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Non-Suicidal Self-Injury and Emotional Dysregulation in Male and Female Young Adults: A Qualitative Study

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Objectives: Non-suicidal self-injury (NSSI) has been theoretically, clinically, and empirically associated with emotional dysregulation. NSSI is a means of regulating emotional states, particularly negative emotions. However, empirical studies on this topic are scarce and the literature lacks qualitative research on individuals' perceptions and comprehension of the function of self-injury. Thus, this qualitative study aimed to provide novel insights into the relationship between NSSI and emotional dysregulation in young adults.
Methods: Twelve participants (mean age=22.7 years, 9 females and 3 males) from different support groups and a healthcare center participated in semi-structured interviews on NSSI-related emotional processes. Three aspects were investigated: reasons for NSSI, function of NSSI, and emotions. Each interview was voice recorded and typically lasted between 20 and 40 minutes. All responses were analyzed using thematic analysis.
Results: Four major themes were identified. The results showed that NSSI had both intrapersonal and interpersonal functions, within which emotional regulation played a significant role. NSSI was also used to regulate positive emotions. The results also showed a sequence of emotions among the participants, going from feeling overwhelmed to feeling relatively calm but guilty.
Conclusion: NSSI has several functions for the same individual. Thus, it would be interesting to provide integrative therapy, such as emotion-focused therapy, which focus on improving intrapersonal and interpersonal emotion regulation skills and strategies.

Keywords: Non-suicidal self-injury; Emotion; Emotion regulation; Qualitative study.

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INTRODUCTION

The International Society for the Study of Self-Injury [1] defines self-injury behavior as "deliberate and self-inflicted damage of body tissue without suicidal intent and for purposes not socially or culturally sanctioned." This transdiagnostic entity is common worldwide and its prevalence rates across countries are stable [2]. Thus, non-suicidal self-injury (NSSI) is a "long-standing concern for health professionals and an increasing area of clinical research" [3]. As NSSI can be considered an attempt to communicate, express, or relieve one's suffering, it can occur at any age. Nevertheless, the prevalence of NSSI is high, especially so among adolescents and young adults [4]. While NSSI usually begins to manifest between 12 and 15 years of age [5], recent data suggest that it peaks among emerging adults between 20 and 24 years of age [4]. The prevalence tends to be higher among females, especially in clinical populations [6], although these differences tend to disappear as adolescents grow older [7].

In addition to being an entity that is not yet fully established within international mental health classifications, our understanding of NSSI in terms of its motivations and behavioral functions is incomplete. Indeed, most explanatory models consider self-injury to be a maladaptive way of regulating one's emotions [6-11]; it is true that regulating emotional distress is the most common reason for NSSI. Emotional regulation is a process that can be defined as the ability to manage negative and positive emotional experiences, in terms of valence, intensity, and time course [12]. Recently, the dysregulation of emotions has been divided into two complementary categories: emotion regulation deficits and emotion regulation strategies. According to the model of Gratz and Roemer [13], emotion regulation deficits refer to deficits in awareness, clarity, understanding and acceptance of emotions, control of impulsivity, engagement in goal-oriented behaviors, and limited access to emotion regulation strategies. The term strategies refers to the specific strategies used to regulate emo-

tional states, which correspond to the model developed by Gross and John [14]. These authors distinguished between two types of emotion regulation strategies: those focused on the antecedents of the emotional experience and those focused on the response. Antecedent-focused strategies refer to the way we act before the emotion has fully appeared, that is, before our behavior has been modified [14]. Cognitive reappraisal is the best known and most studied strategy. It involves interpreting a situation in such a way as to modify its emotional impact [14]. This is particularly suitable because it can effectively modify the entire emotional trajectory. Response-focused strategies, on the other hand, occur when an emotion is already present, and our behavior is already influenced by it. For example, expressive suppression involves inhibiting an emotional behavior that is already underway [14]. While it reduces the behavioral expression of the emotion, it does not reduce the emotional experience itself, and could lead to an unresolved accumulation of negative experiences.

Several limitations can be raised regarding studies on the relationship between emotional dysregulation and NSSI. First, only six studies investigated these relationships in adolescents and young adults [15-20]. These studies partially supported the theoretical assumption that NSSI was linked to emotional dysregulation. Indeed, people who self-injure seem to present with more difficulties accepting their emotional responses, difficulties engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness and clarity, and limited access to strategies [15,16,18-20]. More generally associated with negative emotions, a recent study showed that non-acceptance of positive emotions is also related to NSSI [17]. However, NSSI was not associated with adaptive (i.e., cognitive re-evaluation) or maladaptive (i.e., suppressive expression) emotion regulation strategies [19]. The aforementioned studies have several limitations. Most studies included only women. Furthermore, all studies on NSSI and emotional dysregulation have focused on correlation-based analyses. Investigating NSSI and emotional dysregulation using a qualitative research design would be relevant, and has two major advantages. First, it would allow for a more precise understanding and analysis of the data, improving the knowledge of NSSI, and thus allowing for a more in-depth exploration of its associated emotional processes. On the one hand, this can promote a better understanding of the psychological motivations behind this behavior and, on the other hand, a better understanding of the emotional experience of individuals at the time of NSSI. Second, qualitative data can provide insight into the personal experiences of individuals who self-injure and the meaning that they ascribe to NSSI.

Thus, this study aimed to offer new insights into the relationship between emotional dysregulation and NSSI, and to conduct an in-depth analysis of the underlying emotional processes using qualitative methods. Specifically, we hypothesized that individuals who self-injure have difficulties in accepting their emotions, especially negative ones, and that NSSI is used as a strategy for regulating negative emotions. Given the emotional sequence of NSSI, we postulated that negative emotions would be present upstream and NSSI would allow a return to a pleasant emotional state.

METHODS

Participants and procedure

This study was approved by the Institute of Psychology of the University of Paris Cité. Twelve participants (nine females and three males) participated in this study. Ten were recruited from support groups dedicated to NSSI, while two others were recruited from a healthcare center. All participants received information about the survey and provided written informed consent. All participants had experienced self-injury at least five times during the past year without any suicidal intention. The participants were aged between 21 and 24 (mean=22.72, standard deviation [SD]=1.25) years. They had been self-injuring, on average, since they were 13 years and 7 months old (SD=3.47 years) and had been doing so, on average, for 7 years and 8 months (SD=4.21 years). Details of the participants are provided in Table 1.

Measure

In-depth and semi-structured interviews were conducted with all participants. An interview guide was written to maintain consistency across interviews. For this purpose, general instructions and a short list of pre-established questions were prepared. The interview guide was based on a literature review and was created by a scientific team of experts in the field of NSSI, comprising researchers trained in qualitative research and psychologists caring for individuals who self-injured. The practice of NSSI was investigated, but the main focus was on behavior and all associated emotional elements. The interview covered three main questions: 1) the reasons for NSSI ("Could you tell me what led you to self-injure?"); 2) the functions of NSSI ("What meaning do you give to this behavior?"); and 3) the feelings before, during, and after NSSI ("Can you tell me about your feelings before, during, and after self-injury?"). During the interviews, additional follow-up questions were used to help participants elaborate on their statements. Each interview was voice-recorded and lasted between 20 and 40 minutes. The digitally recorded audio interviews were destroyed after the study while the stored written data were anonymized.

Table 1. Sociodemographic and NSSI data of the participants

	Value (n=12)
Age (yr)	22.72±1.25
Sex	
Female	9 (75)
Male	3 (25)
Education	
High School diploma	3 (25)
Bachelor's degree	7 (58)
Master's degree	2 (17)
Professional status	
Unemployed	1 (8)
Employed	2 (17)
Student	9 (75)
Marital status	
Single	7 (58)
In a relationship/married	5 (42)
NSSI type	
Cutting	10 (83)
Biting	1 (8)
Onychophagia	2 (17)
Scratching	3 (25)
Punching oneself	1 (8)
Burning oneself	3 (25)
Age of onset (yr)	13.72±3.47
NSSI duration (yr)	7.81±4.21

Values are presented as mean±standard deviation or number (%). NSSI, non-suicidal self-injury

Data analysis

Before we began the data analysis, we reached a certain degree of saturation. The data were imported and analyzed using NVivo (QSR International Pty Ltd., Burlington, MA, USA), a qualitative data analysis software. After repeatedly and carefully reading the transcripts of all the interviews, the two authors (DT and CB) built a coding framework that we discussed and validated. The interview transcripts were analyzed according to the steps described by Braun and Clarke [21]. After familiarizing ourselves with the data, we generated the initial codes (i.e., labels relevant to the research question). We then organized our initial codes into themes based on their frequencies across the data, similarities, and overlaps. After review, we defined and named them. We then extracted the nodes to analyze the presence of subthemes. Finally, we organized the subthemes from most to least important depending on the number of participants who mentioned them and their frequency of mention.

RESULTS

All participants had difficulty answering questions regarding their emotions before and during the NSSI. The answers were often unclear, and it took several tries to get them to express their emotions. Talking about emotions after NSSI was easier because all participants expressed guilt related to NSSI. Furthermore, all participants had difficulty connecting with their pain and tended to laugh defensively. Four major themes were extracted from the thematic analysis of participants' responses (Table 2) and several subthemes were identified within each theme. All participants had experienced traumatic life events (e.g., death of a parent or bullying), and most of them had a mental health disorder (e.g., depression, eating disorder).

NSSI functions

Intrapersonal

Emotional regulation

Two subthemes emerged regarding NSSI functions. First, the participants talked about the intrapersonal functions of their behavior (n=12). They explained that NSSI was a way to regulate emotions, both negative and positive ones: "It's when after a while, when it's too much, when there are too many things I can't manage," "When I was happy about … an event, I celebrated it by self-mutilation," and "Uh... After that it was a way to manage my emotions in the sense that when it was too strong or too difficult."

Distraction of attention

NSSI helped some participants distract themselves from their psychological distress by concentrating on NSSI (n=8, including 1 man). Painful feelings are ignored during the behavior, which also reinforces it: "Because I really focus on uh… the cuts uh, well… yeah it allows me to focus my attention," "There are times when it gave me something to focus on," and "It gives a little moment to think about something else."

Emotion suppression

Many participants were overwhelmed by their emotions and felt the need to suppress them as quickly as possible (n=7, including 2 men). This was actually associated with emotional intensity: the more intense the emotion was, the more the need and the impulse to suppress it were present: "It's happened at times when I explode, it's really when I am overwhelmed by my emotions" and "The feeling like that when you're really not well... there was something in me and I wanted to take it out."

Table 2. The thematic tree of the main themes and subthemes addressed by the participants

Themes and subthemes	Frequency	Case	Examples of verbatim
Context of NSSI			
Environmental	8	6	"I started doing it when I was… 18 years old I think. Uh, maybe 17. Uh… After a hard break up"
Psychiatric	6	7	"I had anorexia, bulimia when I was young and uh let's say it was the second step"
Similarities with addictive behavior			
Tolerance	2	2	"The more we do it, the less it hurts, the more, inevitably, it gets bigger"
Craving	11	5	"I have this irrepressible need to do it"
Conflict	7	6	"There're plenty times, plenty times where I want to do it but I try to stop myself but I can't"
Withdrawal	3	1	"It's like a withdrawal"
NSSI functions			
Intrapersonal			
Emotion regulation			
Distraction of attention	12	8	"Something to make me think of something else or…"
Emotion suppression	7	7	"It's a bit of a short circuit…to not feel emotion anymore"
Emotional control	13	7	"A need for, control, to regain control"
Exteriorization of suffering	21	7	"I got used to doing as a thing to externalize"
Dissociation	3	3	"Being far away of everything, being disconnected"
Lack of ER strategies	10	8	"Want to get out of distress but not be able to and not know how to do it otherwise that self-injure"
Emotional relief	14	8	"We really have the impression of a shot of I don't know what hormone"
Emotional acceptance	3	2	"And it's also to accept my emotions"
Induce positive emotion	8	5	"The dopamine shot, it gave me this feeling of being high"
Self-punishment	10	7	"To punish me too, where I suddenly felt guilty about something and I thought, go, my way to punish myself"
Be active	6	4	"And uh.. And I wouldn't know how to say it but it was a way of, of doing an action"
Interpersonal			
Attention seeking	11	5	"I think in hindsight in real life it was maybe for a need of attention, that I did this"
Affection seeking	5	2	"Because here I was lacking affection"
Being recognized	9	4	"You seek recognition"
Emotion sequence of NSSI			
Being overwhelmed by negative and positive emotions	25	10	"It kind of happened to me at times when I explode, it's really that the emotions overflow"
Relief	13	10	"It's like I unload a load, I say to myself it's okay, the crisis has passed now I feel soothed"
Feeling guilty and ashamed	17	11	"First, shame. That's for sure because, uh, you can't show it. Guilt because I regret it"

Frequency: number of times the code appeared in the interviews. Case: number of interviews out of 12 in which the code appeared. NSSI, non-suicidal self-injury; ER, emotion regulation

Emotional control

NSSI was a way of regaining control and being active in relation to the emotion that the individual was suffering from (n=7, including 1 man). Most participants highlighted the fact that they felt like victims of their emotions, and self-injuring was a way to generate physical pain that was controllable: "Physical pain versus psychological pain... There's a notion of wanting control over the situation" and "Because you are the master of pain. And that's why I said to you earlier that I am really submissive to pain. The fact that you take control of the pain, cutting a little more, cutting a little deeper, a little less, bleeding more, bleeding less."

Exteriorization of suffering

For some participants, NSSI was a way of externalizing suffering (n=7, including 2 men) when they usually tended to store emotions or were in environments that did not offer them the opportunity to express themselves and externalize their emotions: "I had a lot of pain inside me, I had to get it out," "There is necessarily a psychic suffering at the base, the evil was so big that that allowed me to externalize," and "The pain I felt inside, I told myself that I had to feel it outside."

Dissociation

For some, NSSI could provoke a dissociative state during which they felt disconnected from reality (n=3, all women). They described moments in which they self-injured and watched themselves bleed for several hours. When this happened, only external stimuli or the fear of being seen could reconnect them to reality: "Being far away from everything, being disconnected" and "The moment it's just a desire to go far away in a place where you don't think, in a place where you don't feel."

Lack of emotion regulation strategies

For some participants, NSSI was their only emotion regulation strategy (n=8, all women). Indeed, when they found themselves in intense emotional situations, they felt frustrated and did not know how to react or regulate their emotional states. With time, self-injury seemed to become a strategy for regulating all emotional states: "When I'm sad, I get so upset, I don't know what to do anymore and I don't know how to react, how to do something and can't do anything… The image of, well really, crying, screaming and obviously even that is not enough, must... To express an emotion so bad that I don't know how to react to those emotions."

Emotional relief

Some participants mentioned feeling better during the NSSI (n=8, including 1 man). While the duration of this relief was relatively limited, it provided them with sufficient respite to want to do it again: "Yeah [for] one, it's kind of an alternative to taking an anxiolytic" and "Maybe it really lasted very, very little time, actually. Feeling better was really on the spot and then from the moment it was over and well... well it was gone."

Emotional acceptance

For some, NSSI was a way to make suffering real, to visualize it and to accept it (n=2, all women): "It's so that it's real and my suffering is real, has importance" and "And it's also a lot to accept my emotions."

Induce positive emotions

During the act of self-injury, some participants reported feeling high (n=5, including 1 man). The participants expressed the feeling being akin to that of receiving a rapid action drug, allowing them to feel good, and be in a positive emotional state: "The dopamine shot, it gave me this feeling of being high," "That feeling of being high," and "We really have the impression of a shot of I don't know what hormone."

Self-punishment

In some cases, self-injury had a self-punishing effect (n=6, all women). They felt that they had done wrong in the past and that they deserved suffering. This further reinforced the use of self-injury: "I was happy to punish myself and it felt good," "I think maybe at first it was, well, a way maybe to punish myself," and "You have no right to be happy so do it to yourself."

Being active

NSSI was a way of remaining active when they felt like they were in too much of a passive position in their lives (n=4, all women): "…in something quiet since I am in something active...to actively think about caring," "And uh... And I wouldn't know how to say it but it was a way of, of doing an action," and "Because you are the master of the physical pain."

Interpersonal

Attention seeking

For some participants, NSSI had interpersonal functions (n=6, including 3 men). There were four main reasons for NSSI in this context. The first involved seeking attention and support from others. This could be attention from their family or their loved ones, and also from more distant people such as classmates: "I wore short sleeves to show my scars… it was a lack of attention," "But yes at first there was this idea of 'well look I am not doing okay'," and "To give me

the attention…"

Affection seeking

NSSI was also a way for participants to obtain affection and love (n=2, including 1 man). They believed that, given their self-injuring, their loved ones may be more likely to give them time, to express their love when this was not usually the case: "You seek affection, empathy," "To see if the others will be more affectionate," and "I was maybe waiting for my parents to notice this, give me love, the, like everything that a child deserves."

Being recognized

Strongly linked with attention seeking, participants who self-injured also wanted to be understood and recognized (n=4, including 2 men). They were suffering, did not understand why, and did not know how to express themselves. Hence, their scars were a way of being recognized, for people to finally see the pain that they did not know how to express in another way: "It's 'I wasn't doing well' and I was thinking to myself that people who are not well self-mutilate, as a result it was, well it was a bit like that. Everything to make it true that I'm really doing badly." "Actually I don't have the words. You expect that when people see that they say, 'Ah, he suffers, ah he's, it's someone who,' I don't know, I don't know if there's a word for it. I don't know if there's a word but you're looking for it, you're looking for recognition."

Emotional sequence of NSSI

Being overwhelmed by negative and positive emotions

Almost all participants described the same NSSI sequence. First, they described being overwhelmed by negative or positive emotions (n=10, including 3 men). Sadness was mentioned, including loneliness that led to pessimistic ruminations or suicidal thoughts, and seemed to precipitate the use of self-injury: "Well, because it's in those moments that we feel alone and, paradoxically, we'll have a little bit of a headache saying that in any case the world is not for us, the world does not understand us so much so we might as well isolate ourselves (...). I was a little bit in a, in a phase of, 'Well, I'm alone, I'm left to myself, it doesn't matter if I'm alone and if I self-destruct, it's not very serious'."

For some participants, the moments before the self-injury were marked by anxiety. This anxiety was at the forefront of their sensations, to the detriment of all others, whatever their valence: "I tend to worry all the time, actually. Uh, I'm anxious uh… all the time, all day so I am used to it but in the evening it increases a lot." For others, anger was at the forefront. This anger had the particularity of being directed mainly towards themselves and was associated with ruminations of extreme self-depreciation. This anger appeared before NSSI but also after and motivated them to self-injure again: "Uh there are yeah, moments of, of anger and especially of anger against myself. Depression means, well, that we are often in patterns of self-depreciation, or that we feed a hatred of ourselves." Three participants also mentioned positive emotions preceding self-injury. Indeed, although self-injury is mainly used in negative emotional contexts, it remains an emotion regulation strategy regardless of the valence of the emotions. In fact, when intense positive emotions like happiness occurred for some participants, this behavior remained their means of externalizing and expressing their emotions: "It was very complicated because, well, when I was happy with such event, well, it's like I was celebrating it by self-injury."

Relief

The act of self-injury, associated with the physical pain, produced a sense of relief (n=10, including 1 man). Initially, the individuals reported being truly relieved and appeased. They were able to release their emotions and hence free themselves from all the psychological tension they had accumulated thus far. NSSI allowed them to return to a peaceful, balanced and tolerable internal state: "The impression that there is something that is released at the moment of feeling the pain," "And then, then I'm just quieter actually. Uh... much quieter, um. And uh... yeah, more appeased actually (...). Yeah, calmer uh... kind of the calm after the storm, you know," and "This feeling of stop, the emptiness, I am soothed in fact."

Feeling guilty and ashamed

After the NSSI, the participants felt guilty (n=11, including 3 men). Due to its negative valence, this feeling adds to the suffering that is already present. More concretely, self-shame and "relapse" were frequently reported: "Um, that can sometimes turn into guilt for doing this by thinking that it was completely unnecessary or that, or that, or that it wasn't worth it. Or to think that in fact we can't do anything else. It's a lot of thinking that comes. We think, well, 'I can't do otherwise'." Beyond self-shame, guilt added to their pyramid of negative feelings and emotions associated with self-injury. This guilt referred to the cause of suffering and/or anxiety in the entourage. The latter was experienced with suffering, all the more when relatives expressed their misunderstanding: "Even if my parents reacted badly, I think they reacted badly because it must be hard to see the person they created self-destruct, plus I'm an only child so I think a big part of their wrong reaction is simply due to the fact that 1) they did not understand but 2) that they were also worried and it hurt them to see that happening. Uh… And I can see that uh friends,

partners, uh… So there's that and uh… I feel guilty."

Finally, feelings of regret arose due to the pain and physical discomfort caused by the self-injury over the following days. Participants found the use of this behavior to be sickening with respect to the pain created by the wounds, but also the consequent itching: "But on the other hand, the next day, uh... I'm sorry. Um... but then I'm pretty calm, I'm fine, I'm not thinking about anything anymore, but the next day I, I, I, I'm thinking, 'But why did you do this', because it's, it's just irritating. It hurts, it's, it's irritating to hide from others. It's, it's more headache than anything else actually."

DISCUSSION

This qualitative study aimed to offer new insights into the relationship between emotional dysregulation and NSSI. To the best of our knowledge, previous qualitative studies have focused on the functions and/or sequences of emotions in NSSI. This study is the first to specifically deepen emotional regulation in NSSI in a qualitative manner based on contemporary models, including emotion regulation deficits and emotion regulation strategies.

Taken together, our results partially confirmed our hypothesis that individuals who self-injure experience major emotional regulation difficulties. All our study participants highlighted the fact that they would become overwhelmed by their emotions and feel the need to transform their emotions into physical pain, perceived as more controllable (e.g., being able to control the depth of injury). They had difficulties not only in understanding, verbalizing, and differentiating their emotions, especially negative ones, but also in tolerating them. Our results highlighted the importance of emotional intensity. Indeed, their urge to self-injure increased as their emotions intensified. Thus, over time, they became intolerant of every emotion, regardless of its intensity and valence. This may be linked to impulsivity, which is frequently associated with NSSI [22]: when emotions are too intense, they crave NSSI, and considering that they may be more impulsive than the general population, they self-injure. NSSI was also a way to focus attention on physical pain, which allowed participants to dissociate from psychological pain.

In agreement with affect regulation-based models [9,11,23] and experiential avoidance models [9,23], NSSI is a way of externalizing emotions (releasing them), suppressing emotions (not feeling them anymore), dissociating from painful cognitions and emotions, and regaining control over emotions. When participants felt emotionally challenged, the NSSI was an attempt to return to an active position in their life. They realized that NSSI had become an emotion regulation strategy and that they lacked other alternatives to regulate their emotions. This result is in accordance with previous quantitative studies that showed that people who self-injure have limited access to emotion regulation strategies [18,20].

Our results also shed light on the emotional sequence of NSSI. As in previous studies [2,24] and in line with our hypothesis, the participants felt sad, anxious, or angry before engaging in NSSI, and calmer and soothed after self-injuring. This supports a systematic review that found that the administration of physical pain was associated with less negative affect [25]. However, this relief and appeasement did not last long for the participants. Quickly, they regretted their actions and felt guilty. According to Fox et al. [26], self-critical people are satisfied when they receive deserved punishment, such as NSSI. Thus, one can imagine that self-injury reinforces self-criticism (concerning regret or shame for this behavior) and, simultaneously, these self-critics participate in self-satisfaction and reinforce NSSI. This highlights the necessity of providing therapeutic work on self-criticism among people who self-injure. It is also important to highlight that, after self-injury, participants were almost systematically torn between the calm and appeasement obtained and the guilt, shame, and regret that were almost as intense and instant. These results are consistent with the literature [9] and highlight the importance of the desire for relief. Although short-lived, the soothing sensation obtained by self-injuring, reinforced the pursuit of the behavior, regardless of its long-term and negative effects. Another element that could explain why they continued to self-injure is that people frequently think that resisting NSSI is impossible [27]. This could amplify their guilt and shame and may ultimately contribute to the maintenance of NSSI.

Unexpectedly, one of the major new emphases pointed out in our study is that participants noted the generalization of their behavior to multiple emotional contexts. As previously mentioned, NSSI relieves (intense) emotions or attracts others' attention; however, over time, positive emotions can also be regulated by this behavior. Although negative emotions are particularly intense for people who self-injure, and positive emotions are less frequent [28], their occurrence can challenge them in terms of exteriorization, control or regulation. To the best of our knowledge, this result has been reported only in one previous study [17]. According to its authors, when vulnerable individuals feel a positive emotion, they may not accept it and may feel guilty, which could lead to NSSI. This was observed in the speeches of our participants, who expressed that they did not accept feeling happiness. Beyond this, some participants also used NSSI to regulate their positive emotions, as if they needed to self-injure to avoid being overwhelmed by these feelings. Therefore, NSSI

can also become an emotion regulation strategy for all emotions, rather than just negative emotions. In our study, NSSI helped participants feel better because of both the need to externalize positive emotions and the need to decrease negative ones.

Taken together, these data have important implications for understanding the functions of NSSI. Although intrapersonal functions (emotional regulation, self-punishment, and return to an active stance) were frequently emphasized by the participants of our study, they also used the NSSI to communicate their distress to others or to influence their behavior. Indeed, NSSI is a physical and visible way to express oneself socially, particularly when emotion regulation skills are lacking. Sufferers may wish for their relatives to give them love, attention, and support following NSSI. However, our study highlights that, beyond seeking attention, people seek pain to be recognized in their relationships. This result supports previous theoretical conceptualizations that consider NSSI to have an interpersonal function of emotional regulation [9,23]. Ultimately, NSSI is underpinned by two major processes: intrapersonal and interpersonal experiences. This is what Nock [29] suggested in his four-factor model when he proposed that people tended to self-injure both when they needed to diminish negative feelings or thoughts and when they needed to reinforce social interactions, such as getting attention. Notably, our study showed that both intrapersonal and interpersonal functions motivated individuals to self-injure and that these two functions sometimes coexisted simultaneously within the same individual. Moreover, given that we found a generalization of emotional contexts prior to self-injury, it seems that such behavior is not simply maintained by negative reinforcement, as previously postulated [30]. Because regulating positive emotions can be added to the functions of NSSI, this behavior can occur in response to any emotion and is maintained by positive reinforcement.

Considering this, it is not surprising that the participants' discourse was similar to the symptomatology of addictive behaviors (tolerance, conflicts, and craving). Similar results have been reported in previous studies, highlighting the features of addictive behaviors in NSSI. However, debates persist, and it would be inaccurate to conceptualize NSSI as an addictive behavior. Indeed, one study investigated one of the key symptoms of the addictive process, namely craving, and showed that this construct was more central for substance use disorder than for NSSI [30]. Furthermore, the use of terms referring to addictive behaviors by participants can be interpreted as a way of reducing the stigma around NSSI, while implying that recovery would be possible [31]. Further studies are needed to clarify the similarities and differences in process between addictive behaviors and NSSI.

This study has several limitations. First, our sample comprised volunteering participants. Thus, our sample selection was based on convenience and may have included participants with increased self-awareness of their issues. Second, only three males were included in this study. While their responses were similar to those of the females regarding several themes (such as emotional regulation), none of them mentioned positive emotions before the NSSI, and they had more difficulty talking about their emotions than the women did. It is undetermined whether this difficulty in expressing feelings is due to weaker emotion regulation skills or due to another unknown factor. Future studies are needed to clarify whether males and females differ in their emotion regulation skills. In addition, the interviews were of heterogeneous durations. As explained previously, some participants did not express themselves as much; a deeper analysis and understanding of the processes could have been reached if all interviews had been of the same duration. Finally, the cultural contexts of the participants were not considered in the interviews. However, the participants were not of the same race. A few of them spoke of the influence of their native country, and previous studies have highlighted its influence on NSSI [32]. This probably limits our understanding of the processes underlying NSSI.

CONCLUSION

Despite these limitations, our study is the only one to qualitatively investigate NSSI and emotional dysregulation in both males and females. This reinforced the theoretical and empirical evidence proposing an association between emotion regulation and NSSI, because the results showed that people who self-injure have difficulties understanding their emotions, lack emotional granularity, and have adaptive strategies to manage them. Our study also highlighted that over time, NSSI is a way to regulate all emotions, regardless of their valence. To the best of our knowledge, this result has not been reported before, indicating that NSSI can become a general emotion regulation strategy. Our results also showed that NSSI has both intrapersonal and interpersonal purposes for the same individual. Thus, NSSI is linked to complex psychological processes that serve different functions depending on an individual's mental state [3,11]; more complex models can better account for these behaviors [33]. These findings underline the need to offer people who self-injure psychotherapeutic interventions that focus on several dysfunctional psychological processes rather than therapies that focus on single disorders or have a unique therapeutic method. Transdiagnostic approaches, such as emotion-focused therapy, which reduce the pressure to be proficient in a pleth-

ora of single-disorder focused treatments, seem particularly adapted [34]. This approach focuses on intrapersonal and interpersonal emotional regulation, such as self-criticism and relational difficulties, which seem to be implicated in the engagement and maintenance of NSSI.

Practically, it is important to target therapeutic work for deficits in intrapersonal and interpersonal emotion regulation skills. This would help patients better understand, identify, accept, and regulate their emotions, whether positive or negative. In turn, this would enable them to connect with their emotional experiences to access their underlying needs and thus implement behaviors to meet these needs. To achieve this, the therapist could, for example, use psychoeducation about emotions, regarding their triggers, manifestations, especially in the body, links to behaviors, and associated needs. The Wheel of Emotions could be a relevant tool in this context, as it provides support for verbalizing and understanding emotions. In addition, motivational interviewing and decisional balance [35] could be suitable transdiagnostic tools for addressing these difficulties. On one hand, they allow them to verbalize the benefits of NSSI, which in turn helps them work on intrapersonal and interpersonal regulation (emotion regulation, seeking social support, etc.). On the other hand, this study could amplify the ambivalence already present in patients, leading them to further elaborate on all the disadvantages of NSSI. This reinforces their motivation to change and use more appropriate emotion regulation strategies.

Availability of Data and Material

The datasets generated or analyzed during the study are not publicly available due to confidentiality but are available from the corresponding author on reasonable request.

Conflicts of Interest

The authors have no potential conflicts of interest to disclose.

Author Contributions

Conceptualization: Daphnée Thomas, Céline Bonnaire. Data curation: Daphnée Thomas, Céline Bonnaire. Formal analysis: Daphnée Thomas, Céline Bonnaire. Investigation: Daphnée Thomas. Methodology: Daphnée Thomas, Céline Bonnaire. Project administration: Daphnée Thomas, Céline Bonnaire. Resources: Daphnée Thomas, Céline Bonnaire. Software: Céline Bonnaire. Supervision: Daphnée Thomas, Céline Bonnaire. Validation: Daphnée Thomas, Céline Bonnaire. Visualization: Daphnée Thomas, Céline Bonnaire. Writing—original draft: Daphnée Thomas, Céline Bonnaire. Writing—review & editing: Daphnée Thomas, Céline Bonnaire.

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