





Suicidal Ideation in Canadian Family Caregivers for a Person with Dementia: A Portrait of the Situation

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Article

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Résumé

Cette étude visait à explorer la prévalence des pensées suicidaires et leurs associations potentielles (notamment dans l'intensité et l'orientation) avec les caractéristiques ou les facteurs des proches aidants. Une enquête ciblée a été distribuée aux proches aidants de personnes atteintes de démence âgées de plus de 55 ans. Des questions concernant la détresse psychologique, les pensées suicidaires pendant la prestation de soins et les antécédents de comportements suicidaires ont été posées. Un échantillon de 71 proches aidants canadiens francophones a répondu à l'enquête entre mai et octobre 2019. Parmi eux, 52,1 per cent ($n = 37$) ont déclaré avoir eu des idées suicidaires alors qu'ils prodiguaient des soins à un.e parent.e ou un.e ami.e atteint.e de démence. Les proches aidants qui ont déclaré avoir des idées suicidaires ont rapporté plus de comportements abusifs envers le bénéficiaire des soins. Par rapport aux proches aidants qui n'avaient pas d'idées suicidaires, ceux qui en avaient manifestaient un niveau de détresse significativement plus élevé, d'après les paramètres du fardeau, de la dépression et de l'anxiété. Les pensées suicidaires chez les proches aidants sont des cibles d'évaluation importantes, principalement pour la prévention du suicide, mais aussi parce que les proches aidants qui font état de pensées suicidaires présentent également un risque accru de maltraitance à l'égard du bénéficiaire des soins.

Abstract

This study aimed to explore the prevalence of suicidal thoughts and potential associations (i.e., strength and direction) with caregiver characteristics or factors. A targeted survey was distributed to dementia caregivers aged 55+ years. Questions concerning psychological distress, suicidal thoughts while caregiving and antecedents of suicidal behaviours were administered. A sample of 71 French-speaking Canadian caregivers completed the survey between May and October 2019. Among them, 52.1 per cent ($n = 37$) reported suicidal ideation while providing care to a relative or a friend living with dementia. Caregivers who presented suicidal ideation reported more abusive behaviour toward the care recipient. Caregivers who reported suicidal thoughts were significantly more distressed than caregivers without them on measures of burden, depression, and anxiety. Suicidal thoughts in caregivers are important evaluation targets, primarily for the prevention of suicide, but also because caregivers who report suicidal thoughts also present a heightened risk for abusing the care recipient.

Introduction

Recent research suggests that caregivers are a population at risk for suicidal ideation (O'Dwyer et al., 2021; Teasdale-Dubé & Viau-Quesnel, 2022). They are twice as likely to report having suicidal thoughts in the last week than non-carers. Caregivers are also more likely to wish they were dead (Stansfeld et al., 2014).

Several studies suggested that suicidal ideation is a serious issue in the dementia caregiver population (Joling et al., 2018; O'Dwyer, Moyle, & Van Wyk, 2013; O'Dwyer et al., 2016; O'Dwyer, Moyle, Zimmer-Gembeck, & De Leo, 2013). In a study by O'Dwyer et al. (2016), 16 per cent of dementia caregivers had experienced suicidal ideation at least once in the previous year. It is far more than the prevalence rate in the general population. The suicide ideation prevalence rate reported by O'Dwyer et al. (2016) was four times higher than what was found in non-dementia caregivers (Stansfeld et al., 2014). One-fifth of caregivers with suicidal ideation believed it was likely that they would attempt suicide in the future (O'Dwyer et al., 2016). These studies highlight that the dementia caregiving population is highly at risk of suicidal distress no matter the stage of

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the caregiving trajectory. Dementia caregivers are at higher risk of experiencing symptoms of clinical depression (Givens *et al.*, 2014). They also report high levels of burden (Brodaty *et al.*, 2014) and stress, accompanied by overall lower subjective well-being (Sörensen *et al.*, 2006). Informal carers of people with dementia experience psychological distress that has repeatedly been identified as a predictor of thoughts of suicide in older adults (Corna *et al.*, 2010). Thus, caregiving may contribute to the development of suicidal thoughts.

In a longitudinal study, Joling *et al.* (2018) showed that one in eight caregivers had suicide-related thoughts and that one-third of them experienced these thoughts multiple times during the 24-month follow-up. While their sample consisted of recent caregivers, the authors hypothesized that family caregivers caring for a longer period may be more at risk of suicidal ideation. Duration of the caregiving role and elevated hours of care have been linked to emotional disorders in carers (Adelman *et al.*, 2014). Finally, based on their results, Joling *et al.* (2018) described that dementia caregivers with suicidal thoughts experienced more psychological and social distress than non-suicidal caregivers. Therefore, the duration of care and the emotional toll it often takes could be relevant variables in the development of suicidal distress in caregivers.

Older adults tend to refrain from seeking the help they need. Corna *et al.* (2010) showed that 50 per cent of Canadian older adults who reported suicidal ideation did not use or solicit mental health care. Instead, individuals 55 and older tend to consult primary care providers but may keep their suicidal thoughts and/or intents to themselves (Luoma *et al.*, 2002). Unfortunately, there is a lack of Canadian studies focusing on suicidal distress in older caregivers (O'Dwyer *et al.*, 2021). While caregivers often encounter health care professionals, it is of interest to determine if the former reach out to the latter when they experience distress and suicidal thoughts.

The purpose of this study is to explore the factors associated with suicidal thoughts among Canadian older caregivers of a person with dementia. To do so, the present research aims to address two primary goals. First, we assess information on the prevalence of suicidal ideation among participants. Based on previous research (Joling *et al.*, 2018; O'Dwyer *et al.*, 2016), a higher level of suicidal ideation and thoughts of death should be expected in older dementia caregivers when compared to older adults from the general population. Second, we aim to identify which caregivers' characteristics are associated with suicidal ideation. We hypothesize that caregivers who have higher psychological distress, who report more burden, family discord, lower life satisfaction, and lower perceived physical health will be more likely to report having or having had suicidal ideation.

Method

Recruitment

This study was carried out in Quebec, Canada. A convenience sampling was used, and participants were recruited through community organizations that provide services to caregivers and through a newspaper advertisement. Caregivers were eligible if they were 55 years old or older and provided care for a relative with a diagnosed neurocognitive disorder. Dementia caregivers from all caring situations were targeted for this study whether their care recipient was living with them, in a long-term care facility, or recently deceased. Caregivers' organizations sent the link to the online survey to all their members. Hard copies were also distributed at social events intended for caregivers. Hard copies were sent

back to the research team via mail (envelopes and stamps were provided). Data was anonymized by coding. Data from online surveys was converted into a computerized data file for analyses. Data collected from hard copies were manually added to this data file.

Ethical approval

This study was approved by the University ethics committee. Completion of the online survey was taken as consent while signed consent forms were collected for hard copies. Procedures were put in place to ensure the well-being and safety of participants. For instance, contact information for support resources, crisis lines, and crisis centres were provided as a list and at the end of the online survey. Protocols for caregivers with high suicidal distress were implemented.

Measures

The survey included self-reported questionnaires assessing various psychological distress indicators: suicidal ideation, depression, anxiety, caregiver burden, satisfaction with life, physical health, social support, family discord, and abuse of the care recipient. Psychological distress variables were selected based on a previous qualitative study describing the caregiving experience in conjunction with suicidal ideation (Teasdale-Dubé & Viau-Quesnel, 2022). Because the target population was French-Canadian caregivers, all instruments used were French translations.

Demographic questionnaire

Demographic and care-related information was collected, including sex, age, time spent caring, type of neurocognitive disorder of the care recipient (CR), relationship with the CR, living situation, and professional assistance.

Suicidal ideation

First, the presence of past or present suicidal ideation and behaviours was assessed with four questions about death wish, present and previous suicidal thoughts, and past suicide attempts.

Only caregivers reporting suicidal ideation completed the Scale for Suicide Ideation (SSI; Beck *et al.*, 1979) which was used to measure the intensity of their suicidal thoughts. This 19-item questionnaire investigates various aspects such as the wish to die, the wish to live, reasons for living or dying, active suicidal desire, passive suicidal desire, and so on. When a participant completed the SSI, scores were promptly computed and the person who reported high intensity of suicidal thoughts was contacted to assess his/her situation, encouraged to seek help, and referred them to appropriate services. The ISI has been shown to have high internal consistency and was sensitive to changes in levels of depression and hopelessness over time (Beck *et al.*, 1979). A self-reported version was also shown to be valid and sensitive (Beck *et al.*, 1988).

Depression

The 15-item Geriatric Depression Scale (D'Ath *et al.*, 1994; Yesavage & Sheikh, 1986) was used to identify symptoms of depression in older caregivers because it focuses specifically on psychiatric rather than somatic symptoms since the latter are often attributed to aging (e.g., changes in sleep, energy, or appetite). Higher scores indicate a higher possibility of severe depression.

Anxiety

The anxiety scale (Form Y-1) from the *State-Trait Anxiety Inventory* (Gauthier & Bouchard, 1993; Spielberger & Gorsuch, 1983) was used to assess the level of state anxiety experienced by the participants in the caring context. A higher score on this 20-item instrument indicates a greater level of anxiety.

Caregiver burden

The Zarit Burden Interview (Hébert et al., 1993; Zarit et al., 1980) was used to measure subjective burden. This is a 22-item instrument assessing caregivers' perception of their health, psychological well-being, finances, social life, and relationship with the CR. A higher score indicates a higher level of perceived burden by the caregivers.

Satisfaction with life

The Life Satisfaction Scale (Diener et al., 1985) is a 5-item scale designed to measure global cognitive judgments of one's life satisfaction. The available French-Canadian translation (Blais et al., 1989) was used to measure caregivers' satisfaction.

Perceived physical health

Two questions about current health condition, and past health condition taken from the *36-Item Short Form Health Survey* from the Medical Outcomes Study (McDowell & Newell, 1996), were used to measure the subjective health of participants.

Social support

The Inventory of Socially Supportive Behaviours (ISSB) was used to measure social support (Krause, 1990). This 40-item instrument is designed to assess how often individuals received various forms of assistance during the preceding month. In this study, 27 items were selected to assess informative, instrumental, and emotional support.

Family conflict

The 15-item Family Conflict Scale was selected to measure the level of conflict between caregivers and family members over general aspects of caregiving. Higher scores indicate a greater level of conflict.

Abuse

The Abuse Screening Questionnaire for Caregivers (DACAN) was used to detect risk factors of abuse toward the CR. The 8-item questionnaire is used for screening for elder abuse.

Statistical analyses

Descriptive analyses were conducted to describe the demographic and psychological characteristics of the participants as well as the prevalence rate of suicidal ideation in the sample. Spearman correlations and Chi-square tests were performed to identify associations between caregiver's characteristics and distress indicators. Independent-samples *t*-tests were performed to compare caregivers with or without suicidal distress on the selected variables. The level of significance was set at .05.

Missing data

Missing data of GDS and STAI-Y were replaced according to the authors' procedures (Aging Clinical Research Center, n.d.; Spielberger & Gorsuch, 1983). Scores were adjusted based on the number of answered items and rounded up to the higher score. A maximum of two missing data in the STAI-Y and five missing data for the GDS

were tolerated. For all other standardized questionnaires, missing items were replaced using the mean of the three most similar participants above and under, based on the sum of the value of all the other completed items for this measure. Missing data in the demographic variables were left missing. A total of 10 items were missing, representing less than 2 percent of the demographic observations. Missing data in the ISSB made it impossible to use the social support scale as a variable in the analyses.

Results

Sample

Overall, 151 caregivers initiated the survey. After excluding 64 incomplete surveys and 16 caregivers not meeting the inclusion criteria, 71 surveys were suitable for analysis. Surveys were considered incomplete, and were excluded, when two or more measures were incomplete. Most surveys were completed online ($n = 56$). Participants' demographics are presented in Table 1.

The average age for caregivers with a recently deceased CR, a CR in a long-term care facility or a retirement home, and a CR living at home is respectively, 67.6 years, 68.95 years, and 69 years. In all groups, they were mostly female. No difference between these groups was found.

Spearman's correlations were conducted to examine associations between various distress indicators and caregiver's characteristics (see Table 2). No significant correlations were found between distress indicators and age, duration of the relationship, or number of hours providing care. However, results indicated that the risk of abusing the CR was significantly correlated with anxiety ($r = .393, p = .001, r^2 = .153$), depression ($r = .243, p = .041, r^2 = .059$) and subjective burden ($r = .577, p < .001, r^2 = .332$). Family conflicts were correlated with subjective burden ($r = .283, p = .017, r^2 = .080$). Depression was significantly associated with anxiety ($r = .680, p < .001, r^2 = .462$) and subjective burden ($r = .456, p < .001, r^2 = .208$). Significant negative correlations were found between satisfaction with life and risk of abuse ($r = -.281, p = 0.019, r^2 = .079$), anxiety ($r = -.620, p < .001, r^2 = .384$), depression ($r = -.451, p < .001, r^2 = .203$) and subjective burden ($r = -.371, p < .001, r^2 = .138$).

Suicidal ideation

Caregivers were classified as having experienced suicidal ideation if they answered 'yes' to thinking that they would be better off dead, having serious thoughts about suicide/taking their own life, and/or if they indicated having a low desire to live in the SSI. Overall, 37 responders (52.1% of the sample) reported having suicidal ideation while they were caregiving situation (70.3% female and 29.7% male). Nine (12.9%) caregivers indicated that they had serious thoughts about taking their own life (3 women and 6 men). Six participants reported thinking about attempting suicide in the future. Thirteen out of the 37 caregivers with suicidal ideation (35.1%) reported that they received psychosocial help from professionals. Twelve (16.9%) caregivers reported having had suicidal ideation before caregiving while three (4.2%) reported suicide attempts.

Associations between caregiver's characteristics and distress

Chi-squared tests were performed to examine the associations between suicidal ideation and caregivers' characteristics. Caregivers with suicidal ideation were more likely to have access to

Table 1. Demographic characteristics of dementia caregivers ($n = 71$)

Characteristic	Caregivers		
	M (SD)	<i>n</i>	%
Age	68.49 (7.38)		
Duration	83.83 (64.12)		
Hours/week	68.76 (59.15)		
Gender			
Male		20	28.2
Female		51	71.8
Occupation			
Retired		55	78.6
Employed		14	20
Unemployed		1	1.4
Care recipient			
Recently deceased		5	7.5
Nursing/retirement home		19	28.4
Living at home		43	64.2
Cohabitation			
Yes		43	60.6
No		28	39.4
Professional help			
No		32	45.7
Yes		38	54.3
Psychosocial		19	39.6
Respite		17	35.4
Physical		21	43.8
Relationship to CR			
Spouse		48	68.6
Child		15	21.4
Parent		5	7.1
Sibling		1	1.4
Friend		1	1.4

professional help for themselves and/or the CR ($X^2(1, n = 70) = 8.08, p = .004, \phi = .34$). A relation was found between suicidal ideation while caregiving and having experienced suicidal thoughts in the past ($X^2(1, n = 71) = 5.64, p = .018, \phi = .28$). The caregiver's sex, the nature of the relationship, and living environment were not associated with the presence of suicidal thoughts.

A rank biserial correlation was performed to examine the association between suicidal ideation and distress indicators. This non-parametric analysis was chosen because our data did not meet all the assumptions for a point-biserial correlation. However, this equivalent was performed, and similar results were found. Suicidal ideation in dementia caregivers was associated with risk of abuse ($r = .322, p = .006, r^2 = .104$), anxiety ($r = .243, p = .047, r^2 = .059$), depression ($r = .362, p = .002, r^2 = .131$), subjective burden ($r = .430, p < .001, r^2 = .185$), perceived health ($r = .328, p = .007, r^2 = .108$). No significant associations were found between suicidal ideation and family conflicts, duration of care, and life satisfaction.

A partial correlation was performed to measure the association between risk of abuse, subjective burden, and suicidal ideation. Results show that the presence of suicidal ideation and risk of abuse are not linked when controlling for subjective burden ($r = .085, p = .484$).

Differences between caregivers with and without suicidal ideation

Analyses identified significant differences between suicidal and non-suicidal carers, see Table 3. Caregivers who reported suicidal ideation while caring for a CR were likely to experience more depression ($p = .002$), anxiety ($p = .037$), burden ($p < .001$), risk of abusing the CR ($p = .009$), and a low level of perceived health ($p = .011$) than carers that reported no suicidal ideation. There were no significant differences between groups for family conflicts, satisfaction with life, duration of care, and number of hours of care provided.

Discussion

To our knowledge, this is the first study on suicidal ideation targeting older French-Canadian dementia caregivers (O'Dwyer et al., 2021; Solimando et al., 2022). While the prevalence rate of suicidal ideation varies from 2 to 6.3 per cent in older Canadian adults (Corna et al., 2010; Vasiliadis et al., 2012), 52.1 per cent of responders in this study expressed a wish to die. This higher rate is similar to those found in vulnerable populations such as HIV-positive youth attending treatment follow-ups (27.1%; Wonde et al., 2019). Our sample of caregivers also had a suicidal ideation rate comparable to those of veterans with acute and chronic psychiatric illness or substance use disorder (McClure et al., 2015). Therefore, results suggest that caregivers for a person with dementia are a vulnerable population for suicidal distress.

Furthermore, 8.45 per cent of the carers having experienced suicidal thoughts in our study reported that they were likely to attempt suicide in the future. This result is smaller than the 20 to 30 per cent reported in previous studies (O'Dwyer et al., 2016; O'Dwyer, Moyle, Zimmer-Gembeck, & De Leo, 2013). Some older adults tend to keep these thoughts secret, do not seek mental health services (Corna et al., 2010). Therefore, the relationship between access to professional help and the presence of suicidal ideation was surprising. Caregivers experiencing such distress in this sample do seek help. It is possible that the appropriate services were not available for the needs of the caregivers of our sample. Hence, it is likely that services provided to caregivers do not target suicidal distress. Conversely, caregivers seek services, but not specific services for suicidal distress (Corna et al., 2010). In other words, services are not specific and service seeking is not either. Caution is necessary as access to services does not mean that suicidal thoughts are evaluated, discussed, treated, or the object of professional attention.

In the present study, dementia caregivers experiencing or having experienced suicidal ideation were more at risk to endorse statements associated with abuse toward the CR. More than half of our sample reported that they believed they could not provide the care needed for the recipient and felt obligated to do things out of character or do things they regretted. Results are consistent with previous literature which suggests that caregivers' distress may affect the care provided (Vaidyanathan et al., 2018). This association between suicidal thoughts and abuse should be taken seriously

Table 2. Associations between distress indicators in older dementia caregivers

Variable	1	2	3	4	5	6	7	8
1. Duration		0.057	-0.071	0.161	0.013	-0.128	0.033	0.095
2. GDS-15 ¹		-	0.657**	0.456**	-0.451**	0.473**	0.213	0.243*
3. STAI-Y (1) ²			-	0.488**	-0.592**	-0.400**	0.187	0.393**
4. ZBI ³				-	-0.371**	0.358**	0.283*	0.577**
5. SWLS ⁴					-	-0.397**	0.048	-0.281*
6. Perceived health						-	0.139	0.403**
7. FCS ⁵							-	0.203
8. DACAN ⁶								-

¹GDS-15: Geriatric depression scale-short version.²STAI-Y: State and traits anxiety inventory.³ZBI: Zarit Burden interview.⁴SWL: Satisfaction with life scale.⁵FCS: Family Conflict Scale.⁶DACAN: The Abuse Screening Questionnaire for Caregivers.** $p < 0.01$.* $p < 0.05$.

considering that caregivers tend to under-evaluate the severity of their abusive behaviour (Matsuda, 2007). As dementia progresses, CR may be unable to communicate the abuse, and the caregiver may be unable to admit it. Unfortunately, cognitive, and physical impairments of the CR are risk factors for abusive behaviour (Dong, 2015). It is important to note that such impairments as well as disruptive behaviours are also predictive of caregiver burden (Cheng, 2017). Research has shown that burnout and burden are associated with abusive behaviours (Vaidyanathan et al., 2018). The association between burden and risk of abuse was also observed in our sample. However, when controlling for subjective burden, no significant association was found between suicidal thoughts and risk of abuse. It seems to indicate that the risk of abuse of the CR associated with suicidal ideation is mediated by the burden felt by the caregiver, or by other variables, such as depression or anxiety. Nonetheless, subjective burden may be a key element for preventing both suicide in dementia caregivers as well

as abuse of the CR. The feeling of entrapment in a stressful situation is a risk factor for the development of suicidal ideation (Teasdale-Dubé & Viau-Quesnel, 2022). Therefore, all service providers must be able to assess caregiver's burden because it can affect the CR. It is critical to ensure they are still able to provide adequate care to their CR and that they feel comfortable asking for help when needed. Considering that previous research has shown that burden is also associated with social isolation, lack of choice in being a caregiver, higher number of hours spent caring, and depression (Adelman et al., 2014), service providers should take these factors into account. Consequently, interventions targeting caregivers should aim at reducing caregiver burden, depression, and anxiety by providing respite along with daily care services and encouraging support from other family members.

In the current study, there were significant differences between suicidal and non-suicidal dementia caregivers regarding distress indicators. These results are consistent with the available body of

Table 3. Differences between suicidal and non-suicidal caregivers on psychological distress

Measure	Suicidal ($n = 37$)		Non-suicidal ($n = 34$)		t (df)	p	Cohen's d
	M (SD)	M (SD)	M (SD)	M (SD)			
Age	68.62 (6.62)	68.35 (8.22)			-0.152 (69)	0.879	-0.04
H/week	77.86 (61.85)	59.12 (55.45)			-1.31 (66)	0.194	-0.32
Duration	89.49 (68.81)	77.68 (59.00)			-0.77 (69)	0.44	-0.18
GDS-15 ¹	6.00 (3.11)	3.68 (28.99)			-3.349 (69)	0.002	-0.77
STAI-Y (1) ²	54.34 (12.25)	48.31 (10.76)			-2.13 (65)	0.037	0.52
ZBI ³	49.28 (12.72)	37.15 (12.94)			-3.98 (69)	< 0.001	-0.95
SWLS ⁴	18.59 (7.38)	21.27 (8.03)			1.45 (68)	0.152	0.35
Perceived health	6.85 (1.46)	5.91 (1.51)			-2.60 (65)	0.011	-0.64
FCS ⁵	42.97 (20.29)	35.08 (22.50)			-1.55 (69)	0.125	-0.37
DACAN ⁶	4.38 (2.16)	3.00 (2.13)			-2.70 (69)	0.009	-0.64

¹GDS-15: Geriatric depression scale-short version.²STAI-Y: State and traits anxiety inventory.³ZBI: Zarit Burden interview.⁴SWL: Satisfaction with life scale.⁵FCS: Family Conflict Scale.⁶DACAN: The Abuse Screening Questionnaire for Caregivers.

literature on suicidal caregivers. Previous research reported that depression (Joling *et al.*, 2018; O'Dwyer *et al.*, 2016), anxiety (Joling *et al.*, 2018), and burden (O'Dwyer, Moyle, & Van Wyk, 2013) were associated to suicidal thoughts in carers. Depression and anxiety have been linked to suicide attempts in caregivers of a CR with cancer (Park *et al.*, 2013). Our results suggest that caregivers who experienced higher levels of distress are at risk for suicidal ideation. Even if the research on the topic is at an early stage, it is obvious that screening for depression, anxiety, burden, and low quality of life is essential to identify caregivers at risk for suicidal behaviours.

Significant associations between suicidal thoughts in caregivers and distress indicators were expected in this study. Predictably, common psychological distress indicators such as depression were correlated to the presence of suicidal ideation. These results are congruent with the literature on suicide in adults and older adults (Beghi *et al.*, 2021). Moreover, health perception was associated with suicidal distress in caregivers. This was anticipated because physical illness has been reported as strongly associated with the wish to die (Lapierre *et al.*, 2015), suicide attempts (Fässberg *et al.*, 2016), while poor health condition was associated with completed suicide (Beghi *et al.*, 2021). Interestingly, in a study on older adults with serious illness who attempted suicide, only one-third attributed the attempt to somatic distress, while two-thirds reported psychological pain as the reason for ending their life (Wiktorsson *et al.*, 2016). Therefore, it is important for general practitioners to investigate psychological and suicidal distress in caregivers experiencing health conditions. Older adults seeking help for physical conditions may also be experiencing suicidal distress (Luoma *et al.*, 2002).

Although it is well known that women tend to report more suicidal ideation than men (Vasiliadis *et al.*, 2012), in the present study, there was no association between caregivers' gender and suicidal ideation. It is also a common fact that female caregivers report more psychosocial distress than their male counterparts (Adelman *et al.*, 2014). Male caregivers tend to provide different forms of care (Calasanti & Bowen, 2006). They also tend to approach caregiving differently by being more task-oriented. It is also suggested that they could receive more support than female caregivers (Mc Donnell & Ryan, 2013). In this study, male caregivers experienced as much distress as female caregivers. It may be that male caregivers are less inclined to express their psychological needs, rather than experiencing less distress (Hinton *et al.*, 2006).

Previous qualitative studies suggested a link between family conflicts and suicidal thoughts in caregivers (Adelman *et al.*, 2014; O'Dwyer, Moyle, & Van Wyk, 2013; Teasdale-Dubé & Viau-Quesnel, 2022). Therefore, it was expected that suicidal ideation would be associated to family discord. However, no such association was found in the present study. In their qualitative study, O'Dwyer, Moyle, and Van Wyk (2013) suggested that conflict was exacerbated by the caregiving role, but nothing supports this conclusion in our study. No association between any distress indicator and family conflict was identified. Research on relationships with family members and healthcare professionals demonstrated that they are essential to the well-being of caregivers (Broady *et al.*, 2018). Therefore, we believe that conflicts might contribute to the impression of burden experienced by carers. Inconsistencies might be explained by the quantitative measures used in the present study. Qualitative studies tend to provide better insight into the interaction between family conflict, distress, and the way they were experienced than validated questionnaires. Future research should assess for conflicts with any member of the support network to resolve these inconsistencies in the literature.

Caregiving was previously identified as an independent risk factor for common mental disorders (Stansfeld *et al.*, 2014) and an exacerbating factor for pre-existing emotional distress (O'Dwyer, Moyle, & Van Wyk, 2013). It is well known that greater care demands are associated with a higher level of caregiver distress (Cheng, 2017; Schoenmakers *et al.*, 2010). Also, the number of hours of care per week and overall duration of the caregiving situation in months or years have been linked to distress in caregivers (Pinquart & Sorensen, 2011). Additionally, the nature of the relationship (marital, family or friendship), has been known to be associated with caregiver's distress. Spouses tend to provide more care than other caregivers which, may partially explain the higher level of distress reported by this group (Pinquart & Sorensen, 2011). Therefore, one of the hypotheses of this study was that caregiver's characteristics such as the nature of the relationship to the CR, overall duration of the caregiving situation, and mean number of hours of care provided would be associated with suicidal thoughts in dementia caregivers. However, we found no relation between caregiving characteristics and suicidal thoughts. Similarly, Joling *et al.* (2018) did not find any indication that suicidal thoughts were more common in caregivers caring for longer period. The results of this study could have important impacts on screening and risk assessment, as it suggests that the idea of long-term exhaustion as the main driver of caregiver distress may not be a reliable predictor of suicidal thoughts. Furthermore, according to results from O'Dwyer *et al.* (2016), the rates of suicidal ideation are consistent across the caregiving experience. Caregivers of recently diagnosed care recipients also reported suicidal ideation. O'Dwyer *et al.* (2016) suggested that suicidal thoughts across the caregiving trajectory may be more influenced by role transitions. It is possible that key transitions in the caregiver trajectory such as the diagnostic announcement, the changes in the relationship dynamics, the placement of the CR in a long-term care facility along with the aftermath, and the loss of the feeling of mattering after the CR death have more impact on the development of suicidal distress than long-term exhaustion. The adaptation to changes required by family caregivers makes it a truly challenging experience.

Limitations

This study has several limitations which readers should consider. This study is based on a relatively small sample of caregivers, therefore limiting the options in terms of statistical analyses and the generalization of results. The small sample size can be explained by the fact that caregivers are a hard-to-reach population. Some caregivers do not identify with this role title (O'Connor, 2007). Furthermore, we believe that the time-consuming responsibilities associated with the caring role could prevent individuals from participating in a study that include numerous psychological measures (Fredriksen-Goldsen & Hooyman, 2005). Although many methodological decisions were made to lessen the time requested from participants (e.g., by limiting the number of questionnaires or by selecting subsets of items), the study's requirements may have had a dissuasive effect for some caregivers. We assume that caregivers who were especially burdened and those who were isolated and harder to reach may not have taken part in the present study, leading to a potential underestimation of suicidal distress.

Also, the recruitment ads mentioned that suicidal distress was a topic of the study. Therefore, suicidal caregivers may have felt engaged by the study and, conversely, caregivers who had no suicidal distress may not have felt as concerned. We believe that the disclosed purposes and themes of the study, while ethically

sound, may have led to self-selection bias. A systematic review and meta-analyses including 1209 family caregivers showed that 32 per cent experienced suicidal thoughts (Solimando et al., 2022). Conversely, we note that the intensity of the suicidal distress may have been underestimated because highly distressed dementia caregivers are hard to reach and engage in research.

This is a cross-sectional study. Thus, it was not designed to determine causality. It aimed to describe and explore suicidal ideation in older Canadian family caregivers of a person with dementia. Readers should therefore be aware that temporal relationships between variables cannot be established. For instance, it is possible that the risk of abuse of the CR influenced the presence of suicidal thoughts instead of caregiver's distress influencing the risk of abuse. Conclusions should be drawn accordingly.

Most caregivers in our sample were spouses. Spouse caregivers may be at greater risk of distress (Schoenmakers et al., 2010) such as depressive and anxiety disorders (Joling et al., 2015). Mental disorders such as depression and anxiety are known risk factors for the development of suicidal ideation. Consequently, it is possible that the prevalence rate of suicidal thoughts in this study is an overestimation of the phenomenon in the general population of carers, specifically carers who are not in a marital relationship with the CR.

Despite these limitations, this study highlights the importance to assess caregivers' well-being and suicidal ideation to protect both the carers and the CR. Suicidal caregivers seem to be more at risk of abusing their CR with dementia than non-suicidal caregivers. It is essential for service providers to seek training regarding suicidal distress and abusive behaviour in older caregivers and to familiarise themselves with the particularities of caring for a person with dementia. While this research only assessed risk factors of abuse toward the CR, future research should also investigate the possibility that caregivers can also be abused by the CR, their family, or the institutions, and that this situation could trigger suicidal distress. In fact, a recent qualitative Canadian study showed that caregivers were also at risk of abuse by service providers, the CR and family members (Éthier et al., 2020).

Conclusion

Suicidal distress in caregivers has recently been the focus of researchers in various countries. To our knowledge, this study is the first that has been conducted with French-Canadian dementia caregivers. Suicidal ideation in caregivers is a complex issue that may affect more caregivers than we might think.

Research on suicidal ideation in caregivers presents inconsistent results. There is much to be understood about suicidal distress in caregivers. Future research should be aware of the social, cultural, and political particularities of the French-Canadian population. More research investigating suicidal behaviours such as self-harm, suicide attempts, and suicide is necessary to protect family caregivers and their CR.

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