Neuropsychological Underpinnings of Crisis Episodes

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Question

Is there any literature that outlines the neuropsychological impacts of crisis events on decision-making, self-efficacy & accessing care?

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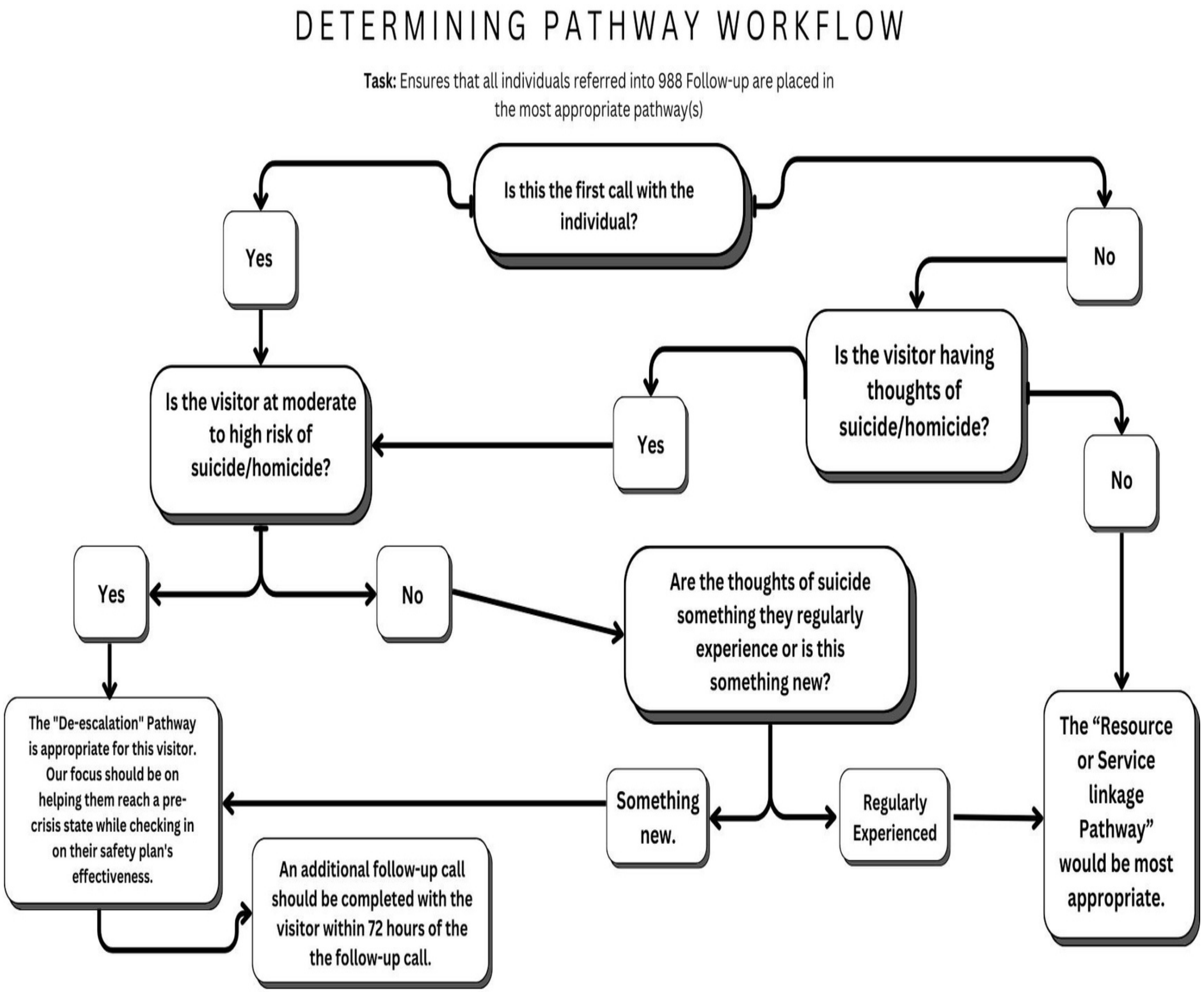
Ongoing Challenge

Some individuals do not utilizing referral & follow-up services in the days after crisis services contact.

Question

Can a crisis event have a significant neurobiological impact on the brain that influences whether a person has the necessary faculties to utilize accessible services.

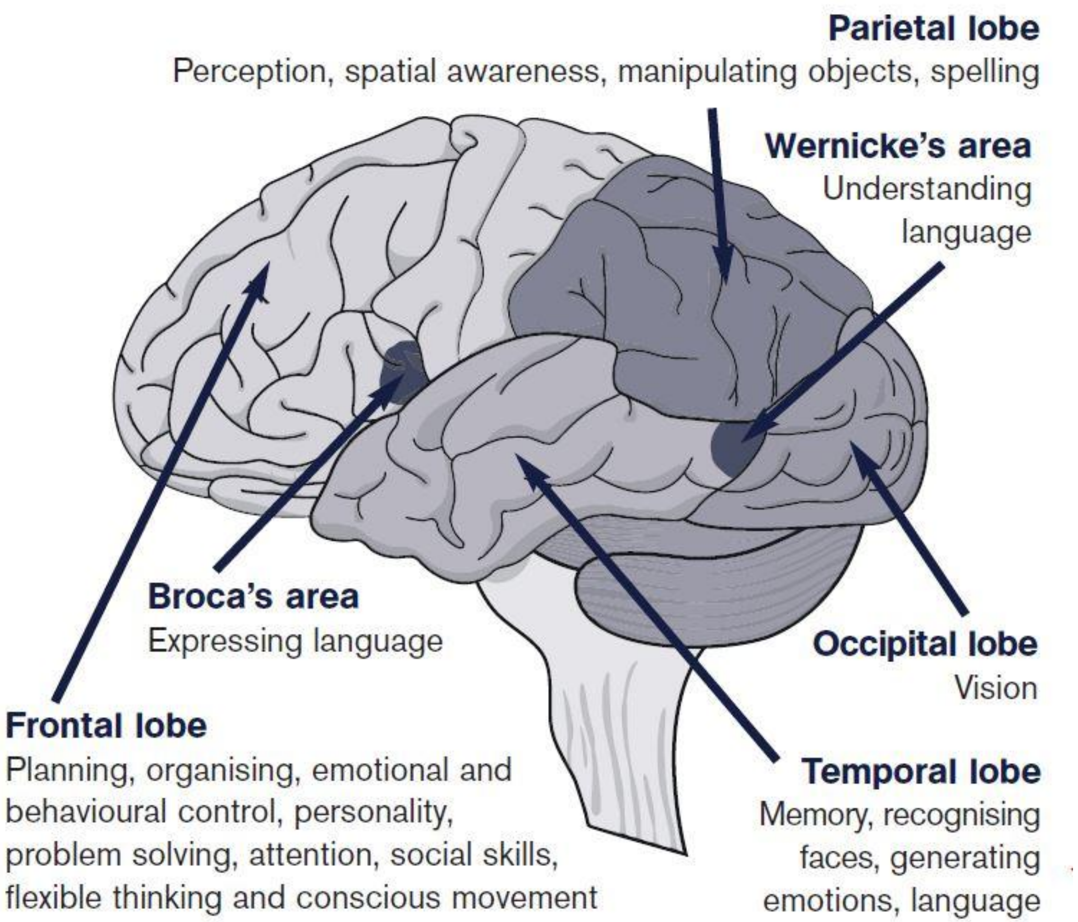


Crisis Events

During a crisis event, the prefrontal cortex (PFC), responsible for rational, higher-level thought, is turned off by the limbic system which activates our “fight or flight” response system.

Within the limbic system, the hypothalamus communicates with the rest of the body to preserve and regulate energy in preparation for the fight or flight response.

As our brain shifts during crisis response, accessing the neocortex (prefrontal cortex) becomes increasingly difficult.



From: [About the brain | Headway]

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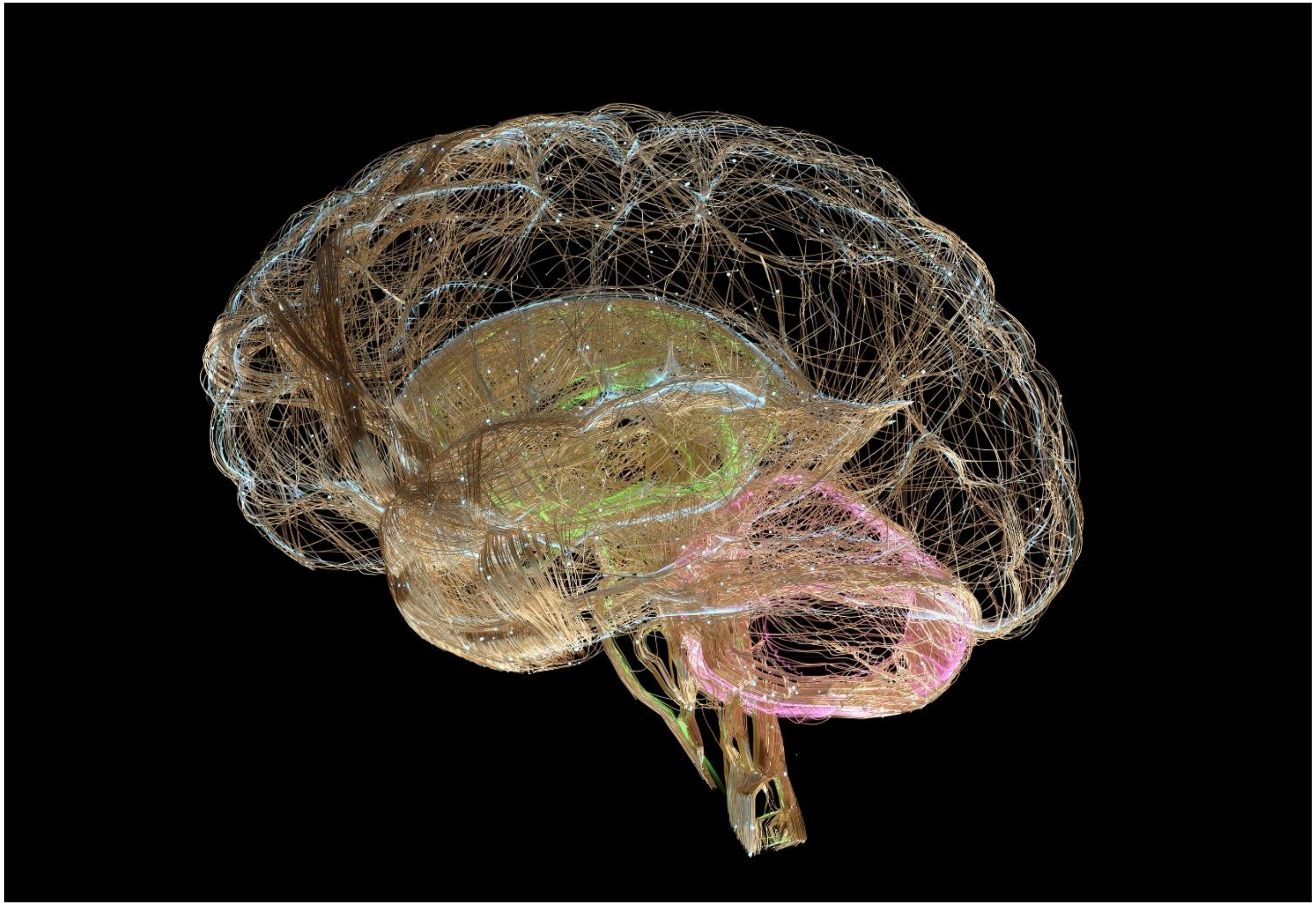
Consequences

During acute stress, "brain regions do not function in isolation, but are organized into functional networks of dynamically interacting regions" (van Oort et al., 2017).

Short-term, these changes to our brain are intended to be adaptive.

However, for individuals who experience extended or consistent crisis stress levels, there is a significant shrinkage of the dendrites in the amygdala, increasing overactivity of the stress response.



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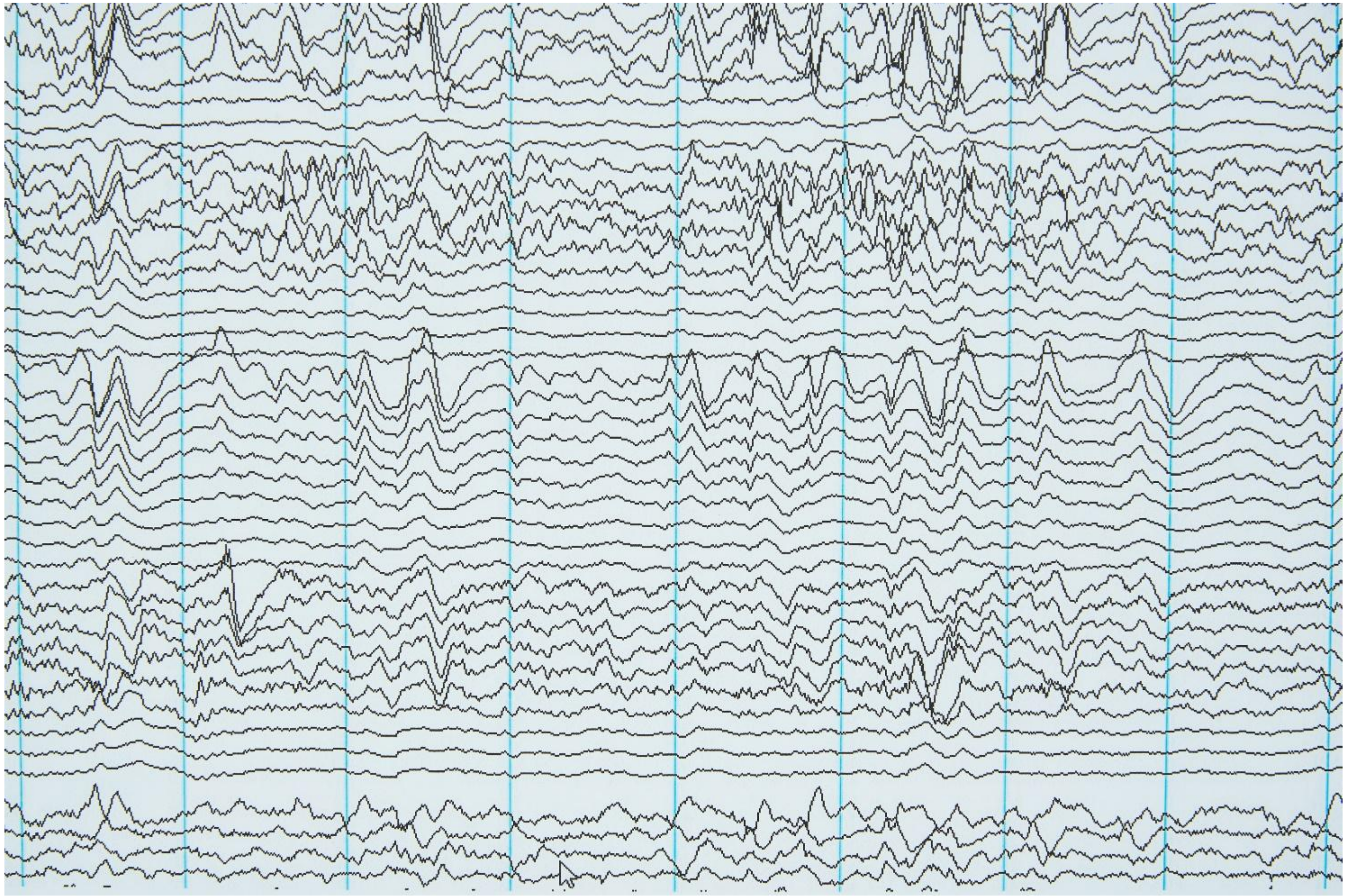
Consequences

Further, consistent activation of acute stress impacts the prefrontal cortex which impacts individuals' ***sense of control, resilience and can impair memory consolidation.***

Ultimately, what this means is those who experience **several episodes of acute stress** are likely to experience **difficulties managing and coping with that stress** precipitating another episode.

The more acute stress episodes and individual experiences, the more challenges that they will likely experience to manage those episodes as **accessing care becomes increasingly difficult when the prefrontal cortex is consistently impaired.**



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“In both animals and human models there is a window of opportunity in the immediate hours of a perceived traumatic event, to reduce anxiety and confusion, restore stability and effective coping, and that this window is not wider than six hours” (Farchi et al., 2018).

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Psychological First Aid (PFA)

"PFA is based on an understanding that people affected by traumatic events will experience early stress reactions which may cause sufficient distress to impede adaptive coping and recovery" (Farchi et al., 2018).

Five core principles of psychological first aid:

(1) to foster a sense of safety

(2) to provide calmness

(3) to induce a sense of self and community efficacy

(4) connectedness

(5) hope.

Hobfoll (2007)

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Six C's Approach

More recent research expands on these core principals by introducing a model that is based on the underpinnings of crisis:

(1) Hardiness

(2) Sense of Coherence

(3) Self-Efficacy

(4) Neuropsychology of the stress response.

Passiveness, Helplessness, Emotion based reactions

ASR Symptom	SIX Cs Intervention	Outcome
Loneliness	Commitment for the person's Safety	Person's collaboration & Cooperation with the helper
Helplessness	Challenge & Control: Ask to choose from simple available Actions/options	Increased sense of control and effective coping
Non controlled emotional reactions	Cognitive Communication	Motivation & ability to act effectively and to make and prioritize decisions
Confusion	Continuity: Chronological Synchronization of the event: underline the ending of the event	Reduction of "flashbacks" / intrusive thoughts, understanding that the immediate threat is over

Active, Cognitive based reaction, effective coping

Figure 2: Processes of the SIX Cs model.

Modifying Our Approach

Acknowledgement of Impact

- Regardless of whether the individual has utilized the crisis system many times or is experiencing a crisis for the first time, the literature underscores that a single crisis event can have a significant impact on the individual's ability to utilize available & accessible resources.

Changing Tactics

- For this reason, providing access to resources alone is not enough. Incorporating an evidence-based, standardized psychological first aid approach, like the Six C's Model, may be an important step in not only meeting the individual where they are, but encouraging them that they can take control of their own healing.

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