Suicide prevention from a public health perspective. What makes life meaningful? The opinion of some suicidal patients

Costanza, Alessandra; Amerio, Andrea; Odone, Anna; Baertschi, Marc; Richard Lepouriel, Hélène; Weber, Kerstin Maud; Di Marco, Sarah; Prelati, Massimo; Aguglia, Andrea; Escelsior, Andrea; Serafini, Gianluca; Amore, Mario; Pompili, Maurizio; Canuto, Alessandra

How to cite

COSTANZA, Alessandra et al. Suicide prevention from a public health perspective. What makes life meaningful? The opinion of some suicidal patients. In: Acta bio-medica : Atenei Parmensis, 2020, vol. 91, n° 3-S, p. 128–134. doi: 10.23750/abm.v91i3-S.9417

This publication URL: https://archive-ouverte.unige.ch/unige:154809

Publication DOI: 10.23750/abm.v91i3-S.9417

Acta Biomed 2020; Vol. 91, Supplement 3: 128-134 DOI: 10.23750/abm.v91i3-S.9417

Original article

Suicide prevention from a public health perspective. What makes life meaningful? The opinion of some suicidal patients

Alessandra Costanza[1,2], Andrea Amerio[3,4,5], Anna Odone[6], Marc Baertschi[7], Hélène Richard-Lepouriel[8], Kerstin Weber[9], Sarah Di Marco[2], Massimo Prelati[2], Andrea Aguglia[3,4], Andrea Escelsior[3,4], Gianluca Serafini[3,4], Mario Amore[3,4], Maurizio Pompili[10], Alessandra Canuto[1]

[1]Department of Psychiatry, Faculty of Medicine, University of Geneva (UNIGE), Geneva, Switzerland; [2]Department of Psychiatry, ASO Santi Antonio e Biagio e Cesare Arrigo Hospital, Alessandria, Italy; [3]Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINOGMI), Section of Psychiatry, University of Genoa, Genoa, Italy; [4] IRCCS Ospedale Policlinico San Martino, Genoa, Italy; [5]Mood Disorders Program, Tufts Medical Center, Boston, MA, USA; [6]Vita-Salute San Raffaele University, Milan, Italy; [7]Service of General Psychiatry and Psychotherapy, Nant Foundation, Montreux, Switzerland; [8]Service of Psychiatric Specialties, Department of Psychiatry, University Hospitals of Geneva, Geneva, Switzerland; [9]Division of Institutional Measures, Medical Direction, University Hospitals of Geneva, Geneva, Switzerland; [10]Department of Neurosciences, Mental Health and Sensory Organs, Suicide Prevention Center, Sant'Andrea Hospital, Sapienza University of Rome, Italy.

Summary. *Background and aim of the work:* Suicide is a worldwide phenomenon, with a relevant number of victims. Moreover, repercussions of suicidality-across its entire spectrum-involve not only the individual but also survivors and communities, in a profound and lasting way. As such, suicidality represents a crucial public mental health concern, in which risk/protection factors' study represent a key issue. However, research primarily focused on suicidality risk factors. This study, moving from Frankl's first observations on "Meaning in Life" (MiL) as protective against suicidality, aimed to identify the main themes that suicidal patients identified as MiL carriers, or potential carriers, in their existences. *Methods:* Qualitative study on 144 patients admitted to the Geneva University Hospital's emergency department for suicidal ideation (SI) and suicide attempt (SA). *Results:* Interpersonal/affective relationships constituted the main theme (71.53%), with emphasis on family (39.80%), children/grandchildren (36.89%). Profession/education, intellectual/non-intellectual pleasures, and transcendental dimension also emerged. *Conclusions:* These aspects could be considered among a public health agenda's points for suicide prevention programs taking into account also protective factors promotion/support, including community's mental health resources. Reconnecting to introduction's historical part, our findings are consistent with Frankl's observations. Even if exposed to "absurd" and reluctant to deliberate on this, he seems approach Camus conceptualization who, confronted to the necessity of predictable and conform to recognizable personal patterns transcending chaos for a sense-giving perspective, invited to imagine that a meaning, even a "non-absolute meaning", may lie in apparent smallest things and that Sisyphus can have "the possibility to revolt by trying to be happy".

Key words: suicide, suicidality, prevention, public health, meaning in life, protective factors

"I consider suicide to be the result of fractures – with oneself, with other people, with nature, with the opportunity to experience feelings of well-being and to appreciate that what which surrounds us".

M. Pompili, 2010, "Exploring the phenomenology of suicide". Suicide and Life-Threatening behavior, 40, 234-244

Introduction

Suicide is a worldwide phenomenon, with an annual number of deaths estimated by the United Nations to be on average higher than those caused by murders and all wars combined (1). For this reason, the World Health Organization (WHO) has dedicated special and continuous attention to it since 1950, i.e. two years after its foundation (2,3). According to the latest WHO report (4), the global annual mortality rate is about 10.7 per 100,000 and suicide attempts (SA) are up to 30 times more common. In addition, the repercussions of suicidality–across its entire spectrum–involve not only the individual but also survivors, including family members, friends and communities as a whole, in a profound and lasting way (2, 3b). Consistent with this, suicidality is a crucial public mental health concern. Within the latter, the study of risk and protection factors is a key issue (5). However, research has focused primarily on suicidality risk factors, paying little attention to protective factors that can mitigate the deleterious effect of stressors (6).

Following Viktor Frankl's chronicles of his observations among Nazi concentration camp prisoners, "Meaning in Life" (MiL) has been considered among the most relevant protective factors against suicide (7,8). In his first book, *"Man's Search For Meaning. From Death Camp to Existentialism"*, Viktor Frankl identified a crucial resource in individuals finally presenting the best chance to survive through the "will to meaning" *(Der Wille zum Sinn)* (7). As opposed to the "existential vacuum", Frankl subsequently proposed that MiL can arise from three factors related to human possibilities. These are creativity, i.e., addressing personal realization, perception and search for beauty with an emphasis on a sense of authenticity towards some encounters or situations, and an individual's effort to self-determine their inner attitude (9).

On a somewhat paradoxical note, debates on MiL appear to have deviated from Frankl's initial interrogation of the attempt of individuals to continue living, despite being overwhelmed by miserable, incomprehensible, yet inescapable conditions of suffering. Therefore, although conceptually challenging, the specific association between MiL and suicidality remains poorly explored (for a systematic review, see 10).

Finally, even fewer studies addressed the content that suicidal individuals attributed to their subjective MiL, i.e., what makes or could have made their existence someway meaningful.

The aim of this qualitative study was to identify and report the main contents that a cohort of suicidal patients, attending a psychiatric emergency department (ED) for suicidal ideation (SI) and suicid attempt (SA), attributed to their subjective MiL.

Material and methods

Sample

The study included patients (n = 144) aged ≥ 18 years admitted to the psychiatric ED of the University Hospital of Geneva because of SI or SA (for recruitment details, see 11-13). This paper presents qualitative data not previously published.

Ethical considerations

This study was approved by the research ethics committee of Geneva (Switzerland) under the registration number 14-168.

Thematic analysis

Participants took part in semi-structured interviews, which were transcribed verbatim. Example questions were *"Outline any areas that currently give or could give meaning to your life"; "If these were to be placed in order of importance, what is the most important? Also, what are the accessory reasons?"*. Thematic analysis was applied according to the framework proposed by Braun and Clarke (14), which aims to identify and report patterns (themes) within data. The analysis steps, which were not intended as a linear process but rather a recursive process reciprocally moving as required throughout the different phases, were: 1) data familiarization (reading and re-reading transcripts and recording initial ideas); 2) generating initial codes by systematically coding emerging features of the data across the entire data set and collating data relevant to each code; 3) searching for themes capturing the essential qualities of the account through collating codes into potential themes and gathering all data relevant to each theme; 4) reviewing themes by checking if they map onto the originally coded extracts; 5) defining and naming

themes by generating clear descriptions and names for each theme; and 6) producing the report including selecting vivid, compelling extract examples (14).

According to this methodology, themes were inductively derived from the data rather than identified in advance or fitted into a pre-existing theme/codes frame or theory. Using a semantic approach, themes were identified within the explicit contents of the data. An analysis of their latent content, beyond those was reported by the participant, aimed to shape data as well as assumptions and conceptualizations, was not performed. Finally, themes were organized and presented using clusters, and super- and subordinate levels (14-16). This methodology is similar to the Interpretative Phenomenological Analysis (IPA) by Smith (17,18). However, the thematic analysis did not originate from a particular epistemological position, element that provides it with greater flexibility, including the possibility of assigning percentage values, while maintaining internal consistency and coherence (19).

Three independent raters examined all transcripts for the identification of codes and themes. Findings were compared and, following discussion with senior researchers, codes and themes were defined by consensus. In consideration of this large sample size, percentage values representing the prevalence of the main themes were also provided.

Results

Sociodemographic and psychiatric characteristics of the participants

The sociodemographic characteristics of the participants are summarized in Table 1. The main reason for inclusion in the study was SI in 64.58% (n = 93) of patients, compared to 35.42% (n = 51) of patients with SA. The majority of patients presented with a psychiatric diagnosis according to the Mini-International Neuropsychiatric Interview (20). The most prevalent diagnoses were major depressive episodes (75%, n = 108) and alcohol dependence (74,31%, n = 107).

Theme: Interpersonal and affective relationships

Interpersonal and affective relationships were the main themes that give or could give MiL to suicidal patients (71.53%, *n* = 103). Particular emphasis was placed on family (39.80%, *n* = 41) and children and grandchildren (36.89%, *n* = 38), both current or expected: *"My family, the most important thing"* [ID 157]; *"Making my family happy"* [ID 32]; *"The idea of having a family one day* " [ID 45]; *"My better future: a family and some children"* [ID 234]; *"My future life = child"* [ID 25]; *"My pregnancy"* [ID 22]"; *"Loving my children greatly"* [ID 139]; *"What remains to be taught to my grandson"* [ID 57]; *"My children and grandchildren: They are my whole life; it is for them that I am still there"* [ID 21]; *"My children. That's all"* [ID 70]; and *"My children give meaning to my life"* [ID 215].

Concerning accessory thematic areas that give or could give a meaning to suicidal patients, interpersonal and affective relationships still represented the majority of answers (45.43%, *n* = 159). However, family (17.61%, *n* = 28) and the presence of children and grandchildren (6.92%, *n* = 11) were less prominent compared to other relationships, such as a partner, friends, "others" considered from an altruistic perspective, and animals. These latter were expressed generally or addressed to a specific relationship, as follows: *"The sentimental life"* [ID 1]; *"Being in a relationship with a partner"* [ID 69]; *"Sharing my life with friends"* [ID 41]; *"[...] reconnecting with others"* [ID 146]; *"[...] using my abilities to help others"* [ID 36]; *"The desire to help people in need, orphans, the poor"* [ID 139]; *"Relationship with animals"* [ID 54]*; "He, only him*" [ID 169]; *"An unfor-*

Table 1. Sociodemographic characteristics of the participants (*n* = 144).

		n	%
Sex	Female	90	37.5
	Male	54	62.5
Age group	< 20 years	14	9.72
	20-29 years	44	30.55
	30-39 years	30	20.83
	40-49 years	26	18.05
	50-60 years	22	15.28
	> 60 years	8	5.57
Citizenship	Swiss	85	59.03
	Non-Swiss	59	40.97
Marital Status	In a relationship	57	39.58
	Single	87	60.42
Children	Yes	61	42.36
	No	83	57.64
Professional status	Employed/student	88	61.12
	No activity	56	38.88

tunately impossible love for a partner" [ID 130]; *"The friendship of a very old friend"* [ID 130]*; "Helping my wife to recover"* [ID 5]; and *"My mare"* [ID 206].

Theme: Profession and education

The second main thematic area that gives or could give MiL to suicidal patients was a profession and education (9.03%, *n* = 13). Concerning the accessories thematic areas, the second most important area was profession and education represented (18.29%, *n* = 64).

Answers concerned several facets of the profession and education, including having a profit/providing solvability, dignity/consistent employment, self-realization, and social image. The main area of MiL indicated by one patient [ID 68] was: *"My work in the office"* and as an accessory: *"Closing sales, keeping customers, satisfying the boss, getting the desired salary, paying everything I need, building wealth"* [ID 68]. Patients often privileged some of these facets: *"My routine and my dignity: working as I have always done"*[ID 139]; "*Finding professional stability"* [ID 85]; *"My studies in art"* [ID 83]; *"Doing a work that brings elements of knowledge"*[ID 184]; *"My professional ambitions"* [ID 160]; and *"My academic career"* [ID 133].

Theme: Intellectual and non-intellectual pleasures

The third main thematic area associated with MiL was related to intellectual pleasures, i.e., the search for harmony and beauty, expressions of creativity and art forms, including music, painting, literature, theatre and dance, cinematography, and science-related activities (9.02%, *n* = 13). Non-intellectual pleasures, including sports, recreational activities, convivial occasions and travels, were present in a limited number of cases (4.17%, *n* = 6).

As an accessory theme, intellectual pleasures were always represented (10.57%, *n* = 37); however, to a lesser degree than for non-intellectual pleasures (13.14%, *n* = 46).

Some examples of intellectual pleasures giving MiL were exemplified as: *"Contemplation of the beauty of nature"* [ID 155]; *"The possibility of imagining"* [ID 161]; *"Discussion, exchange of ideas"* [ID 150]; *"Thinking, literature, philosophy... thinking intellectual joys with my loved ones"* [ID 130]; *"Music. I play the piano"* [ID 95]. Some non-intellectual pleasures giving MiL were represented by: *"[...] the sewing I do"* [ID 17]; *"A coffee and a cigarette in a bistro"* [ID 17]; *"Weekend evenings"* [ID 213]; and *"A beautiful evening to walk on a beach in Corse"* [ID 238].

Theme: The transcendental dimension

The transcendental dimension (spirituality and religion) was found as the main theme in 2.08% of patients (*n* = 3) and as an accessory theme in 7% of answers (*n* = 7). Answers included: *"The complexity of the world we live in"* [ID 161]; *"The creation"* [ID 65]; *"My faith"* [ID 72]; *"My faith in God"* [ID 57]; and *"God knows why he sent me to Earth and I am very happy to be the servant of the living God [...]"* [ID 17].

Partial or no themes for MiL

Only a partial or uncertain MiL was described in 1.39% patients (*n* = 2). Responses included: *"My daughter and my husband, but it's not enough. I need something for myself."* [ID 37]; and *"I can't find anything... except work?"* [ID 80]. No themes related to MiL were identified in 3.47% of patients (*n* = 5), with responses such as *"Nothing"* [ID 74]; and *"Nothing at this time"* [ID 99].

Discussion

In agreement with the limited research in this field (21), our results confirm that family, social support, and interpersonal connectedness are strong parameters favouring MiL in suicidal patients. Within the aspect family, particular emphasis was placed on the protective role of children and grandchildren. Beyond the post-partum period, pregnancy and parenthood have been shown to reduce the risk of suicide, particularly in mothers (22). After controlling for several potential confounding factors, a recent meta-analysis of 36 studies of more than 100 000 000 individuals, showed that the suicide risk was almost two times greater in non-married than married individuals (odds ratio (OR) 1.9; 95% CI 1.8-2.1) (23). Compared to married individuals, sub-analyses revealed that the elevated risk was roughly comparable for those who were single (OR 2), divorced (OR 3), or widowed (OR 2) (23). The authors hypothesized that although marriage increases MiL, it also facilitates social integration

within a community (23). The impact of family and progeny support was emphasized particularly in older individuals, who face the highest suicide risk when living alone without filial support, and are widowed, especially among men (24).

Interestingly, our results on social support are substantiated by a study of nationally representative samples, in which social support was associated with a decreased risk of suicide in the United States (OR 0.7) and in England (OR 0.9) (25). Although variously defined, interpersonal connectedness generally refers to a sense of integration into a network that leads to a sense of belonging: the perception of being part of something meaningful outside ourselves, and that people care about our situation and have positive feelings about us (26). The role of the lack of connectedness as a relevant risk factor for SB has been widely described in recent years throughout the entire life span (26). Intriguing correlations have been made between two constructs of the "Interpersonal Psychological Theory", such as "perceived belongingness" and "thwarted burdensomeness", and MiL in the older suicidal population. In the paper "Does perceived burdensomeness erode meaning in life among older adults?" (27), it was elucidated that "perceived belongingness" could contribute to suicide morbidity by undermining MiL (27), whereas "thwarted burdensomeness" was associated with increased SA and more lethal methods, resulting in a poorer prognosis (28). As poignantly synthesized in two works titled and sub-titled "Alone without purpose: Life loses meaning following social exclusion" (29) and "Being alone without MiL and struggling to achieve reconciliation" (30), these feelings in the older population may be associated with a lack of attribution of MiL for the whole past existence and an effort to find it tensioned to rapprochement with others, including with one's family (27,29,30).

Unemployment and economic strain may lead to a higher risk of suicide (31). The relationship between economic conditions and suicide is complex and has been associated with several factors, illustrating the interplay of societal effects, including loss of social status and connectedness, lower per capita and dedicated to family income, and degradation of the quality and quantity of health care that a community can offer its citizens, with the individual's personal risk profile and vulnerability (32). We can postulate that in a culture with Calvinist roots such as Switzerland, the reduction of MiL toward the personal inadequacy of feeling associated with a lack of a work or study activity, under all aspects listed by the patients including having a profit/providing solvability, dignity/habit of having a job, self-realization, and social image, is particularly emphasized.

The protective effect of religiosity, spirituality, and suicidality is controversial. Since initial studies on the benefits of religiosity and participation in religious activities on suicidality(33), research moved to a more specific analysis of the relationships between dimensions of religion/spirituality (i.e., affiliation, participation, and doctrine), SI and type of SB (including SA, suicide completion), and the concerned population (with or without mental illness). Particular emphasis was placed on related social support influence. Among both the general population and individuals with a mental illness, religious attendance at least once annually was associated with decreased SA and this relationship persisted even after the removal of the influence of social support (34). In contrast, individuals belonging to both populations that considered themselves spiritual were also less likely to attempt suicide; however, this relationship was not maintained after adjusting for social support (34). A recent systematic review on religion and suicidality found that religious affiliation does not necessarily protect against SI but against SA (35). Whether a religious affiliation protects against SA may depend on the culture-specific implications of affiliating with a particular religion, since minority religious groups can feel socially isolated. After adjusting for social support measures, religious service attendance is not especially protective against SI but against SA, potentially protecting against suicide completion. In our sample, this transcendental dimension, including religion and spirituality, accounts for a minority of the patients. However, we did not explore their different facets as well as the impact of social support.

All of these aspects that suicidal patients have identified as carriers of MiL in their existences and, consequently, possible elements that favor a distancing from suicidality, could be considered among the points of a mental public health agenda. The promotion and support of protective factors, rather than the only in-

tervention addressed to risk factors, could be part of those suicide prevention programs that–as Potter and colleagues already pointed out in 1995–"should include more than one strategy and, where appropriate, should be strongly linked with the community's mental health resources" (36). This seems especially valuable to deal with aspects of suicidality that are unrelated, or not necessary related, to the effects of psychiatric disorders, which nevertheless play an extremely relevant role in this context. But, at least for the time being, it seems that outside a pathologic perspective there are fewer means to try to understand and manage suicidality.

In conclusion, reconnecting to the historical part of the introduction, the findings in our sample appear to be consistent with Viktor Frankl's conceptualization of MiL and the three previously outlined aspects proposed as protective factors against suicidality (9). Our findings confirm authentic relationships, creativity and every day human activities, intellectual or non-intellectual as relevant resources. Even if personally exposed to the "absurd", Viktor Frankl was reluctant to deliberate on this aspect. He appeared to preferably address even the humblest aspect or activity that could permit face to situations where MiL is disrupted, to construct or reconstruct a framework in an attempt to continue to live. Paradoxically, by adopting this attitude, he closely approached an eminent theorist of the "absurd", Albert Camus. The latter confronted to the necessity of predictable and conform to recognizable personal patterns transcending chaos for a sense-giving perspective, invited to imagine that a meaning, even a "non-absolute meaning", may lie in the apparent smallest of things and that Sisyphus can have "the possibility to revolt by trying to be happy" (37).

Limitations

This work has several limitations. First, the cross-sectional design (without a longitudinal perspective) precludes the evaluation of prediction. In this sense, the discussion-addressing the predictive factors of SB protection-is merely speculative. Second, we lacked a control group, fact that limited the validity of our results. Third, associations with the eventual presence and type of a psychiatric diagnosis were not investigated. Thus, a more informative picture of subjective MiL in suicidal patients including possible inferred observations from this latter aspect could not been performed.

Acknowledgements

We are deeply grateful to Prof. François Sarasin and the medical team of the Psychiatric Emergency Department of Geneva University Hospitals for their contribution to patient recruitment, Prof. Panteleimon Giannakopoulos for his precious re-reading of the manuscript, and Dr. Mirko Lombardo for his professional and accurate technical support. This work was developed within the framework of the DINOGMI Department of Excellence of MIUR 2018-2022 (Law 232/2016).

Conflict of interest: Dr. Costanza, Dr. Amerio, Prof. Odone, Dr. Baertschi, Dr. Richard-Lepouriel, Dr. K. Weber, Dr. Di Marco, Dr. Prelati, Dr. Aguglia, Dr. Escelsior, Prof. Serafini, Prof. Amore, Prof. Pompili, and Prof. Canuto report no conflicts of interest.

References

1. United Nations. World population prospects: the 2008 revision, Vol. I, United Nations, Highlights. Popul Dev Res 2009;36:854-855.
2. WHO. Preventing Suicide: A global Imperative. World Health Organization: Geneva Switzerland, 2014.
3. WHO Mental Health. Prevention of Suicidal Behaviours: A task for All. World Health Organization: Geneva Switzerland, 2017. Available online: http://www.who.int/mental_health/prevention/suicide/background.

3b. Pompili M, Shrivastava A, Serafini G, et al. Bereavement after the suicide of a significant other. Indian Journal of Psychiatry 2013;55(3):256-263.

4. Odone A, Landriscina T, Amerio A, et al. The impact of the current economic crisis on mental health in Italy: evidence from two representative national surveys. European Journal of Public Health 2018;28(3):490-495.
5. Gunnel D. A Population Health Perspective on Suicide Research and Prevention. What we know, what we need to know, and policy priorities. Crisis 2015;36:155-160.
6. Wang MC, Lightsey OR Jr, Pietruszka T, et al. Purpose in life and reasons for living as mediators of the relationship between stress, coping, and suicidal behavior. J Posit Psychol 2007;2:195-204.
7. Frankl VE. Man's Search for Meaning. From Death Camp to Existentialism. 1st ed. Beacon Press: New York, NY, USA, 1959.
8. Frankl VE, Crumbaugh JC, Gerz HO, et al. Psychotherapy and Existentialism: Selected Papers on Logotherapy. Simon and Schuster: New York, NY, USA: 1967.

9. Frankl VE. The will to meaning: Foundations and applications of logotherapy. New American Library: New York, NY, USA, 1988.
10. Costanza A, Prelati M, Pompili M. The meaning in life in suicidal patients: The presence and the search for constructs. A systematic review. Medicina (Kaunas) 2019;55:465.
11. Baertschi M, Costanza A, Richard-Lepouriel H, et al. The application of the interpersonal-psychological theory of suicide to a sample of Swiss patients attending a psychiatric emergency department for a non-lethal suicidal event. J Affect Disord 2017;210:323-331.
12. Baertschi M, Costanza A, Canuto A, et al. The function of personality in suicidal ideation from the perspective of the interpersonal-psychological theory of suicide. Int J Environ Res Public Health 2015;15:636.
13. Baertschi M, Costanza A, Canuto A, et al. The dimensionality of suicidal ideation and its clinical implications. Int J Methods Psychiatr Res 2019;28:e1755.
14. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006;3:77-101.
15. Boyatzis RE. Transforming qualitative information: Thematic analysis and code development. Sage Publications: Inc, Thousand Oaks, CA, USA, 1988.
16. Attride-Stirling J. Thematic networks: an analytic tool for qualitative research. Qual Res 2001;1:385-405.
17. Smith JA, Osborn M. Interpretative Phenomenological Analysis. In JA. Smith (Ed.), Qualitative Psychology: A Practical Guide to Methods. Sage Publications Ltd, London, UK, 2003, p. 51-80.
18. Smith JA, Flowers P, Larkin M. Interpretative Phenomenological Analysis: Theory, Method and Research. Sage Publications Ltd, London, UK, 2009.
19. Holloway I, Todres L. The status of the method: flexibility, consistency and coherence. Qual Res 2003;3:345-357.
20. Sheehan DV, Lecrubier Y, Sheehan KH, et al. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. J Clin Psychiatry 1998;59:22-33.
21. Goldsmith SK, Pellmar TC, Kleinman AM, et al. Reducing suicide: A national imperative. National Academies Press, Washington (DC), US, 2002.
22. Qin P, Mortensen PB. The impact of parental status on the risk of completed suicide. Arch Gen Psychiatry 2003;60:797-802.
23. Kyung-Sook W, SangSoo S, Sangjin S, et al. Marital status integration and suicide: A meta-analysis and meta-regression. Soc Sci Med 2018;197:116-26.
24. Dong X, Chang ES, Zeng P, et al. Suicide in the global chi- nese aging population: a review of risk and protective factors, consequences, and interventions. Aging Dis 2015;6:121-130.
25. Kleiman EM, Liu RT. Social support as a protective factor in suicide: findings from two nationally representative samples. J Affect Disord 2013;150:540-545.
26. Daniel SS, Goldston DB. Hopelessness and lack of connectedness to others as risk factors for suicidal behavior across the lifespan. Cogn Behav Pract 2012;19:288-300.
27. Van Orden, KA, Bamonti PM, et al. Does perceived burdensomeness erode meaning in life among older adults? Aging Ment Health, 2012;16:855-860.
28. Van Orden KA, Wiktorsson S, Duberstein P, et al. Reasons for attempted suicide in later life. Am J Geriatr Psychiatry 2015;23:536-544 .
29. Stillman TF, Baumeister RF, Lambert NM, et al. Alone and without purpose: Life loses meaning following social exclusion. J Exp Soc Psychol 2009;45:686-694.
30. Holm AL, Lyberg A, Berggren I, et al.Going around in a Circle: A Norwegian Study of Suicidal Experiences in Old Age. Nurs Res Pract 2014;734635.
31. Chang SS, Stuckler D, Yip P, et al. Impact of 2008 global economic crisis on suicide: time trend study in 54 countries. BMJ 2013;347:f5239.
32. Mann JJ, Metts AV. The economy and suicide. Crisis 2017;38:141-146.
33. Stack S, Lester D. The effect of religion on suicide ideation. Soc Psychiatry Psychiatr Epidemiol 1991;26:168-70.
34. Rasic DT, Belik SL, Elias B, et al. Spirituality, religion and suicidal behavior in a nationally representative sample. J Affect Disord 2009; 114:32-40.
35. Lawrence RE, Oquendo MA, Stanley B. Religion and suicide risk: a systematic review. Arch Suicide Res 2016; 20:1-21.
36. Potter LB, Powel, KE, Kachur SP. Suicide Prevention from a Public Health Perspective. Suicide Life Threat Behav 1995;25:82-91.
37. Camus A. Le mythe de Sisyphe (Vol. 179). Gallimard coll: Paris, France, 1942.

Received: 15 February 2020
Accepted: 15 March 2020
Correspondence:
Andrea Amerio
Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINOGMI), Section of Psychiatry, University of Genoa, IRCCS San Martino,
Largo Rosanna Benzi 10, 16100 Genova, Italy.
Phone:+39 0103537668
Fax: +39 0103537669
E-mail: andrea.amerio@unige.it