


ORIGINAL ARTICLE

**DEVELOPMENT EVALUATION AMONG FAMILIES OF
PEOPLE WITH SUICIDAL BEHAVIOR: AN APPLICATION
OF THE CALGARY MODEL*****HIGHLIGHTS**

1. The importance of monitoring the mental health of adolescents.
2. Intrafamily violence as a precipitating factor for suicide.
3. Interaction with animals as a protective factor against suicide.
4. Family encouragement for social interaction.

Isabela Carolyne Sena de Andrade¹ Nadirlene Pereira Gomes¹ Cíntia Mesquita Correia² Cátia Maria Costa Romano¹ **ABSTRACT**

Objective: to describe the events that marked the development process experienced by families of people with suicidal behavior. **Methodology:** study based on the Calgary Family Assessment Model. The study had the participation of nine families of individuals who used the Suicide Study and Prevention Center located in the city of Salvador - Bahia, Brazil. Online data collection took place between November 2021 and May 2022. The questions were previously structured in a form based on the CFAM framework. Once transcribed, the interviews went through the transcreation and textualization processes. **Results:** among the categories that emerged, the following stand out: Experience of intra-family violence as a precipitating factor for suicidal behavior in the life cycle of the families; Self-renunciation in favor of caring for a person with suicidal behavior; and Animal bonding as a protective factor for suicidal behavior in the development process experienced by families of people with suicidal behavior. **Conclusion:** by elucidating such events, it is possible to connect with and intervene in the conflicts, as well as using them as protective factors against suicide attempts.

KEYWORDS: Suicide; Self-destructive Behavior; Family Unit; Family Health Nurses; Mental Health.

HOW TO REFERENCE THIS ARTICLE

Andrade ICS de, Gomes NP, Correia CM, Romano CMC. Development evaluation among families of people with suicidal behavior: an application of the Calgary Model. Cogitare Enferm. [Internet]. 2024 [cited "insert year, month and day"]; 29. Available from: <https://doi.org/10.1590/ce.v29i0.96418>.

¹Universidade Federal da Bahia, Programa de Pós-graduação em Enfermagem e Saúde, Salvador, BA, Brasil.

²Escola Bahiana de Medicina e Saúde Pública, Salvador, BA, Brasil.

INTRODUCTION

The high rates of suicide deaths and suicide attempts are alarming and devastating in contemporary society. According to an official publication from the World Health Organization (WHO), nearly one million lives are lost each year to suicide worldwide¹ and countless others to the psychological pain resulting from its attempts¹.

It is estimated that, for each loss, approximately 135 people suffer intensely from its repercussions. These aspects have an impact on biopsychosocial dimensions, in addition to leading to high healthcare costs²⁻³.

According to the international literature, for every suicide committed, there are around 25 previous attempts. This equates to 108 million people profoundly affected by suicidal behavior per year. Thus, the consequences of self-inflicted death are immeasurable, especially for family generations and close friends².

Based on this perspective, suicide prevention is evidenced by the increasingly urgent need to identify warning signs of suicide or any chaotic event that may lead to self-inflicted death as a way of putting an end life. For this purpose, it becomes necessary to invest in achievable actions that can reduce cases and minimize damages related to suicidal behavior such as social support to professional groups and care for family groups. The latter is particularly highlighted as an essential group to promote understanding, empathy and comfort for people facing suicide⁴.

While these families can be structured as access bridges to the person in distress, it is extremely important to know how to embrace them and include them in the care for people with suicidal behavior. It is in this context that the Calgary Family Assessment Model (CFAM) is applied as a dynamic, methodological and inclusive tool aimed at deepening knowledge on each family unit and its members⁵.

The CFAM presents the family and its historical, economic and social context, in addition to being able to trace the interrelated elements shared among each of its members. The functions of the Calgary Model are highlighted as a strategy that nurses can use in primary health care to determine the direction of treatment as well as to embrace people with suicidal behavior based on the assumption that knowing and understanding the family's moments, stories and dynamics is a pathway for preventing suicidal behavior⁶⁻⁷.

Given the above, the question arises: What events marked the development process experienced by families of people with suicidal behavior? And the main objective of the study is chosen: to describe the events that marked the development process experienced by families of people with suicidal behavior.

METHOD

This is an exploratory, descriptive study with a qualitative approach based on the Calgary Family Assessment Model (CFAM) theoretical and methodological framework. The CFAM was adapted from the family assessment model developed by Tomm and Sanders in 1983⁸ and refined by Nurse Lorraine M Wright since 1984⁹ at the University of Calgary, in Canada.

The locus of study was the Suicide Prevention and Research Center (Portuguese Acronym: *NEPS*), an outpatient service that cares for people with suicidal behavior located in the city of Salvador, Bahia, Brazil. Data collection was carried out in two stages, namely: 1) workshop for developing the genogram and ecomap; and 2) interview.

In the first stage, the collaborators consisted of 11 service users over 18 years old; regularly assisted by the service for at least a year; psychologically stable according to the assessment made by the service technicians; and who had not attempted suicide for at least thirty days.

They participated in a workshop by using a digital communication application aimed at building and developing the genogram. For this purpose, the GenoPro© software was used, created to support data storage, as well as to build and bring forth family genealogies¹⁰. Thus, after building the genograms, it was possible to adopt fictitious names for each user by using constellations names as a reference, such as: Aries Family, Orion Family, Capricorn Family, among others. After developing the genogram, it was possible to get to know each user's family and move on to the second stage of the study.

In the second stage, nine families of *NEPS* users participated, and they were selected according to the following criteria: spouses, blood relatives and/or people who had affective bonds with the users; individuals who were 18 years of age or older; and who presented no emotional or cognitive issue. It is worth mentioning that, for this assessment, the researcher relied on technicians from the psychology and occupational therapy department.

These exclusion criteria included family members who were also *NEPS* users and, therefore, had suicidal behavior; those who did not actively participate in their family member's treatment; and those who did not attend the interview after three attempts to schedule an appointment. It was not possible to include the expected 11 families as the following issues have arisen: problems related to the condition within the family, loss of an important member and/or resistance from the family to participate in the interview.

Data collection took place between November 2021 and May 2022, online, by using a video recording technological resource to store the data with proper authorization from the interviewees. The questions were previously structured in a form based on the CFAM¹¹. After the interviews were transcribed, they went through the processes of transcreation and textualization, and three categories based on the Calgary Model emerged: the first one was anchored in the structural aspects of the family; the second one was based on the development evaluation among families of people with suicidal behavior; and the last one was based on the functional matters of the family unit. In this article, the second category will be presented, which emphasizes the exclusive path developed by families considering predictable and unpredictable events such as illnesses, catastrophes and social trends that imply changes in the family functioning and in its processes of interaction.

Regarding ethical aspects, this study was approved by the Research Ethics Committee of the Health Department of the State of Bahia (Portuguese Acronym: *SESAB*) and the Nursing School of the *Universidade Federal da Bahia (EEUFBA)* under reference No. 4.794.107 and 4.661.158, respectively. To guarantee the anonymity of each participant, fictitious names related to their degree of kinship with the user were adopted, such as: Aries' Mother, Scorpio's Cousin, Leo's Sister, among others.

RESULTS

Nine families and eleven family members participated in the study, as two families counted with two interviewees: mother and sister from the Libra family and mother and son from the Leo family. Among the family members, there was a predominance of women: a total of eight, seven of which self-declared as mixed race, five were married, five had an average of two children and one, and/or second degree of kinship, according to the family generations. Following the Calgary Model aimed at assessing the development of these families, the following criteria were evaluated: the family's life stages; the tasks carried out by each family member; and the emotional bonds between family members.

Category I: adolescence as a phase in which attitudes that encourage suicide emerge

In this subcategory, family members report adolescence as a stage of change. Thus, it is possible to notice that, at this stage of life, the first signs of suicidal behavior appeared in the form of self-inflicted death threats, self-mutilation and conflictual relationships with parents.

In my view, she was just being a teenager: she would go out, drink, date a lot, have big arguments with her parents and say that she was going to kill herself. [...] things considered normal for teenagers. The stuff she was doing was an early sign that something was not ok with her mind. Since I didn't know much about these things (suicidal behavior), I didn't have a clue. (Virgo's Aunt)

It was complicated when she was 13 and 14 years old. She changed; it was so difficult! [...] we argued a lot. She had a bad lifestyle: she would drink, listen to some strange music, mutilate herself and write suicidal threats in her diary. That freaked me out so much! (Libra's Mother)

Category II: experience of intra-family violence as a precipitating factor for self-mutilation and suicide attempts in the families' life cycle.

Regarding the constitution of the family's life cycle, it is marked by the violence experienced in the parental divorce process. It is precisely due to this experience that son's/daughter's cases of self-mutilation and attempted suicide emerge.

He (the son) saw everything and that's how he was raised: witnessing arguments and aggressive behaviors between me and his father. My separation process was difficult and even had the participation of the Women's Police Station. All these factors affected him and around the time of the divorce, he started trying to commit suicide. (Triangulum's Mother)

Her father was always absent. We argued a lot: he shouted at me; he wasn't good for me. We split up when she (the daughter) was 6 years old and that's when she started having problems. The separation was one of the reasons why she grew up as a sickly child: she would keep silent and suffer. Eventually, she started self-mutilating, hurting herself to bear this pain: I think she saw her mother suffer and thought it was her fault. (Libra's Mother)

Category III: self-renunciation in favor of caring for people with suicidal behavior

In this subcategory, by analyzing the family members' reports, it is possible to notice that the family unit made the person with suicidal behavior a priority in their lives. It is evident that their personal and social aspects were pushed into the background so that they could care for their loved one who was struggling.

I had to present many medical certificates [at work] to be able to look after her when she was going through a suicidal crisis... I was even fired. Once, she had to go to an appointment on her own, but on her way there she had a panic attack and wanted to kill herself. I immediately got off work to see her. [...] I've also rushed out of the house barefoot and even in my pajamas to find her in the middle of the street! I'll leave anything behind to look after her! She is the priority! (Libra's Mother)

During the period she was hospitalized for attempted suicide, I stopped working to look after her because she depended on me for everything! I pretty much put my ex-husband aside to take care of her and only got back to him when she was out of risk. I stopped doing lots of things such as "wandering" the streets, going shopping, traveling and strolling around. Because I try to be with her every day. (Aries' mother)

Category IV: family expectations regarding the social life of a person with suicidal behavior as a motivator for care

This subcategory refers to the idea developed by the family that the affected person's life will continue in a happy and healthy way. Therefore, this becomes an aspect of extreme relevance for the effectiveness and maintenance of care provided to their family member in psychological distress.

I believe in a better future for my daughter. [...] this keeps me going, gives me strength and makes me want to keep caring for her. It's about dreaming, envisioning and thinking that something good and greater will happen, something that will improve her mental health and lead her to a good and happy life! (Libra's Mother)

You don't want to hear that your child won't get better, that this (the suicidal behavior) has no cure. [...] I pray, fight, care and do anything for him, because I want to keep on believing and hoping that he will have a good life and that this will never happen again. (Triangulum's Mother)

Category V: bonding with pets to protect the family development of people with suicidal behavior

In the developmental process experienced by families of people with suicidal behavior, bonding with pets proved to be a protective factor against suicidal behavior. This is because pets accompany, bring movement and liveliness to the family unit.

There are days when she's feeling down because of her depression and the cats help her feel better: they make her move, they cheer her up. [...] she talks to them, and it seems like they get what she's saying! [...] she started to get into animals after her depression and attempted suicide. (Leo's Mother)

We always had animals in the family, but our little dog has been with her since the beginning of her depression. [...] she locked herself in the room and the dog stayed next to her 24/7. It was impressive! She is a massive support to help my sister get on with life. (Libra's sister)

DISCUSSION

The reports given by family members of people with suicidal behavior show that the events that took place within the family unit left deep marks in the phases of the family's life cycle. This can be noticed in the "families with adolescents" stage, classified by the CFAM theory⁷, in which the popular idea that adolescence is a "troubled" phase can influence family members in terms of recognizing the teenager's feelings or understanding what suicidal behavior is. A reflective study corroborates this by showing that the vast majority of the more than 600 articles analyzed reveal the importance of creating a friendly environment between parents and their teenage children, because if they get along and maintain constant dialogue, it will be easier to recognize any signs of suicidal behavior¹².

In this context, it is important to highlight that adolescence is an extremely challenging and transformative period. This is because changes occur in their body, in the environment they are in and in their relationships with family and friends. And it is precisely during this entire process that constant emotional expressions can cross the fine line that separates them from death ideation, self-mutilation and attempted suicide¹³⁻¹⁵.

Therefore, it is necessary to emphasize the importance of (re)thinking the way through which professional training and performance focused on young people and adolescents are carried out. Because, if the family member receives proper guidance to deal with such situations at home and specialized care in the health service is provided, the signs of suicidal behavior can be recognized early and even prevent suicide attempts. In this sense, international research with children and adolescents in vulnerable situations showed that therapeutic interventions, as well as psychopharmacological management and systemic thinking for the community from an expert in psychiatric clinical nursing and/or mental health, allowed the early detection of suicidal behavior and protected individuals against suicide attempts¹⁶.

This applies to professional performance dedicated to identifying other risk factors for the emergence of suicidal behavior. An example of this is the experience of intra-family violence, which can act as a precipitating factor for suicide attempts, especially when it comes to children and adolescents¹⁷. A national study reveals through the oral history of adolescents that intra-family violence leaves, in addition to body marks, serious consequences that compromise human development. This is because the experience of the violence phenomenon triggers constant memories of the event, ongoing sadness and even lack of interest in moving on with life¹⁸.

Unfortunately, experiencing this violence situation can be even worse when it occurs at the divorce stage in the family's life cycle. This can be observed in the statements of family members when they claim to be aware of their children's suicide attempts at the time of separation from their spouses¹⁹. In the meantime, it is important to mention that the family environment is extremely influenced by these internal stressors that include the experience of violence and suicidal behavior. Therefore, it is worth mentioning that, in addition to providing guidance for family members to deal with these situations, as previously mentioned, professional follow up care for these families is also essential. This

can be a way of anticipating actions that reduce or avoid exhaustion, tiredness and illness within the family unit²⁰.

Based on this context, some studies show that caregivers of people with neurological or terminal illnesses or who attempt suicide may develop signs of suicidal behavior. For example, an international study with caregivers of people with dementia reveals that the prevalence of suicidal ideation is high. In addition, a bibliographic study shows that, in recent years, high rates of suicidal behavior have been reported among caregivers of people with different illnesses/disabilities such as more severe mental illnesses and disabilities which include schizophrenia, bipolar disorder and even suicidal behavior²¹⁻²³, which, although not considered a pathology, can also be part of the outcomes related to the mental health of these caregivers throughout their lives.

Still in this scenario, these situations were mentioned in the statements given by family members when they reported intimate situations in which relatives abdicated their own needs to take care of others. An international systematic review study concludes that, unfortunately, it is common to see that in families where one of the members needs special attention due to psychological problems and/or attempted suicide, the person who is responsible for providing this care may leave their own care and personal life in the background²⁴.

It is interesting to note that, while the family can develop high levels of stress and exhaustion, the same family also shows aspirations and plans for the future of their loved one. This idea is revealed as one of the positive events that were also notable and that can be identified and encouraged within the family unit. This can be observed, for example, when at a given point of the treatment, family members begin to have expectations and hopes that their family member will achieve a healthy and happy future. Therefore, this becomes a motivator for the continuity and maintenance of care within the family unit²⁵.

It is important to mention that, once the professional knows how to use these expectations and desire to care for the family member as a bridge for family caregiving, the results to the organization of the family unit are remarkable²⁶. In this way, identifying the moment to approach the "non-cure" aspect of suicidal behavior, as well as working on and reinforcing the idea that psychotherapy, family participation and drug treatment (in certain cases) are tools that allow the professional to show the family that thoughts of self-inflicted death and suicide attempts can be alleviated considerably²⁵.

Another way to improve the life situation of people in psychological distress and their families is to consider the importance of animal bonding. This was another remarkable event that emerged within the family unit and proved to be extremely relevant for the discussion about therapeutic approaches that the family can encourage in the environment in which they live²⁷. It is not new that pets are used as "therapeutic tools" by people who are experiencing a health problem. An example of this is the use of therapy dogs by people suffering from cancer and depression²⁸.

Based on the family members' statements, it was noted that specifically in cases of attempted suicide, animal bonding is an extremely relevant factor to the everyday life of the person in psychological distress. Some studies show that this is because animals stimulate a sense of responsibility, concern and care within the family unit²⁹. Thus, the language between the pet and the person who is having suicidal thoughts permeates the sense of movement, love and meaning required to move on with life.

The results presented show that there is a long way to go in terms of caring for people who attempt suicide, as well as their family members. This is because professionals may

require time and depth in the bonding process aimed at identifying the events that marked the development experienced by each family unit. Therefore, by focusing on this aspect, learning more about the families' stories can be vital for maintaining and encouraging the continuation of life of one of its members.

This study had limitations regarding the number of family members interviewed. This fact is related to the locus of study, which consisted of the only specific Center for the Study and Prevention of Suicide linked to a Toxicological Information Center in Brazil with limited number of professionals qualified for comprehensive care; in addition, some family members refused to participate throughout the research. However, these facts did not prevent the implementation and development of the Calgary Assessment Model framework, since the researchers used two family members from each family to compose the sample and managed to capture at least three different generations in the genograms created.

FINAL CONSIDERATIONS

The study showed that among the notable events related to the development experienced by families of people with suicidal behavior, the following can be highlighted: adolescence as a stage in which signs of suicidal behavior emerge; the experience of intrafamily violence as a precipitating factor for suicidal behavior in the life cycle of families; self-renunciation in favor of caring for the person with suicidal behavior; family expectations regarding the possibility of better social life for the person with suicidal behavior as a motivator for care; and animal bonding as a protective factor against suicidal behavior in the development process experienced by families of people with suicidal behavior.

Thus, by elucidating these significant events in the family unit, it is possible to connect, understand and intervene in conflicts, and even use them as protective factors against suicide attempts. Going further, it is important to highlight that cyclical action aimed at preventing suicide is also a way to reduce illness, stress and exhaustion within the family unit. In this way, this movement may lead families to act in a positive and resilient way.

ACKNOWLEDGEMENTS

The present study was carried out with support from the *Fundação de Amparo à Pesquisa do Estado da Bahia (FAPESB)* - Funding Code 05/2019.

REFERENCES

1. World Health Organization. Suicide: one person dies every 40 seconds [Internet]. WHO. 2019 [cited 2023 Feb. 08]. Available from: <https://www.who.int/news-room/detail/09-09-2019-suicide-one-person-dies-every-40-seconds>
2. Organização Mundial da Saúde. Estimativas Globais de Saúde 2016: Mortes por causa, idade, sexo, por país e por região, 2000-2016 [Internet]. Brasília. 2018 [cited 2023 Aug. 28]. Available from: <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates>

3. Ministério da Saúde. Biblioteca Virtual em Saúde. 10/9 – Dia Mundial de Prevenção do Suicídio [Internet]. BVS. 2022 [cited 2023 Aug. 28]. Available from: <https://bvsms.saude.gov.br/10-9-dia-mundial-de-prevencao-do-suicidio/>
4. Andrade ICS de, Gomes NP, Correia CM, Lírio JG, Virgens IR das, Gomes NP, et al. Social support from family and friends: discourse from people with suicidal behavior. Cogitare Enfermagem. [Internet]. 2019 [cited 2023 Feb. 08]; 24:e64230. Available from: <https://doi.org/10.5380/CE.V24I0.64230>
5. Wright LM, Leahey M. Enfermeiras e Famílias: Guia Para Avaliação e Intervenção na Família. 5th ed. São Paulo: Editora Roca; 2012.
6. Souza TC, Souza TCF, Melo AB, Costa CML, Carvalho JN. Calgary model of family evaluation: evaluation of families with individuals sickened with tuberculosis. Enfermagem em Foco. [Internet]. 2017 [cited 2023 Feb. 08]; 8(1):17–21. Available from: <https://doi.org/10.21675/2357-707X.2017.v8.n1.927>
7. Cavalcante AES, Rodrigues ARM, Paiva GM de, Mourão Netto JJ, Goyanna NF. Application of the Calgary Model for Family Assessment in the Family Health Strategy. Enfermagem Brasil. [Internet]. 2017 [cited 2023 Feb. 08]; 16(2):105–13. Available from: <https://doi.org/10.33233/EB.V16I2.998>
8. Santos CC dos, Ferreira E de M, Gomes B da MR, Araújo D, Souza CFQ de. Application of Calgary Model in the Family Health Strategy. Revista Enfermagem Digital Cuidado e Promoção da Saúde. [Internet]. 2015 [cited 2023 Aug. 28]; 1(2):93–8. Available from: <https://doi.org/10.5935/2446-5682.20150017>
9. Souza ÍP de, Bellato R, Araújo LFS de, Almeida KBB de. Genogram and eco-map as tools for understanding family care in chronic illness of the young. Texto & Contexto – Enfermagem. [Internet]. 2016 [cited 2023 Aug. 28]; 25(4):e1530015. Available from: <https://doi.org/10.1590/0104-07072016001530015>
10. Genograma Software [Internet]. GenoPro. 2020 [cited 2023 Aug. 28]. Available from: <https://genopro.com/>
11. Souza TV de, Macedo CS, Fidelis A, Bezerra MLR, Carvalho Filha FS, Pereira MC, et al. Theoretical models used by nurses to assess the family: theoretical reflection. Revista Eletrônica Acervo Saúde. [Internet]. 2020 [cited 2023 Aug. 28]; 12(4):e2614. Available from: <https://doi.org/10.25248/reas.e2614.2020>
12. Magnani RM, Staudt ACP. Parenting styles and suicide in adolescence: a reflection on the factors of protection. Pensando famílias. [Internet]. 2018 [cited 2023 Feb. 08]; 22(1):75–86. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1679-494X2018000100007
13. Wasserman D, Carli V, Losue M, Javed A, Herrman H. Suicide prevention in childhood and adolescence: a narrative review of current knowledge on risk and protective factors and effectiveness of interventions. Asia-Pacific Psychiatry. [Internet]. 2021 [cited 2023 Aug. 28]; 13(3). Available from: <https://doi.org/10.1111/appy.12452>
14. Freitas PL, Marback RF. Identity in adolescence: understanding its formation and repercussions. Seminário Estudantil de Produção Acadêmica [Internet]. 2018 [cited 2023 Feb. 8]; 16(0). Available from: <https://revistas.unifacs.br/index.php/sepa/article/view/4862>
15. Borges V de G. The suicide of adolescents and young adults in Brazil: Children of death stepchildren of life. Revista Caparaó. [Internet]. 2021 [cited 2023 Feb. 08]; 3(1):e29. Available from: <https://revistacaparao.org/caparao/article/view/29/29>
16. Bonham E, Kwasky A. Caring for the Mental Health of Youth and Families. Clinical Nurse Specialist. [Internet]. 2021 [cited 2023 Aug. 28]; 35(5):246–52. Available from: <https://doi.org/10.1097/NUR.0000000000000620>
17. Sousa KA de, Ferreira MGS, Galvão EFC. Multidisciplinary health care in cases of childhood suicidal ideation: operational and organizational limits. Rev Bras Enferm. [Internet]. 2020 [cited 2023 Aug. 28]; 73(suppl 1):e20190459. Available from: <https://doi.org/10.1590/0034-7167-2019-0459>

18. Magalhães JRF de, Gomes NP, Mota RS, Santos RM dos, Pereira Á, Oliveira JF de. Repercussions of family violence: oral history of adolescents. *Rev Bras Enferm.* [Internet]. 2020 [cited 2023 Aug. 28]; 73(1). Available from: <https://doi.org/10.1590/0034-7167-2018-0228>
19. Silva DA da, Marcolan JF. The impact of family relationships in the suicidal behavior. *Research, Society and Development.* [Internet]. 2021 [cited 2023 Aug. 28]; 10(2):e17310212349. Available from: <https://doi.org/10.33448/rsd-v10i2.12349>
20. Ruckert MLT, Frizzo RP, Rigoli MM. Suicide: the importance of new postvention studies in Brazil. *Revista Brasileira de Terapias Cognitivas.* [Internet]. 2019 [cited 2023 Aug. 28]; 15(2). Available from: <http://dx.doi.org/10.5935/1808-5687.20190013>
21. Solimando L, Fasulo M, Cavallero S, Veronese N, Smith L, Vernuccio L, et al. Suicide risk in caregivers of people with dementia: a systematic review and meta-analysis. *Aging Clin Exp Res.* [Internet]. 2022 [cited 2023 Aug. 28]; 34(10):2255–60. Available from: <https://doi.org/10.1007/s40520-022-02160-6>
22. Huang YC, Hsu ST, Hung CF, Wang LJ, Chong MY. Mental health of caregivers of individuals with disabilities: Relation to Suicidal Ideation. *Compr Psychiatry.* [Internet]. 2018 [cited 2023 Aug. 28]; 81:22–7. Available from: <https://doi.org/10.1016/J.COMPPSYCH.2017.11.003>
23. Joling KJ, Have M ten, Graaf R de, O'Dwyer ST. Risk factors for suicidal thoughts in informal caregivers: results from the population-based Netherlands mental health survey and incidence Study-2 (NEMESIS-2). *BMC Psychiatry.* [Internet]. 2019 [cited 2023 Aug. 28]; 19(1):320. Available from: <https://doi.org/10.1186/s12888-019-2317-y>
24. Katsivarda C, Assimakopoulos K, Jelastopulu E. Communication-based suicide prevention after the first attempt. A systematic review. *Psychiatriki.* [Internet]. 2021 [cited 2023 Sept. 12]; 32(1):51-8. Available from: <https://doi.org/10.22365/jpsych.2021.003>
25. Andriessen K, Krysinska K, Kölves K, Reavley N. Suicide Postvention Service Models and Guidelines 2014–2019: A Systematic Review. *Front Psychol.* [Internet]. 2019 [cited 2023 Aug. 28]; 10:2677. Available from: <https://doi.org/10.3389/fpsyg.2019.02677>
26. Harmer B, Lee S, Duong T vi H, Saadabadi A. Suicidal Ideation. *Acute Medicine: A Symptom-Based Approach.* [Internet]. 2022 [cited 2023 Feb. 08]; 415–20. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK565877/>
27. Shoib S, Hussaini SS, Chandradasa M, Saeed F, Khan T, Swed S, et al. Role of pets and animal assisted therapy in suicide prevention. *Annals of Medicine and Surgery.* [Internet]. 2022 [cited 2023 Aug. 28]; 80:104153. Available from: <https://doi.org/10.1016/j.amsu.2022.104153>
28. Paes AG de A, Toda ACS, Simão AJM, Gabrelon JVF, Naufal JG, Giovanetti MLQ, et al. Dog-assisted therapy in pediatric oncology: an integrative review. *VITTALLE - Revista de Ciências da Saúde.* [Internet]. 2021 [cited 2023 Aug. 28]; 33(3):68–75. Available from: <https://doi.org/10.14295/vittalle.v33i3.12544>
29. Batty GD, Bell S. Animal Companionship and Risk of Suicide. *Epidemiology.* [Internet]. 2018 [cited 2023 Aug. 28]; 29(4):e25–6. Available from: <https://doi.org/10.1097/EDE.0000000000000817>

***Article extracted from the doctoral thesis:** "DINÂMICA FAMILIAR DE PESSOAS COM COMPORTAMENTO SUICIDA: APLICAÇÃO DO MODELO CALGARY DE AVALIAÇÃO FAMILIAR", Universidade Federal da Bahia, Salvador, Bahia, Brasil, 2023.

Received: 28/08/2023

Approved: 20/03/2024

Associate editor: Dra. Luciana Nogueira

Corresponding author:

Isabela Carolyne Sena de Andrade

Universidade Federal da Bahia

R. Basílio da Gama, 241 - Canela, Salvador - BA, 40231-300

E-mail: isabelasena@hotmail.com

Role of Authors:

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work

- **Andrade ICS de, Gomes NP, Correia CM, Romano CMC.** Drafting the work or revising it critically for important intellectual content

- **Andrade ICS de, Gomes NP, Correia CM, Romano CMC.** Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **Andrade ICS de, Gomes NP, Correia CM.** All authors approved the final version of the text.

ISSN 2176-9133



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).