Psychological and psychosocial autopsy on suicide among the elderly: a methodological approach

Autópsia psicológica e psicossocial sobre suicídio de idosos: abordagem metodológica

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Abstract ***The article analyzes the quality and consistency of a semi-structured interview script, adapted for the study on suicide among elderly people, and presents the psychological and psychosocial autopsy method, which is the result of application of this instrument. The objective is to demonstrate how the in-depth interview and subsequent data organization and analyses were tested and improved by a network of researchers from eight regions in Brazil. Evaluation of the method was conducted before and after the application of the instruments to collect, systematize and analyze the data. This methodology was applied in 51 cases of elderly people who committed suicide in ten Brazilian municipalities. The study did more than just collect data with scientific rigor, since it also verified the consistency of the instrument used and the applicability of the method. The improved script and the instructions of how to apply and analyze it are thus presented here. The results reveal the rigor and credibility of this methodological approach tested and qualified by a multidisciplinary and inter-institutional procedure.***

Key words ***Psychological autopsy, Psychosocial autopsy, Suicide among the elderly, Rigor and quality of research instruments***

Resumo ***O artigo analisa a qualidade e a consistência de um roteiro de entrevista semiestruturada, adaptado para o estudo do suicídio de pessoas idosas e apresenta o método das autópsias psicossociais que resultou da aplicação desse instrumento. O objetivo é demonstrar como o uso da entrevista em profundidade e sua forma de organização e análise de dados foram testados e aperfeiçoados por uma rede de pesquisadores de vários centros de pesquisa do Brasil. O método envolveu a aplicação do instrumento em que se socializou um manual de instruções sobre a coleta, sistematização e análise de dados. A metodologia foi aplicada no estudo de 51 casos de idosos que faleceram por suicídio em dez municípios brasileiros, e permitiu a verificação da consistência do instrumento usado e a aplicabilidade do seu método, durante o processo e ao final, por meio de uma avaliação em rede. O roteiro aperfeiçoado e as instruções para replicá-lo e analisá-lo são aqui apresentados. Os resultados apontam o rigor e a credibilidade dessa abordagem metodológica testada e qualificada de um modo interdisciplinar e interinstitucional.***

Palavras-chaves ***Autópsia psicológica, Autópsia psicossocial, Suicídio de idosos, Rigor e qualidade de instrumentos de pesquisa***

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Introduction

This article presents a study about the method used in the psychological and psychosocial autopsy analyses used in a field study under the subject ***Is it possible to prevent the end from coming early? Suicide in the Elderly in Brazil and Possibilities for Action in the Healthcare Sector*[1].** The tool was applied and evaluated through the work of a joint network of researchers from eight universities or research centers across Brazil, all of which took part in perfecting the tool, incorporating suggestions and elaborating critisms in order to present it in a perfected state. The uniqueness of this tool is that it was adapted to describe suicide among elderly individuals. This study presents, articulates and illustrates detailed fieldwork[2] through qualitative analysis cases of suicide among elderly individuals[3].

Suicide rates vary between nations according to age, sex, race and ethnicity. In several countries the largest group at risk of suicide is that of people older than 65 and this risk increases with age[4,5]. It is estimated that there are about 600 million elderly people aged 60 or older worldwide and it is believed that in 2020 this population will reach a billion people[6]. Since the risk of suicide increases with old age and the elderly population is growing worldwide, obtaining a specific method to study suicide among the elderly is highly relevant. After all, most of what is known about risk factors and protective factors associated with suicide comes from psychological autopsies[4,7].

The goal of psychological autopsies has originally been collecting ***post mortem*** information about the circumstances and context surrounding a person's death. In many cases they provide support to forensic pathologists that help them conclude whether death was natural, accidental or caused by suicide or murder. The psychological autopsy method was proposed by Edwin Schneidman[8-10] in the United States circa the 1950's as a type of retrospective study that rebuilds the physical and mental health state and social circumstances of people who committed suicide, based on interviews with family members and sources close to the victims. The autopsy is performed as a narrative reconstruction and its consistency depends on the quality of information provided. In order to be a quality investigative strategy, generally researchers work with a small amount of case samples, which can complicate generalized results. Their strength lies in contextualizing data from people's psychological and psychosocial histories – in any age range – and in the possibility of showing a series of circumstances and subtleties that large epidemiological or population studies cannot show. In order to increase reliability of information collected about cases, one aims to diversify interlocutors, conduct more than one interview, have researchers working in pairs, recording different points of view and working with several sources of information. In the latter case the following are very important: medical charts; expert reports; police records and statements from healthcare teams who have met the individual who committed suicide and who had access to their family and community context[7,11,12].

Suicide is understood as a conscious self-annihilation act; it is a multidimensional discomfort endured by a vulnerable individual, who defines a theme-problem for which self-extermination is perceived as the best solution[13]. Although Shneidman called his method "psychological autopsy", he had an integrated view of biological, psychiatric, historical and sociological dimensions and it is in this sense that we use the term psychosocial autopsy[10,13].

Method

This study aimed to coordinate Shneidman's[9,10] strategy with other propositions, treating them interactively with a psychosociological perspective proposed by Bertaux[14] which deepens the relationship between biography and life in society; with Durkheim's[15] classic view that defines suicide as an event where personal and psychological factors are present in specific social contexts; and with recommendations made by Lester & Thomas[16] who suggest using contextualized studies to establish causative links between social aspects, contexts and subjectivity.

Criterion employed for evaluation – The study incorporates Golafshani's[17] proposal that provides terms and means to evaluate quantitative research tools. This author proposes that instead of seeking validity and reliability, such as one does in quantitative studies, one should verify the ***level of depth, quality*** and ***credibility*** of the tool and of the method both in terms of content (consistency) and in terms of procedures to repeat it (applicability).

Presenting the tool studied - A semi-structured interview guide prepared for previous studies[18,19] for self-inflicted deaths will be presented and analyzed. It has been adapted and tested in order to know about certain circumstances surrounding

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stories of suicide among elderly individuals[1-3,20,21]. This tool has been submitted to a process of critique and evaluation for improving and perfecting its purposes and to assess its level of depth and consistency by a group of researchers involved in the abovementioned research[1-3]. After an extensive review of literature[18,19], three sources provided inspiration when drafting the interview guide: an international guide, ***Guidelines for Suicidality***[22], developed by the ***Suicide Risk Advisory Committee of the Risk Management Foundation of the Harvard Medical Institution***; the work published by Sampaio[23] that presents an integrated view of suicide studies; and theoretical contributions made by Shneidman[8-10,24,25]. In fact, Shneidman did not systematize any interview guide; he only presented categories that could guide studies since he sought plurality and expanding views about the phenomenon[9,10,12].

Werlang & Botega[26] elaborated and validated a semi-structured interview guide to study psychological autopsies in suicide cases, focusing on triggering factors and stressors (what caused it?), motivation (why did this happen?), lethality (how did the person die?) and intention (what role did the deceased person play in their own death?). The tool presented by those authors allows an objective and reliable understanding of the actual impact of stressful psychological and psychosocial events that motivated the suicide, through verbal and behavioral clues.

This article establishes a dialogue with studies conducted by national and international authors[12,26] and proposes an alternative interview guide, adapted to cases of elderly individuals who committed suicide. It is not limited to psychological parameters, although it does not exclude them, and aims to favor information gathering that will place the issue within a wider social context. Expanding the focus is only possible when one adds other strategies that allow triangulating within individual, group, and contextual and social perspectives to the interviews.

Procedures

Material to be described: (1) tools tested and evaluated in terms of level of depth for conducting ***in-depth interviews*** with family members and sources close to elderly individuals who have died from suicide;(2) ***case study*** strategies that contextualize individual datum, analyzing an individual's biography and personal and socioeconomic circumstances under which self-extermination occurred; and (3) the ***psychological and psychosocial autopsy method*** that organizes, standardizes, classifies and provides a common thread for analyzing data provided from field materials, organizing individual, social, local and regional specific features.

In-depth qualitative assessment of the interview guide – Twelve senior researchers from five regions in the country participated giving critical suggestions and evaluations on the tool used in this study. A manual was created containing all procedures anticipated and agreed upon during a training workshop in which all took part. At this workshop tools were discussed and adjusted. After that a group of senior researchers replicated workshops for local research teams aiming to conduct fieldwork and understand the elderly suicide phenomenon[2,3]. Fifty-one in-depth interviews were conducted with an average of five cases in ten municipalities across the country. We chose suicide cases involving people aged 60 or older and whose death had occurred between two and five years prior, so that research participants - almost all of them family members (children, wives, grandchildren, relatives) or caretakers - would have had time to deal with the event. Access to cases involved letters, contacting individuals by phone and visits mediated by healthcare professionals. Interviews were conducted at the family home, that of relatives or at the individual's workplace.

Organizing data in case studies – Pairs of researchers performed the interviews, their systems and analysis. The fieldwork generated data that was arranged and standardized, then organized as case studies and finally submitted to different analysis procedures. Reports from each location took into account multiple dimensions of elderly individuals' live stories which ended in suicide.

Systematizing a local and global method for analysis - After fieldwork another workshop was held aiming to gather individual and collective criticism of results and guides. Corrections made to tools and procedures were processed and consolidated at the end through network interaction, performed jointly by researchers and coordinators with contextualized revisions of tools, proposals to improve tools and how they were being applied, reflections on the case selection process and a final examination of strategies used when organizing and analyzing data. Finally, coordinators presented the steps for meta-analysis based on frequency of relevant data and hierarchy of variables.

Results

Three instruments were used in in-depth interviews: (1) a personal and family ***Identification Form*** of the individual who died by suicide and general personal information about the interviewee, such as name, age and degree of relationship with the victim;(2) General instructions from the ***Genogram Simplified Guide*** was used as a resource when initially approaching interviewees as a way of observing family bonds and situating family members mentioned in the story of the individual who died by suicide; (3) ***Semi-Structured Interview Guide for Psychological and Psychosocial Autopsies.*** The latter contains 43 simple and multiple-item questions about social profiling, portrayal and way of life, description of the suicide and the accompanying atmosphere, mental state of the elderly individual in the moments that preceded the event and family image before, during and after the fatal act.

Identification form - In this form is included the data describing the elderly individual and the suicide, in detail, as well as data about their family and interviewee(s). It is necessary to emphasize the need to keep the names of people mentioned in the interview confidential; it is also necessary to have interviewees sign a Consent Form stating their willingness to provide information (Chart 1).

Genogram - The purpose was to find a practical and strategic way of finding each person's place within the family using a simplified genogram. Getting to know the family in general terms helps in guiding conversations during the interview. A genogram [27] helps to indentify the type of bond formed between family members and non-relative household members. It also assists in verifying whether there are repeated relationship patterns and emotional or physical disruptions that may have occurred in the various generations. Discussing the extended family in the initial stages of an interview can contribute to a welcoming attitude when addressing the issue of suicide (Chart 2).

Semi-Structured Interview Guide for Psychological and Psychosocial Autopsies - This guide was divided into two parts. The first one included a personal and socioeconomic profile and details about the victim's life conditions within their biographical context. The second part explains the circumstances of the suicide, triggering factors and the impact on the family. The way in which the topics and questions are arranged favors a gradual approximation to the traumatic event and its biographical context. However, considering this is a semi-structured interview, it is recommended to use the ***guide in a flexible manner***, remaining open to include other topics and issues interlocutors consider important and that

Chart 1. Identification Form.

Identification Form		
Name:		
Date of Birth:	Age:	Sex:
Marital Status:	Place of Birth:	Ethnicity:
Religion:	Level of Education:	Occupation:
Address:		
Family of Procreation		
Name of Spouse:	Age:	
Children (age):		
Other relationships, marriages and children:		
Family of Origin		
Father's Name:		
Mother's Name:		
Brothers/Sisters:		
People who were interviewed		Age:
Relationship:	Level of Affinity:	
Perpetration Method		
Motive:		
Location:		
Date:	Time:	
Relevant Information:		

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may come up during the interview. Details can be added according to the relevance of the conversation, interests of interviewees and points identified by the interviewer as worthy of further examination. It is always necessary to be careful with time spent and the content of the interview. One should be careful not to emotionally exhaust interviewees by spending more than the maximum reasonable amount of time, which is a maximum of two hours (although field work and literature[12,24] show that time spent with the family depends on amount of reception and empathy established during the meeting). With respect to the contents of the interview, researchers must not lose their focus and risk leaving out crucial aspects to understand the case. Oftentimes the interview is conducted with more than one family member at a time. This possibility, from the experiences taken into account, can help to investigate and gather various points of view and clarify different aspects of the phenomenon. Whenever possible, it is recommended to conduct interviews with at least two relatives or close friends, at the same time or separately (Chart 3).

Case Study and Contextualization

Since the procedure to acquire the case studies has already been described in other studies[2,3], the purpose here is to discuss how cases have been and can be organized and prepared for analysis. Presented here below is a strategy to gather and standardize data from the identification form, genogram and interviews. Chart 4 shows the ***Case Study Organization Guide***, which proposes two arrangement systems. The first one gathers information that will identify the case and describe the suicide, providing details about circumstances associated with the fatal event (how it was perpetrated, lethality, location, how the individual was found and others). It also includes data about interviewees (relationship, sex and age)

Chart 2. Simplified Interview Guide to Develop a Genogram.

Genogram
. Build what a portrait of this family would look like in two or three generations (Investigate the emotional, dependence and socioeconomic position of people who stand out). . Listen to how people come closer or drift apart (Relationships, commitments and conflicts). . Talk about critical events that marked the family (Were there suicide or attempted suicide cases? Were there any accidents, illnesses or deaths that stood out?)

Chart 3. Semi-Structured Interview Guide for Psychological and Psychosocial Autopsies.

PSYCHOLOGICAL AND PSYCHOSOCIAL AUTOPSIES
Part One - Personal and Socioeconomic Profile
I) First Contact a) Reading and Clarifying the Consent Form b) Filling out Personal Information Form c) Building the Family Genogram: Provide clarification about the research; ensure informed consent; create empathy; and ensure personal and family identity confidentiality. Target Audience: Individual older than 60
II) Social Profiling 1. What was the occupation and level of education of the elderly person who died by suicide? 2. What is the occupation and level of education of his/her spouse and children? 3. What was relevant about his/her work/job? (difficulties, limits and possibilities) 4. Was he/she retired and was he/she involved in any other activities? 5. What was his/her income and source of family income? (fixed pay and others) In addition to the elderly person, who else contributed to the family income? 6. What was the house where he/she lived like? (Owned, rented, others; number of rooms; sewage network, running water, electricity, waste collection; number of residents) 7. Could you describe the neighborhood and place of residence?

it continues

Chart 3. continuation

III) Portrayal and Way of Life 1. How would you describe the elderly person being studied here? (distinctive features) 2. Where was he/she from? Where did his/her parents come from? (specify migration flow and descent) 3. Who did he/she resemble the most? Physically? In terms of personality? 4. Was he/she often upset? In what type of situation? 5. How did he/she react to difficult situations? Was there something that was particularly upsetting to him/her? 6. Was there any history of loss (children, wife/husband, brother/sister, friends, job, property)? 7. How did the elderly person deal with situations of loss? 8. Were there relationship problems with family members (spouses, children, brothers/sisters, parents)? What about friends? 9. What changes did he/she experience? Relationship breakups? Rebuilding bonds? 10. Was he/she submitted to violent situations throughout his/her life? (verbal, psychological, physical, at work, sexual, property-related). What about throughout the ageing process? 11. Where did he/she find support and who provided it? 12. Did he/she receive support from relatives, neighbors, colleagues or former work colleagues or other people? What was this support like? (was there a support or protection network?) 13. Did he/she receive support from religious groups? What was this support like? 14. Was he/she part of Clubs and Volunteer and/or Community Associations, Political Party, Union or Professional Body? 15. What investments were important in his/her life? Family? Education? Work? Others? 16. Is there a previous history of serious condition? Which one? A nervous one? Treatments? 17. Did he/she have any caretakers? Who? What type of care was the elderly person receiving? 18. Is there something he/she would have liked to change about his/her life if this had been possible?
Part Two - Atmosphere and Image of the Suicide
IV) Assessment of the atmosphere surrounding the act of suicide 1. How did the suicide happen? (What was the chosen method? Was it planned? Was there any prior warning? Were any messages left?) 2. Where did the suicide occur? What date, day of the week and time? 3. What were the circumstances surrounding the suicide? (How much time between the suicide and help? Who found him/her and under what circumstances? What was done?) 4. How did the family experience the moment when they got the news? And the burial? 5. Did the person express any prior suicidal thoughts or feelings? How often, for how long and how strong were they? 6. How did the family perceive this gesture? (about the suicide). In the family's view, why did he/she act this way? (motives and associated factors) 7. Were there any previous attempts? How many? How? Have there been suicides or suicide attempts in the family or in your circle of friends? Which ones and how long ago?***Verify the following indicators:*** severity of suicide; its impact on the family; lethality of the chosen method and its visibility; proximity of sources of help; and intention of death.

it continues

and the individuals who died by suicide (sex, age range, social, cultural, economic and religious profile). The second system contextualizes suicide within the individual story that will be retraced. Part of the victim's personal and social profiling involves their biographical information, shows their mental state, motivations and relevant facts; it describes triggering factors or stressors associated with the act and reports the effects of self-inflicted death on the family.

Chart 5 shows a ***Socioanthropological Data Organization Guide***, which includes information about municipalities where suicide cases occurred. The guide arranges the municipality in terms of origin and social, economic and cultural background. It describes the lives of people in the town/city where suicides occurred and, in concrete cases, it specifies the environment of elderly individuals with respect to opportunities regarding work and leisure, social support and healthcare and social assistance services available in the area.

Method for Analyzing Psychological and Psychosocial Autopsies

A psychological and psychosocial analysis begins with each case being pre-analyzed by a researcher and reviewed by a pair of researchers,

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Chart 3. continuation

V) Mental state that preceded the suicide 1. Was the person confused or did his/her stream of thought seem to be altered in any way? 2. Was the person discussing thoughts, feelings or ideas that seemed "unreal"? 3. Did the person's perceptions seem to be altered; was he/she hearing voices or having visions? 4. Was the person depressed, agitated, or oscillating between these two? 5. Did the person usually talk about feelings of guilt, sadness or desperation? 6. Was the person evaluated or seen by a psychiatrist or psychologist? What diagnosis, treatment, guidance or recommendations were made? Was he/she on any medication? Which ones? 7. Did he/she have medical insurance? 8. If he/she received care through Brazil's Unified Healthcare System SUS, how did he/she rate this service?
VI) Family Image 1. How is the family (its members) reacting to the suicide and its circumstances? What was the family's reaction with the immediate caretaker? 2. Did this event cause conflicts for the family? Which ones? How does the family deal with this? 3. Has the family ever resorted to any kind of support? What kind? Is the family finding it difficult to seek such support? What are the difficulties? 4. How is the family trying to move on and seek comfort?***Verify the following indicators:*** (only by observing the flow of the conversation)***Type of communication established within the family*** - open with criticism, implicit, concealed and with secrets, insufficient, or with double messages; ***What boundaries between people are like*** - mixed, strictly established or established with flexibility; ***Type of family functioning*** - together, united, separate, conflicting, together and conflicting; ***How rules are developed and established*** - explicit or non-explicit rules, strict or flexible with respect to change and (members) capacity to adapt
The topic of suicide is highly controversial and it may provoke anxiety or discomfort when discussed. It will be necessary to conduct a type of interview that favors feelings, attitudes and opinions being expressed, in emotional-cognitive-social moderation that a topic of such complexity requires.

Chart 4. Case Study Organization Guide.

Case Study Organization
I) Suicide case identification data . Criterion for choosing the case . Information about interviewee . Information about the person who self-inflicted death . Perpetration method and suicide scene (family report and expert report)
II) Individual case studies . Personal, social and family (genogram and social profiling) description . Biography of the individual who committed suicide (self-portrayal and way of life) . Mental state that preceded suicide (psychiatric and psychosocial risk) . Assessment of atmosphere surrounding suicide (environment and circumstances before and after the event) . Impact of the suicide on the family (image of the act, reactions and family impressions) . Summary or final comments (points to be highlighted)

according to guidelines from the instruction manual previously agreed upon. In the aforementioned study[1], researchers reorganized cases compactly into four categories: (1) a comprehensive description of each episode (history and context, risk and protective factors, relevant facts, motivations or intentions related to suicide); (2) case development and dynamics (flow of events, aggravating factors such as diseases, sicknesses and critical emotional, social or economic circum-

Chart 5. Socioanthropological Data Organization Guide.

Socioanthropological Data Organization
. What are the main features of the municipality? (urban or rural) . How was the municipality created and what have been its main characteristics? (is this a more socially open or closed municipality?) . What is the population's social background and origin? . How is the municipality organized economically, socially and culturally? . What are people's lives like in terms of health, education and safety? . What social resources are there? (clubs, religious societies, handwork activities, tourist activities?) . What is the elderly population like in this region? What services are available to them? (Healthcare Services, Social Centers, Life Appreciation Centers?) . Summarize the life situation of elderly individuals in this location.

stances and consequences to personal life); (3) a description of the suicide act and its impact on the family (chosen means, conditions in which the victim was found, information about burial and effects of death on the family); (4) considerations about the case (reasons for suicide, clues extracted from conversations, behavior and hypotheses about the case). The purpose of this stage is to highlight the most relevant factors and to join them together as circumstantial evidence.

Once these individual case studies and data context are organized and the entire logistics system is created, this data is fed into a database that is accessible to researchers responsible for final analysis. The necessary material is then available to perform a ***qualitative analysis and at the same time, remain unique, local and compared.*** It is important that scientific articles about the subject published internationally support considerations for a pure analysis.

In each concrete case study which used the above tools, each research center produced their own pre-analysis, emphasizing not only subjective and relationship aspects of those relating to the elderly individuals' compromised physical and mental health, but also contextual aspects. This diversity built from a common matrix clearly showed researchers' perspectives and interests[27-30], emphasizing several risk factors, gender issues, and the impact on families and prevention possibilities and needs.

Chart 6 presents the ***Data Analysis Guide by Region***, developed based on analytical treatment given to the material on the fifty-one suicide cases[3]. At the end a meta-analysis was performed which consisted of rereading the entire field work material and grouping categories extracted from each case into tables within a subject logic that is described in Chart 6. Furthermore, we conducted work to develop a ***comprehensive summary of each case***[3], where central data from biographical contexts were rewritten and attempted to perform a "presumed approximation" from the perspective of the individual who decided to end his/her own life.

An initial analysis was performed according to frequency of variables, with the purpose of describing the studied sample. We compared frequency of suicide according to age range and occurrence of studied cases in all five regions in the country. The study took into account data by age range (within the elderly segment) and sex, perpetration method, place where the suicide occurred, the victims' socioeconomic profile, risk factors and protective factors. Whenever necessary we resorted to individual datum in order to situate a unique phenomenon within the local and regional context. Therefore it was possible to move from individual features to group trends and from these to local or regional trends, crossing information with contextualization.

Afterwards, an analysis was built according to hierarchy of variables, in two distinct ways: (1) by ***saturation***, when one or more motives associated with suicide case by case were grouped. Therefore, 79 motives were grouped that expanded the stress range or motivational factors associated with suicide in the elderly. They also allowed producing explanatory hypothesis for the 51 cases; (2) and ***an analysis by hierarchy of interactions***, which grouped the main factors that triggered the fatal act, aiming to understand the role of interacting variables and identify what was predominant. We developed 51 multi-cause hypotheses in order to develop a type of "autopsy report", quantifying a pattern of interactive answers with greater weight to justify the victim's

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Chart 6. Data Analysis Guide by Region.

I) A study of suicide according to frequency of variables

- ***Suicide distribution according to age range***
  - 60 to 64 y.o.a.
  - 65 to 69 y.o.a.
  - 70 to 74 y.o.a.
  - 75 to 79 y.o.a.
  - 80 to 84 y.o.a.
  - > 85 y.o.a.
- ***Suicide distribution according to perpetration method and sex***
  - Hanging
  - Firearm
  - Poisoning
  - Blade weapons (knife)
  - Fall from height
  - Burning
  - Drowning
- ***Distribution of places where suicide occurred according to sex in all five regions***
  - Household
  - Outside area
- ***Socioeconomic profile of elderly individuals according to sex***
  - Marital status
  - Level of Education
  - Religion
  - Rural or urban life
  - Professional activity
  - Active or inactive
- ***Risk factors associated with suicide according to sex***
  - Financial overburden
  - Abuse and discrediting
  - Death and illness of relatives
  - Disability, physical conditions and mental disordersSocial isolation and depressive features
  - Ideations, attempted suicides in the family
- ***Protective factors associated with suicide according to sex***
  - Support from family and friends
  - Financial stability
  - Seeking healthcare support
  - Religious support

II) A study of suicide according to hierarchy of variables

- ***Motives attributed to suicide according to sex and age range***
  - Behavior changes
  - Impact of losses
  - Diseases or disabilities
  - Conjugal or family conflicts
  - Lifestyle
  - Retirement or unemployment
  - Financial overburden
- ***Interaction of factors connected with suicide according to sex and age range***
  - Diseases (physical, mental, alcoholism) and disabilities
  - Depression and depressive states
  - Family conflicts and conjugal crises

option for self-inflicted death. At that point, psychological features coordinate with biographical, socioeconomic and cultural ones. This analytical procedure provides a holistic vision of the theme, contrary to the one-dimensional trend of many studies that treat suicide motives as isolat-

ed topics and not as multiple, interacting factors that compete among themselves, making people progressively more vulnerable.

Discussion

Since the tools were presented in their final format, we will discuss points that guided their improvement and use, considering it necessary to address not only their logic and the research's internal coherence, but also to make recommendations for its use. It was taken into account experience gathered by the research group and suggestions from literature. Care was taken to ensure that researchers who were part of this investigation team were people with extensive clinical practice and experience in mental and public health. This decision was based on the sensibility that is required to work with a topic so delicate and complex and that demands a high level of maturity when approaching family members and compiling data.

Search for quality work - The following were important to guarantee the quality of this study and the use of the tools: (1) training workshops were held gathering the group of senior researchers and local teams before research work began. All workshops were based on the manual that consensually standardized procedures; (2) all personnel had access to the literature that grounded research assumptions and hypotheses; (3) workshops were held after fieldwork was finished and after the pre-analysis process had been developed. Narratives from each autopsy were shared and their overall aspects, similarities and differences were discussed. The relevance of each procedure was reassessed; and (4) teams/researchers reflected collectively about the specific aspects of each case and each location.

Team training - There were a few differences between local teams as to how they trained their members: some of them conducted a systematic process, reproducing the first workshop for senior researchers; others worked with tools by role-playing imaginary stories and applied the genogram with group members. Others conducted a pilot test in a real situation, in order both to check the tool and their skills as interviewers. Later they discussed each item in the procedures, aiming to minimize possible errors, although they were aware that each case would be different from the next. It is recommended that these participatory strategies be used for training field researchers enabling them to try different possibilities and to see for themselves interactions between interviewers and interviewees, developing feelings of empathy and warmth and avoiding judgment.

Changes occurred while using tools - Teams used the identification form without any problems; however they included information about ethnicity and interviewee's affinity with the victim. Although the genogram, in theory, is considered an excellent tool to gather data about families, it was little used throughout this research, because some researchers did not feel prepared to use it or because interviewees were not familiar with important information about their family group. Therefore, most investigators settled for the informal narrative provided by family members of the story of the elderly individual who had died by suicide, since in two hours, on average, it would not be easy to methodically build a family history[25]. If the genogram is not used in the beginning of the interview, we recommend having an initial conversation with the person or persons who will be interviewed aiming to understand the elderly individual's place within the family, noteworthy facts and circumstances in their biography and their daily and social context and that of his/her relatives. The purpose of those preliminary moments is to obtain a temporary general picture of the family which will help understand the elderly individual's suicide within a context.

About the psychological and psychosocial autopsy guide - The in-depth interview guide was extensively discussed with respect to appropriateness of language and overall comprehension. The following points were added to the initial proposal: (1) who contributed to the family income in addition to the elderly individual, in cases where he/she was the head of the family; (2) whether there were any caretakers in charge of the elderly individual and what type of care was provided; (3) whether there was a support or protection network that went beyond the family environment; (4) whether the deceased elderly individual or other family members attempted suicide on other occasions, in an attempt to quantify such data; (5) whether the elderly individual was on any medication, identifying which ones and why they were prescribed; (6) whether the elderly individual had health insurance; (7) in case the elderly individual used the public system, what access was like and how they felt about the care they received; (8) what the family's reaction was toward the caretaker when they found out about the suicide and what conflicts this self-inflicted death produced within the family. The interview guide with its improvements allowed data to be

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prepared, collected and organized. This helped create a thematic common thread and also a connection between participating researchers.

About the process of conducting interviews with relatives or other interlocutors – Interview guides to perform autopsies were used in different ways, depending on the relationships between interlocutor and interviewer. In some cases, as soon as a few questions had been asked the interviewee would fluently detail the elderly individual's story, the suicide episode, and would cover several topics in the interview guide. Conversely, there were cases in which even when researchers made an effort and all questions were gradually asked keeping up with the interviewee's narrative, answers were evasive or unclear and some did not answer the questions. In those cases, we observed that when a person did not delve deeper into a topic it was because it was emotionally difficult for them, or because they did not want to speak their mind, or also because they had trouble understanding and reflecting on what had happened. An example of this situation is the answer often given: ***Why he did that, only he could tell you.*** Whether the reports were fluent or inhibited, the interview guide proved to be an appropriate tool to support interviewers, as long as the latter were able to be flexible when asking questions, aware of associations between ideas and allowed spontaneous and emotionally-charged information to flow freely. In all circumstances, it is also worth remembering that researchers should never let themselves become tied to questions or interrupt the interlocutor's narrative flow.

About the support interviewers can offer - Even before this research tool brings benefits or recommendations to the healthcare sector, it was noted that there was an immediate emotional gain for family members to the extent that they were able to express suppressed feelings and to discuss their own perspective of the event: ***This is better than group therapy; I remembered things I didn't remember before, I said things I'd never said before; I never talked to anyone like this about what happened to my father; remembering what happened all over again is painful, but I feel better I talked about it.*** Those were some of the statements made by interviewees. The importance of portraying a comfortable atmosphere and friendly attitude is highlighted here so that the interview, if well conducted, may consist of repeating an experience and reflecting on it. This is because the interview is often the first type of support, attention and coping tool to the family members which tell the story of the suicide and talk about the elderly individual who died, in an environment that is not judgmental and that provides understanding and empathy.

The interview moment as a moment for clarification - Meetings with families to conduct autopsies also consist of moments where questions they had been thinking about for a long time about self-inflicted death could be answered. For instance, a woman wanted to know about the possibility of suicide being genetically transmitted because she was afraid of repeating her father's act. A son of German descent who preserves the same paternal values, but who allows himself some enjoyment, taking a vacation and going to the beach, unlike old family habits, asked whether his destiny could be different from his father's. Those questions required researchers to give positive affirmation and to explain how certain choices offered different possibilities, which could be resolved in a short amount of time. Another young man who took care of his father until he died, cried very much during the interview and asked himself whether he had actually done everything he could while caring for him. That was a moment where feelings were expressed and where guilt and emotions triggered reflections attempting to make sense of the event. This interaction helped them address the issue better both internally and socially.

Difficulties applying instruments and conducting interviews – Among the main difficulties that came up when instruments were being used are the following: taboos and things that remained unsaid involving the phenomenon of suicide and that appear as stigma, discrimination and shame; memories associated with guilt, anger or resentment caused by chronic family conflicts; dissatisfaction with lack of support provided to elderly individuals while alive by public and support agencies[8]; reproach expressed by family members who were not directly involved with caring for the individual who committed suicide; and fear of reporting facts that might compromise them legally, such as insurance or retirement payments or police-related issues [9]. Such topics require careful handling and it is important that researchers are prepared to address them, always avoiding being judgmental or taking sides.

The impact of interviews on researchers and solidarity between them – The interview moment had a large overall impact both on interviewers and interviewees[8,24]. When faced with another human being who had suffered so much, investigators reported getting in touch with their own limits and often they experienced feelings marked

by suffering, pain and death experiences. Mutual help provided by pairs of researchers and group discussions provided them with emotional support: ***we were so involved with our research that it became our daily and favorite subject.*** Being playful and making jokes also helped process feelings triggered by the study. And being open to hearing further than what was required in the interview guide was crucial for building solidarity with family members, so that people could be referred to support services and so that people could comfort each other. We recommend that the tool never suppresses the need for being friendly and that researchers attempt to support each other, since no one is safe from becoming emotionally unstable when hearing such sad and touching stories.

Coordination with services and referrals - Finally, we recommend following the same preparation procedures as our research center incorporated to provide training. We recommend that whenever possible local Basic Healthcare or Mental Health teams should be available aiming to prevent suicide, above all, among the elderly. It is also important to interact with professionals so they familiarize and follow up on family members. This interaction is even more necessary as one realizes that the issue of suicide is also taboo among most professionals in local healthcare networks. Therefore, providing them with support means giving them an opportunity to get to know cases and how to take action. The World Health Organization's SUPRE-MISS Manual[26] and the Ministry of Health document[27] that provides guidelines for care make a significant contribution toward this.

Final Considerations

In-depth interview guides, techniques and related strategies were all improved especially at the end of the field work, when the research team was already able to look at procedures with a much more critical and refined eye. Different forms of training, training materials, the collection of articles shared with all team members and the permanent exchange of information should be highlighted. Face-to-face meetings, available databases and the operation of a communication network were all means that allowed sharing ideas and interests, a common thread that joined both the research process and products. At the end, a written debate recorded critical and reflective thinking of the entire group, reviewing the research process step by step. As one researcher said:

It was important to give everyone an opportunity to participate, since this created a kind of 'research intelligence, without separating the 'white-collar researcher' from the 'blue-collar researcher' who usually is only someone who just collects data. The process was extremely rich and participatory; it brought us an enormous amount of learning and reflections and enabled us to see the process as a whole.

Tools and techniques presented here proved to be reliable and consistent, whenever proper care was taken when applying them. However, it is always worth remembering that methods and techniques are always tools for researchers to work. Without them, understanding and empathy make all the difference. This was what our study showed when, through interviews carried out with a methodological level of depth, we were able to not only collect important data for healthcare but also address the taboo topic of suicide, breaking the silence and providing room for listening to situations where guilt, secrets, shame and fear become intertwined. That is, in addition to their technical role in research, interviewers were able to make a contribution to mitigate the suffering endured by families, showing them new ways to deal with self-harm.

Finally, we conclude that the main advantage of psychological and psychosocial autopsies is collecting and analyzing contextualized information that will be useful to take preventive action targeting elderly individuals. When caring for elderly people potentially at risk it is crucial to understand the interaction between variables - psychiatric or clinical symptoms, risk and protective factors, personality traits, circumstantial events, family continence and support capabilities of the healthcare area. Each interaction pattern reveals that suicide has many reasons while being unique, for each person reacts to and interprets suffering that affects them in a unique way. Since old age brings together men and women who are increasingly vulnerable for many reasons, it is crucial that healthcare becomes prepared and acquires the means to identify, propose and ensure global care to be provided to elderly individuals - through research, care and public policies.

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Collaborators

FG Cavalcante and MCS Minayo coordinated the organization and the manuscript analyses' with the collaboration of SN Meneghel, RM Silva, DDM Gutierrez , M Conte, AEB Figueiredo, S Grubits, ASC Cavalcante, RMN Mangas, LJES Vieira and GAR Moreira, the ones which have equally participated in the major phases of the paper elaboration.

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