# "I didn't wake up in the morning and think that I was going to kill myself": Conceptual Model of and Intervention Development for Unplanned Suicide Attempts

Authors:

Ursula Whiteside, PhD <sup>1,3</sup> Julie Angerhofer (formerly Richards), PhD, MPH <sup>2,4,1</sup> Martina Fruhbauerova, MS<sup>5,1</sup> Ghazaleh Shokouhaghaei, MA 6,1

\*The authors contributing to this manuscript have had personal experiences involving suicidal thoughts and behaviors and/or have been directly affected by suicide loss.

Corresponding author email address: Ursula Whiteside, ursulawhiteside@gmail.com

**Author contributions**: Ursula Whiteside, Ph.D., participated in the study design, acquisition and analysis of data, and drafting of the final manuscript. Julie Richards, PhD, MPH, participated in the study design, acquisition and analysis of data, and drafting of the final manuscript. Martina Fruhbauerova, MS, participated in the critical review, drafting, and submission of the final manuscript. Ghazaleh Shokouhaghaei, MA, participated in the critical review, drafting, and submission of the final manuscript. All authors have given final approval to the manuscript.

Conflict of interest statement: NowMattersNow.org is a free public resource. It also is a 501c3 nonprofit in the United States. Authors MF and GS volunteer for this organization and have never been paid, while UW is contract staff and JR is contract consultant. There is no conflict of interest, but there are co-interests of better access to support for people at risk for suicide.

**Funding statement:** Funding for this study was provided by a grant from the American Foundation for Suicide Prevention (SRG-0-150-13) and NowMattersNow.org

**Number of Tables and Figures:** 2 Figures and 1 Table

Word count: 4837

**Key Words:** suicide prevention, suicide attempt, suicidal disclosure, conceptual model,

qualitative methods, intervention development

<sup>&</sup>lt;sup>1</sup>NowMattersNow.org, Seattle

<sup>&</sup>lt;sup>2</sup>Kaiser Permanente Washington Health Research Institute, Seattle

<sup>&</sup>lt;sup>3</sup>Department of Psychiatry and Behavioral Sciences, University of Washington School of Medicine

<sup>&</sup>lt;sup>4</sup>Department of Health Systems and Population Health, University of Washington

<sup>&</sup>lt;sup>5</sup>Department of Psychology, University of Kentucky

<sup>&</sup>lt;sup>6</sup>Department of Counseling and Health Psychology, Bastyr University

#### **Abstract**

#### Introduction:

More than half of those who die by suicide do not communicate about suicide prior to their death. This project describes the emotional and decision-making among "unplanned" attempt survivors to inform conceptual model and suicide prevention interventions.

#### Methods:

This qualitative study purposefully sampled patients who reported having no suicidal thoughts on a standardized mental health questionnaire within 60 days (about 2 months) prior to a non-fatal suicide attempt documented in the health record. Participants verbally consented to telephone interview participation. Semi-structured audio-recorded interviews elicited suicide attempt survivor descriptions of their emotional state and experiences in the days, hours, and minutes leading up to their suicide attempt. Interviews were transcribed and analyzed using grounded theory. The biopsychosocial theory of emotion regulation informed conceptual model development.

#### Results:

Participants (N=26) described two distinct "phases" prior to the attempt. First, a phase of increasing life stressors, transitory and non-specific suicidal thoughts, and reluctance to disclose experiences. Second, an overwhelming emotional state led to a sudden suicide attempt, and non-disclosure due to the rapidity and intensity of the experience. These results informed the conceptual model and intervention development to manage unplanned and overwhelming urges to attempt suicide.

#### Discussion:

Qualitative analysis informed development of an intervention for the high intensity "hot" period preceding an attempt, including specific steps to manage a highly intense emotional state in combination with overwhelming urges to kill oneself.

#### Conclusion:

Future research is needed to evaluate whether and how this intervention helps support people at risk of "unplanned" suicide attempts.

Understanding why individuals share or withhold suicidal thoughts from family, friends, or healthcare providers is crucial for developing effective suicide-specific interventions. Rates for suicidal disclosure prior to suicide attempts vary between 30% and 60%, with a recent meta-analysis, suggesting approximately half of those who die by suicide disclosed their thoughts or intent<sup>1–5</sup>. Factors influencing disclosure include stigma-related concerns, fear of judgment, prior mental health treatment, demographic factors, and relational-level factors such as trust and confidentiality<sup>2,6–13</sup>.

It is important to acknowledge that the conceptualization of "failure to disclose" holds significance only in the presence of information that warrants disclosure. Indeed, extant research consistently indicates that a significant proportion of suicides occur without prior planning<sup>14–19</sup> and some individuals who attempt suicide do not even experience suiciderelated thoughts<sup>20</sup>. Additionally, the onset and intensity of suicidal ideation and intent can fluctuate greatly over time<sup>21–23</sup>. Further, certain individuals may struggle with introspection, leading to a limited understanding of their own suicidal ideation or intent<sup>24</sup>. Lastly, some individuals may genuinely deny suicidal thoughts and intent, only to experience a rapid onset of suicidal thoughts before individuals engage in suicidal behavior 16,25,26. For example, in a study conducted in the United States with 132 psychiatric patients who died by suicide following evaluations for suicidal ideation within the 30 days preceding their death, 67% had initially refused harboring thoughts of suicide. Notably, half of this subgroup died by suicide within 48 hours of the assessment<sup>27</sup>. Additionally, most suicides occur among individuals categorized as having low or medium risk<sup>28</sup>. These findings suggest that some individuals who opted not to disclose may not have experienced suicidal thoughts or intent or may have encountered them in a manner and within a brief time frame where the consideration of disclosure did not arise. If we better understood individuals' decision-making processes and the reasons behind choosing not to share suicidal thoughts (particularly those related to plans

and intent to kill themselves) in the suicidal crisis and addressed these barriers, we might be better equipped to identify and intervene in those dynamic time-limited periods of acute suicide risk, and as such, prevent suicide.

While those who died by suicide can never tell us why they did or did not communicate regarding suicidal thoughts or intent, suicide attempt survivors can. There are approximately 1.4 million adults in the US who survive a suicide attempt each year<sup>29</sup> – a significant number of people who could share insights into their decision-making regarding whether or not to communicate their intent to die. More recently, research regarding suicide has begun to focus more specifically on the personal experiences of suicide attempt survivors. This research has sought to understand the lived experience of survivors, focusing on the costs and benefits individuals weigh when deciding about suicidal disclosure (e.g. the balance between receiving support and stigma from others<sup>30–35</sup>). Our research team aimed to identify these factors that may facilitate or preclude patients from disclosing suicidal thoughts in healthcare settings. This involved sampling individuals who, during a healthcare visit, reported having no suicidal thoughts but subsequently attempted suicide within the following two months<sup>13</sup>. During the qualitative analysis phase of that project, we learned that almost all of our participants reported that they did not wake up with plans or intentions to die on the day they attempted suicide. Therefore, as a follow-up to that study, we focused on developing a better understanding of these suicide attempt survivors' subjective reality prior to their attempt to aid in intervention development for "unplanned" suicide attempts.

The purpose of the current study was to use the emotional experiences described by suicide attempt survivors who reported having no suicidal thoughts before their attempt to develop a conceptual model to aid in the development of interventions focused on preventing 'unplanned' attempts. This research comprised two distinct stages: 1) we performed secondary qualitative analyses to describe study participants' emotional states and decision-

making processes during days, hours, and minutes leading up to their suicide attempt; and 2) we developed a conceptual model, informed by our qualitative analyses and the biopsychosocial theory of emotion dysregulation<sup>36</sup>, and used this to aid in the development of targeted suicide prevention interventions for the emotional states described.

#### Method

## Stage 1: Qualitative Analysis

## **Participants and Setting**

Electronic health record and insurance claim data electronic health record data were used to identify patients who received care from Kaiser Permanente [KP] Washington who made a suicide attempt within 60 days of reporting having no suicidal thoughts on the ninth question of the Patient Health Questionnaire(PHQ-9)<sup>37</sup>. Suicide attempts were defined using ICD-10 codes for self-injury or possible self-injury<sup>38</sup>. We conducted a retrospective analysis spanning 60 days before the attempt, identifying patients who had completed a PHQ-9 and responded with "Not at All" on the ninth question. Following the automated identification of potentially eligible participants, a member of the research team completed a manual chart review to confirm participants met the eligibility criteria and were not currently hospitalized<sup>39</sup>. Following chart review, eligible patients were mailed an invitation letter with the option to call and opt out of future contact. The interviewer then followed up by phone to invite patients to schedule an interview (in-person or by phone). A \$50 incentive, initially offered for participation, was increased to \$100 following several months of difficult recruitment. Study procedures were approved by the KP Institutional Review Board.

# **Procedures**

Interviews were completed by a psychologist (UW) who was experienced in treating clients with persistent suicidal thoughts and behaviors. Interview guide development was previously described, and the content is available online<sup>12</sup>. The interview started by asking

the participants to describe what happened at the time of their suicide attempt and the circumstances leading up to the time of the attempt, including specific probes about the timing of the attempt related to respondents' thoughts about self-harm. All interviews were audio-recorded digitally and securely transferred electronically to a professional transcription service. For a more detailed explanation of study procedures, see Richards et al<sup>12</sup>.

## **Analytical Approach**

We summarized demographics and suicide attempt characteristics of our participants, including self-reported time to attempt, history of prior attempts, presence of intent on the day of their attempt, and disclosure of experiencing suicidal thoughts (i.e., "thoughts") and/or intending to die (i.e., "intent"). We used phenomenological approaches and Grounded Theory<sup>40–42</sup> methodology to explore the subjective emotional experiences of participants preceding their suicide attempts, aiming to identify phenomena associated with suicide attempts among individuals who did not disclose suicidality prior to their attempt. The psychologist interviewer used Atlas.ti to support the application of Grounded Theory to our interview data<sup>43,44</sup> beginning with open-ended coding of phenomena from interview passages and linking phenomena in a conceptual model<sup>45</sup>. Following the first round of coding, a second team member (RH), reviewed all the interview transcripts to help refine codes and identify prototypic examples.

## Stage 2: Conceptual Model and Intervention Development

The psychologist interviewer/analyst (UW) developed and refined a conceptual model in partnership with the second coder (JR) to conceptualize how suicide prevention interventions may be tailored to emotional states, informed by the biopsychosocial theory of emotion dysregulation from Dialectal Behavior Therapy (DBT)<sup>36</sup>. Next, we reviewed existing interventions to aid in the development of a brief intervention. Drawing from DBT, we used our new model to help develop a unique intervention, guided by crisis coping tools prevalent

in this psychotherapy with the specific focus of matching the decision-making process during days, hours, minutes, and moments leading up to their suicide attempt.

#### **Results**

## Stage 1: Qualitative Analysis

The results section incorporates direct quotes from our participants, with their corresponding identification numbers provided in parentheses following each quote.

## Study Participants

Of 42 individuals eligible for our study, 26 agreed to participate, 10 refused and 6 were unreachable. Most participants were White (76.9%), 60% of them were female, and age varied across a broad spectrum (see Table 1). There were 24 (92.3%) participants who reported that they did not wake up with plans or intention to die that day, while two (7.7%) had some intention of dying but the intended day was unclear. There were 18 (69.2%) participants who reported making a decision to end their lives and acting on it in less than 15 minutes. None of the participants had told others they were intending to attempt suicide, and only four (15.4%) had told friends or family about their suicidal thoughts.

## Description of Emotions Months/Weeks Prior to Suicide Attempt

Participants often described higher than usual levels of emotional intensity related to stressful life circumstances in the weeks and months prior to their attempt, such as problems at work, family conflict, health issues, physical pain, and relationship concerns. Throughout this period, some participants reported experiencing intermittent, transient, and vague suicidal thoughts. These thoughts included notions that loved ones might be better off without them or that if something "bad" were to happen, they wouldn't fight to survive (296, 339). Some participants didn't gauge their suicidal thoughts during this period as "serious" or a "big deal." Others weren't having suicidal thoughts and therefore, there was nothing to disclose. Others described feeling like they didn't have anyone they could turn to for help, or

they perceived that people wouldn't care even if they did reach out (154). Not all participants reported suicidal thoughts in the months and weeks leading up to the day of their attempt.

## Description of Emotions in Minutes/Moments Prior to Suicide Attempt

Participants described being overwhelmed by an extreme crisis in the minutes and moments before the decision to attempt suicide. They described abrupt and emotionally acute phases, transitioning rapidly from intense suicidal thoughts to the decision to die and subsequent action on that intent (i.e. acting in the moment). One participant said, "I didn't wake up in the morning and think that I was going to kill myself" (102). This meant making the decision to take one's own life shortly before the suicide attempt, within mere minutes or moments, without forethought or preparation. Participants use language like, "split-second decision" and "instantaneous" (141), "almost instant" (102), to describe the brief duration between contemplating suicide, deciding to die, and subsequently attempting it. "Before I actually didn't think about killing myself until, like, literally a couple hours before I attempted" (49). In some instances, there was a complete absence of planning; no premeditated thoughts such as, "This is what I'm going to do" (154).

## Triggering Event

Many participants described triggering interpersonal events leading up to these moments, for example, arguments with spouses or parents. One, "I was arguing with my soon-to-be ex-wife, and I felt really bad about what I said, the reason why she left. Then I had this intense desire to want to die" (196). Another participant described, "Specifically, that fight with my mom. That was the super last straw, but that wasn't the main reason I tried to kill myself. That was probably the least main reason, but it triggered me so bad because there was already so much on my plate..." (296). Another participant described difficulty with a health care provider while dealing with chronic pain, "Her whole attitude was 'I can't help

you. Goodbye" and "I've been dealing with this since the first time I blew out my back. ... I finally realized I've had enough of this crap" (245).

## Full Body Emotional Response, Panic Like Response, Intense Desire to Escape

Participants described acute, heightened uncontrollable full-body emotional states directly preceding the decision to die, using words like "devastated" (141), "desperate" (347), and "defeated" (141, 188), as well as describing anxiety and panic attacks. One said, "I had the feeling like I couldn't...get my emotions in check" (154) and "It's like a perfect storm that just hit. I just didn't know how to not drown in it." (228). These were associated with the desire to escape the state. For example, "I just remember feeling depressed and anxious and I just couldn't take it anymore ... I just told myself I can't do it anymore. It's not worth it" (85), and "I felt trapped and overwhelmed and frustrated" (148) and "I just needed to bring down the anxiety, that was part of it" (148).

Participants described their choice to die in a way that could be described as a panic response. One who had a significant fight with his wife immediately before his attempt described it as "something different took over me and I grabbed a bottle of pills" (148). Participants described their attempts as unplanned, swift, instantaneous, a "sudden feeling," and "out of nowhere" (168), and something that "came on." For example, "I didn't contemplate it. It was like the spur-of-the-moment. Just grabbed them and did it." (163) Participants also recounted instances where the presence of means for suicide (i.e. guns, prescriptions, etc.) served as a trigger for the attempt, such as noticing a bottle of pills on a table: "Like I remember that part very clearly, like just sitting at the kitchen table and I'd been trying and trying to get in touch with him and looking up and seeing my bottle of pills on the kitchen table and just being like, okay, that's what I'm going to do now" (141).

### Cognitive Errors and Myopic Focus

Participants described a range of emotional states immediately prior to their attempt once they decided to die. At times it seemed as if participants were describing an altered state, such as being a "different person" (197), and that their behavior seemed "bizarre" (237) looking back. One said, "It's like some force took over" (232). Another said, "And so I guess it just kind of all just like fell at once and it kind of all just snapped and broke. And so my mind just kind of went crazy all at once it felt like" (49). Participants described an intense focus on death. One was "consumed" (228) by the urge to die, and another said, "That's all I thought about" (341) in the short time between the onset of suicidal thoughts, the decision, and the act of the attempt. Some participants described how their attempt followed a moment amidst these feelings in which they made a quick, definitive, and focused decision to kill themselves, as one described, "The stressors pushed me to flip the switch. 'Okay, I'm gonna kill myself" (296). Others described overwhelming urges to harm themselves: "It was a really intense, like, desire to want to just put them in my mouth, all those pills in my mouth and just say I'm done. It was really strong" (196). Another participant said, "I think the part of me that still had a little bit of sense left didn't have enough to say 'Stop.' I think in the back of my mind, I knew it was wrong but I didn't have enough sense to stop" (154). In these moments, participants also conveyed that they did not consider reaching out to anyone, as they were intensely focused and overwhelmed. For example, "You know, I didn't even think of that option because of where I was, I think" (228). Another said, "Because I just acted on the moment of being angry, of being upset, being desperate, and anxious. It all contributed and perhaps not to say something to anybody. ... It probably did not allow me the time for me to say, hey, I'm about to do this" (347).

#### Stage 2:

"On Fire" Conceptual Model

We developed a conceptual stress model (Figure 1) aligning with Linehan's biopsychosocial theory of emotion dysregulation. Linehan's theory<sup>36</sup> characterizes individuals with a consistently elevated emotional baseline, often influenced by biology, history, or their interplay. Our interviewees mirrored this profile, with current life events amplifying their day-to-day stress levels, especially disruptions in primary relationships preceding crucial decisions. Linehan refers to this heightened state as emotional vulnerability, where individuals (i.e., person 2 in Figure 1), already emotionally charged, become more susceptible to distressing events. In this phase, participants refrained from disclosing plans, perceiving their thoughts as non-serious and fearing negative reactions, burdensome outcomes, and stigma (see Richards et al. 13). Linehan's theory suggests that under stress, individuals experience an intensified emotional response, prompting extreme measures to cope with overwhelming intensity. This idea fits with the interviews we conducted: The acute phase involved an intense emotional state prompting participants to swiftly decide on suicide, attempting within moments, minutes, or hours, utilizing accessible means at home (e.g., pills, firearms). Feeling overwhelmed, participants found the intensity of negative emotions and thoughts unbearable. This altered state, characterized by impaired cognitive processing due to heightened emotions, contributed to a failure to communicate with others.

Participants described moments of intense focus, akin to cognitive constriction, limiting thoughts to suicide as the sole option—a phenomenon resembling alcohol myopia, a narrowed attention towards a specific goal<sup>46</sup>. Some described a swift "screw it" decision, perceiving consequences as inconsequential. Echoing findings in a qualitative study on suicide attempts in which individuals who had recently attempted suicide expressed a sense of reaching a point of no return, believing they were beyond help<sup>47</sup>. Notably, for some, the decision brought immediate relief or calmness, aligning with theoretical perspectives framing suicide as the ultimate escape from overwhelming emotions<sup>36</sup>.

For intervention purposes, we separated the experiences that our participants described into two phases, a prodromal (the months, weeks and days leading up to the unplanned attempt) and the acute (when the suicidal thoughts and actions occurred). In the stress model (Figure 1), the clear differences between the acute and prodromal phases described in this sample indicate a need for multiple preventative strategies for both phases. As the pattern of two phases emerged, we found it helpful to use a fire analogy to distinguish between them. The prodromal period represents being *in* a fire, while the acute period represents being *on* fire. We specifically emphasize the acute "on fire" phase due to its perceived challenge in intervention, given the narrowed attention, heightened physiological arousal, and rapid occurrence. However, insights from our participants, prompted with ideas for managing this state, elucidated how prevention is indeed attainable.

We categorized the participants' feedback down into four categories of problems: 1) full body physiological response driven by emotions (and more easily triggered by the prodromal period), 2) errors in cognition and impaired processing as a result of the intensity of the response, 3) a panic like state involving overwhelming escape urges, and 4) a myopic focus on suicide and escape as a pathway out. An additional 5) was a calm state that occurred for some after a period of 1) and before a suicide attempt. Categories 2 – 4 could be subsumed under 1, but we have separated them as individual factors for intervention.

Categories 1 – 3 are described in Linehan's theory of emotional dysregulation<sup>36</sup>. We developed interventions that would address each of these identified categories (see Figure 1).

# "On Fire" Intervention Development

Akin to learning to "Stop, Drop, and Roll" when we are on fire, we developed short instructions for surviving the physiological aspects of intense emotion, cognitive errors, panic, and myopic focus associated with being "on fire." These steps are intended to be learned and rehearsed in advance, or "over-practiced"—ideally first exposure is not during a

time of crisis—and include reducing arousal, redirecting attention, and directing what *not* to do.

The first suggested step for responding to an "emotional fire" is to attempt to immediately reduce emotional arousal, similar to removing oxygen from a fire. Research incorporating the vagal nerve and the mammalian dive reflex indicates that cold water is one of the most effective known ways to rapidly reduce physiological and emotional arousal<sup>48,49</sup>. Individuals may get in the shower and turn it to cold, for example, or put their face in ice water; a "reset" button that slows things down<sup>50,51</sup>.

The second coping strategy, also offered in Linehan's DBT, involves tolerating intense distress using sleep<sup>36</sup>. This approach may be particularly effective for individuals in the "calm" state following a decision to attempt suicide, as their physiological state at that moment is more conducive to sleep. Sleep, if possible, can be a suitable intervention due to its rapid changes in physiological effects<sup>52</sup>. Dr. Marsha Linehan, known for developing extensively researched suicide prevention therapy<sup>53</sup>, suggests that overdoses might function to induce sleep, reducing acute suicidal urges. Cold water and sleep are swift interventions distinct from mindfulness, which may be more effective for slower-onset suicidal thoughts. The recommended second step advises against making important decisions, particularly the decision to die, acknowledging that such decisions may be influenced in acute states of emotional distress. This directive aims to enter consciousness even amid overwhelming emotional suffering (Linehan [personal communication, 2009]).

The third suggested step is human contact, specifically eye contact. Although not appropriate in all situations or some cultural contexts, eye contact constitutes a potent emotional stimulus, potentially evoking emotions distinct from those contributing to suicidal thoughts. Additionally, it necessitates the presence of another human (possibly acting as a protective factor against suicide<sup>54</sup>), serving as a powerful distraction from concurrent suicidal

thoughts. In addition to maintaining eye contact, the individual on fire should ask the other person to "help me get out of your head" to facilitate further distraction. While not guaranteed, the presence (live or virtual) of another person (or pet), may in itself reduce the risk of suicide as most suicides occur when people are alone<sup>55</sup>.

#### **Discussion**

The dominant theme the suicide attempt survivors in this qualitative study described was a quick decision to die as an escape from intense and overwhelming emotional pain or frustration, without having the intent to die by suicide prior to that moment. In these instances, our participants reported that it took a short length of time between the decision to kill themselves and the attempt, and they experienced a great intensity of their emotional state immediately prior. This finding is in line with prior research that suggests a large portion of suicide attempts are unplanned, ranging from 30% to as high as 80% in some studies 14-18 and some individuals may engage in suicide attempts even prior to the development of active suicidal ideation and a concrete plan<sup>56</sup>. Importantly, most participants did not communicate with others about the acute phase related to the rapidity and emotional intensity of the moments directly prior to the decision to attempt or the attempt—the thought to reach out did not cross their minds because it "happened so fast." Frequently, a triggering event precipitated this unplanned attempt. Some individuals may experience a sense of demoralization and overwhelm, a common human response to chronic exposure to adverse conditions (e.g., loss of job, illness), that then leads to an unplanned attempts<sup>57</sup>. Indeed, acute stressful events have been identified as important proximal predictors of unplanned suicides<sup>58,59</sup>.

One might assume that the rapid decision to die and the short interval between the decision and the attempt imply a highly impulsive nature to these behaviors. However, meta-analytic findings indicate that the association between trait impulsivity and suicidal behavior

is minimal - both indirect and distal<sup>60</sup>. Trait impulsivity facilitates other behaviors, like painful or provocative events, leading to an acquired capability that can result in highly lethal suicide attempts or deaths. Despite the brief time between the decision to self-harm and the actual behavior, Anestis and colleagues<sup>60</sup> argue that the behavior is not necessarily impulsive, as significant thought and planning likely occurred in the periods preceding it. In our study, participants experienced passive ideation in the weeks and months prior to their attempts, though detailed information about the magnitude of planning during that time is unavailable. Anestis and colleagues<sup>60</sup> emphasize that even if planning occurs sporadically over an extended period and minimally or not at all immediately before the attempt, labeling the behavior as impulsive may be inaccurate. We agree and, instead of terming it impulsive, propose referring to this phenomenon as unplanned attempts.

Rather than succumbing to impulsivity, our findings indicate that participants have been reacting to their intensely dysregulated emotions. It is possible that the intensity at which of emotions our subjects experienced, were akin to being on fire physically – a state that all of us would be desperate to escape. For many individuals driven to attempt suicide, an immediate escape from negative affect is a primary motivation for impulsive behaviors<sup>61</sup>. Moreover, our results indicate that others may have experienced a sense of "tunnel vision,<sup>47</sup>" akin to the myopic focus introduced earlier, feeling they had passed the point of no return, were beyond help, and perceived suicide as their sole escape. In this context, their unplanned attempts might be attributed to overwhelming feelings of despair and hopelessness rather than impulsive tendencies.

Research has largely focused on what we are labeling as a prodromal phase. The prodromal phase described as the months, weeks, and days leading up to the attempt, was associated with intermittent, generally passive (but sometimes entirely absent) suicidal thoughts and increased stressors in daily life (e.g., financial, employment, medical, family,

relationship) – all experience that could raise someone's emotional baseline and make them more vulnerable to overwhelming intense emotions. Considering the significant variability of suicidal ideation not only within weeks but also within days<sup>23</sup>, several suicide-specific mental disorder diagnoses that describe acute states of rapidly increasing emotionality prior to suicidal behavior were proposed<sup>62</sup>. However, to our knowledge, in-depth exploration of the nature of this acute phase experience is not as well described in the literature; shedding light on this experience may help inform interventions.

Contrary to the focus on *planned* suicide attempts, associated with public perception of suicide, intervention development in this study focused on *unplanned* suicide attempts. This area has largely been unexplored due to perceptions that prevention is not possible in these circumstances. Emotions, particularly "big" emotions, are full-body physiological responses that require management in themselves (beyond the problem of the moment the individual is already managing) and few coping strategies are fast-acting for emotions of the highest level of intensity<sup>63</sup>. This intensity, particularly when combined with emotional vulnerability already heightened from the stresses leading up to the decision to attempt, could lead to a struggle to find or use such coping skills - particularly for quick-acting skills to match the intensity of the current emotional experience. Additionally, intense emotional states are associated with impaired cognitive processing related to the pre-frontal lobe<sup>63</sup>, further hindering one's decision-making process. Consequently, we developed a conceptual model to further our understanding of the acute phase of a suicidal crisis and a unique intervention to target the intensity of the suicidal crisis, particularly during myopic focus. Employing these simple skills (Figure 1 & 2), individuals can withstand the compelling urge to seek the ultimate escape, thereby averting suicide.

#### Limitations

The primary strength and limitation of this study lie in the deliberate selection of participants who had not previously reported suicidal thoughts during prior healthcare visits. Further, the experiences of our study participants may not represent those of who die by suicide. Indeed, the high rate of unplanned suicide attempts among our population may be a characteristic of suicide attempt survivors; some studies link planning with a higher likelihood of lethality<sup>15,64</sup> although that finding is inconsistent<sup>65,66</sup>. While some participants made nearly lethal attempts (e.g., gunshot to the chest, overdose resulting in intensive care unit visit, interrupted hanging), we do not know how our participants differ from those who did not survive their suicide attempt. It is also unclear whether the types of thoughts our participants described generally are different from the thoughts of those who do not attempt suicide—this is important given that out of the large number of Americans who seriously consider suicide in a given year (4%) the vast majority of people do not kill themselves (at least 99.5%<sup>67</sup>).

Due to the qualitative nature of our study and the absence of an initial focus on studying unplanned attempts, we did not adhere to a strict definition of "unplanned." We instead relied on participant descriptions of the nature of their attempt as well as the amount of time between the decision to attempt and the attempt itself. Their definition of "planned" or "impulsive" suicide attempts lacks consensus<sup>65</sup>. However, previous studies have also defined unplanned suicide attempts based on the time elapsed from the decision to the attempt<sup>64</sup>.

#### **Conclusions & Future Directions**

Findings from this research project were used to develop a conceptual model to inform the development of interventions focused on the acute phase of suicidal crises. While suicide represents one of the most severe consequences of intense emotional distress, it is essential to recognize that individuals in such states may also engage in other behaviors with

serious consequences (e.g., substance use, harm to others, errors leading to accidents) to escape those emotions. Therefore, this intervention is recommended for use with any individual experiencing intense emotional distress, akin to being "on fire." The model and associated intervention strategies have now been presented as part of trainings designed to help clinicians provide additional strategies to their patients for purposes of suicide prevention. Moreover, an "Emotional Fire Safety Plan" has been developed specifically to help clinicians incorporate these strategies into a modified version of a safety planning template<sup>68,69</sup>. Future research is needed to evaluate whether and how this intervention helps support people at risk of "unplanned" suicide attempts.

## Acknowledgment

The authors are deeply grateful to the participants who contributed to this study by sharing their personal experiences. Furthermore, the authors would also like to express their gratitude to American Foundation for Suicide Prevention (SRG-0-150-13) and NowMattersNow.org for funding this study.

#### **REFERENCES**

- 1. Barnes LS, Ikeda RM, Kresnow MJ. Help-seeking behavior prior to nearly lethal suicide attempts. *Suicide Life Threat Behav*. 2001;32(1 Suppl):68-75. doi:10.1521/suli.32.1.5.68.24217
- 2. Cukrowicz KC, Duberstein PR, Vannoy SD, Lin EH, Unützer J. What factors determine disclosure of suicide ideation in adults 60 and older to a treatment provider? *Suicide Life Threat Behav*. 2014;44(3):331-337. doi:10.1111/sltb.12075
- 3. Encrenaz G, Kovess-Masféty V, Gilbert F, et al. Lifetime risk of suicidal behaviors and communication to a health professional about suicidal ideation. Results from a large survey of the French adult population. *Crisis*. 2012;33(3):127-136. doi:10.1027/0227-5910/a000113
- 4. Eskin M. A cross-cultural investigation of the communication of suicidal intent in Swedish and Turkish adolescents. *Scand J Psychol.* 2003;44(1):1-6. doi:10.1111/1467-9450.t01-1-00314
- 5. Pompili M, Murri MB, Patti S, et al. The communication of suicidal intentions: a meta-analysis. *Psychol Med.* 2016;46(11):2239-2253. doi:10.1017/S0033291716000696
- 6. Anestis MD, Green BA. The Impact of Varying Levels of Confidentiality on Disclosure of Suicidal Thoughts in a Sample of United States National Guard Personnel. *J Clin Psychol.* 2015;71(10):1023-1030. doi:10.1002/jclp.22198
- 7. Eskin M, Schild A, Öncü B, Stieger S, Voracek M. A Cross-Cultural Investigation of Suicidal Disclosures and Attitudes in Austrian and Turkish University Students. *Death Stud.* 2015;39(10):584pp-591. doi:10.1080/07481187.2015.1037971
- 8. Fulginiti A, Pahwa R, Frey LM, Rice E, Brekke JS. What Factors Influence the Decision to Share Suicidal Thoughts? A Multilevel Social Network Analysis of Disclosure Among Individuals with Serious Mental Illness. *Suicide Life Threat Behav*. 2016;46(4):398-412. doi:10.1111/sltb.12224
- 9. Ganzini L, Denneson LM, Press N, et al. Trust is the basis for effective suicide risk screening and assessment in veterans. *J Gen Intern Med*. 2013;28(9):1215-1221. doi:10.1007/s11606-013-2412-6
- 10. Hom MA, Stanley IH, Podlogar MC, Joiner TE. "Are You Having Thoughts of Suicide?" Examining Experiences With Disclosing and Denying Suicidal Ideation. *J Clin Psychol*. 2017;73(10):1382-1392. doi:10.1002/jclp.22440
- 11. Husky MM, Zablith I, Alvarez Fernandez V, Kovess-Masfety V. Factors associated with suicidal ideation disclosure: Results from a large population-based study. *J Affect Disord*. 2016;205:36-43. doi:10.1016/j.jad.2016.06.054

- 12. Richards JE, Hohl SD, Whiteside U, et al. If You Listen, I Will Talk: the Experience of Being Asked About Suicidality During Routine Primary Care. *J Gen Intern Med*. 2019;34(10):2075-2082. doi:10.1007/s11606-019-05136-x
- 13. Richards JE, Whiteside U, Ludman EJ, et al. Understanding Why Patients May Not Report Suicidal Ideation at a Health Care Visit Prior to a Suicide Attempt: A Qualitative Study. *Psychiatr Serv Wash DC*. 2019;70(1):40-45. doi:10.1176/appi.ps.201800342
- 14. Borges G, Nock MK, Haro Abad JM, et al. Twelve-month prevalence of and risk factors for suicide attempts in the World Health Organization World Mental Health Surveys. *J Clin Psychiatry*. 2010;71(12):1617-1628. doi:10.4088/JCP.08m04967blu
- 15. Chaudhury SR, Singh T, Burke A, et al. Clinical Correlates of Planned and Unplanned Suicide Attempts. *J Nerv Ment Dis.* 2016;204(11):806-811. doi:10.1097/NMD.0000000000000502
- 16. Deisenhammer EA, Ing CM, Strauss R, Kemmler G, Hinterhuber H, Weiss EM. The duration of the suicidal process: how much time is left for intervention between consideration and accomplishment of a suicide attempt? *J Clin Psychiatry*. 2009;70(1):19-24.
- 17. Jeon HJ, Lee JY, Lee YM, et al. Unplanned versus planned suicide attempters, precipitants, methods, and an association with mental disorders in a Korea-based community sample. *J Affect Disord*. 2010;127(1-3):274-280. doi:10.1016/j.jad.2010.05.027
- 18. Kleespies PM, AhnAllen CG, Knight JA, et al. A study of self-injurious and suicidal behavior in a veteran population. *Psychol Serv*. 2011;8(3):236-250. doi:10.1037/a0024881
- 19. Simon TR, Swann AC, Powell KE, Potter LB, Kresnow MJ, O'Carroll PW. Characteristics of Impulsive Suicide Attempts and Attempters. *Suicide Life Threat Behav*. 2001;32(supplement\_to\_isssue1):49-59. doi:10.1521/suli.32.1.5.49.24212
- 20. Wastler HM, Bryan AO, Bryan CJ. Suicide attempts among adults denying active suicidal ideation: An examination of the relationship between suicidal thought content and suicidal behavior. *J Clin Psychol*. 2022;78(6):1103-1117. doi:10.1002/jclp.23268
- 21. Hallensleben N, Spangenberg L, Forkmann T, et al. Investigating the Dynamics of Suicidal Ideation. *Crisis*. 2018;39(1):65-69. doi:10.1027/0227-5910/a000464
- 22. Harris KM, McLean JP, Sheffield J, Jobes D. The internal suicide debate hypothesis: exploring the life versus death struggle. *Suicide Life Threat Behav*. 2010;40(2):181-192. doi:10.1521/suli.2010.40.2.181
- 23. Kleiman EM, Turner BJ, Fedor S, Beale EE, Huffman JC, Nock MK. Examination of real-time fluctuations in suicidal ideation and its risk factors: Results from two ecological momentary assessment studies. *J Abnorm Psychol*. 2017;126(6):726-738. doi:10.1037/abn0000273

- 24. Podlogar MC, Gutierrez PM, Joiner TE. Improving Our Understanding of the Death/Life Implicit Association Test. *J Pers Assess*. 2020;102(6):845-857. doi:10.1080/00223891.2019.1663357
- 25. Millner AJ, Lee MD, Nock MK. Describing and Measuring the Pathway to Suicide Attempts: A Preliminary Study. *Suicide Life Threat Behav*. 2017;47(3):353-369. doi:10.1111/sltb.12284
- 26. Rogers ML, Chu C, Joiner T. The necessity, validity, and clinical utility of a new diagnostic entity: Acute suicidal affective disturbance. *J Clin Psychol*. 2019;75(6):999-1010. doi:10.1002/jclp.22743
- 27. Berman AL. Risk Factors Proximate to Suicide and Suicide Risk Assessment in the Context of Denied Suicide Ideation. *Suicide Life Threat Behav*. 2018;48(3):340-352. doi:10.1111/sltb.12351
- 28. Nielssen O, Wallace D, Large M. Pokorny's complaint: the insoluble problem of the overwhelming number of false positives generated by suicide risk assessment. *BJPsych Bull*. 2017;41(1):18-20. doi:10.1192/pb.bp.115.053017
- 29. Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health. Accessed January 27, 2024. www.samhsa.gov/data/sites/default/files/cbhsq-reports/NSDUHNationalFindingsReport2018/NSDUHNationalFindingsReport2018.pdf. 2019. HHS Publication No. PEP19-5068, NSDUH Series H-54.
- 30. Frey LM, Fulginiti A, Lezine D, Cerel J. The Decision-Making Process for Disclosing Suicidal Ideation and Behavior to Family and Friends. *Fam Relat*. 2018;67(3):414-427. doi:10.1111/fare.12315
- 31. Fulginiti A, Frey LM. Exploring suicide-related disclosure motivation and the impact on mechanisms linked to suicide. *Death Stud.* 2019;43(9):562-569. doi:10.1080/07481187.2018.1504349
- 32. Krychiw JK, Ward-Ciesielski EF. Factors related to suicide's unpredictability: a qualitative study of adults with lived experience of suicide attempts. *Int J Qual Stud Health Well-Being*. 2019;14(1):1650585. doi:10.1080/17482631.2019.1650585
- 33. Maple M, Frey LM, McKay K, Coker S, Grey S. "Nobody Hears a Silent Cry for Help": Suicide Attempt Survivors' Experiences of Disclosing During and After a Crisis. *Arch Suicide Res Off J Int Acad Suicide Res*. 2020;24(4):498-516. doi:10.1080/13811118.2019.1658671
- 34. Maple M, McKay K, Sanford R. The Attempt Was My Own! Suicide Attempt Survivors Respond to an Australian Community-Based Suicide Exposure Survey. *Int J Environ Res Public Health*. 2019;16(22):4549. doi:10.3390/ijerph16224549
- 35. Sheehan L, Oexle N, Armas SA, et al. Benefits and risks of suicide disclosure. *Soc Sci Med.* 2019;223:16-23. doi:10.1016/j.socscimed.2019.01.023

- 36. Linehan MM. *Cognitive-Behavioral Treatment of Borderline Personality Disorder:* Guilford press; 1993.
- 37. Kroenke K, Spitzer RL, Williams JBW. The PHQ-9: Validity of a brief depression severity measure. *J Gen Intern Med*. 2001;16(9):606-613. doi:10.1046/j.1525-1497.2001.016009606.x
- 38. World Health Organization. *International statistical classification of diseases and related health problems*. 10<sup>th</sup> ed. Published 2016. https://icd.who.int/browse10/2016/en
- 39. Ludman EJ, Simon GE, Whiteside U, Richards JE, Pabiniak C. Reevaluating Sensitivity of Self-Reported Suicidal Ideation. *J Clin Psychiatry*. 2018;79(3):17112017. doi:10.4088/JCP.17112017
- 40. Benner P. The tradition and skill of interpretive phenomenology in studying health, illness, and caring practices. In: *Interpretive Phenomenology: Embodiment, Caring, and Ethics in Health and Illness.*; 1994:99-127.
- 41. Creswell WJ, Poth NC. *Qualitative Inquiry and Research Design: Choosing among Five Approaches*. Sage publications; 2016.
- 42. Moran D. Introduction to Phenomenology. London and New York: Routledge; 2000.
- 43. ATLAS.ti | The #1 Software for Qualitative Data Analysis. ATLAS.ti. Accessed January 27, 2024. https://atlasti.com
- 44. Hwang S. Utilizing Qualitative Data Analysis Software: A Review of Atlas.ti. *Soc Sci Comput Rev.* 2008;26(4):519-527. doi:10.1177/0894439307312485
- 45. Corbin J, Strauss A. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. Sage publications; 2014.
- 46. Steele CM, Josephs RA. Alcohol myopia. Its prized and dangerous effects. *Am Psychol*. 1990;45(8):921-933. doi:10.1037//0003-066x.45.8.921
- 47. Pavulans KS, Bolmsjö I, Edberg AK, Ojehagen A. Being in want of control: Experiences of being on the road to, and making, a suicide attempt. *Int J Qual Stud Health Well-Being*. 2012;7. doi:10.3402/qhw.v7i0.16228
- 48. Foster GE, Sheel AW. The human diving response, its function, and its control. *Scand J Med Sci Sports*. 2005;15(1):3-12. doi:10.1111/j.1600-0838.2005.00440.x
- 49. Jay O, Christensen JPH, White MD. Human face-only immersion in cold water reduces maximal apnoeic times and stimulates ventilation. *Exp Physiol*. 2007;92(1):197-206. doi:10.1113/expphysiol.2006.035261
- 50. Kinoshita T, Nagata S, Baba R, Kohmoto T, Iwagaki S. Cold-water face immersion per se elicits cardiac parasympathetic activity. *Circ J Off J Jpn Circ Soc*. 2006;70(6):773-776. doi:10.1253/circj.70.773
- 51. LeBlanc J, Dulac S, Côté J, Girard B. Autonomic nervous system and adaptation to cold in man. *J Appl Physiol*. 1975;39(2):181-186. doi:10.1152/jappl.1975.39.2.181

- 52. Walker MP. The role of sleep in cognition and emotion. *Ann N Y Acad Sci*. 2009;1156:168-197. doi:10.1111/j.1749-6632.2009.04416.x
- 53. Linehan MM. DBT Skills Training Manual. 2nd ed. Guilford Press; 2015.
- 54. Akechi H, Senju A, Uibo H, Kikuchi Y, Hasegawa T, Hietanen JK. Attention to eye contact in the West and East: autonomic responses and evaluative ratings. *PloS One*. 2013;8(3):e59312. doi:10.1371/journal.pone.0059312
- 55. Roberts AR, Ottens AJ. The seven-stage crisis intervention model: A road map to goal attainment, problem solving, and crisis resolution. *Brief Treat Crisis Interv*. 2005;5(4):329-339. doi:10.1093/brief-treatment/mhi030
- 56. Bryan CJ, Butner JE, May AM, et al. Nonlinear change processes and the emergence of suicidal behavior: A conceptual model based on the fluid vulnerability theory of suicide. *New Ideas Psychol.* 2020;57:100758. doi:10.1016/j.newideapsych.2019.100758
- 57. Rudd MD, Bryan CJ. A CBT approach to assessing and managing suicide risk in primary care: Recommendations for clinical practice. In: *Handbook of Cognitive Behavioral Approaches in Primary Care*. Springer Publishing Company; 2010:399-418.
- 58. Conner KR, Phillips MR, Meldrum S, Knox KL, Zhang Y, Yang G. Low-planned suicides in China. *Psychol Med.* 2005;35(8):1197-1204. doi:10.1017/s003329170500454x
- 59. Li X, Phillips MR, Cohen A. Indepth interviews with 244 female suicide attempters and their associates in northern China: understanding the process and causes of the attempt. *Crisis*. 2012;33(2):66-72. doi:10.1027/0227-5910/a000108
- 60. Anestis MD, Soberay KA, Gutierrez PM, Hernández TD, Joiner TE. Reconsidering the link between impulsivity and suicidal behavior. *Personal Soc Psychol Rev Off J Soc Personal Soc Psychol Inc.* 2014;18(4):366-386. doi:10.1177/1088868314535988
- 61. Nock MK, Prinstein MJ. Contextual features and behavioral functions of self-mutilation among adolescents. *J Abnorm Psychol*. 2005;114(1):140-146. doi:10.1037/0021-843X.114.1.140
- 62. Rogers ML, Galynker I, Yaseen Z, DeFazio K, Joiner TE. An overview and comparison of two proposed suicide-specific diagnoses: Acute suicidal affective disturbance and suicide crisis syndrome. *Psychiatr Ann.* 2017;47(8):416-420. doi:10.3928/00485713-20170630-01
- 63. Gross JJ. Handbook of Emotion Regulation. Guilford publications; 2013.
- 64. Conner KR. A call for research on planned vs. unplanned suicidal behavior. *Suicide Life Threat Behav*. 2004;34(2):89-98. doi:10.1521/suli.34.2.89.32780
- 65. May AM, Klonsky ED. "Impulsive" suicide attempts: What do we really mean? *Personal Disord*. 2016;7(3):293-302. doi:10.1037/per0000160
- 66. Simon TR, Crosby AE. Suicide planning among high school students who report attempting suicide. *Suicide Life Threat Behav*. 2000;30(3):213-221.

- 67. Suicide National Institute of Mental Health (NIMH). Published 2018. Accessed January 28, 2024. https://www.nimh.nih.gov/health/statistics/suicide
- 68. Whiteside U. NowMattersNow.org Emotional Fire Safety Plan. Published online 2018. https://www.nowmattersnow.org/wp-content/uploads/2018/10/0.-NowMattersNow.org-Safety-Plan-Website-Version.pdf
- 69. Whiteside U. I'm on Fire: What Suicide Could Learn Fire Deaths. Washington, D.C.: Invited address at the meeting of the American Association of Suicidology. Published online 2018. https://docs.google.com/presentation/d/e/2PACX-1vSnfGpjDSC0NJ1B58rsifG1w2BGi4SOuXnxMVLnYgtWZFB31aLEacHWRhLO3LVCyDVa3Qq4aWjFpD06/pub?start=false&loop=false&delayms=3000&slide=id.g52f81ef62e\_0\_1

https://doi.org/10.1016/j.euroneuro.2020.09.004

**Table 1** Sociodemographic and Summary Statistics of study Participants (N = 26).

	N	%
Female	15	57.7
Age Category		
18-30	8	30.8
30-49	11	42.3
51-65	7	26.9
Hispanic	2	7.7
Race		
White	20	76.9
Black	3	11.5
Asian	2	7.7
Other	1	3.8
Woke Up with Intent to Die*	2	7.7
Prior Attempt(s)	16	61.5
Time from Decision to Action		
Moments (instantaneous)	8	30.8
Minutes (15 or less)	10	38.5
Hours (3 or less)	3	11.5
Hours (more than 3)	2	7.7
Unknown/Not Applicable†	3	11.5
Told Others (Intent);	0	0
Told Others (Thoughts)	4	15.4

<sup>\*</sup>Woke up with at least some intent to die, neither were clear that it was that they had planned specifically for that day or were definitive about it.

‡This is communication of intent to die prior to the attempt where contact was made. One was discovered after a suicide attempt, hospitalized, and then hospitalized again (so, her suicidal thoughts were known but she may not have intended to disclose this). Several others told others after the attempt: one was incapacitated by the overdose and does not remember doing so, another told his wife and they went to the ER. Another attempted to reach out (one to a crisis line and her family but were unable to get help. We do not know if those attempts would have been prevented if they'd been able to reach those they attempted to contact.

<sup>†</sup>One does not remembering overdose that resulted in ICU thinks it may have been PTSD dissociation from trauma; one reports that his intent was not to die, but instead responsive to voices telling him to harm himself; one was 3 hours or less but unclear from interview at what point she made the decision in that 3 hour time period.