychopathological	Associates suicidal behaviours to a changed mental state due to mental disorder or due to drugs and alcohol use.

Differences were found between professional groups in the psychological-suffering model, the affective-cognitive model and the adverse life events model. Psychologists think that psychological-suffering explanations are more likely to explain suicide and suicide attempts than psychiatrists; GPs value the adverse life events as explanations of suicidal behaviours more than psychologists and finally in the thinking of psychologists the combination of affective, relational and cognitive factors is a more probable explanation for suicidal behaviours than in the thinking of doctors.

The theoretical intervention model of psychologists and psychiatrists did not contribute much to the variation of their explanations for suicidal behaviours. The health professionals' explanations are not influenced by patient suicide experience either. With regard to the data collection instrument the results were satisfactory due to the high reliability given by the Cronbach's alpha coefficient. Further, sensitivity and factorial validity were also favourable. Even though ESBQ discriminates explanations between professional groups indicating

favourable construct validity further improvements or at least a deeper analysis of the psychometric properties is needed.

1.2. PRACTICES TOWARDS SUICIDAL PATIENTS

In the study of current practices of health professionals towards a patient who seeks help after a recent suicide attempt (study 2) five intervention components emerged: (1) comprehensive assessment, (2) protocols of assessment and intervention, (3) support to and involvement of the family, (4) psychotherapy and (5) hospitalization and medical treatment (table 6).

Table 6 *Health professionals' current practices towards suicidal behaviours*

Intervention components	Description
Assessment	Perform a comprehensive assessment of imminent risk, risk factors, intentionality and triggers. It also includes depression and hopelessness assessment.
Protocols	Use of formal instruments to the intervention and assessment, including the use of written contracts and the personality assessment.
Family	Provide support to the family of suicidal patient and involvement of family in the process of assessment and management of suicide risk.
Psychotherapy	Provide or refer to psychotherapy, psychology and continuous monitoring or treatment.
Hospitalization and medical treatment	Provide or refer to inpatient treatment, pharmacotherapy, psychiatric care, general physician intervention and to refer to a skilled professional in this area.

Psychotherapy is the modality of treatment most likely to be provided or to be referred to, when health professionals face a patient who seeks help due to suicidal problems. Results show that health professionals most likely advise or provide psychotherapy than perform a comprehensive assessment of imminent risk, depression and other risk factors. Health professionals rated the support to the family and the involvement of relatives, as well as the hospitalization and the medical treatment, including pharmacological therapy, with moderate probability. The use of intervention protocols and formal assessment instruments is unlikely but slightly higher by psychologists.

The comparison of psychologists, psychiatrists and GPs revealed moderate to large differences in the intervention components. The involvement of the family in the therapeutic process was the only exception as the three groups rated it with the same probability.

Psychiatrists were the most likely to perform a comprehensive assessment and presented lesser tendency than psychologists to provide or refer to psychotherapy. GPs were the most likely to suggest inpatient treatment, psychopharmacology and psychiatric care in these cases.

The few professionals who have specific training on suicide intervention (about 20%) tend to score higher in assessment practices and in the involvement of the family in the therapeutic process. The specific experience with suicidal behaviours in clinical practice also influences the assessment practices: the more experience with suicidal patients the greater the likelihood to perform a comprehensive evaluation.

The likelihood to use formal protocols in the assessment and management of suicidal people was influenced by the age and gender of the health professional: female and younger ones reported as more likely the application of formal instruments, including the written non-suicidal contracts. Also the decision of hospitalization and medical treatment was affected by the age of the professionals: older professionals rated the option of inpatient treatment and pharmacological therapy as more probable.

With regard to the measurement instrument – ISBQ - psychometric properties are favourable but further analyses are required. Cronbach's alpha coefficients indicated high reliability, sensitivity and the factorial validity are favourable and the construct validity also presents promising results.

1.3. DIFFICULTIES TOWARDS SUICIDAL PATIENTS

The study about perceived difficulties and needs (study 3) revealed that difficulties when facing a suicidal patient in the clinical setting are composed by four factors, which correspond to four different types of difficulties: (1) technical, (2) emotional, (3) relational and communicational, and (4) family-approaching and logistic (table 7).

Table 7 *Health professionals' difficulties towards suicidal patients*

Difficulty components	Description
Technical difficulties	Related to the lack of specific training and knowledge on suicidal risk assessment, protocols and intervention.
Emotional difficulties	Related to the emotional impact of working with suicidal patients, such as feeling distressed or experiencing fear that the patient dies by suicide.
Relational difficulties	Related to the therapeutic relational and communicational attitude including the death theme approach. It can also be named by therapeutic alliance difficulties
Family-approaching and logistic difficulties	Related to the work with the family, logistic conditions of intervention, and the absence of teamwork

Technical difficulties were the most frequently reported by health professionals, followed by family-approaching and logistic difficulties, and then by emotional ones, while relational and communicational difficulties received the lower scores. Intervention difficulties with suicidal patients clearly differed among professional groups and were moderately to strongly associated with specific suicide-related variables.

General practitioners reported more difficulties than psychologists and psychiatrists did. These differences were found in the global score and in all types of difficulties, except in emotional ones, which were perceived with a similar frequency by the three groups. Further, psychiatrists reported technical difficulties as less frequently felt than psychologists and their physician colleagues.

Health professionals who had specific training on suicide and a higher experience level with patient suicide attempts presented lower levels of difficulties. Concretely, professionals with training scored lower in technical and relational difficulties and had an inferior global score. With regard to the specific experience with suicidal behaviour in clinical practice, the more experienced the professional, the less frequent it was to feel technical and emotional difficulties.

Most Portuguese health professionals did not have specific training in suicidal behaviours intervention, however half of them considered their education sufficient to deal with suicidal patients and the majority perceived themselves as able to assess suicide risk. Simultaneously, more than half reported the need of more training on the area and the majority agreed that the implementation of training plans aimed at health

professionals is fundamental to the prevention of suicidal behaviours. Only a small percentage of psychologists and doctors evaluated themselves as potential good trainers in the area.

The instrument - *Difficulties in Suicidal Behaviours Intervention Questionnaire* DSBQ – has good psychometric properties, as presented in table 8. The psychometric properties are encouraging, however a deeper analysis of the questionnaire is required

Table 8 *Psychometric characteristics of the Difficulties in Suicidal Behaviours Intervention Questionnaire*

Criteria	Psychometric study	Quality
Sensitivity	Answers to 25 items ranged from the lowest to the highest value (1 to 5), and answers to six items scored from 1 to 4.	Good
Exhaustiveness	The 32 items generated inductively suggest the exhaustiveness.	Favourable
Factorial validity	The first-order principal components analysis identified 4 factors and 31 items have a meaningful loading on the components where they conceptually fit well. The second-order analysis revealed a common dimension underlying the 4 components, indicating the existence of a common substrate to all types of difficulties.	Good
Internal consistency	Cronbach's α of the four sub-scales ranged between 0.89 and 0.79 and global Cronbach's α is 0.78.	Good
Construct validity	Discriminates difficulties between professional groups, between professionals who had or not specific training on suicide and between professionals with different rates of suicide attempters in clinical practice.	Favourable

1.4. IMPACT OF A PATIENT SUICIDE

Surveys of health professionals' patient suicide impact (studies 4 and 5) added further evidence that patient suicide is a frequent and difficult experience of clinical practice. Data also reinforced that the patient suicide event leads a high percentage of health professionals to perform changes in their practice (63% and 45% of Portuguese and Belgian, respectively). Above all, impact studies increased knowledge about sources of support effectively used by health professionals when a patient dies by suicide.

In the case of Portuguese psychologists, psychiatrists and GPs there are differences among the groups in the proportion of those who had at least one patient suicide reinforcing the increased risk of this professional

experience for psychiatrists. There were statistically significant differences in the number of patient suicides among psychiatrists and psychologists, albeit of moderate magnitude. Results also revealed that in Portugal it is more likely for males to have patients who die by suicide than for female health professionals. Among Flemish psychiatrists, males and the more experienced professionals tend to have more patients suicides than females and psychiatrists with less years of practice.

Portuguese and Belgian professional survivors of a patient suicide emotionally reacted to the event in a similar way, and thus equivalent categories of feelings as effects were created in both studies: (1) emotional suffering; (2) concerns, doubts and fears; (3) frustration and other negative feelings towards patient or families; (4) surprise and shock; (5) failure and defeat; (6) guilt and self-blame; (7) impotence and powerlessness; and (8) understanding, acceptance or resignation.

The two suicide impact surveys showed that Portuguese and Belgian professionals are also similar in the recovery time from negative feelings. These emotional reactions lasted less than 1 month for more than half of the professionals and remained for more than 6 months for 13% to 15% of the professionals who were patient suicide survivors. And also similar percentage of professionals mentioned effects or changes in the personal life due to the patient suicide.

After a patient suicide a considerable proportion of both Portuguese health professionals and Flemish psychiatrists performed changes in the assessment and management of following patients, increasing attention and accuracy, but also intervening with more insecurity, uncertainty and anxiety in the assessment and management of suicidal patients. The search of information and training was also reported as an effect of the suicide event.

In Flanders more than half of the psychiatrists reported the non-existence of formal resources of support in their work places aimed at professionals experiencing a patient suicide. In Portugal the lack of a formal help system in these cases is even more pronounced with almost all the health professionals who participated in the impact survey reporting the non-existence of this help.

Searching the support of colleagues, contacting with the patient's family, seeking help from the professionals' family and carrying out a case review with the team were the postvention activities more reported by the Portuguese and the Flemish health professionals (figure 21).

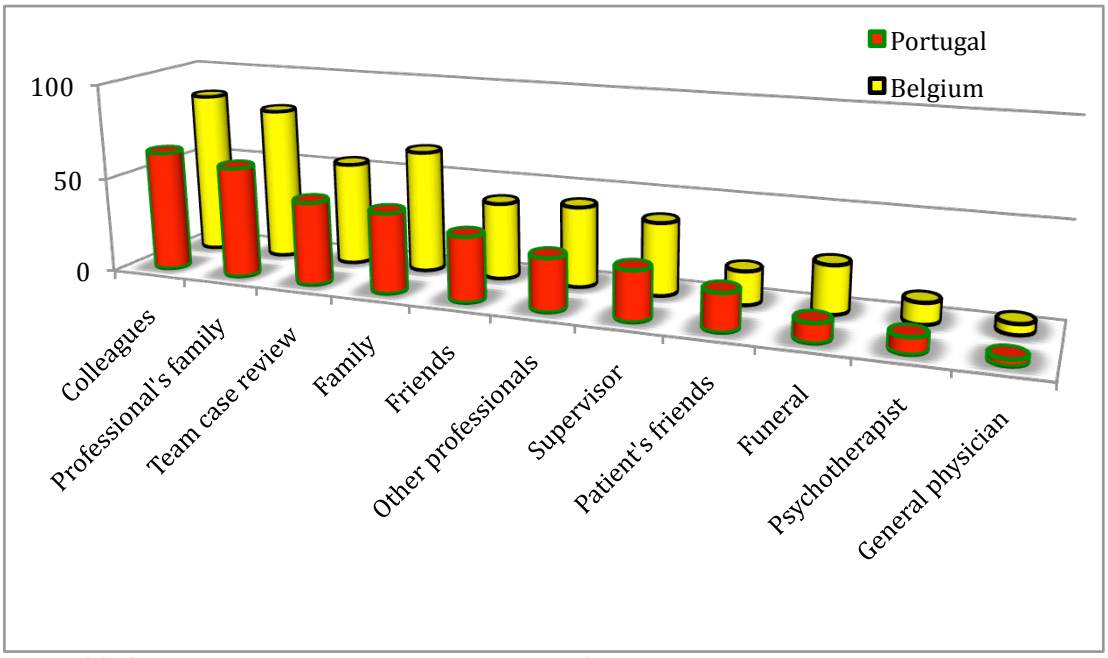

Figure 21. Support resources used in percentage after the patient suicide by Portuguese and Flemish professionals.

The study reveals that in the aftermath of patient suicide Portuguese doctors and psychologists felt that the supervisor, the team case review and the support of colleagues were the most useful resources, while the help of family and friends were rated as a less helpful postvention support. For Flemish psychiatrists the team case review and colleagues were also the most helpful resources but not the supervisor.

In general, health professionals' characteristics were not related to patient suicide impact, but one exception was found with regard to the feelings of failure and defeat, which were described by a higher proportion of females in the Belgian study.

2. General discussion

There are no data without interpretation (Leenaars et al., 1997, p.139).

In this PhD the three professionals groups most sought by Portuguese people when facing an emotional problem - GPs, psychiatrists and psychologists - were investigated with regard to their conceptions, practices and emotions related to suicidal behaviours, adding new data to suicidology. Namely, this research provided

figures on the current training in suicide intervention and on suicidal behaviours contact in clinical settings, including patient suicide experience. For the first time in Portugal an important preliminary baseline data on the area was constituted. This PhD revealed that although the majority of health professionals had contact with suicidal problems in their clinical practice, only a minority had specific training on the area and about half felt unprepared for the management and intervention with suicidal people. Therefore, this PhD gathered data at regional level, as recommended by WHO (2012) and also addressed by the first National Suicide Prevention Plan (DGS, 2013). These data empirically sustain the pertinence of measures aimed at health professionals in the scope of suicidality prevention.

2.1. EXPLANATIONS of suicidal behaviours

In this PhD the health professionals' explanatory models for suicidal behaviours were investigated, increasing the existing knowledge about perceived explanations. First, the explanations' study introduced original data about psychologists. Indeed this study, to our knowledge, is the first to date to investigate suicidal behaviours' perspectives of psychologists.

Secondly, the results did not confirm the somewhat widespread idea that health professionals would be focused mainly in the psychopathological features of suicidal behaviours due to the hegemony of the medical or biological model in suicidology, a concern disclosed by some important authors in the area (e.g. De Leo 2011; Hjelmeland, 2011; Michel et al., 2013; Valach, Young & Michel, 2011). In general a multifactorial perspective was found among the health professionals in line with Zadravec' s study (2006) regarding psychiatrists and GPs. The explanations corresponding to unbearable psychological distress or suffering were the most likely to explain suicidal behaviours in the thinking of professionals, while the altered mental states due to psychopathology or to drugs and alcohol arose at second place. Note that depression - the psychiatric condition most frequently found in suicidal people (e.g. Bertolote et al., 2004; Vijayakumar et al., 2004) - is included in the first model where the most prominent explanations were the unbearable situations. This may be a reflection of the professionals' most valued models - *psychological-suffering* and *psychopathologica*l –, which are interconnected and essentially complementary in the interpretation of suicide and suicide attempts. Actually psychopathology involves suffering and extreme suffering can entail

mental disease. Even though it is true that most suicides are associated with psychopathological conditions, most psychiatric patients never attempt suicide. Therefore one question remains unanswered, despite the advances in biological suicidology: What distinguishes patients who die by suicide of those who do not? And it raises other questions: Could a potential answer be found in subjective distress levels? How could this be investigated? So far, how much investment was directed to psychopathology research in the scope of suicidology and how much was aimed at investigating emotional suffering involved in suicidal behaviours?

Thirdly, the results of this PhD also revealed that Portuguese health professionals valued self-directed psychological and biological vulnerabilities more than interpersonal risk conditions and stressor life events in the aetiology of suicidal behaviours. Health professionals considered suicidal behaviours in the first instance as a psychological crisis, dominated by despair, hopelessness, depression and other forms of psychological pain. This health professionals' perspective is in line with Shneidman's conceptualizations, comprising the *psychache* concept (e.g. 1993). It implies a central role in research and intervention of Psychology as the science that studies par excellence the human behaviour in its complexity and idiosyncrasy.

Fourthly, the communicative function of suicidal behaviours seems to be recognized by health professionals. They acknowledge the theoretical notions of "the cry for help" of Stengel (1962, 1965) and Kreitman (1977), but with a low explanatory level. The lower influence of the communicational aspects in the explanations of suicidal behaviours may be interpreted in two different directions.

The first is that this result may negatively interfere in practice, namely in the interactive process of a comprehensive assessment of risk and intentions and in the subsequent clinical intervention. Actually in addition to stating that the intolerable psychological pain is the core of suicide, Shneidman (1987) found that in 80% of suicide cases, the individual previously gave clues to the fatal action and stressed that the appeal was not necessarily a cry for help. It could be a request for autonomy or for a change in the individual's interpersonal world. This prominent psychologist asserts that "*in most cases of suicide, the common penultimate act is some interpersonal communicative exchange related to that intended final act*" (Shneidman, 1987, p. 173). This should be taken into account in the development of suicide prevention curricula aimed at health professionals' education.

The second possible interpretation is that this perspective seems to be in accordance with the hierarchy of patient's motives, once only a minority of suicide attempters emphasized the communicative nature of their suicidal behaviour (Brancroft, 1976; Chopin et al., 2004).

Indeed, and fifthly, through the results of this PhD it is possible to infer that there is a tendency for Portuguese physicians and psychologists to explain suicidal behaviour according to the main interpretations of suicide attempters who participated in previous studies about the motives of their suicidal behaviour (Bancroft et al, 1976, 1979; Chopin et al, 2004, Hjelmeland, et al., 2002; Zadravec et al., 2006). This outcome contradicted the results of Brancrof's studies (1979, 1983), the assertions of Valach et al. (2011) and corroborated the main conclusions of Zadravec's study (2006) about the commonalities between health professionals and suicide attempters. This is a positive, or at least inspiring result with regard to the compatibility between professionals' and patients' perspectives, an important starting point for the development of the therapeutic plan (Bancroft, 1979, 1983; Kleinman, 1980; Michel, 2011; Valach, Young, & Michel, 2011; Zadravec et al., 2006).

Briefly, the mentioned studies found that psychological suffering (Bancroft et al, 1976, 1979; Chopin et al, 2004, Hjelmeland, et al., 2002; Zadravec et al., 2006) and psychopathology (Zadravec et al., 2006) were the main motives reported by patients, however communicational and interpersonal motives, as seeking help, were also explanations described by suicide attempters (Bancroft et al, 1976, 1979), as well as adverse life events and social pressure (Zadravec et al., 2006), even if with less influence.

Also noteworthy was the fact that Portuguese doctors and psychologists did not value the phenomena of copycat, a well-established risk factor of suicide in depressed persons and young people (e.g. Beautrais, 2012; Beautrais, et al., 2007).

2.2. TRAINING aimed at suicidality's interpretation

In view of the wide spectrum of possible explanations of suicidal behaviours (cf. section 3, p. 19-35), health professionals should be educated in order to recognize and to describe specific dimensions of this behaviour, including interpersonal and communicative aspects of the self-injurious behaviour. This theoretical work aimed at clinicians and clinical psychologists should be done with the goal of facilitating the

co-construction of the patient's particular constellation of causes and meanings of his/ her suicidal behaviour. This joint work should accomplish an individually tailored clinical intervention.

The interpretation of a suicidal behaviour should be open to discussion in order to reach a shared understanding of the suicidality that promotes an empathetic attitude, as stressed by Kleinman (1980), Michel (2011) and Leenaars (2011), for instance. "*To establish an effective therapeutic relationship, a shared understanding of the patient's suicidality is needed"* (Leenaars, 2011, p. 232). Thus education on theoretical models should use a case-discussion methodology beyond expository methodology.

2.3. PRACTICES and DIFFICULTIES in clinical practice with suicidal patients

This PhD investigated the practices and difficulties of psychologists, psychiatrists and GPs. The obtained results about their contact with suicidal behaviour in clinical practice validate the assertion that these professionals can play an important role in the prevention of suicide and suicide attempts in Portugal. The two studies about practices and difficulties provided original data about the current state of Portuguese health professionals with regard to suicide risk assessment and intervention, a kind of empirical information that was lacking in Portugal and also scarce at an international level. Therefore this PhD supplies an important insight into the state of clinical intervention with suicidal patients and consequently has implications at the level of prevention and educational policies.

2.3.1. Psychotherapy and psychological counselling

First, and consistently with their conceptions about suicidal behaviours, the health professionals described psychotherapy and psychological counselling as very likely to be advised in suicidal cases. The supremacy of psychotherapy in the preferences of health professionals can be interpreted as a reaction against the biomedical model that alone is not sufficient to respond to suicidality. At both levels - conceptual and action - the health professionals seem to value the biopsychosocial model rather than the biomedical model. Therefore, both results from the studies of explanations and practices of intervention highlight the need of investing in suicide intervention within the academic psychology. In order to counter the risk of the biopsychosocial model to become an empty label, which has the perverse effect of devaluating psychosocial

factors, development in psychological studies within suicidology is need. Using neologisms to summarize this first idea: it is imperative to suicidologize psychology and also to psychologize suicidology.

Still with regard to the preference of psychotherapy for intervention with suicidal patients, psychiatrists have less probability to refer to or provide psychotherapy when compared to psychologists. This may result from the different kind of patients that psychiatrists and the other professionals tend to follow, rather than a disbelief in psychotherapy effects, a modality with evidences of effectiveness in the reduction of the risk of suicide (e.g. Coimtois & Linehan, 2006; Goldsmith et al., 2002). It is expected that psychiatrists follow severe psychopathological cases. The variable patients' characteristics was not studied and this can be a limitation of this research. The effectiveness of the intervention modalities varies across patients and their characteristics and not all kinds of psychotherapy are indicated for all clients/ patients.

2.3.2. Suicide risk assessment

Secondly, with regard to suicide risk assessment, a fundamental clinical task in suicidal behaviours intervention, this PhD found a tendency of Portuguese health professionals to perform a comprehensive evaluation when facing a suicidal patient in clinical practice. However international empirical data indicate that health professionals frequently do not identify the dangerousness of the risk. Even though, data show that only a small percentage of those in therapy who display suicidal intent do not provide indications of their suicidal crisis (e.g. Hendin et al., 2001). These two indicators advise specific education in relational and communicational skills directed at working with suicidal patients.

The results of this PhD also found the professional group to be related to the likelihood to perform a comprehensive evaluation, showing that psychiatrists are well aware of the importance of a comprehensive assessment, mainly those with more specific experience with suicidal patients and with specific training. The results obtained by psychologists and GPs can be interpreted as some rashness to act. It is not in the sense of acting carelessly but in the sense that intervention is imperative, as if in the thinking of psychologists and GPs the urgency to intervene overlaps the fundamental need of evaluation. The assessment is crucial to distinguish if intervention is urgent or not and to define and adjust it to the specific case, or by other words to distinguish between imminent, short or long-term risk (e.g. Hirschfeld, 2001).

The comprehensive assessment component is characterized by a wide set of procedures that exceed the clinical diagnosis. This component extends to a supportive intervention that reaches beyond the depression and other principal risk factors assessment, because it includes questions about the current problems of the patient/ client. Further, a central question in the assessment, namely in the detection of the imminent risk of suicide is asking directly if the client/ patient wants to die, which is one of the most prominent items related to this component of assessment (cf. section 5 p. 55-56). When health professionals ask someone at risk about their ideas of death, the person at risk will tend to feel understood in his/ her suffering. The task of suicide risk assessment in addition to demanding mastering specific technical knowledge and abilities, requires a set of relational and communication skills.

The difficulties' survey allows us to explain the variability found in the assessment component in light of differences in self-efficacy between psychologists, GPs and psychiatrists with regard to their assessment skills. GPs scored lower in the assessment component, obtaining a mean score slightly below the value 4 - "*likely*" to perform a comprehensive assessment. In addition they attained a mean punctuation between frequent and somewhat frequent in technical difficulties. The suicide risk assessment is included in this type of difficulties where a strong difference between groups was verified. Moreover, despite the majority of GPs answering that they felt capable of assessing suicide risk, half of them felt frequently or very frequently *afraid of not being able to assess suicidal risk*. Similarly, although almost all psychologists self-rated as capable of identifying a person at risk of suicide, more than 30% reported afraid to fail in this task. These apparently contradictory outcomes can be understood as a result of a low self-efficacy by GPs and psychologists on assessment skills or can alternatively be interpreted as result of an increased awareness that assessing suicide risk is a difficult task. Thus, this research highlights the need to prepare health professionals to perform suicide risk assessment with confidence and at the same time recognizing this evaluation as a demanding task, as emphasized by Cooper and Kapur who state that *"suicide risk assessment is an inexact science"* (2004, p. 20). Both risk assessment competence and perceived difficulty may be modifiable through health professionals' continuous education.

2.3.3. Use of formal instruments, relational and communicational difficulties and teamwork

Thirdly, this PhD supplies original data about the use of formal instruments in risk assessment and suicidal behaviours intervention by Portuguese health professionals. The results confirm that health professionals tend to use no formal instruments in suicidality intervention and that psychologists, mainly female and younger professionals, are the most likely to use them. These outcomes are in line with the few existing data on the use of protocols with suicidal patients (e.g. Jobes, Eyman, & Yufit, 1995). In a research conducted with psychologists, psychiatrists and clinical social workers in the USA about current suicide risk assessment practices, mental health professionals classified formal assessment instruments as having little usefulness. Psychological tests are also infrequently used and even if psychologist used them more often they also rated them as not useful for suicide risk assessment. Direct questions about suicide thoughts, intents, plans, availability of method, drugs and alcohol use and previous suicide attempts are the most used in the assessment interview (Jobes et al., 1995).

Complementing these data about the practices of assessment, the survey on difficulties showed a lack of knowledge on suicide risk assessment instruments and protocols among health professionals, that being one of the most common difficulties when facing a suicidal patient and reported by almost half of the respondents. An adequate instrument can be a useful and complementary tool for one of the most demanding tasks of clinical practice – the assessment of suicide risk. In Portugal the EACOS – Assessment Interview of Suicidal Behaviour (e.g. Saraiva, 1998, 1999) is a good example of a helpful tool for this purpose. Despite being used by University Hospital of Coimbra (CHUC) and having been published several years ago (e.g. Saraiva, 1998, 1999) the results of this PhD seem to reveal that unfortunately the protocol remains poorly known. This PhD advises a greater dissemination of EACOS.

As already discussed, Portuguese health professionals have to be more educated on risk assessment, namely through the introduction of specific syllabus on suicide in the ordinal curricula of the graduations in medicine, psychology and in other university courses in health or social work. Students should be prepared/ trained in the use of suicide risk measures, even if only few are validated to the Portuguese population. Academic and clinical research endeavours should be made in order to development and validate good

instruments. A critical look at the use of risk tools and scales was recently launched or revived in the suicidological mainstream. Little consistency in the use of risk scales and the general limited predictive values of the scales are the main reasons of the critics. However, in our opinion, in several instances they could provide useful complementary information to practitioners. At the same time training has to raise the awareness about the importance of relational and communication skills to the assessment and management of suicide risk, promoting its mastery among the future health professionals. The GPs are the group who scored highest in relational and communication difficulties, reinforcing the pertinence of training on suicidal behaviours aimed at these physicians.

Furthermore, for the health professionals already in action, practical guides tailored to each group and context may be an adequate mechanism to supply knowledge disseminating good practices, as well as motivating health professionals for training or workshops aimed at practical cases.

Aside from the technical difficulties and the use of protocols, the strongest differences between professional groups emerged in the medical treatment and concerning the family and logistic difficulties, where the teamwork is included. The intervention with suicidal patients raises different challenges for health professionals, as was approached in this thesis. A supportive and effective teamwork among clinical staff is very important and a comprehensive and specific knowledge facilitate collaborative work (Overholser & Spirito, 2003).

2.3.4. Pharmacotherapy and hospitalization

The fourth point is about health professionals' perspective on hospitalization and pharmacotherapy. GPs were the group who appeared to believe more in inpatient and psychopharmacology as effective measures towards a suicidal patient, while psychiatrists appeared to be the group who was more aware about limitations and even risks of psychopharmacology and hospitalization regarding suicidality, achieving lower scores in this component than psychologists.

With regard to pharmacotherapy, despite the temptation or pressure to reduce the complexity and multidimensionality of suicidal behaviours to a biochemically altered brain and therefore in need of pharmacological compensation, Portuguese psychiatrists seem to have a balanced representational system

with regard to the treatment. Indeed, given their education it is obviously expected that psychiatrists have more knowledge and mastery regarding psychopharmacotherapy. In this vein, results seem to demonstrate that psychiatrists acknowledge that Suicidology is far from providing unequivocal evidences of pharmacological effectiveness for suicide cases in general. The training on suicidal behaviours directed at GPs and also at psychologists should include syllabus about the biological factors of suicide and the psychoactive medications in order to increase the awareness of the strong points and limitations of medical interventions. For psychologists the importance of this specific training is primarily related to the potential improvement in the referral procedures and teamwork. In the case of GPs and taking into account that psychopharmacology prescription is part of the therapeutic arsenal of doctors, this result assumes a vital importance. In the current public health care system in Portugal, as well as in other countries, physicians of primary health care act increasingly as gatekeepers for mental health. The accessibility, the non-stigmatization and the broad scope of primary health care promote that general physicians who work at public health centres are the health professional first sought by most people when facing concerns about general or mental health, life or behavioural problems.

Moreover it is known that a high percentage of medical appointments in primary care are related to psychosocial and behavioural questions, even if physical complains are the explicit motive (e.g. Bryan & Rudd, 2011; Gatchel & Oordt, 2003) and that a significant proportion of people who died by suicide had a recent last contact with primary care services (cf. section 2, p. 17-18).

It may be tranquilizing to believe that “simply” treating mental illness with medication can prevent suicidal behaviours. Despite the presence of biological and psychopathological factors are evidence-based there is a controversial debate around the effectiveness of the consequent medication intervention at both in suicidality large-scale prevention and clinical prevention (e.g. Cutcliffe & Santos, 2012; Hemjland 2011; Isacsson, Rich, Jureidini, & Raven, 2010; Van Praag, 2003).

Furthermore, science has recently demonstrated that the psychosocial context can also lead to changes in physiological conditions, replacing the former idea that the physiology of the brain is static by the plasticity of the brain. Neuroplasticity research has shown that biological pathways can be changed by environmental

factors and experiences throughout life (e.g. Goldsmith et al., 2002; Hejmland, 2011; Pascual-Leone, Amedi, Fregni, & Marabet 2005).

With regard to the inpatient option, the most prominent treatment modality related to this fifth factor of intervention - *Hospitalization and medical treatment* - nowadays it is consensual that this strategy is indicated in extreme cases of very high risk of lethality, very serious psychiatric pathology or when the support network is very poor or inadequate (e.g. Cruz & Sampaio, 2014; Goldsmith et al., 2002; Hirschfeld, 2001; Joiner, Van Orden, Witte & Rudd, 2009d). However, the times when people believed without a doubt that all patients would be better off in the hospital were not so long ago, especially for older health professionals. The health professionals' opinion has to be based on the best scientific evidence and updated on current social and health circumstances rather than in faith-based interventions or based on established practices due to the history of psychiatry. Mental health policy, including resources management, has changed and these economic and social factors influence health professionals' decisions.

Beyond that, and perhaps even more important in the scope of this thesis is that literature has come to reflect and provide some empirical data about the balance between beneficial and harmful effects of inpatient treatment for suicidal patients (cf. section 5, p. 62-64).

The survey on intervention practices also revealed that the older professionals have a preference for medical treatment, including psychopharmacology and hospitalization. In Sheerder's PhD study about the care of depression and suicide, focused on community and health professionals (including GPs), the results about the relation between age and treatment preferences were not conclusive. In the research performed in the scope of the European Alliance Against Depression (EAAD) work group, the authors concluded that age was not related to the preferred treatment options for depression (Scheerder et al., 2011), while in the study carried out with 87 Flemish GPs, older professionals showed a preference for anti-depressant treatment and displayed more negative attitudes. These results were discussed by the authors relating them to the fact of younger professionals have more training in mental health issues (Sheerder, 2009).

The research of our PhD increased data supporting the investment both in basic graduation in medicine and in GPs' continuous education, and strengthened evidence of the need of training for general practitioners.

2.3.5. Use of no-suicide contracts

Fifthly, the component of protocols includes the use of no-suicide contracts**,** which has been under an interesting international debate, even if based on clinical knowledge and reflections rather than on empirical data (e.g. Bartlett et al., 2009; Hyldahl & Richardson, 2011; Kroll, 2000, 2007; Range et al., 2002; Rudd et al., 2006; Weiss, 2001). In a North-American sample of psychiatrists no-suicide contracts were used by 57% of the respondents (Kroll, 2000), while more than half of the Portuguese health professionals who participated in the survey about practices reported that it would be unlikely to use a written suicide prevention contract. This indicated that Portuguese health professionals perceived this tool as having a low effectiveness. Similar results were reported by Jacobson et al. (2012) who found low levels of perceived effectiveness of no-suicide contracts among a North American sample of health professionals, including doctors and psychologists. Among Australian health professionals written no-suicide contracts were used by 37% of the participants (Edwards & Sachmann, 2010).

A question that this PhD research did not answer is about how this tool would be used and for what purpose, a central issue to decide about its clinical adequacy (cf. section 5 p. 56-58).

Even if much more popular among US health professionals, the written no-suicide contracts would likely be used by over one third of Portuguese participants. Education at this level should instruct about possible advantages and disadvantages of suicide prevention contracts. Perhaps more important, training should educate about how to establish and maintain a therapeutic relationship/ alliance and how to engage in a collaborative process with suicidal patients. In this respect, some of the recommendations and suggestions made by the psychologists Rudd, Mandrusiak and Joiner (2006), according to their cognitive orientation, can constitute a very useful base for the training on no-suicide contracts and can be adapted according to the orientations of therapists and contexts. The written commitment has to include a response plan for crisis situations, which should be co-constructed by client/ patient and therapist.

2.3.6. Work with family of suicidal patients

Sixthly, and finally the study add data with regard to the work with family of suicidal patients, showing that approaching the family is among the difficulties most commonly felt by Portuguese health professionals. The

three groups considered - psychologists, psychiatrists and general practitioners – demonstrated similarities in the likelihood to involve family in the therapeutic process with people with suicidal problems. However the GPs seemed to reveal more difficulties in having the family's collaboration, as well as in supporting the relatives, reinforcing the special need of training by GPs.

The family-approaching difficulties can also be related to the actual gap in family research within suicidology. Suicidal behaviour poses a major challenge to health professionals, as has been addressed in this PhD, but also and specially to families. At international level suicidal behaviours have been intensively studied however there is a general lack of research on the impact, difficulties and needs of the families who had a relative with suicidal problems, namely non-fatal suicidal behaviours (Buus, Caspersen, Hansen, Stenager, & Fleischer). Studies on this area are needed to inform health professionals about how to deal with relatives of suicidal patients and how to help families dealing with a suicidal relative. To our knowledge, in Portugal there is only one study on suicide attempts focused on families, specifically on expressed emotion (Santos, 2007). However, in accordance to the international research line it is focused on family functioning and characteristics related to the genesis of suicidal behaviours (e.g. Frazão, Santos & Sampaio, 2014), rather than in the difficulties of these families towards the suicide attempt episode and its aftermath. The author verified an emotional over-involvement, a greater criticism and hostility in these families, concluding that expressed emotion can be a useful predictor of recurrent suicidal behaviours (Santos, 2007) and thus stressing the importance of working with families to prevent suicidal behaviours. It is consensual that an effective participation of the family is important both for the risk assessment as well as for the management and treatment of patients with suicidal problems (e.g. Cruz & Sampaio, 2014).

While the impact of attempted suicide on family is a topic that has not yet received proper attention, several studies on the impact of fatal suicide on relatives have been done, including a very recent Portuguese study developed at Faculty of Psychology of Évora University performed with survivors of a relative's suicide providing important national data on postvention (Santos, Sampaio & Tavares, 2013 a, b; Santos & Tavares, 2014).

2.4. IMPACT of a patient suicide

A death by suicide is a devastating event for everyone involved. This is obvious when considering family and friends, but it is important not to neglect the experiences of the involved health professionals, which are in turn fundamental to support the first ones.

This PhD investigated the experience of a patient suicide of Portuguese health professionals and of Flemish psychiatrists, providing empirical data on patient suicide for the first time in Portugal. This PhD added data on professional groups sparsely studied with regard to this event - psychologists and general physicians. It also increased knowledge with regard to the support resources used by professionals when a patient dies by suicide. Additionally it overcame the existing gap in Flanders with regard to the studies on patient suicide impact on psychiatrists, where to date and to the best of our knowledge only one study was available and it was specifically on trainees (Pieters et al., 2003). Thus this PhD enhanced knowledge in the important field of postvention.

2.4.1. The experience of a patient suicide

The studies on patient suicide impact of this PhD added further evidence that patient suicide is a very common phenomenon for these professionals, mainly for psychiatrists but also with a high risk for GPs and for psychologists. The differences found between genders: more likelihood of having a patient suicide for Portuguese male than for female health professionals and a higher number of patient suicides for Belgian male than for female psychiatrists can be interpreted in light of the differences found in studies on attitudes discussed on the introduction, which verified that women have more adequate attitudes towards suicidal patients than their male colleagues (e.g. Anderson et al., 2000; Samuelsson et al., 1997) (cf. section 5 p. 51). Even if some methodological limitations can be identified in these studies (Saunders et al., 2012), this agreement between gender differences increased the pertinence of overcoming such limitations in order to better study differences between genders in the work with suicidal patients. Another possible explanation can be related to the potential different type or number of patients followed by the two genders.

In line with earlier studies (cf. section 6, p. 68-70) the results strengthen the evidence that patient suicide is a disturbing experience for these professionals having a considerable emotional and professional impact, as

described by participants: "*I felt terribly guilty, despair, shocked, deeply sad*", "*It is an experience that won't leave us as long as we are therapists, we keep it with us"*. The Portuguese impact study adds that patient suicide experience for general practitioners is similar to the experience of psychiatrists and also of psychologists, confirming the conclusion from Halligan & Corcoran's study (2001).

The findings from both studies - Portuguese and Flemish - specifically the outcomes regarding the recovery time from negative feelings, tend to support previous studies, which found that the majority of health professionals have resources to functionally recover from this event (e.g. Pieters et al., 2003). However a not negligible percentage of health professionals (13% and 15%) seems to indicate the need of special help in order to react and adjust to the patient suicide. The results of the Portuguese study highlighted the existence of an undeveloped postvention culture, lacking formal support aimed at health professionals. In Belgium there is room for improvement at postvention level, too once that more than half of the psychiatrists reported the non-existence of formal resources of support in their work places in cases of patient suicide. With the investment and progress in this field the percentage of those who seem to require special care is expect to decrease. Howsoever, the experience is very demanding at emotional and professional levels, requiring general support measures aimed at all the health professionals who have a patient who dies by suicide, justified by descriptions such as "*It is a very hard experience to deal with*".

These international and now also national evidences must be brought to the attention of decision makers in health and training policies, health service directors and supervisors.

The impact studies of this PhD also indicated that patient suicide may have a potential constructive effect on the reactions of doctors and psychologists, as for example, increasing their attention to possible suicide cues - "*I became more attentive to other possible signs in other patients*" - and promoting the search of information, training and learning: "*I sought information and I did some research in the subject*"; "*It taught me how to make a risk assessment*".

In short, beyond being a distressing event patient suicide can be a significant learning experience, as explained by a psychiatrist: "*Some of my patients died and I will always remember some details about them,*

especially about one of them, and I will never forget what I've learned at the time and the mistakes that I made".

This conclusion is in line with previous results and assertions, including the pioneer work on the area (e.g. Gulfi et al., 2010; Litman, 1965) and it strengthens the recommendations of Brown (1987a) about the anticipation of the patient suicide risk as a content to include in training aimed at health professionals. General education on suicidal behaviours is scanty and in postvention it is even sparser or totally non-existent. Based on the results of the impact studies of this PhD and on previous literature we suggest that suicidal behaviours training aimed at health professionals includes a syllabus on postvention. For training in this subject we suggest to apply Brown's proposal (1987a) of stimulating trainees to imagine the death by suicide of one of their patients and to share what they think and feel. Additionally we also propose that training takes advantage of real experiences and descriptions of clinicians and psychologists who have lived the experience.

The health professionals who participated in the impact studies of this PhD described the need of helping the other survivors as very demanding: "*I felt very unsure and powerless to support so many people*". The general support measures aimed at the health professionals in the aftermath of a patient suicide should strength the positive effects and mitigate the negative consequences, supporting health professionals and contributing to their capacity to support others.

2.4.2. Resources used in the aftermath a patient suicide

This PhD allowed us to obtain a hierarchy both in terms of support resources used and their utility, showing that not always the most used supports were the ones rated as the most useful for coping with the patient suicide event and vice-versa, that is, some post-suicide measures, which were used by only few health professionals were perceived by those who used it as very supportive.

In the case of the Portuguese sample this was especially visible with regard to the support of the own family and friends, which were among the help resources most used by health professionals. However it was only considered useful by a low percentage of respondents, not in line with the indications that informal support from family and friends can have an important role in the recovery process of health professionals (e.g.

Gaffney et al., 2009; Golstein & Buongiorno, 1984; Kleespies et al., 1993; Menninger, 1991; Pieters et al., 2003).

Indeed, comparing with the few available data about the usefulness of the relatives' support in the aftermath of a patient suicide, Portuguese health professionals are among those who assessed their own family as the less supportive. Scottish psychiatrists (Alexander et al., 2000), their Flemish colleagues (Pieters, et al., 2003) (cf. study 5, p.153), English mental health professionals (Linke et al., 2002) and Canadian psychiatrists (Ruskin et al., 2004) evaluated family's support as more useful than Portuguese health professionals. In the reviewed literature only one study was found in which the perceived family's utility in the aftermath of a patient suicide seems to be inferior than for Portuguese health professionals (Landers et al., 2010). One possible interpretation is that generally in other countries research in postvention and its practical application are much more developed, and that a specific support system is provided for professionals experiencing a patient suicide. In this PhD, the study about patient suicide impact on Flemish psychiatrists shows that team meeting and case discussion, hospital suicide protocol and psychological support are among the resources foreseen when professionals face a death by suicide, while in the Portuguese case almost all participants reported the non-existence of measures. When these resources fulfil their function, they "leave room" for the family and other informal and not specialized support to be useful in the general emotional support. Thus, the expectations regarding support from family and friends will be more realistic and therefore favourably evaluated. Moreover, the mentioned countries have had national prevention plans for longer periods of time than Portugal, which may contribute to relatives being more able to support the professional survivor. The development, disclosure and implementation of a national plan provide opportunities to reduce stigma and raise awareness about the problem and related aspects. In the light of these results we defend the planning and implementation of formal systems in health care services in order to provide support and improve postvention measures.

This PhD also observed that some resources used by a small percentage of professionals were in the top of the utility hierarchy. It is the case of funeral attendance and according to earlier studies (e.g. Kleespies et al., 1993) only few professionals had participated on burial ceremonies, but those who did rated them as useful or very useful, mainly the Flemish psychiatrists. It is also the case of supervision in the Portuguese study.

This resource was used only by few professionals but positioned among the most useful ones. The impact studies of this PhD added empirical data on the use of supervision in cases of patient suicide, a subject still insufficiently studied. Even though postvention literature suggests supervision as a useful resource when a patient dies by suicide there are only few empirical studies in which this subject was investigated (Kleespies et al., 1993; Pieters et al., 2003; Ruskin et al., 2004; Wurst et al., 2010, 2011). There are even fewer researches providing data on the perceived usefulness of this resource by professionals (Kleespies et al., 1993; Pieters et al., 2003; Ruskin et al., 2004).

Concerning Flemish psychiatrists results showed that for a high percentage of professional survivors the meeting with supervisor was perceived as not helpful and a similar result had already been found in the recovery process of Flemish psychiatrists trainees by Pieters et al. (2003). These results seem to indicate that the available supervision does not fulfil their supportive goal. Supervisors need to revise their role in these cases and/ or the supervision should be available in a more appropriate time of the coping process of the patient suicide. In the light of these results further research on the area of supervision is advised.

Still with regard to the support resources used to cope with the event, both studies on patient suicide impact confirmed the support of colleagues as being the most consensual either in terms of frequency and its perceived usefulness.

2.4.3. Factors related to the patient suicide experience

This PhD contributed to enlarge the knowledge of factors related to the patient suicide experience, a topic far from consensus. According to previous researches (Gaffney et al., 2009; Grad et al., 1997; Gulfi et al., 2010; Wurst et al., 2010), our Belgian study found differences between males and females with regard to the emotional reactions facing a patient suicide and also in the subsequent help-seeking behaviour. As addressed in the introduction of the thesis patient suicide impact tends to be more pronounced among women than among their male colleagues, as well as a tendency to seek emotional support (cf. section 6 p. 73). In the Portuguese survey this tendency was not found. The absence of differences among female and male Portuguese health professionals in the experience of a patient suicide can be interpreted as a result of the state of art of national research on suicidal behaviours, particularly on suicide impact. In Portugal

Suicidology is a recent research area undergoing a growing development, largely due to the work of the Portuguese Society of Suicidology and its founders specially Saraiva (e.g. 1999, 2006, 2010). Yet in the scientific and clinical community suicidology is still little disclosed and acknowledged. An event such as a patient suicide may represent an increased emotional burden particularly when there is insufficient research. Facing an unheralded event the gender differences may be smothered. Oppositely, in countries with a longer suicidology research history the gender differences manifest in empirical data.

In order to increase national knowledge and awareness on the subject and thus to reduce professional stigma with regard to patient suicide the study 4 – *Patient suicide impact: the experience of Portuguese doctors and psychologists* - was submitted in Portuguese language to a Portuguese scientific journal. As Barker, Novic, Houweling, McPhedran, & De Leo (2013) stated with regard to the findings of the Belgian impact study, the description of the Portuguese experience of a patient suicide can also be an opportunity for other health professionals to learn and potentially implement suitable procedures.

Despite its relevance the effect of specific training on emotional and professional reactions towards a patient suicide had not yet been explored. Against the initial expectations this PhD did not find differences according to having or not suicide training. This result can be explained by the fact that patient suicide and postvention in general are not common contents of suicide education programs. In line with this result specific training did not have effects on emotional difficulties when working with suicidal patients, whereas the real experience with suicidal patients in clinical practice tends to decrease the emotional difficulties. Based on these encouraging results we recommend that education programmes on suicidal behaviour use experiential learning methodologies.

2.5. TRAINING

A worrying result of this PhD, but at the same time with encouraging aspects is related to the training variable. Even though the majority of health professionals had experience with suicidal behaviours in clinical practice most of them did not have specific training in suicide intervention, as already mentioned in this discussion. Thus this PhD provides evidences that health professionals are under-trained in the assessment, management and treatment of suicidal patients. This conclusion was also supported by a previous

Portuguese study performed with a convenience sample of hospital nurses, in which the percentages of specific training on suicidal behaviours vary between 32% to 64% according to the kind of hospital and department (Santos, 2001). Although the values are higher than those found in our sample of doctors and psychologists they still revealed low levels of education on the area among nurses.

The contrast between the percentages of those who received specific training and those who felt able to assess suicidal risk is also of concern. An earlier study about suicide intervention skills with community and health professionals demonstrated that the professionals who had fewer skills tend to overestimate their abilities (Scheerder, 2009; Scheerder et al., 2010).

Simultaneously, the results about training related variables could be interpreted with optimism. First, half of the health professionals considered their training insufficient to deal with clients/ patients with suicidal behaviour problems and more than half reported the need of specialized training on suicide.

Secondly, most doctors and psychologists surveyed, agreed that the implementation of training aimed at health professionals on this area is fundamental. These data indicate that Portuguese health professionals will be receptive to training on suicide intervention, which is an encouraging result for the challenge of suicide prevention.

Similarly, only 30% of the Belgian psychiatrists who participated in the survey on patient suicide impact had specific training in suicide, indicating that they can benefit from education aimed at suicidal behaviours intervention.

Thirdly, the few health professionals who had training on suicide issues presented lower levels of reported difficulties and scored higher in the probability to perform a comprehensive assessment and also to support and include family members in the process. These aspects are important to support training investment as a key component of a national suicide prevention strategy, adding new data to the previously existing. These findings provided for the first time in Portugal reinforce the positive effects of specific suicide intervention training on clinical and practical aspects of health professionals' work with suicidal patients. Furthermore they seem to indicate that even though little training on the area was conducted it had favourable outcomes.

The lack of specialized education of health professionals was well identified as an important barrier to the suicidal behaviours intervention (cf. section 4 and 5). This PhD reinforces the need of investment in training measures, as it is being highlighted throughout out this discussion.

Further, the positive influence of the experience with suicidal behaviours in clinical practice both in technical and emotional difficulties and in the assessment component of intervention constitutes an important clue for training methodologies. This strengthens the importance of case-based learning or other models implying case discussions and an active participation of trainees, as already recently defended by other authors (e.g. Cross et al., 2010; Jacobson et al., 2012; Pasco et al., 2012).

Summarizing, the main contributions of this PhD research to the scientific context were:

1. To provide a set of questionnaires with good or promising psychometric proprieties that can constitute instruments for further research and also for performing needed adjustments in training.

2. To supply a baseline data about the "state of art" of doctors' and psychologists' conceptions and intervention with regard to suicidal patients, including postvention practices. These outcomes are framed in the current social and historical context - the beginning of the XXI century - chronologically preceding the first National Suicide Prevention Plan in Portugal.

3. To provide original data that corroborate and support the need of training in the area of suicidal behaviours aimed at health professionals, giving guidelines for training content and methodologies.

3. Policy recommendations

This PhD provides several original data on health professionals who deal with suicidal problems in clinical practice, almost all for the first time in Portugal and some of which also for the first time or insufficiently explored at international level.

Based upon these new data, as well as on previous knowledge, we formulate some recommendations for the suicide prevention policy in Portugal, specifically for the field directly related to health professionals.

The recent Portuguese suicide prevention plan (DGS, 2013), a critical milestone in suicide prevention in our country, includes priority actions aimed at health professionals. The findings of this PhD support this internationally expressed recommendation at a national level. Our studies of Portuguese health professionals particularly give strength to the focus on specific training, centred on health professionals, their needs, their specificities and based on experiential learning, rather than "campaigns of information and awareness" about suicidal behaviours, as is stated in the executive summary of the current national plan document (DGS, 2013, p. 6). Indeed both correspond to different paradigms of prevention science (or of preventive medicine or psychology), even if they can be complementary. The first – the experiential training - is associated with the socio-psychological paradigm while the second – the campaigns – are related to the information-communication paradigm, which has been associated with lower levels of efficacy. The policy-making on health and the allocation of funding and other resources, critical elements to the success of any public health action (DGS, 2013; WHO, 2012), has to be grounded on evidence-based effective interventions. The national strategy recognizes the importance of the training and at two different levels: training directed at college students of medicine and psychology, among others, and education targeting health professionals in action. Regarding the first level the national plan advises that higher education institutions (medicine, psychology, nursing, social work) include or reinforce contents about suicidal behaviour in their curricula, which is in line with the results of this PhD.

Concerning the education aimed at health professionals the prevention plan also acknowledges the importance of training, including GPs and psychologists, and directed at the development of knowledge, attitudes and specific skills aimed at people at risk, risk assessment, crisis management and referral procedures. This action is supported by the findings of this PhD, particularly for the GPs and expressly aimed at the development of skills on risk assessment, intervention, work with families and also on postvention knowledge and procedures.

The education plans have to be tailored to the needs of specific professional groups in order to guarantee a good cost-effectiveness. This PhD shows that those most in need of further training appear to be GPs. Indeed they were the group with less specific training, who presented more difficulties in the therapeutic work with suicidal patients, reported fewer suicide intervention skills and had a high contact with suicidal

behaviours in their clinical practice, including a considerable rate of patient suicide. Based on previous knowledge and on the baseline data provided by this PhD we propose the development of a **National Training Programme on Suicidal Behaviours**, which should be integrated in the National Plan of Suicide Prevention. General physicians should be prioritized in the implementation of this training programme. The programmes should be carried out at primary health care centres once lack of time was among the most prominent logistic difficulties particularly felt by GPs. The time constraints were identified by previous research, as posing barriers to the detection of suicidality, associated risk factors and to the establishment of a therapeutic relationship (Anderson et al., 2003; Fox 2011; Gibb et al., 2010; Goldsmith et al., 2002).

Some of the findings of this PhD related to GPs may extend to other primary care professionals, namely nurse staff, which similarly may have an important role in suicidality detection and may also benefit from suicidal behaviours education. Santos (2001) through a study about nurses' attitudes towards suicidal patients, verified low levels of specific training among these health professionals and concluded the need of "*providing support, counselling and training of skills aimed at nurses*" (p.109). The recently published guide of good practice aimed at nurses (Santos et al., 2012) may be an important support tool for this purpose and may inspire the elaboration of guidelines tailored to the specificities of each professional group. The work coordinated by Saraiva (2014), which has just been published, titled clinical guide in primary health care, is also a good example in this scope.

According to the current National Prevention Plan, the recommended National Training Programme should include the creation of a task force resulting from partnerships with faculties, which should enable the introduction of syllabus on suicidal behaviours intervention.

The colleges can also be fruitful partners to conduct continuous education, as well as the Portuguese Society of Suicidology. The planning of the training programme has to comprise a study of the available and the needed resources, including logistic, financial and human resources. The Ministries of Health and of Education and Science should be committed to the finding of real solutions for eventual gaps between existent and required means.

Based on the results of this PhD survey, namely on the outcomes of patient suicide studies, we would like to add psychiatrists as a target-group of training (not considered in the current National Prevention Plan).

Indeed, with regard to postvention our study seems to reflect a need of training for all the three groups particularly for psychiatrists once they are at great risk of patient suicide experience. As previously discussed the demanding post-suicide management and the difficult role of health professionals towards a patient suicide justify the inclusion of this issue in the suggested National Training Programme on Suicidal Behaviours. Further, our studies revealed that even if psychiatrists seem more prepared than psychologists and GPs, namely in the field of assessment and reported less technical difficulties, they also presented low levels of education on suicidal behaviours. This is in line with international data (e.g. Palmieri et al., 2008; Schmitz et al., 2012), including our survey with Belgian Psychiatrists.

The results of the study with Portuguese survivors of a relative's suicide (Santos, Sampaio & Tavares, 2013 a, b; Santos & Tavares, 2014) strengthen and complement the results of this PhD with regard to the need of education of health professionals and of the development of postvention in our country. The majority of the bereaved by suicide did not receive any professional support and there were no differences in psychopathological symptoms between those who had received health professional support and those who did not (Santos et al., 2013 a, b). The national prevention strategy comprises support to the families and other survivors of suicide. We would like to suggest that the prevention policy starts by investing in education and support for health professionals in order to achieve a better support for the families. Indeed this PhD showed that working with the patient's family was among the most frequent difficulties of health professionals facing a suicide attempter and there were no differences between the three professional groups studied with regard to the family component intervention.

We would also like to suggest a recommendation for health care services based on the impact studies. The directors/ leaders of Portuguese hospitals and mental health departments, health centres and other health care services should have available, effective and concrete responses to the aftermath of a suicide. These measures should be directed both at the health staff and at the patients' relatives, as well as aimed at other

significant members. Directors should also promote the participation in education activities about suicidal behaviours of their staff creating the time and logistic conditions.

The results of this PhD are promising with regard to training acceptance on suicidal behaviours, namely foreseeing that it will have a good acceptance by the health professionals. At the same time, data indicated that the training access could be a problem, specifically once lack of time was among the difficulties reported by Portuguese health professionals who participated on the survey, particularly by GPs. The National Training Programme on Suicidal Behaviours should include models in which training is carried out in the workplace.

Another practical suggestion to be included in the National Training Plan is the development of Portuguese innovative material as a complementary source of support, information and counselling for health professionals and for training and supporting health professionals. Developing infographics and videos on the area could be a productive instrument. Due to their attractiveness and easy dissemination, strategies of visual and audiovisual communication embodied in short videos can be a good supportive material. Furthermore, this kind of material has the advantage of increasing the self-management of time in training, enabling the visualization and the review according to the needs and time of the learner.

One final recommendation is about the need to evaluate the implemented measures in order to overcome barriers related to the intervention of health professionals with people at risk of suicidal behaviours. This evaluation should be both at macro and micro levels, which means to assess both the impact on suicidal behaviours rate of the community where the training was implemented and the impact on the competence of health professionals.

4. Methodological limitations and general suggestions for further research

4.1. LIMITATIONS

There are some methodological limitations to the studies of this PhD that should be taken in consideration when drawing implications from their results.

The first methodological issue is related to the Portuguese sample once the representativeness cannot be guaranteed with the sampling process used. Despite the use of additional methodological procedures, which decrease the likelyhood of a systematic bias, the results of the studies need to be observed taking this limitation into account. Further, another concern is about the impossibility of calculating the response rate of Portuguese participants given the methodological design. This also makes it impossible to gain access to the characteristics of the non-respondents.

With regard to the Belgian sample, although the response rate is rather limited, there are good arguments that the psychiatrists who responded are fairly representative of the total population of the Flemish Federation of Psychiatrists and thus it is reasonably representative for the specific purposes of this study. However it was not possible to verify which percentage of the non-respondents had or not experienced patient suicide, which may have resulted in an overestimated patient suicide rate. Future research should overcome these limitations.

A second methodological issue is connected to the assessment protocol used. Since most topics had not previously been studied in Portugal, and several of them neither elsewhere the data were collected through self-reported questionnaires built for this purpose. Therefore the psychometric properties were unknown at the starting point. The preliminary psychometric studies indicated that the quality of different criteria varies from limited to good but that in general satisfactory properties were achieved, namely factorial validity and reliability. However it is unquestionable that further and deeper analyses of the questionnaires are needed. Given that DSBQ (*Difficulties in Suicidal Behaviours Intervention Questionnaire*) presented a very promising psychometric quality and the increased interest that it could have in the scope of tailored training we suggest that it be subjected to refinement.

Another related issue to the instruments is the well-known social desirability bias to which self-reported questionnaires are prone. This is of special concern in this case once psychologists and doctors may have felt their professional ability and self-confidence threatened when they reported their difficulties, as well as their intervention preferences. Future research should consider adding the *Suicide Intervention Response Inventory* SIRI-2 (Neimeyer & Bonnelle, 1997) combined with case vignettes (e.g., Jacobson et al., 2012) to

the instrument of data collection, in order to study convergent and discriminant validity of DSBQ and ISBQ (*Intervention Strategies towards Suicidal Behaviours Questionnaire*).

A third limitation common to other research in suicidology is related to the complex concept of suicidal behaviours, as discussed in the introduction (cf. section 1). Suicide and suicide attempt are different phenomena, but at same time they are inevitably related having its similarities and differences. This is evident in the existing theories and in conceptual analyses, which usually are not mutually exclusive, providing related concepts and being grounded in the comparability between suicide and suicide attempt (cf. section 3). According to the goals of the research – to investigate the explanations, intervention practices and difficulties, perceived by health professionals with regard to suicidal behaviours - the definitions of suicidal behaviours, suicide, suicide attempt or serious risk of suicidal behaviours were not presented to the participants. The study is focused on the professionals' perceptions, and thus these definitions were not considered. However this may be a shortcoming in study 1 about the explanations of suicidal behaviours once the health professionals did not have the opportunity to express their conceptions about overlapping, interactions and differences between suicide and suicide attempt. Further, the likelihood that different professionals answer about their contact with suicidal behaviours (an important variable in the inferential analyses) having different standards in mind should be considered. Future research should try to find innovative ways to overcome these restrictions.

On the whole, the majority of limitations are usual in PhD or pilot studies with limited resources and the results should be considered as a first indication of an innovative research that obtained important baseline data about health professionals who deal with suicidal behaviours.

4.1. SUGGESTIONS FOR FURTHER RESEARCH

Beyond the suggestions included on the papers and the recommendations presented below we would like to propose some general ideas for further research related to health professionals who deals with suicidal behaviours.

Few studies have addressed the impact, the difficulties and the current practices on suicidal behaviours intervention by nurses (e.g. Cutcliffe & Santos, 2012; Takahashi et al., 2011). Cutcliffe and Stevenson (2008)

emphasize that caring for suicidal people is a very demanding for psychiatric and mental health nurses and may even have a negative emotional impact on these health professionals. Therefore it would be useful to conduct research about nurses when facing patients who have suicidal problems.

Still within the enlargement to other health professional not included in this PhD study, we would like to suggest future research targeting emergency staff including physicians from different specialties who do urgency service, in order to identify current practices, difficulties and needs of these professionals. In turn with the final goal of contribute to enable emergency staff devise optimal care to suicide attempters.

As discussed above studies about family difficulties and needs towards relative's suicide attempts are lacking and could generate important clues for the clinical work with suicidal patients and their families.

Within suicidology research there is a general tendency that training aimed at health professionals is an effective strategy for preventing suicidal behaviour while a measure, which promotes clinical practice improvements. To date there is a scientific consensus about the effectiveness of this measure evidenced by different results, however more research on the area is required in order to determine the most effective training models for reducing suicidal behaviours, as well as for determine which models prolong the positive impact of training (Isaac et al 2009; Mann et al, 2005, Van der Feltz-Cornelis et al, 2011). Future research on this area should be developed in order to achieve training and intervention models empirically validated.

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Appendix

Explanations of Suicidal Behaviours Questionnaire (ESBQ)

and

Intervention Strategies towards Suicidal Behaviours Questionnaire (ISBQ)

U.PORTO
FACULDADE DE PSICOLOGIA
E DE CIÊNCIAS DA EDUCAÇÃO
UNIVERSIDADE DO PORTO

Explanations of Suicidal Behaviours Questionnaire (ESBQ)

Intervention Strategies towards Suicidal Behaviours Questionnaire (ISBQ)

Rothes & Henriques (2010)

The following questionnaires are about suicidal behaviours (suicide and suicide attempts) and aims at acknowledging the conceptions and intervention strategies of Portuguese doctors and psychologists facing this problem in clinical practice.

The questionnaire is anonymous and it will be use only for scientific investigation purposes. It is not a test, therefore there are no right or wrong answers. Your cooperation is of vital importance for carrying out this study. We request you to be sincere and genuine in your answers. Do not think too much about each statement's meaning; the most spontaneous answers are the more valid ones.

QUESTIONNAIRE NUMBER (to be filled by our services)

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

0 1 2 3 4 5 6 7 8 9

Attention: In order to allow optical reading of the questionnaires, we request you to fill in the circles as displayed in the example below:

CORRECTLY ●

INCORRECTLY ⊗ ✎

FCT
Fundação para a Ciência e a Tecnologia

This questionnaire is part of a doctoral research being carried out with the financial support of the Science and Technology Foundation of Portugal.

1st Part – Professional and Social-demographic Characterization

Without jeopardizing the anonymity we ask you to provide us some information about social and demographic data as well as about your professional training and experience.

1.Gender	Female 1○	Male 2○	
2. Age	_____	years	
3. Years of practice	_____	years	
4. Professional Group	Psychologist 1○	Psychiatrist 2○	General Practitioner 3○
5. Work place	_____		
6. District of work	_____		

7. Choose the model you consider closer to your practice (choose one single option)

Cognitive-Behavioural 1	○	Constructivist 2	○	Humanist/Existential 3	○
Organicist/ Biological 4	○	Psychodynamic 5	○	Systemic 6	○

TRAINING

8. My training to deal with suicidal patients is:	Sufficient 1○	Insufficient 2○
9. I feel capable of identifying a patient at risk of suicide	Yes 1○	No 2○
10. I have specific training in the area of suicidology	Yes 1○	No 2○

If your answer *to question 10* was *YES choose what type* of training	Yes	No
Epidemiology	○	○
Forensic Sciences	○	○
Detecting and management of suicide risk	○	○
Crisis intervention	○	○
SOS hotlines	○	○

11. For each statement, choose the option that suits your opinion best on a scale from 1 to 5

	Fully disagree				Fully agree
I feel the need for specialized training on suicide	○	○	○	○	○
I believe that my experience/training makes me a suitable trainer in this area.	○	○	○	○	○
Implementing training plans on suicide aimed at health professionals is fundamental.	○	○	○	○	○

2nd Part

I – Explanations

A prior study – using free association - collected several statements made by health care professionals on explanations of suicidal behaviours. Based on that study a list of items was assembled, which we would now like you to rate.

Tell us to what extent it is **likely or not** that a suicidal behaviour is **explained** by the following items, therefore using the option that suits your opinion best on a scale from 1 (not likely at all) to 5 (very likely).

Although answers may vary according to different patients, try answering in the most **general and frequent** way, choosing the option that best fits your thoughts.

Suicidal behaviours are explained by:	Not at all likely 1	Not very likely 2	Somewhat likely 3	Likely 4	Very likely 5
1. Emotional instability	○	○	○	○	○
2. Abandonment	○	○	○	○	○
3. Negative body self-image	○	○	○	○	○
4. School failures	○	○	○	○	○
5. Impulsiveness	○	○	○	○	○
6. Affective deprivation/scarcity	○	○	○	○	○
7. Giving up	○	○	○	○	○
8. Finding no alternatives	○	○	○	○	○
9. Frustration	○	○	○	○	○
10. Escape	○	○	○	○	○
11. Way of expressing discomfort	○	○	○	○	○
12. Immaturity	○	○	○	○	○
13. Family problems	○	○	○	○	○
14. Anguish	○	○	○	○	○
15. Drugs and/or alcohol use	○	○	○	○	○
16. Anxiety	○	○	○	○	○
17. Personality disorders	○	○	○	○	○
18. Way of seeking attention	○	○	○	○	○
19. Difficulties in dealing with life transitions	○	○	○	○	○
20. Existence of aggressive traits	○	○	○	○	○
21. Loneliness	○	○	○	○	○

Suicidal behaviours are explained by:	Not at all likely 1	Not very likely 2	Somewhat likely 3	Likely 4	Very likely 5
22. Loss of the meaning of life	○	○	○	○	○
23. Depression	○	○	○	○	○
24. Lack of social support	○	○	○	○	○
25. Psychosis	○	○	○	○	○
26. Low self esteem	○	○	○	○	○
27. Difficulties on interpersonal relationships	○	○	○	○	○
28. Hopelessness	○	○	○	○	○
29. Wish of a rebirth/ hope for a new life	○	○	○	○	○
30. Immature death concept	○	○	○	○	○
31. Perfectionism	○	○	○	○	○
32. Way of taking away the suffering / the pain	○	○	○	○	○
33. Sadness	○	○	○	○	○
34. Psychopathology	○	○	○	○	○
35. Despair	○	○	○	○	○
36. Loving relationship breakdown	○	○	○	○	○
37. Isolation	○	○	○	○	○
38. Difficulties in solving problems	○	○	○	○	○
39. Cry for help	○	○	○	○	○
40. Guilt	○	○	○	○	○
41. Traits of intolerance to failure	○	○	○	○	○
42. Internet influence	○	○	○	○	○
43. Angry/ revenge	○	○	○	○	○
44. Financial problems	○	○	○	○	○
45. Problems at work	○	○	○	○	○
46. Unsolved grief	○	○	○	○	○
47. Challenge/ testing the limits	○	○	○	○	○
48. Physical illness	○	○	○	○	○
49. Will to join someone who already died	○	○	○	○	○
50. Social copycat	○	○	○	○	○
51. Blackmail	○	○	○	○	○

II – Intervention

Choose to what extent it is **likely or not** that you adopt the following **intervention strategies** with a patient that seeks your practice following a recent suicide attempt. Mark the option that suits your clinical experience best on a scale ranging from 1 1 (not likely at all) to 5 (very likely). Even though clinical practice varies depending to each case we would like you to answer according to your general practice. Don't give too much thoght to the meaning fo each statement. Spontaneous answers are the most valid ones.

Intervention strategies	Not likely at all1	Not very likely 2	Somewhat likely 3	Likely 4	Very likely 5
1. I ask about prior suicide attempts	○	○	○	○	○
2. I assess depression	○	○	○	○	○
3. I set suicide prevention contracts orally.	○	○	○	○	○
4. I set written suicide prevention contracts	○	○	○	○	○
5. I ask questions about problems he may be experiencing r	○	○	○	○	○
6. I ask if he wants to die	○	○	○	○	○
7. I ask what he expected when attempting suicide	○	○	○	○	○
8. I use formal instruments to assess suicide risk	○	○	○	○	○
9. I engage the family in the process	○	○	○	○	○
10. I do not confront the person with what happened	○	○	○	○	○
11. I assess the circumstances in which the attempt was carried out	○	○	○	○	○
12. I refer to psychiatric counselling	○	○	○	○	○
13. I don't give much importance to the suicide attempt	○	○	○	○	○
14. I try to find out about the methods used in the attempt	○	○	○	○	○
15. I approach the theme of death with the client/patient	○	○	○	○	○
16. I advise a continued treatment	○	○	○	○	○
17. I try to understand the meanings of the suicide attempt	○	○	○	○	○
18. I give to the suicidal patient/client my cell phone number	○	○	○	○	○
19. I refer to psychological counselling	○	○	○	○	○
20. I try to find out at what time the suicide attempt was carried out	○	○	○	○	○

Intervention strategies	Not likely at all1	Not very likely 2	Somewhat likely 3	Likely 4	Very likely 5
21. I assess the hopelessness	○	○	○	○	○
22. I provide counselling to the family	○	○	○	○	○
23. I try to understand the motives/ reasons that triggered the attempt.	○	○	○	○	○
24. I ask about the alcohol and drugs consuming habits.	○	○	○	○	○
25. I explore the existence of an elaborate suicide plan.	○	○	○	○	○
26. I use specific intervention protocols for suicidal behaviours.	○	○	○	○	○
27. I assess the risk factors	○	○	○	○	○
28. I carried out a personality evaluation.	○	○	○	○	○
29. I ask about the family suicidal background	○	○	○	○	○
30. I ask what reasons he/she has for living and for dying.	○	○	○	○	○
31. I refer to a colleague who is better prepared in this area	○	○	○	○	○
32. I suggest using the internet to communication	○	○	○	○	○
33. I prescribe medication/ I refer to someone who can prescribe medication	○	○	○	○	○
34. I refer to the general practitioner/ general physician.	○	○	○	○	○
35. I try that the client/ patient be hospitalised	○	○	○	○	○
36. I use specific suicidal behaviour assessment instruments.	○	○	○	○	○
37. I ask about the two days prior to the suicide attempt.	○	○	○	○	○
38. I ask how he/she feels about having survived.	○	○	○	○	○
39. I try to understand if there is a non solved or current mourning process	○	○	○	○	○
40. I conduct a family interview.	○	○	○	○	○
41. I try to understand how the patient usually solves his/her problems.	○	○	○	○	○
42. I refer to psychotherapy.	○	○	○	○	○

3rd Part - Contact with Suicidal Behaviours in clinical practice				
1. Did (or do) you have any patient/client who has made one or several suicide attempts?				
Yes	1○	How many patients/ clients?	How long ago was the last case?	Years
No	2○			
2. Have you had a patient/ client suicide?				
Yes	1○	How many patients/ clients?	How long ago was the last case?	Years
No	2○			
3. Have you ever had a patient representing a serious risk of suicide or suicide attempt even though he/she hasn't carried it out?				
Yes	1○	How many patients/ clients?	How long ago was the last case?	Years
No	2○			