

# Worksheet

Professional Version | US English

# Panic Formulation



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## Description

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Panic attacks are characterized by a surge of anxiety with a rapid onset. Symptoms of a panic attack include:

- An abrupt surge of intense fear or discomfort that reaches its peak within a few minutes
- Palpitations, pounding heart, or an accelerated heart rate
- Sweating
- Trembling or shaking
- Difficulty breathing, or shortness of breath
- Feelings of choking
- Chest pain or discomfort
- Nausea or abdominal distress
- Feeling dizzy, unsteady, or lightheaded
- Derealization and depersonalization
- Fear of losing control, going crazy, or passing out
- Fear of dying
- Hot flushes or cold chills
- Parathesia (numbness or tingling sensations)
- Dry mouth

The diagnosis of panic disorder is characterized by repeated panic attacks, some of which have an unexpected onset. People who struggle with panic disorder worry about the occurrence and consequences of future panic attacks, and make attempts to avoid situations or triggers they associate with panic. Panic attacks also occur in a wide range of other conditions including obsessive compulsive disorder (OCD), post-traumatic stress disorder (PTSD) and social anxiety.

In 1986, psychologist David Clark published an influential cognitive model of panic. Clark's insight was that panic attacks result from the catastrophic misinterpretation of body sensations, typically those involved in normal anxiety responses. Appraising a body sensation as threatening results in an emotional response, and an increase in the intensity of the body sensations. These stronger body sensations are subject to further misinterpretation, which results in stronger emotional and physiological responses. Clark's model explains how mild feelings of anxiety can quickly escalate into intense feelings of panic.

Clark & Salkovskis (2009) describe different kinds of panic attack:

- **Those that are preceded by a period of elevated anxiety.** They propose that sensations of the preceding anxiety are misinterpreted, leading to panic (e.g. "my thoughts are racing, I must be losing my mind").
- **Those that appear to have an unexpected onset.** Panic attacks with an unexpected onset are caused by misinterpretation of an innocuous body sensation (e.g. feeling that you can't breathe after climbing the stairs, or feeling agitated after drinking caffeine and concluding that you are losing control of yourself) or misinterpretation of other emotional states such as excitement or anger. Clark & Salkovskis argue that panic attacks resulting from misinterpretation of these sensations often seem to occur without cause because "patients frequently fail to distinguish between the triggering bodily sensations and the subsequent panic, and so perceive the attack as having no cause".
- **Nocturnal attacks.** These are episodes in which patients wake up in a panic. Clark & Salkovskis propose that people monitor their internal environment for significant events, even during sleep. If, during sleep, a body sensation of concern is detected and misinterpreted then they may wake in a panic.

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Citing Seligman (1988), Clark & Salkovskis (2009) describe a 'puzzle': "many panic disorder patients persist in maintaining distorted beliefs about their body sensations despite numerous experiences that would appear to contradict their fearful beliefs". For example, a client who is worried about going crazy and losing control may persist in this belief despite multiple panic attacks in which they remained in control of their behavior. Two psychological processes which they propose to account for the persistence of misinterpretations in panic are:

- **Safety-seeking behaviors.** Safety-seeking behaviors are actions that people take to prevent the occurrence of their feared catastrophes. Avoidance is a primary example of a safety behavior, but patients will typically engage in other behaviors if they cannot escape from a feared situation. For example, a patient who is concerned that their throat will constrict and that they will be unable to breathe may carry a bottle of water, and a patient who fears that they will faint may hold tightly onto something solid. These behaviors prevent disconfirmation of the unhelpful catastrophic belief: the non-occurrence of the feared catastrophe is attributed to the safety behavior, rather than to the fact that the catastrophe was unlikely and would not have occurred ("the only reason I didn't fall was because I held on tightly"). Unfortunately, safety behaviors often lead to an exacerbation of the feared sensation. For example, attempting to control unwanted thoughts can make them more likely to intrude (Wegner, 1994), and taking deep breaths can make people feel even more short of breath.
- **Enhanced interoception.** Clark & Salkovskis argue that patients suffering from panic become hypervigilant for body sensations that they believe are dangerous – and that once these sensations reach awareness they are "taken as evidence for the presence of some serious physical or mental disorder" (2009). Interestingly, experimental evidence supporting enhanced interoceptive abilities in panic patients is inconclusive (Ehlers, 1993; Limmer et al, 2015), although panic and non-panic patients can be discriminated by the beliefs they have about unwanted body sensations (Yorris et al, 2015).

Psychological therapy, most notably cognitive behavioral therapy (CBT), is the recommended treatment for panic disorder (NICE, 2011; Pompoli et al, 2016). Two of the most popular manualized interventions for panic are Clark & Salkovskis (1986, 2009) and Barlow & Craske (2000). Components of effective treatment for panic include:

- **Psychoeducation.** Psychoeducation for panic consists of giving information about the symptoms of panic attacks and panic disorder, the nature of anxiety, the nature of the fight and flight response, how panic attacks escalate, and how they are maintained.
- **Breathing retraining.** Certain respiratory patterns are thought to elicit or sustain panic attacks. Breathing retraining for panic consists of teaching techniques designed to correct these patterns. (Clinicians should note that the evidence for breathing retraining in panic is mixed: e.g. Schmidt et al, 2000; Taylor, 2001; Pompoli et al, 2018).
- **Muscle relaxation.** One (older) explanation for why panic occurs is that heightened stress and muscle tension can predispose individuals to panic. Progressive muscle relaxation aims to reduce general tension and so reduce propensity to panic (Bernstein & Borkovec, 1973).

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- **Cognitive restructuring.** The cognitive model of panic proposes that innocuous body sensations are catastrophically misinterpreted, resulting in a rapid escalation of anxiety. Cognitive restructuring may involve discussing the evidence that patients have for their panic related beliefs, identifying old information that contradicts patient's catastrophic beliefs, and exploring the meaning of evidence gathered from behavioral experiments.
- **Behavioral experiments.** Behavioral experiments are planned experiential activities to test patient's beliefs or to gather new information. In the treatment of panic, a very common form of behavioral experiment, often described as interoceptive exposure, is to reproduce the patient's feared body sensations, allowing them to learn that the symptoms are not dangerous.
- **Relapse prevention.** Preventing relapse in panic might include summarizing the patient's understanding of the cognitive model, the beliefs and safety behaviors that formed a focus for therapy, and the new beliefs and behaviors that have been developed during therapy, and a plan for reactivating these skills should they wane following therapy (Clark & Salkovskis, 2009). This information is often recorded in a therapy blueprint for panic.

A recent network meta-analysis for panic found that of these components, interoceptive exposure had the largest effects on efficacy, while muscle relaxation and virtual reality exposure had the smallest effects (Pompili et al, 2018).

The *Panic Formulation* worksheet enables therapists to explore the cognitive, affective, somatic, and behavioral components responsible for the onset and maintenance of a client's panic attacks.

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# Instructions

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## Suggested Question



*One of the first steps in cognitive therapy for panic is to come to an understanding of how your panic works. Could we look at one of your recent panic attacks and see if we can work out what might have been happening for you?*

The aim of a formulation is to help the client and therapist to come to a shared understanding of what a client is experiencing. It is most helpful to encourage clients to identify a specific example of a recent time that they experienced panic. If clients struggle to do so, it may be helpful to encourage them to use a panic self-monitoring record.

### 1. Situation or trigger

Help the client to become aware of internal or external triggers that precipitated their panic attack. Internal triggers can include thoughts, emotions, or body sensations. External triggers might include things that the client saw, heard, or experienced. Clients can also be helped to make links between the trigger and their initial appraisal of it (in which case information can be recorded in the 'interpretation' box below). Some clients may feel that their panic attacks come 'out of the blue' and this section can be used to help clients explore potential contextual triggers. Although this section focuses mainly on precipitating factors, therapists should be aware of contextual factors that may be predisposing their client to be near their 'panic threshold' and more likely to have panic events triggered.

## Suggested Questions



- *Can you tell me about a recent panic attack that you had? Start by setting the scene for me – where were you?*
- *What was happening around you just before you had the panic attack? Where were you? What were you doing?*
- *What were you aware of internally? What sensations did you notice in your body or mind?*

The central section of the formulation is designed to help clients to identify the separate affective, physical, and cognitive components of their panic attack. Clark's cognitive model of panic proposes that an attack often begins when a trigger reaches awareness and is interpreted as a threat.

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*This appraisal leads to feelings of apprehension and an increase in the physical symptoms of anxiety, which are then subject to further misinterpretation.*

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Clinicians may find it helpful to guide clients around the 'emotions', 'physical sensations', and 'interpretation of your symptoms' sections a number of times to elaborate the escalation of the panic attack. It is not necessary to stick rigidly to a specific starting point or sequence in this central section, but more helpful to respond to the client's narrative of what happened and to use the diagram to structure their experience.

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# Instructions

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## 2. Emotions

Help clients to become aware of their emotional state and reactions at different points of the panic attack. Clinicians will find it helpful to assist their clients to make links between their appraisals and their emotional reactions.

### Suggested Questions



- *What did you feel in that situation?*
- *How did you feel emotionally when that happened?*
- *(In response to an appraisal) How did you feel when you thought that?*
- *In response to an appraisal) So when you had that thought about what was happening, how did you feel?*

## 3. Physical symptoms

Help clients to identify physical symptoms and body sensations at different points of the panic attack. Clinicians will find it helpful to assist their clients to discriminate between different physical symptoms, and to help them to make links between specific bodily sensations and their appraisals of those sensations.

### Suggested Questions



- *What did you notice in your body as you started to feel that way?*
- *What other feelings did you notice in your body as the anxiety got worse?*
- *How strong was that sensation at that point?*
- *What happened to <symptom you were concerned about> when you started to think that and feel that?*

## 4. Interpretation of your symptoms

Help clients to identify their catastrophic appraisals of physical symptoms and body sensations. The clinician's goal is to help clients to identify any catastrophic predictions they were making about what might happen in the near future: Clark & Salkovskis (2009) propose that catastrophic misinterpretation involves interpreting sensations as foreshadowing "immediately impending physical or mental disaster".

### Suggested Questions



- *What did you notice in your body as you started to feel that way?*
- *What other feelings did you notice in your body as the anxiety got worse?*
- *How strong was that sensation at that point?*
- *What happened to <symptom you were concerned about> when you started to think that and feel that?*

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# Instructions

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## 5. Escalation cycle

Panic attacks escalate when body sensations are misinterpreted as a threat, leading to feelings of apprehension and anxiety, and increases in the intensity of the body sensations, which are then subject to further misinterpretation and continuation of the cycle. By focusing on the cognition–emotion–body–cognition cycle, clinicians can help clients notice how the panic attack intensifies in understandable ways as they actively try to make sense of their experience.

### Suggested Questions

- *When you thought that, what happened to your anxiety?*
- *When your anxiety increased, what happened to those body feelings you had been noticing? Did they get stronger or weaker? Did you notice any other sensations?*
- *What sense did you make of those body sensations when they got stronger? What did you think was happening?*
- *What were you thinking at that point? What did you think was going to happen?*

## 6. Safety behaviors

These are actions that people take to prevent feared catastrophes from occurring. They are often effective in reducing fear in the short-term, but may ultimately prolong panic by preventing disconfirmation of the client's catastrophic appraisals. When constructing an idiosyncratic formulation for panic, the therapist should aim to: gather information about things that the client does 'in the moment' to prevent their fears from coming true, gather information about precautions the client takes to prevent future panic attacks, and help clients to understand how safety behaviors can operate to maintain catastrophic appraisals.

It is often helpful to start by gathering information about safety behaviors related to the specific panic attack in question, and then to broaden out the questions to explore a client's complete repertoire of safety behaviors.

### Suggested Questions

- *Was there anything you did that made you feel better in the moment?*
- *When you felt that way, did you do anything to prevent the worst from happening?*
- *You thought you were having <a heart attack>, is there anything you did to make yourself safe?*
- *Are there any precautions that you take to prevent panic attacks?*
- *Are there any situations or triggers you avoid because you worry that they will cause another panic attack?*
- *Are there any things that you do to prevent the worst from happening if you were to have a panic attack?*

## 7. Explore the consequences of safety behaviors and implications for treatment

At this stage of an individual formulation, it is helpful for clients to understand the potential consequences of their coping strategies, as these will have a bearing upon later treatment approaches.

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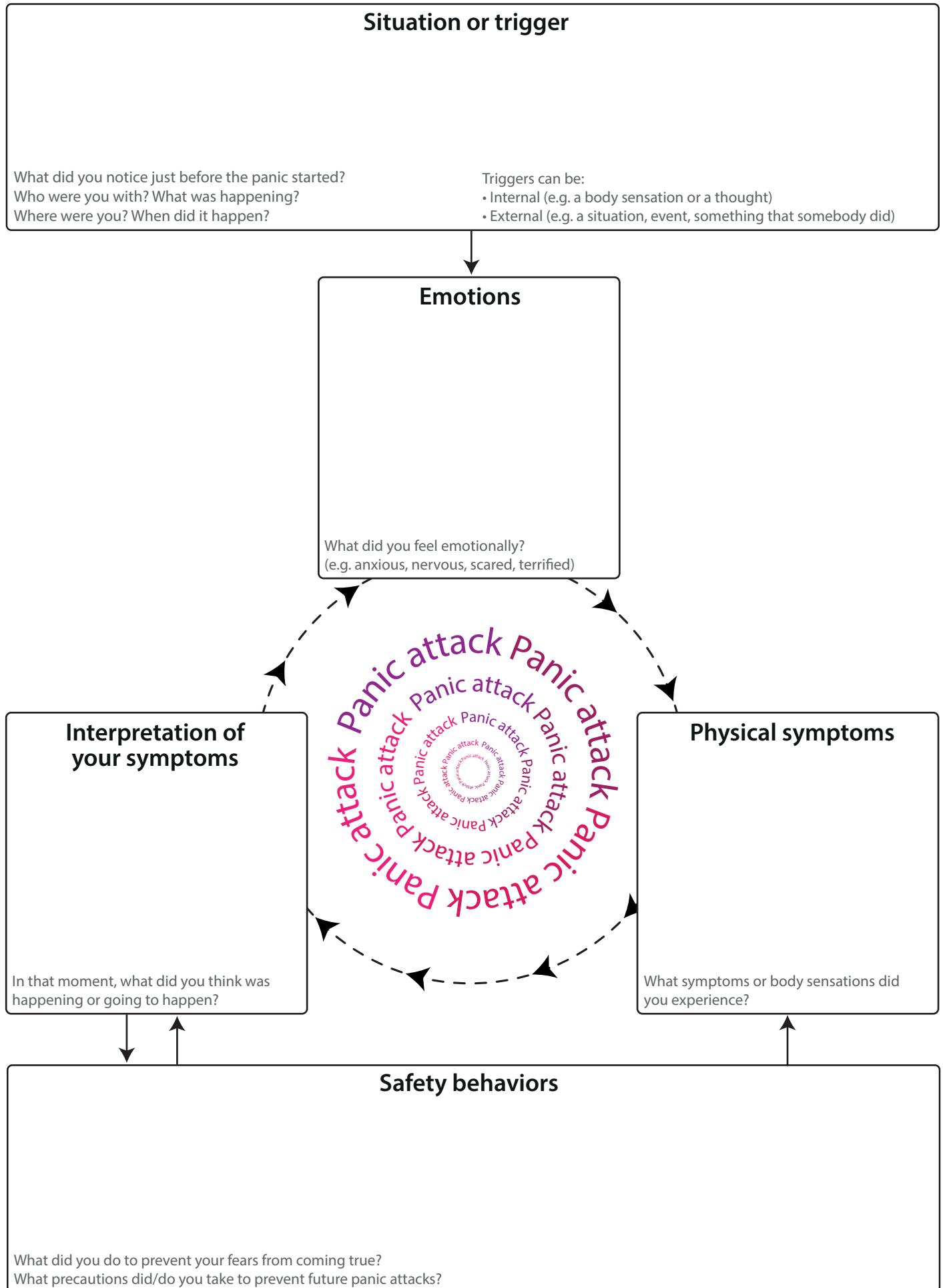
## References

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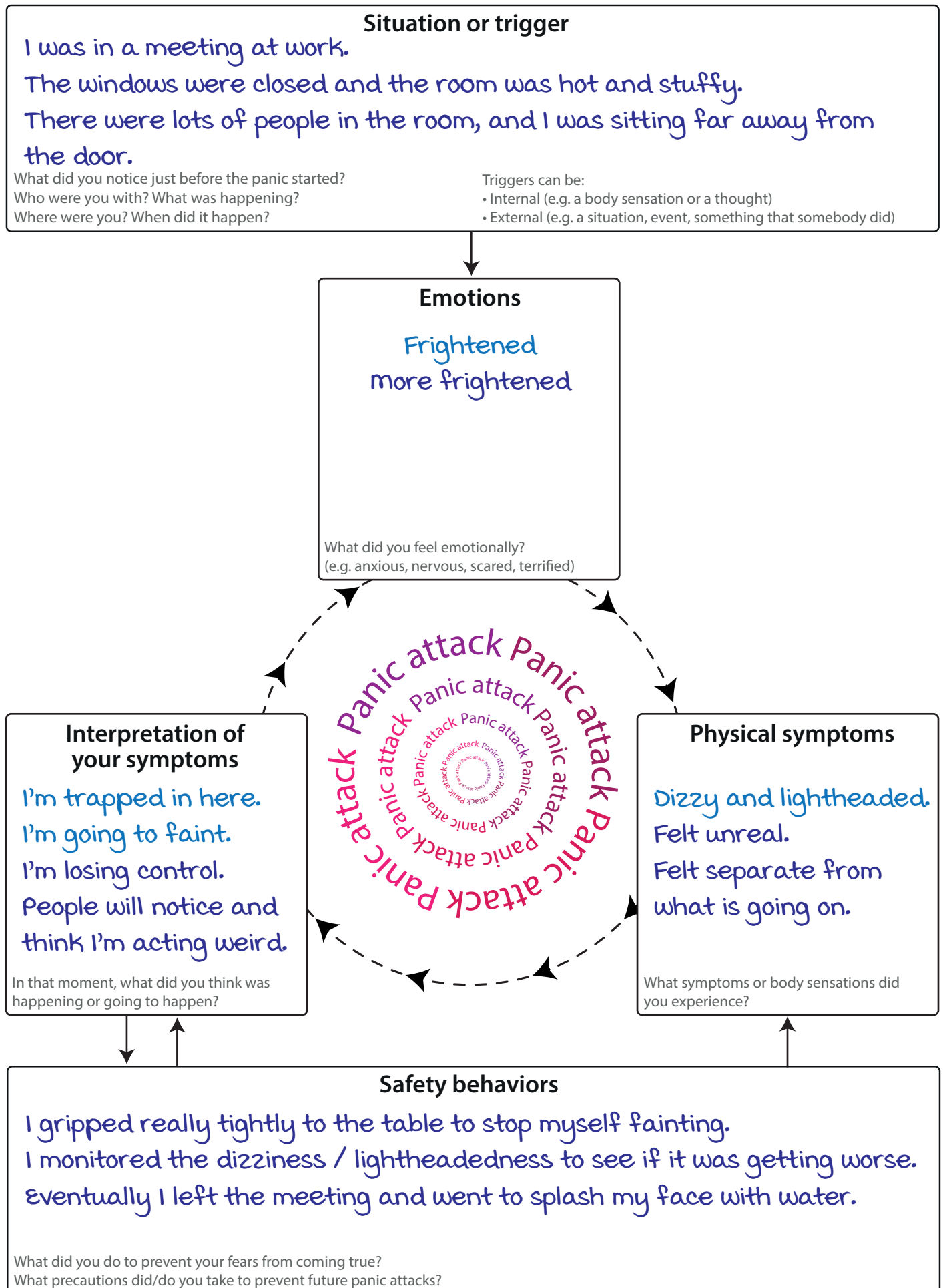
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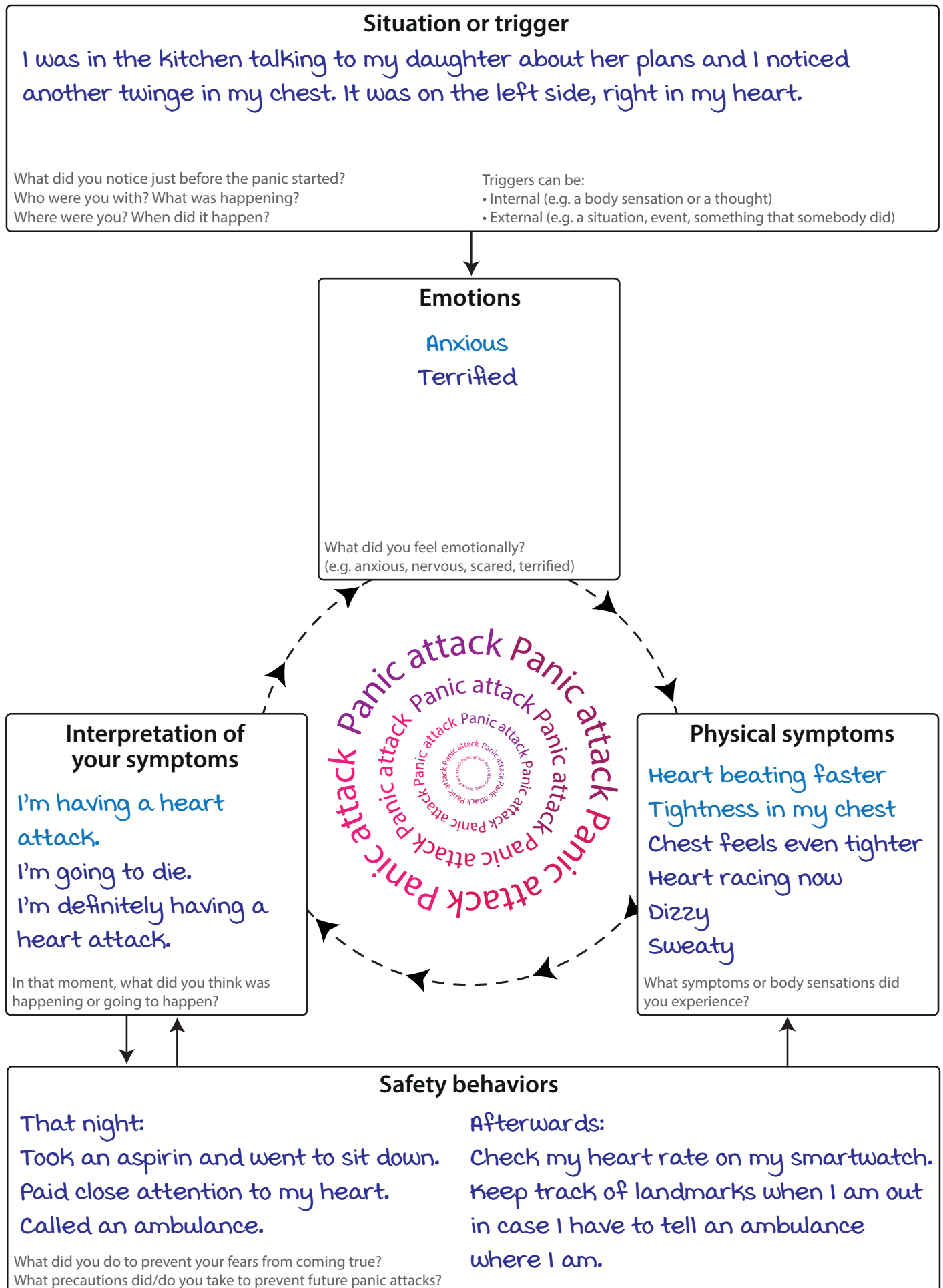
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