

# Psychogeriatric experts' experiences with risk factors of non-suicidal and suicidal self-injury in older adults: A qualitative study

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## ABSTRACT

While research has highlighted potential age-related differences in risk factors for non-suicidal and suicidal self-injury ((N)SSI), studies on such distinct risk factors among older adults are scarce. The present study addresses this gap by gaining insights into the experiences of psychogeriatric experts who work with older adults who engage in (N)SSI. In total, nine experts were interviewed about factors associated with (N)SSI in older adults. The responses were thematically analyzed using the biopsychosocial framework. We located a range of biological, psychological, and social factors contributing to (N)SSI, which largely align with previous findings regardless of age. Nonetheless, according to the experts cognitive and physical decline, advancing age, various experiences of loss, and social isolation were observed as particularly significant risk factors for older adults. These results emphasize the need for tailored preventive measures, interventions, and screening tools to address the unique challenges faced by older adults at risk of (N)SSI. Additionally, future research should investigate (N)SSI experiences in older age with a more diverse sample, including mapping the perspective of older adults themselves, healthcare providers, and other informants, to enhance our comprehension of this phenomenon among older adults.

## Introduction

Non-suicidal and suicidal self-injury ((N)SSI) is one of the most robust predictors of death by suicide (e.g., Cheung et al., 2017; Morgan et al., 2018), with particularly high rates among older adults in most countries (WHO, 2021). Systematic reviews (Troya et al., 2019a; Van Hove et al., 2023) of self-injury in older adults also argue that (N)SSI among older people may have distinct characteristics. Moreover, suicidal and non-suicidal self-injury has increased from 2003 to 2016 among 60- to 74-year-old men with an incidence rate ratio of 1.04 (Patel et al., 2023). These findings underscore the importance of studies that investigate associated factors of (N)SSI among older adults.

Self-injury includes "all suicidal and non-suicidal behaviors that are performed intentionally and with the knowledge that they can or will result in some degree of physical or psychological injury to oneself" (Nock, 2010, p.341), encompassing both direct (i.e., with the intent to injure one's body, such as banging one's head) and indirect behaviors (i.e., with bodily injury as an unintended byproduct, such as alcohol overuse), with or without the

intent to take one's life (Nock et al., 2010). When the behavior is deliberately directed at damaging one's own body tissue without suicidal intent and for purposes not socially or culturally sanctioned, it is called "non-suicidal self-injury" (NSSI; ISSS, 2024). The most common (N)SSI methods in older age are self-poisoning (i.e., medication overdose, ingestion of toxic substances), self-injury (i.e., cutting or burning skin), refusal to eat or take medication, and self-neglect (Patel et al., 2023; Troya et al., 2019a; Wand et al., 2018a). Older adults cite various reasons for engaging in self-injury regardless of suicide intent, including seeking relief from an unbearable mental state, expressing a cry for help, influencing or eliciting sympathy from others, and seeking assistance (Dennis et al., 2007; Troya et al., 2019b). It is important to note that these studies did not specify whether participants engaged in direct, indirect, or both types of self-injury.

Based on self-reports from 3,114 American older adults residing in the community, 2.6% acknowledged having thoughts of being better off dead or thoughts of hurting themselves in some way in the past two weeks (Park et al., 2022). In a study conducted by Ose et al. (2021), focusing on ambulatory psychiatric patients aged 60 to 69 years, clinicians reported that 13.6% of their patients had suicidal thoughts, 6.3% engaged in NSSI, and 0.4% attempted suicide. For individuals aged 70 years and older, clinicians reported slightly lower rates of suicidal thoughts (9.2%) and NSSI (2.9%), along with slightly increased rates of suicide attempts (0.8%). Between 2003 and 2016, 2,684 older adults were admitted to an English ED [i.e., English emergency department (ED)] due to self-injury regardless of suicide intent, with 10.8% of these presenting for repeated self-injury within one year (Patel et al., 2023). Noteworthy, this percentage may be an underestimation, as some individuals may not seek ED admission due to shame or stigma, and not every instance of self-injury necessitates medical attention (e.g., Van Orden & Conwell, 2016). Once again, these studies did not make a clear distinction between types of self-injury.

A recent systematic review identified three overarching themes regarding factors associated with (N)SSI among older adults: psychological, physical, and social difficulties (Van Hove et al., 2023). Psychological difficulties encompass various factors including psychiatric diagnoses such as depression (Kim et al., 2016; Van Orden et al., 2015), alcohol dependence (Neufeld et al., 2015), feelings of hopelessness and helplessness (Wand et al., 2018a), loss of control (Bonnewyn et al., 2014), cognitive impairment (Neufeld et al., 2015), and diminished autonomy (Neufeld et al., 2015; Troya et al., 2019b; Wand et al., 2018a). Psychological factors contributing to the risk of (N)SSI may vary across different age groups. For instance, one study revealed that individuals aged 65 and above who engage in (N)SSI, were more prone to having a history of depression compared to those aged 45-64 (Tan & Cheung, 2019). In terms of physical difficulties, physical health conditions (Morgan et al., 2018; Troya et al., 2019b), such as chronic diseases (Kim et al., 2016), and consequently somatic distress (Van Orden et al., 2015), and physical pain (Van Orden et al., 2015) heighten the risk of (N)SSI. Regarding age differences, Tan and Cheung (2019) discovered that adults aged 65 and older are more likely to identify physical illness as a stressor for (N)SSI than adults aged 45-64 years. Within the realm of social difficulties, interpersonal challenges were included (Troya et al., 2019b; Van Orden et al., 2015), such as family discord (Ku et al., 2009; Van Orden et al., 2015), the loss of close relatives or friends (Ku et al., 2009), a sense of thwarted belongingness (Van Orden et al., 2015), and feelings of disconnection (Crocker et al., 2006). Loss appeared to be a distinct factor for older adults, distinguishing them from younger populations (Van

Hove et al., 2023). Additionally, another systematic review (Troya et al., 2019a) highlighted sociodemographic risk factors, such as being female (Hawton & Harriss, 2008), lacking a partner (Murphy et al., 2012), and younger age (i.e., 60-74 years; Chai et al., 2021). A history of previous (N)SSI (de Beer et al., 2015) and engagement with mental health care (Hedna et al., 2023) were also underscored as risk factors (Troya et al., 2019a). Lastly, a systematic review of qualitative studies identified themes such as control, compromised decision-making and coping abilities, and challenges to self-identity and -continuity (Wand et al., 2018a).

## Present study

Although the abovementioned findings underline the presence of potential age differences regarding risk factors for (N)SSI (e.g., Tan & Cheung, 2019), research on distinct factors related to (N)SSI in older age remains scarce (Van Hove et al., 2023). Insights into the experiences of professionals who work with older adults may offer valuable insights into risk factors associated with (N)SSI in this age group. These insights may also help clinical practitioners screen for self-injuring behaviors and therefore intervene earlier (i.e., prior to a potential development of active suicidal behaviors).

In the current study, nine psychogeriatric experts were interviewed about the characteristics of self-injuring behaviors in older adults and the potential risk factors for this behavior in older age, using a semi-structured format. Findings regarding the characteristics of (N)SSI (i.e., definitional elements, methods, and functions), are reported by Van Hove et al. (2024). The present manuscript focuses on experts' views regarding the risk factors associated with (N)SSI in older adults. Experts were asked the following specific question: "Based on your experience, what do you think are potential risk factors that we should take into account?" As this study is exploratory and previous research considered physical, psychological and social difficulties (Van Hove et al., 2023), the biopsychosocial model (Engel, 1977; Murniati et al., 2022) was used to structure the experts' responses.

## Materials and Methods

### Procedure

The study was approved by the local medical ethics committee (UZ Brussels, B.U.N. 1432021000470) on December 5, 2021 and abides by the General Data Protection Regulation 2018. Participants were selected by purposive sampling. In total, 16 leading Flemish experts in the field of mental health among older adults were invited via e-mail to participate in an online interview through video call. In this e-mail, participants were informed about the research, its relevance for clinical practice, and that this was part of the doctoral research of the leading author. Among those who were contacted, nine experts agreed to participate. This led to a response rate of 56%. Refusal reasons were a lack of time or insufficient experience with the topic. Apart from one participant who worked at the same department as the interviewer, there were no prior relationships with the interviewees. Once they agreed to participate, participants received an email from the interviewer to schedule the interview. The information sheet and written consent form were provided as attachments. Participants were asked to read the information and sign the consent form prior to the interview.

The interviews were conducted between June and August

2021 via Microsoft Teams. They were led by the female leading author (M.Sc. in Psychology), who was as a doctoral candidate and clinical psychologist at the time of the interviews and had received an inter-university training in qualitative research. No one but the interviewer and expert were present at the time of the interview. Each expert was interviewed once. At the start of the interview, participants were asked for their consent to both audio and video recording to facilitate post-interview transcription. All participants agreed. The semi-structured interview guide (see Appendix C. Interview guide) was reviewed and approved by the doctoral guidance committee of the leading author. Using a semi-structured format, the interviewer had the opportunity to further explore the expert's responses by asking follow-up questions. This approach allowed for a deeper examination of the expert's experiences (e.g., "Can you provide an example?", "Are there any other things you can think of?") and gave the interviewer and expert the flexibility to follow the interview's own pace to explore the various interview topics (e.g., Adams, 2015). Unexpectedly, this approach led several experts to offer tips on how to ask older adults about the risk factors discussed in response to the follow-up questions. As this did not provide additional information relevant to our research question, it is not further discussed.

Prior to asking the interview questions, the interviewer again described the aims of the study and participants were informed that there are no right or wrong answers. They were asked to indicate if they did not wish to answer certain questions and were assured that their responses would be processed completely anonymously, at a group level, and used solely for scientific purposes. The interview guide focused on older adults and included questions that focused on the definition of (N)SSI, frequent functions and methods, and factors associated with (N)SSI according to their professional experiences. This manuscript focuses on the experts' responses to the following question: "Based on your experiences, what do you think are potential risk factors that we should take into account?" Findings from the rest of the data can be found in Van Hove et al. (2024). During the interview, the interviewer took field notes to facilitate the interview process (e.g., summarizing responses and confirming them with the expert to ensure accurate understanding). Each interview concluded by thanking the participant for their participation. Transcripts were not returned to the participants for comment or correction. The findings, however, were communicated. If participants had any feedback, they were able to reach out to the leading author. On average, the interviews lasted 49.56 minutes ( $SD = 10.67$  minutes, min. = 28 minutes, max. = 66 minutes).

## Data processing and analysis

Once data had been collected, interviewees' contact details were destroyed. A random ID number was allocated to each interviewee to ensure participants' anonymity throughout the thematic analysis in NVivo and the descriptive analysis of the demographic variables in IBM SPSS Statistics 27. The transcripts were imported into NVivo, a qualitative data analysis software, for conducting thematic analysis (TA). A coding reliability approach was applied (e.g., Guest et al., 2012; Braun & Clarke, 2021). The responses were transcribed orthographically, independently, by three researchers (i.e., the lead author (LVH) and two undergraduate Psychology students). First, initial codes were generated through an inductive approach and categorized deductively in a coding frame according to the biopsychosocial model (Engel, 1977). The biopsychosocial model (see Appendix B. Table 1) offers an explanatory framework for pathology, in which three

dimensions (i.e., biological, psychological and social) are brought together to understand an individual's condition. Biological factors involve genetic traits and physiological functions (e.g., age, physical health). Psychological factors focus on behavior, cognition, and emotions (e.g., affect, personality traits). Social factors play a crucial role in shaping individuals' experiences and perceptions of their condition (e.g., social support, community involvement; Engel, 1977; Murniati et al., 2022).

Next, themes were formed by summarizing the identified topics that emerged as risk factors and then placing them within the appropriate category of the biopsychosocial model. The prevalence of each theme or code was determined by the number of participants mentioning it (Braun & Clarke, 2021; Guest et al., 2012). To enhance reliability, two researchers (i.e., authors LVH and IB) independently categorized the identified codes into themes. Any discrepancies were resolved through discussions until a consensus was achieved. Demographic variables were coded using IBM SPSS Statistics 27, and descriptives were examined to profile participants at a group level. After the eighth interview, the researchers felt that the amount of information considered to be new and relevant to the research question was minimal compared to the previous interview. For this reason, we decided to conduct one final interview, after which it was concluded that further interviews did not generate sufficient new, useful information (Guest et al., 2020). Once the dataset had been analyzed, it was stored on a secure server of the leading author's affiliated university. The data will be destroyed after seven years. Finally, the consolidated criteria for reporting qualitative research checklist (COREQ; Tong et al., 2007) were followed in reporting this study (see Appendix A. COREQ Checklist).

## Results

### Participants

Nine experts, seven of whom were female and two were male (88.9% female), gave their consent to participate in this study. The mean age was 43 years ( $SD = 11.57$  years, min. = 31 years, max. = 68 years). Participants had been working in their current role for an average of 16 years ( $SD = 13.14$  years, min. = 3 years, max. = 45 years). Five experts primarily worked in ambulant health care and seven in residential health care. Seven worked as psychologists and/or psychotherapists, two as policy officers/researchers, one as psychiatrist, and one as professor.

### Themes

The most common themes (see Appendix B. Table 1) are visually presented in a Venn-diagram (Figure 1). The experts discussed that (N)SSI is associated with an accumulation of risk factors, which often correlate and could potentially fit into more than one category of the biopsychosocial model. For example, loneliness can be considered a social factor in the context of not having many social contacts, but it can also be interpreted as a psychological factor, in which case an individual may feel lonely even when surrounded by others (Figure 1).

### Biological factors

Each expert discussed risk factors that could be considered biological factors. First, cognitive deterioration was discussed by eight of the nine experts as a potential risk factor for (N)SSI. Two



experts specifically mentioned the decrease in impulse control due to aging.

(N)SSI is an impulsive behavior. It becomes somewhat less controlled in individuals where self-regulation doesn't function well due to aging. (...) Impulse control is also located in the frontal lobe, and the problem is, of course, that the frontal lobe's brain cells are less present as you age. It becomes more challenging to inhibit things. The capacity for impulse control decreases. (Expert 6)

Five experts argued that decreased physical wellbeing, e.g. due to suffering from a (chronic) illness, may contribute to the risk of engaging in (N)SSI. One expert hypothesized that an illness may lead to pain habituation and consequently lower the threshold to engage in (N)SSI:

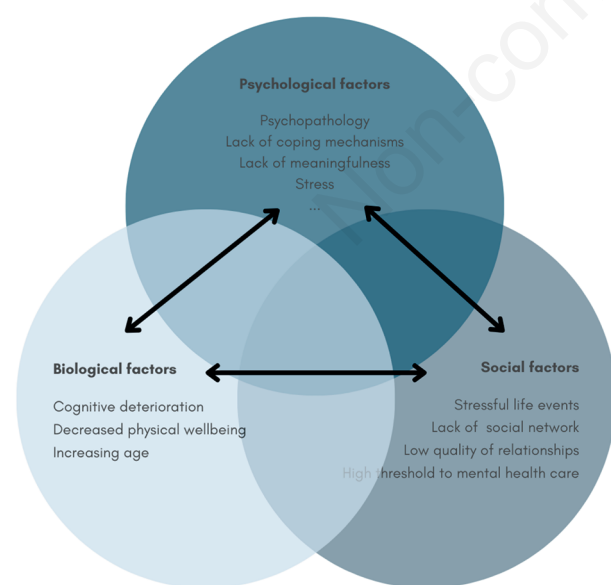
They already have more pain in their bodies, which also plays a role. People who are accustomed to pain, it somehow correlates [to (N)SSI]. (Expert 1)

Finally, three experts discussed older age as a potential risk factor:

You cannot compare someone who is 62 years old to someone who is 93 years old. Because the end of life is much closer. (...) And then letting yourself go and no longer taking care of yourself, wanting to hasten death."(Expert 1)

## Psychological factors

Every expert also discussed one or more psychopathological aspect(s) as potential risk factors. Psychiatric diagnoses, such as a depressive disorder ( $n = 7$ ) and personality disorders ( $n = 6$ )



**Figure 1.** The largest themes in regard to the biological, psychological, and social factors are presented in a Venn-diagram. Arrows show how risk factors may contribute to one another and may belong to more than one category in the biopsychosocial model.

were most often discussed. Some experts also discussed certain personality traits or conditions.

Often, there have always been some personality dynamics or maladaptive traits, but because life is happening, they have always managed to contain them reasonably well. Then suddenly, people are alone or no longer working. For example, people with narcissistic traits. They suddenly find no one to feel that hierarchy with, and they can have a really hard time dealing with that. (Expert 7)

Personality traits or conditions that were mentioned by one to three experts (see Appendix B. Table 1), included the inability to seek happiness, narcissism, rigidity, distrust, compulsiveness, lack of optimism, lack of resilience, negative affect, self-alienation, feelings of emptiness, perfectionism, independence, lack of assertiveness, and lack of humor.

In my experience, neglect is often found in individuals with certain cluster A personality traits. (...) Cutting, as far as I can assess, is more likely to be seen in people with childhood traumas and cluster B traits. Meanwhile, social isolation and neglect may be more prevalent in individuals with schizoid features. (Expert 5)

Regarding personality disorders ( $n = 6$ ), cluster B disorders (e.g., borderline personality disorder;  $n = 5$ ) were mentioned most often. Cluster A and cluster C disorders were mentioned by only one expert each. Other psychiatric disorders that experts talked about were addictive disorders ( $n = 2$ ), developmental disorders ( $n = 1$ ), psychotic disorders ( $n = 1$ ) and the Diogenes syndrome ( $n = 1$ ). A lack of coping mechanisms can also increase the risk of engaging in (N)SSI. In total, this was discussed by eight experts. Such coping mechanisms may entail not wanting to accept help ( $n = 5$ ), a lack of problem-solving skills ( $n = 2$ ), and difficulties in emotion regulation ( $n = 1$ ).

A lack of meaningfulness (e.g., no future goal) was also retrieved as a subtheme ( $n = 5$ ), with experts discussing how this may lead to tiredness of life ( $n = 3$ ) and feelings of hopelessness ( $n = 2$ ). According to one expert, subjectively feeling they are a burden may contribute to a lack of meaning.

When you talk about their experiences, regardless of the syndrome involved, it often revolves around the meaningfulness of existence. And the impending death, with nothing left to get hot or cold about. (Expert 5)

Other psychological factors that arose (see Appendix B. Table 1 for frequencies), were stress, anxiety, a history of (N)SSI, low quality of life, lack of self-insight, boredom, taking stock of your life and finding it negative, and desperation.

## Social factors

All experts considered stressful life events as potential risk factors. This was especially the case for experiences of loss ( $n = 8$ ), such as the loss of physical health ( $n = 6$ ), autonomy ( $n = 4$ ), function ( $n = 3$ ), meaning ( $n = 3$ ), and significant others ( $n = 2$ ).

When thinking about older adults, I always consider experiences of loss. (...) Because if there's already a vulnerability in dealing with it inadequately or if one hasn't learned how to cope with it, the likelihood of engaging in

(N)SSI increases. (...) I primarily think of physical loss, such as after a cardiovascular arrest or a hip fracture. It's a sudden shift from being healthy to becoming dependent, requiring a significant adjustment and resulting in a profound loss. This, in turn, impacts social life. Going to a café or visiting friends may become more challenging. Friends pass away as well. There are more and more deaths. The partner can also pass away. There's a loss of function, a loss of role in society. I think there can be losses on all fronts, and it requires a lot from someone to deal with them. Especially for someone with few coping mechanisms or little diversity in them, it can become quite challenging. (Expert 8)

Other stressful life events mentioned were trauma (e.g., abuse;  $n = 4$ ) and a history of family psychopathology ( $n = 1$ ). All experts also discussed not having a social network as a risk factor, with isolation ( $n = 3$ ), a lack of social control ( $n = 3$ ), and loneliness ( $n = 2$ ) as a consequence. If one has a social network, the quality of relationships in the network is also important ( $n = 8$ ). A few experts indicated that not feeling connected with ( $n = 3$ ) and appreciated ( $n = 1$ ), and stimulated ( $n = 1$ ) by their social network may also pose a risk.

I also think about the system they are in. The relationship with their partner, which is difficult, or if that partner is also negative or depressed. Then you see that it becomes much more challenging. When they are alone, it's also difficult. I think they should also have good contact. A social network. That they still have some contact with people in their neighborhood. (Expert 3)

Next, two experts discussed a reluctance to seek mental health care (i.e., stigma) as a potential risk factor, with an insufficiently open relationship with their general practitioner mentioned by both.

Many older adults are referred by family members or general practitioners but don't express a need for help themselves. Even though we clearly see that it might be necessary or beneficial. However, taking the step to talk about it as a part of self-care or getting better is not something they are familiar with. Even with some younger seniors, around the age of 65, we still notice that barrier. I'm not saying it's the case for everyone, but for many, that attitude is still not present. It's still "let's keep silent about it" or "I'm not sick or crazy." These myths persist, while talking about things is a part of self-care, and keeping silent or trying to forget and ignore it is actually self-defeating behavior. (Expert 4)

A lack of mental health literacy, financial resources, and role models were each mentioned by one expert.

## Discussion

This article discussed factors contributing to the risk of (N)SSI among older adults according to interviews with nine psychogeriatric experts, organized within the biopsychosocial model. Although our results only reflect the perspective of Western psychogeriatric experts on (N)SSI and may differ from other non-Western stakeholders (e.g., other caregivers, older people who

self-injure; Chan et al., 2007; Wand et al., 2023), a range of biological, psychological, and social factors was explored, shedding light on the multifaceted nature of (N)SSI risk among older adults. These potential risk factors often accumulate throughout the lifespan and may correlate (see Figure 1).

Regarding biological factors, cognitive deterioration, decreased physical wellbeing, and older age were identified as potential risk factors. This corresponds with previous research (e.g., Kim et al., 2016; Neufeld et al., 2015; Tan & Cheung, 2019). In comparison to younger age groups, having a physical illness may be unique risk factor for (N)SSI among older people. This could be explained by the fact that older adults are more frequently confronted with physical suffering, which makes it a more common stressful event among older adults than younger age groups (Tan & Cheung, 2019). Moreover, as cognitive deterioration is a well-known phenomenon to naturally occur with older age (e.g., Meléndez et al., 2018), this risk factor may also be more applicable among older adults. Previous researchers have found that (N)SSI representation at EDs is less common with older age (Tan & Cheung, 2019). This is in contrast with what our participants indicated in regard to older age as a potential risk factor. As the psychogeriatric experts' experiences were based on their employment in Flemish mental health care services, this difference could possibly be explained by a mediating effect of setting or country. For example, certain countries exhibit higher rates of hospital admissions stemming from (N)SSI (Pham et al., 2023). Additionally, psychogeriatric experts noted that indirect (N)SSI appears to be more prevalent among older age groups (Van Hove et al., 2024), which may lead to a lower need for medical care following injuries resulting from self-injuring behavior.

Regarding psychological factors, experts highlighted psychiatric diagnoses (e.g., depressive disorder), stressful life events, lack of coping mechanisms, various personality traits such as impulsivity, a lack of meaningfulness, and other psychological factors such as stress, anxiety, history of (N)SSI, and low quality of life. These themes have all been described in previous studies (e.g., Cheung et al., 2017; Morgan et al., 2018; Ritchie et al., 2011; Troya et al., 2019b; Wand et al., 2018a). In comparison to younger age groups, research has already shown that physical and mental health problems (e.g., depressive disorder) play a more prominent role in (N)SSI among older adults (Haw & Hawton, 2008; Tan & Cheung, 2019). Concerning personality traits, most of the psychogeriatric experts specifically discussed impulsivity and borderline traits, which is in line with previous studies (e.g., Ritchie et al., 2011). Finally, according to the experts, experiences of loss also seem to play an important role in (N)SSI in older age.

Although some studies with adolescents have reported experiences of loss due to suicide by relatives as a risk factor for engaging in (N)SSI (del Carpio et al., 2021), recent systematic reviews on risk factors among younger age groups do not report on any other types of loss as risk factors (McEvoy et al., 2023). This may be attributed to the variation in predominant life problems throughout the lifespan (Haw & Hawton, 2008). Moreover, the experts not only described experiences of loss among older adults as a result of death, but also due to decreasing physical health, autonomy, function, and meaning. Although some of these experiences of loss have been mentioned in relation to (N)SSI among older adults (e.g., Wand et al., 2018a; Van Hove et al., 2023), further research is needed to deepen our understanding of this association as this may portray a distinct risk factor for (N)SSI among older people.

Finally, a lack of a social network, isolation, lack of social control, loneliness, and quality of relationships within social net-

works were discussed as important social factors. This is in line with the literature, which describes social difficulties as risk factors (e.g., De Leo et al., 2013). In comparison to younger adults, social isolation appears to be a more impactful risk factor for (N)SSI among older adults (Haw & Hawton, 2008) as levels of social isolation tend to increase across the lifespan, beginning in late adolescence and continuing through old age (Umberson et al., 2022). Moreover, social isolation among older people has been associated with various risk factors for (N)SSI, such as low social support and depression (Troya et al., 2019a). Two experts also mentioned reluctance to seek mental health care as a potential risk factor. Indeed, a recent systematic review by Teo et al. (2022) indicated that help-seeking behavior among older adults may be hindered by certain barriers, such as high costs and negative relationships with healthcare providers.

## Strengths and limitations

While this study has offered valuable insights into (N)SSI among older adults through interviews with psychogeriatric experts, it is important to acknowledge certain limitations. First, it is noteworthy that all the experts involved were Flemish; thus, potential cross-cultural differences were not considered. Moreover, the majority of experts were affiliated with psychiatric settings, resulting in a relatively homogeneous sample. This may hinder the ability to address potential cross-cultural and context-specific differences (Pham et al., 2023; Wand et al., 2018b, 2023) and might have contributed to the fact that after eight interviews no new relevant information was found in additional interviews. Second, despite having information on the experts' work settings, we did not inquire about the backgrounds of the older adults with whom the experts had experience. Therefore, we cannot be certain that our results adequately represent the experiences of non-native older populations. Third, due to the Covid-19 restrictions that were in place during data collection, the interviews had to be conducted online. Although research indicates that online interviews do not significantly differ from in-person interviews in terms of duration, substantive coding, and subjective interviewer ratings, it is essential to recognize some drawbacks of online interviews, including less detailed context notes and lower vocal clarity (Johnson et al., 2019). Finally, the interviewer did not ask the interviewees about the differences between suicidal and non-suicidal self-injury, nor between direct and indirect self-injury. This omission may lead to potentially overlooking important distinctions in the risk factors involved. To achieve a more comprehensive understanding, future research should involve direct input on the various types of self-injury from both native and non-native older adults themselves and proxy informants in cross-cultural studies conducted in diverse settings such as communities and aged care facilities.

## Implications

Based on interviews with psychogeriatric experts, several themes were retrieved regarding potential risk factors for (N)SSI among older adults. The majority of these themes reflected previous literature on (N)SSI in younger age groups (see above). However, loss was identified as a factor that may play a more significant role in (N)SSI among older people. According to the experts, older adults face an accumulation of loss experiences, including the loss of physical health, meaning, cognition, significant others, and function. These loss experiences may render older adults more vulnerable to engaging in (N)SSI. Research in-

dicates that the loss of loved ones and of function leads to reduced social contact and a diminished sense of purpose (e.g., Holm et al., 2019), both of which have been identified as significant risk factors for (N)SSI (Crocker et al., 2006; Van Orden et al., 2015; Wand et al., 2018a). Additionally, the loss of physical health may result in decreased mobility, which in turn may further contribute to reduced social contact (Chen et al., 2024; Pantelaki et al., 2021), increased dependency, and feelings of being a burden (Cahill et al., 2009; Torres-de Araújo et al., 2018). Hence, coping skills may be essential to effectively deal with this (e.g., Teater & Chonody, 2020). However, cognitive deterioration tends to increase with age, placing coping mechanisms under pressure (Meléndez et al., 2018). Additionally, some older adults may lack the necessary coping strategies to deal with these challenges. This suggests a need for further research regarding the association between loss and (N)SSI in older age and the potential effect of age on the association between (N)SSI and loss throughout the lifespan. Future research should also focus on the development of preventive and intervening measures to further lower the threshold for older adults to access mental health care, to create and preserve social connections and to foster appropriate coping strategies among older adults (e.g., Holm et al., 2019).

In addition to the abovementioned suggestions for future research, a screening tool specifically targeting the presence of risk factors for (N)SSI among older adults may enable professionals to be more vigilant regarding (N)SSI in older adults. Moreover, the present study focused solely on factors at the biological, psychological and social levels. The application of a broader model in future research, such as the social-ecological model (Bronfenbrenner, 1994), might enable us to gain a better perspective of associated factors at the community and society level.

## Conclusions

The current study aimed to explore potential risk factors for (N)SSI among older adults by gaining insights from interviews with nine psychogeriatric experts. We identified a spectrum of biological, psychological, and social factors contributing to (N)SSI, largely in line with previous research findings regardless of age. However, cognitive and physical decline, older age, a variety of loss experiences, and social isolation arose as potential poignant risk factors specific to older adults. These findings underscore the need to develop preventive measures, interventions, and screening tools tailored to address the unique risk factors and challenges faced by older adults who may engage in (N)SSI. Future research should also focus on exploring (N)SSI experiences in older age using a more heterogeneous sample (i.e., older adults themselves, healthcare providers and other informants) to deepen our understanding of this phenomenon in older age.

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Online supplementary material:

Appendix A. COREQ Checklist.

Appendix B. Table 1. Overview of themes in interviewees' responses regarding potential risk factors of (N)SSI in older adults.

Appendix C. Interview guide.