

49712: User Experience Research: Theory, Methods & Practice
Instructor: Francine Gemperle

First Aid

Exploring the experience people have with learning first aid and treating their injuries

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Executive Summary

The objective of this research was to understand the level of education young adults have with first aid and the experience they have applying that knowledge to their injuries today. For purposes of this study, types of injuries were restricted to non-severe ones such cuts, bruises, sprains, and burns.

Two hypotheses were formed:

1. Young adults' level of first aid knowledge is heavily dependent on their parent's experience and level of involvement when they're young.
2. Emotions play a greater role than level of knowledge when treating our own injuries.

A mixed-method research approach was used to explore the domain of first aid and test these hypotheses. A survey was released to begin assessing the level of knowledge people have with first aid; interviews allowed me to dive deeper into the focus area; and a co-design session validated and disproved my initial insights.

The **primary insights** that emerged were:

1. Confidence levels in administering first aid are directly tied to childhood learning experience.
2. The experience of administering first aid varies based on whether it's for oneself or someone else.
3. The emotional response to an injury creates a gap that only people can fill.

Ultimately, both hypotheses were validated and product opportunity gaps emerged from the synthesized data.

Context & Hypothesis

When people call EMS, we assume, it's because they consider the injury to be emergent and too severe to handle themselves. However, based on my domain survey, EMS receives many unnecessary and non-severe calls because the injured individual is either in emotional distress (i.e they are panicking, scared, or afraid) or they have a lack of knowledge in treating oneself.

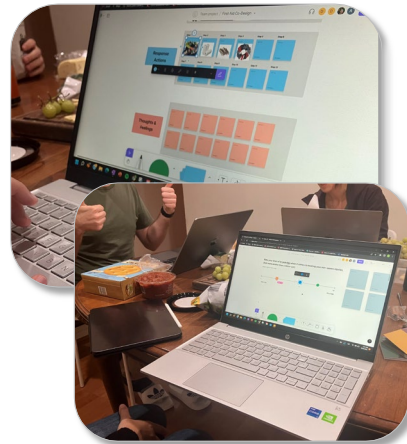
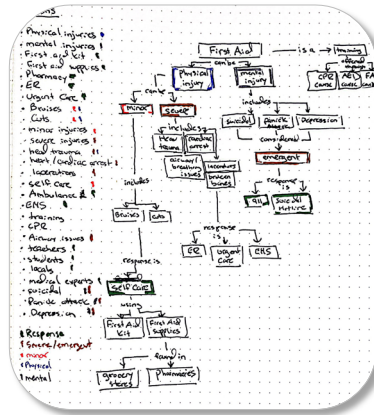
Hypotheses:

- Our **level of knowledge** about first aid and injury treatment is heavily dependent on our parent's experience and level of involvement when we're young.
- Our **emotions** play a greater role than our level of knowledge when treating our own injuries.

process to test hypotheses

Initial Exploration & Focus

Explored the topic of first aid through **concept mapping, observations,** and **domain surveys** to narrow in on a focus area.



Generative Research

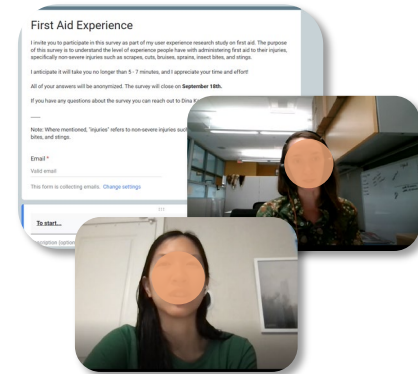
Ran a **CoDesign session with 4 participants** to test and refine initial insights. Utilized Figma to run the session.

Product Opportunity Development

Developed **product opportunities** based on **identified gaps.**

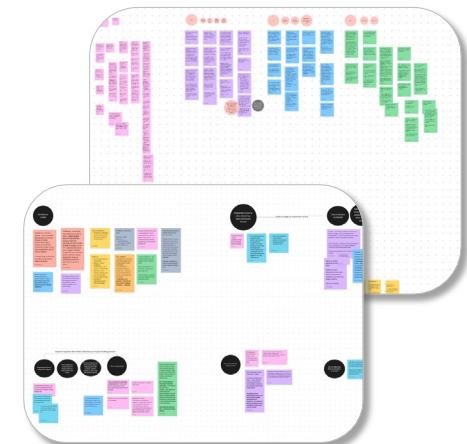
Exploratory Research

Engaged users to learn more about their first aid education experience through an **online survey** and **interviews.**







Analysis & Synthesis

Synthesized qualitative and quantitative data, clustered findings, and generated **insights.**



Research Methods

Mixed-method approaches were used to gather data and synthesize it into final insights & product opportunities

		Intent	Outcomes
	Initial Exploration	<ul style="list-style-type: none">• Formulate hypotheses and frame research direction.• Break down the domain of first aid, going beyond kits and products.	<ul style="list-style-type: none">• Created a concept map of the topic and conducted initial observations.• Spoke to two EMS individuals who shed light on call types and helped influence the direction of research.
	Online Survey	<ul style="list-style-type: none">• Gather quantitative data on people's level of first aid knowledge & serve as a screener for interviews.• To identify which sources impacted people's level of knowledge when they were young and which sources people use today.	<ul style="list-style-type: none">• Understood the level of knowledge people have with treating their own injuries and which resources they use today.• Connected a potential relationship between overall level of knowledge and childhood learning experience.
	Interviews	<ul style="list-style-type: none">• To dive deeper into how people learned to administer first aid to their non-severe injuries and the level of effectiveness of those methods.• Understand how emotional and mental states change and impact our level of first aid treatment.	<ul style="list-style-type: none">• Uncovered that level of confidence plays a greater role in administering first aid.• Community forums, comments, and blogs are heavily used when participants don't believe their parent's are the best resource to use.
	CoDesign Session	<ul style="list-style-type: none">• To validate initial insights around level of confidence and test hypothesis that our emotions are a greater influence than our technical knowledge on our first aid response.	<ul style="list-style-type: none">• Understood that level of confidence and first aid response varies based on who is injured.• Greater insight into how our emotions influence our first aid response.

Insight 1

Confidence levels in administering first aid are directly tied to childhood learning experience

Parent's influence

- "Parents" was listed as the #1 influence of people's first aid knowledge when young.
- Kids who have medical professionals or active parents learn first aid sooner and faster, resulting in greater confidence levels.
- Camps and clubs provide high quality of first aid education, however it is on the parents to encourage children to partake in the activities.

Decrease in knowledge - - - ->

- People who have a high degree of knowledge may not put it into practice, resulting in loss of that knowledge and associated confidence.

Takeaway

- Regardless of parent's involvement, we all have rudimentary knowledge of treating injuries.
- There is a need to support parents who are not medical professionals, so children equally receive high quality first aid education.

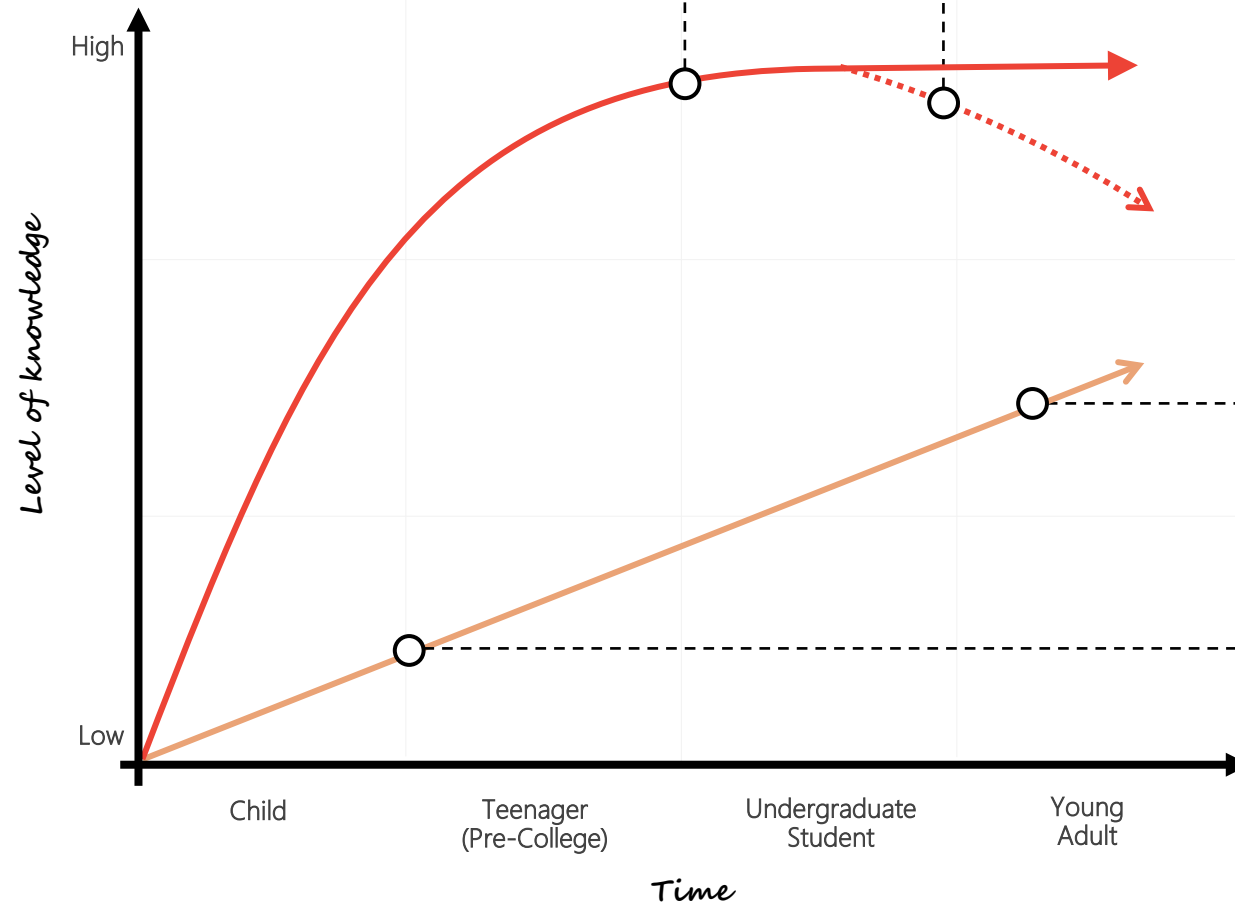
"[Level of knowledge came] from mix of my parents and kid activities. **Mom is a healthcare professional, dad does a lot of outdoor activities, and did first aid in girls scouts.**"

- Interviewee

"I was a boy scout and did first aid training there. Also a counselor and responsible for the health and safety of a bunch of children ... **I feel decently confident but also a bit out of practice because it's been a couple of years.**"

- CoDesign Participant

Level of First Aid Knowledge Over Time



"Gained confidence through experience - primary resource. Don't turn to any source. Feel like that have seen so much and can use worldly experience."

- Interviewee

"Parents didn't really teach anything. They just know to **stop bleeding and apply pressure.**"

- CoDesign Participant

Those who have doctors or outdoor enthusiasts as parents

Those who don't have doctors or outdoor enthusiasts as parents

○ Milestones

Insight 2

The experience of administering first aid varies based on whether it's for oneself or someone else

Urgency of treatment varies

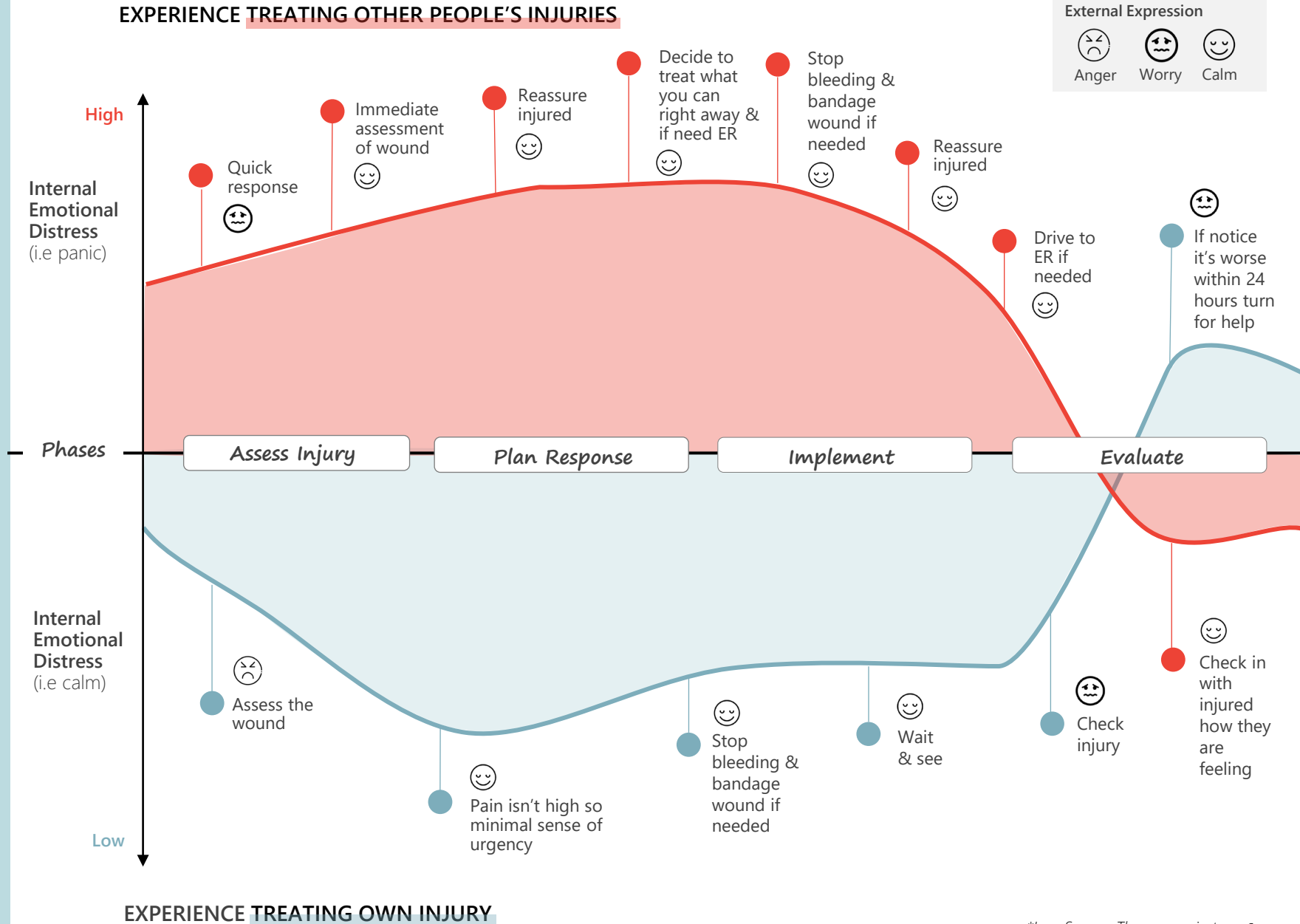
- When people see someone else's blood, they believe it to be more serious, hence why more immediate steps are taken.
- When treating oneself, we tend to wait and see how the injury progresses with minimal first aid response. This may lead to greater emotional distress during the evaluate phase.

Emotional distress varies

- People are less internally calm when others get injured because they can't assess the pain level. Externally, we try to stay calm for the sake of the injured.
- When we hurt ourselves, we are more verbally expressive but our internal stress levels are lower in comparison.

Takeaway

- The ability/inability to feel pain dictates our first aid response.
- Wait & see mentality may cause greater emotional distress down the road.



Insight 3

The emotional response to an injury creates a gap that only people can fill

Source of gap

- Once an injury is personally deemed severe, our confidence decreases, emotional distress increases, creating a gap that only a person can fill.

People provide stability

- Having access to someone whether via phone, text, or in person is most effective in reducing our emotional distress and validating our first aid response.

Internet has limitations

- 48% of survey participants stated they use the internet frequently when it comes to treating injuries. However, according to interviewees, the internet is effective for after the injury has been tended to; it serves more for educational purposes.

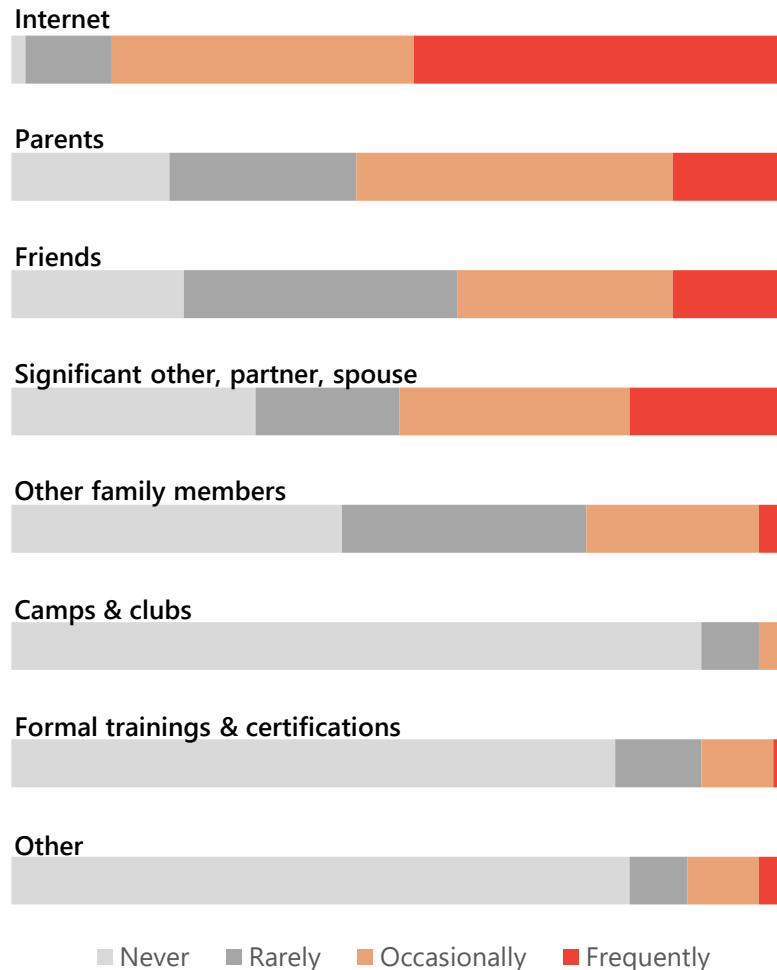
Takeaway

- It is imperative that everyone has someone they can turn to, through any means of communications, when they badly injury themselves.

“Not so confident, just depends on the size of injury. **If it’s life threatening, big, or makes me afraid that something will go wrong, then [my] knowledge is zero of how to handle it.**”

- Interviewee

FIRST AID RESOURCES: CURRENT FREQUENCY OF USAGE



● “YouTube offers really **good advice** and the **comments sections.**”

- Interviewee

● “**Called mom** and asked what to do when brother needed help in Pittsburgh.

- Interviewee

● “**Lean on the professionals I know.** Will google things but **google past a certain point is not helpful** and isn’t directly applicable.”

- Interviewee

● “In the moment, **talking to someone and getting empathy helps**...People in EMTs have been really helpful, counseling and **hotline services** where you call and can describe your symptoms and then get expert opinion on whether to go to ER or do it at home.”

- Interviewee

- Survey

Product Opportunity Gaps

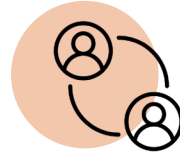
How might we...



... Support parents who are not medical professionals or outdoor enthusiasts in teaching their children first aid?

Insights:

- Confidence levels in administering first aid are directly tied to childhood learning experience.
- Kids who have medical professionals or active parents learn first aid sooner and faster, resulting in greater confidence levels.



... Enable easy digital access and quick response from medical personnel so those injured can share symptoms, validate first aid response, and minimize the “wait & see” mentality?

Insights:

- The experience of administering first aid varies based on whether it's for oneself or someone else
- Wait & see mentality may cause greater emotional distress down the road.



... Create a solution that maintains our confidence levels and supports the administration of first aid, even if we are in emotional distress?

Insights:

- The emotional response to an injury creates a gap that only people can fill
- Once an injury is personally deemed severe, our confidence decreases, emotional distress increases, creating a gap that only a person can fill.