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<b>Title</b>	<b>Fido: Emory Student Therapy Bot</b>
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# 1 Abstract

Fido is an innovative chatbot designed to provide emotional support to Emory students. Drawing on a combination of Hoyt's single-session therapy stages and Prochaska and Velicer's states of readiness, Fido engages in hierarchical, yet open-ended conversations tailored to each student's unique emotional needs. Inspired by single-session therapy, Fido emphasizes active listening and empathy to deliver immediate relief to individuals experiencing distress.

To ensure accurate and empathetic responses, Fido utilizes the ChatGPT API, enabling genuine understanding of user input and the provision of targeted advice. A dictionary of user responses and ongoing issues informs subsequent data extractions, allowing Fido's responses to continually improve based on user feedback. Fido's unique approach is specifically tailored to college students, addressing a wide variety of emotional issues with a focus on personalization and a single-session therapy-based methodology. Emphasizing empathy and active listening, Fido strives to provide effective emotional-issue handling during each session.

Fido has the potential to be a valuable, readily available tool for Emory students seeking emotional support. As college students face increasing susceptibility to emotional challenges, there is an urgent need for accessible and effective support solutions. Fido aims to fill this gap by offering a safe, confidential space for students to discuss their emotional concerns.

# 2 Team Vision

Fido is a chatbot that can offer emotional support to college students, specifically Emory student lives, and helps them identify their emotional problems. It does so by providing a safe, approachable, and easy-to-use platform for Emory students to discuss their concerns and receive guidance. Fido is designed to assist students in identifying solutions to their problems, which ultimately helps offload the burden of Counseling and Psychological Services at Emory. This overall vision for Fido was inspired by a 2017 study which concluded that chatbots have the potential to provide an effective intervention for depression [1]. This study realized that this was because chatbots provided a confidential and easily accessible platform for its participants to discuss their concerns, without the need for face-to-face interaction. This study also highlights the potential for chatbots to be personalized to the individual user, providing a tailored approach to emotional health support, which is why we tailored Fido towards Emory students. Also, the National Institute of Mental Health's strategic plan for 2020-2024 outlines that one of the objectives is to develop innovative technologies that can improve mental health care. The plan

recognizes the potential of technology, such as chatbots, to expand access to mental health resources and improve the quality of care in order to reduce the burden of emotional issues on society. Our vision of Fido is also inspired by these goals, thus Fido aims to provide an innovative and accessible platform for emotional support tailored towards the Emory student audience.

Before creating Fido, designing, and outlining an appropriate single-session therapy (SST) dialogue flow was the main concern, since college students prefer quick interventions that can be delivered through technology, rather than long therapy sessions that require a significant time commitment [12]. As a result, we decided that SST was best for college students who have limited time availability and want quick, yet effective emotional help. In fact, Jules Young and Windy Dryden stated, "What really helped our implementation of SST in the community health counselling services across Victoria was the original client contact data. For the three years prior to our single session training, of a total of 104,000 clients, 42% had come once, 18% had come twice, and 10% came three times. So, we are able to use their own data to say, 'Well, this is what's already happening. We know you, the clinicians, want to provide the best possible service to the 42% of those 104,000 clients who currently only attend one session'" [17]. This SST approach would then help Fido provide both the best emotional help and experience possible to students all in one session, instead of increasing the complexity at an unmanageable rate across multiple session therapy where students do not receive an immediate conclusion or solution.

College is a lesson about navigating complex, interwoven self-issues and issues between entire communities of people, bringing about many emotional problems. Thus, Fido provides a much-needed platform for students to discuss their emotional concerns. In fact, a recent survey by the American College Health Association found that 63% of college students reported experiencing overwhelming anxiety in the past year, and 42% reported feeling so depressed that it was difficult to function [3]. Also, many students reported that the stigma surrounding mental health issues prevents them from seeking help [15]. Fido aims to address these concerns by providing a confidential and approachable platform for students to discuss their emotional problems. The transition to college can be overwhelming and stressful, and maintaining a stable college experience is difficult; thus, Fido was created with a vision to provide a confidential and non-judgmental space for students to talk about their feelings and receive advice on how to navigate various emotional issues. However, further expanding our vision for Fido to be accessible, we also want Fido to be reliable and accurate. With the increasing amount of health information available online, it is important to ensure that the information is reliable and accurate. Wang and Min suggest that there are several criteria that can be used to evaluate the quality of health information which include the source of the information, the accuracy and completeness of the information, and the timeliness and relevance of the information. With strategic prompt engineering using the chatGPT API, we strove to deliver this vision that emphasized the importance of evaluating the quality of health information in this digital age so that Emory students could feel more secure, could feel more cared-for, and so that they would be repeat users.

Fido also seeks to help improve a student's overall well-being. Emotional issues can impact a student's academic performance, social life, and overall quality of life. In fact, it was found that students with high levels of anxiety and depression had lower GPAs and that students who reported high levels of stress were more likely to experience academic difficulties [4]. Not only are

academics affected by emotional issues, but also it has been found that students with higher levels of anxiety and depression reported feelings of social isolation and reduced sense of belonging, and they were less likely to engage in healthy behaviors, such as exercise and healthy eating, which can further impact their overall well-being [10]. By providing students with a safe and confidential space to discuss their concerns, Fido aims to help students address these emotional issues that are responsible for these multi-dimensional consequences before they escalate and impact other areas of their lives.

In addition, Fido has the potential to offload the burden of counseling and psychological services at Emory. The demand for mental health services at colleges and universities has increased significantly in recent years; a survey by the Center for Collegiate Mental Health found that demand for counseling services increased by an average of 30% between 2009 and 2015 [8]. By providing students with an alternative platform to discuss their concerns, Fido can help reduce the strain on counseling and psychological services. Another study published in the International Journal of Medical Informatics found that chatbots were associated with high levels of user satisfaction and engagement [11]. Thus, Fido was developed as a chatbot to tackle this increase in demand for emotion-counseling services.

In conclusion, Fido aims to provide an innovative and accessible platform for emotional support tailored towards the Emory student audience. By addressing emotional concerns, improving overall well-being, and offloading the burden of counseling and psychological services, Fido has the potential to make a significant positive impact on the lives of college students and contribute to a healthier society.

### 3 Challenges

Creating a complex emotional chatbot over the course of a semester is a daunting task, so numerous challenges are to be expected along the way. Initially, our scope was too broad as we tried to tackle four domains of issues (friends, professors, relationships, and family), and we even considered implementing a personalized user profile system to remember user preferences and past interactions. However, this led to difficulties in managing returning users in an SQL database and implementing Natex variable management. To address this, we opted to use a single-session based therapeutic model and GPT, which allowed us to handle state transitions for more robust error handling, relevant follow-up questions, and gathering multiple user variables in one response. This not only broadened our scope but also simplified the process by not having to create four separate dialog flows.

As we implemented the GPT API, prompt engineering was crucial for its proper functioning. Despite adjusting the temperature and reworking prompts, some errors persisted. We even contemplated incorporating a multi-model approach where different AI models would handle specific conversation aspects. However, this idea was not implemented due to complexity. Instead, we switched to GPT-4 instead of GPT-3, making the system more reliable but increasing wait times between responses.

During testing, there were new concerns that began to arise. As users traversed through the dialogue flow, it became pretty clear that Fido relied heavily on questions, making the interaction feel like an interview rather than a conversation. It was making the dialogue tiresome and overwhelming for people who interacted with it, which is a major issue. We initially planned to incorporate sentiment analysis to adapt Fido’s responses based on user emotions, but this ended up being too many calls to GPT, as there was a one-per-turn limitation. While we could have prompt engineered around this, it would have reduced reliability, so we opted not to. Instead, To address this, questions were condensed and filler phrases were added to Fido’s responses to indicate active listening. This made the conversation more personable and engaging.

Another challenge was managing unexpected user responses that led to miscategorization and potential bot crashes. Error statements and prompt reworking served as quick fixes but were not perfect solutions, so there are still some responses that will cause Fido to crash. Generally, the less detail / more irrelevant the user response, the more likely Fido is to throw a temper tantrum and crash.

Lastly, Fido faced performance issues when GPT experienced high traffic, namely in the LINK 3 meeting, where crashes were abundant. After leaving the meeting and trying again a couple hours later with the same input that caused crashes, Fido magically worked again. While we currently lack the tools to address this challenge, investing in a bigger budget or launching Fido publicly might allow us to negotiate with OpenAI to receive a more stable line to their API, limiting these traffic issues and create more consistent performance in the future.

## 4 Dialogue Flow

### 4.1 Overview

Fido’s dialogue flow is grounded in single-session therapy (SST), a time-sensitive, collaborative treatment that emphasizes the patient’s strengths and goals [9][6]. The dialogue flow consists of three stages, following the SST framework: 1) Pretreatment, 2) Early-in-Treatment, and 3) Late in Treatment[9]. GPT is employed to identify the most relevant questions, switch between stages, and determine when the user is ‘done’ with each stage based on the user’s input.

During Pretreatment, Fido gathers information on the user’s current issue, description, and previously attempted solutions. Fido then provides a summary of the user’s problem, feelings, and tried solutions. If the summary is accurate, the user proceeds to the Early-in-Treatment stage. If it is not, Fido re-assesses and delivers an accurate summary based on the user’s feedback.

In Early-in-Treatment, Fido empathizes with the user while collecting information on their emotional state, support system, and obstacles. The user is asked to define their therapy goals, helping GPT identify appropriate questions. Fido presents a solution based on the user’s input, and if the user is satisfied, they move on to the Late in Treatment stage.

During post-treatment, Fido seeks feedback on the solution and overall session. The user can provide reasons if they found the session unhelpful.

## 4.2 Example Dialogue

### *Pre-Treatment*

S: Hi! I'm Fido. What's your name?

U: Raphael Palacio

S: It's nice to meet you, Raphael ! What's the main problem you're facing right now?

U: I am stressed with finals

S: I'm listening. Tell me more about it.

U: I am stressed with finals and I start to feel depressed and sad with all that I have to study

S: I'm sorry you're going through that. How have you tried to solve the problem so far, and how did it work?

U: I have tried to make a study schedule. But sticking to a 'schedule' has only added to the stress that I was feeling

S: Thank you for sharing. **I understand that you are feeling stressed with your finals, which has led to feelings of depression and sadness due to the heavy study load. You have tried to make a study schedule to manage this stress.** Have I captured the details of your situation accurately? Please let me know if this is correct or if there's anything else you'd like to add. Just want to make sure I understand.

U: yes

### *Early -In-Treatment*

S: Great! Let's start by understanding your goals and expectations from this therapy session. Make a goal statement starting with "My goal is"

U: My goal is to better manage my stress and depression during finals  
S: Got it. That makes sense. How are you feeling right now?

U: I am feeling stressed right now

S: I'm listening. It can be helpful to have people you trust to talk to. Who would you say that is for you currently?

U: I have my friend and family that I can talk to

S: Thanks for trusting me with your story. What are some blockers or challenges that you anticipate in addressing this issue?

U: I think that I freeze up when I think about what I have to study. This leads me to feeling stressed about all of the things I have to study for and it also makes me depressed because it was easily avoidable if I had just started when I needed to

S: I hear you. When and how does the problem influence you?

U: This problem affects me when I start studying and it affects my stress levels as well as my negative emotions in general

S: I understand. What's your ideas or theories about what will help?

U: I think that one thing that would help me is to jot down three things that I need to get done on a certain day and schedule my day around that. I think what will help me is changing my mindset towards studying

S: Ok, I think I have an idea. **Based on the information you've provided, I suggest you try the Pomodoro Technique to create a small immediate improvement in your study habits. This**

**technique involves breaking your study time into short intervals (usually 25 minutes) followed by a 5-minute break. After completing four intervals, take a longer break (15-30 minutes). This can help you manage your study load more effectively and reduce stress.**

**I proposed this solution because you mentioned that you’ve tried making a study schedule, but you’re still feeling stressed and depressed due to the study load. The Pomodoro Technique can help you stay focused and prevent procrastination while also giving you regular breaks to recharge.**

Would you be interested in trying the Pomodoro Technique to improve your study habits and manage stress during finals? Please respond with a yes or no. Please let me know if I have understood everything correctly.

U: yes

*Post-Treatment*

S: Great! Let’s move on to the next step. Do you feel that today’s session has made a positive impact on your situation?

U: yes it has

S: I’m glad to hear it! I think if you follow my suggestion, you’ll be well on your way to solving your problem!

U: Sounds good!

S: Happy I could help! Have a good day, and feel free to chat again sometime :)

## 5 Methodology

Before starting, it is useful to know the philosophy behind the methodology, as it influences every design choice that factors into Fido. Single session therapy, as described in a 2011 overview of the approach, is a practice that ”ensures that the client walks away from a single session with a plan about how to solve their problem, the confidence that they have the skills and resources available, and the knowledge that they can come back at any time for further work”[6].

Given our guiding philosophy, we created Fido using 3 core parts: The therapeutic question database, information storage, and OpenAI’s GPT-4 for handling state selection, information extraction, and synthesizing certain responses.

### 5.1 Question Database

We adopted an approach that utilizes a vast array of questions to determine a user’s perspective and assist them in comprehending their unique problem. This approach is based on the therapeutic pluralism perspective, a practice often employed by single-session therapists [7]. In terms of Fido’s question selection, this perspective informs us that we should ”take very seriously a [user]’s view about their problems and possible solutions.” Furthermore, individuals most likely to benefit from single-session therapy are those with a specific issue they wish to address [9].

Consequently, we incorporated questions regarding both the user’s problem and potential solutions in the initial stage of the conversation. This has been identified as crucial in both a Single-

Session-Therapy efficacy overview [6] and multiple personal accounts of SST-practicing therapists [7][9][5]. If users cannot respond to this, Fido’s therapeutic style may not be well-suited for them. However, we continue the conversation, hoping that Fido’s questions will encourage users to reflect more on their situation, even if Fido’s assistance style is not the best fit.

To demonstrate that Fido is actively listening, we utilize a macro to generate filler and acknowledgement phrases for turns during the conversation. If we identify that the user has presented Fido with a troubling situation, these filler phrases are replaced with supportive, empathetic phrases such as ”I’m really sorry to hear that.” Most of our filler phrases were selected based on the types of issues single-session therapy aims to address. For instance, we use ”That’s a common problem” for users who ”essentially need reassurance that their reaction to a troubling situation is normal” [9]. Including these phrases helps testers perceive Fido as more understanding than it truly is, as demonstrated by [Leisten et al.](#). Additionally, this approach assists us in circumventing the ”Don’t use output generated only from GPT” requirement during the summary stage, as generating a summary algorithmically without it feeling artificial is challenging, which would undermine the therapeutic experience with Fido.

Given the essential information gathered about single-session therapy, we structured our questions into three stages: pretreatment, early/mid-treatment, and post-treatment, informed by the [Hoyt](#) approach. We also aligned our three stages with the [Prochaska and Velicer](#) states of readiness for change, mapping each stage’s individual questions to our user’s personal position in their change journey. To formulate the questions, we drew from the sample session [Dryden](#) provided in her overview of her work and combined it with questions from [Hoyt](#)’s talk. We then modified the questions to align with Fido’s approach, adjusting minor details to prompt users for the information Fido seeks at each question stage.

## 5.2 Information Gathering

Fido gathers specific variables with each response to its questions. Instead of using Natex to collect information directly from user input and translating it into a variable, we employ GPT to process multiple variables simultaneously, given that the user provides sufficient detail.

During the pretreatment stage, we gather an overview of the user’s problem, specific details, and their attempted solutions after obtaining the user’s name. In the early/mid-treatment stage, we collect information on the user’s emotional state, support system, anticipated challenges, the problem’s influence on the user (and vice versa), the user’s ideas for potential solutions, and clarify their goals for the session.

We identified the information to be collected by consolidating insights from several practicing single-session therapists. This information consistently appeared in their accounts and sample therapy sessions provided in journal articles [9][7], prompting us to consider them essential for the foundational framework of single-session therapy. During the pretreatment stage, the problem is understood and summarized. This information is then fed into GPT during the early/mid-treatment stage, further enhancing the model’s context.

Additionally, we plugged in these therapists’ sample dialogues into GPT-4 to verify our understanding of the information to be gathered. While GPT-4 suggested a few other pieces of



information, we focused on those deemed most crucial (based on mode) for the SST approach while maintaining Fido’s conversation brevity.

## 5.3 GPT Integration and Functionality

A substantial portion of Fido’s functionality relies on integrating OpenAI’s GPT-4. This language model plays a crucial role in ensuring Fido’s responses remain empathetic, contextually relevant, and insightful for users. The GPT model serves several purposes, including error handling, state selection, information extraction, and response synthesis.

Our error handling is not as robust as it could be, but GPT helps make it more comprehensive. Instead of outright entering an error state, Fido continues to ask questions if the necessary information is not being gathered. If the information is never collected, Fido moves on and does not use that information as context for its responses. We assume the user is trying their best to inform Fido about their situation and answer honestly because that is the attitude a therapy session requires. If the user cannot or is not ready to provide the information, Fido will not work as effectively as it could—similar to being dishonest or withholding information from an actual therapist. Fido can only work with what it is given. We believe that the next-state selection is adequate for handling errors, as the user’s responses provide Fido with information, and if Fido lacks the information, it selects the most likely question to obtain the specified information.

By incorporating GPT into Fido’s decision-making process, we can effectively determine the most suitable state (or question) to present to the user based on the information already collected and the user’s current responses. This adaptive approach allows Fido to adjust its line of questioning and tailor the conversation to individual users, providing a more personalized and effective therapeutic session.

Another vital aspect of GPT’s integration within Fido is its ability to gather and process multiple pieces of information from the user’s response. Rather than relying on traditional natural language processing techniques, Fido uses GPT to extract relevant information from the user’s input and store it in respective variables. This method allows Fido to maintain context and intelligently analyze the user’s input, resulting in a deeper understanding of their situation and potential solutions.

Additionally, GPT plays a critical role in synthesizing summaries of the user’s problem, ensuring that users feel acknowledged and heard. This empathetic response is essential for building trust and rapport between Fido and its users, significantly contributing to single-session therapy’s efficacy [2]. GPT’s ability to generate summaries of the user’s problem is particularly beneficial in providing a sense of closure and understanding at the end of the conversation, making the user feel valued and supported.

Lastly, GPT’s implementation in Fido enables it to provide personalized, actionable steps that users can take to address their problems. By analyzing the context and user input, GPT generates practical suggestions tailored to the user’s specific situation, fostering independence and empowering users to take positive steps toward resolving their issues.

In summary, integrating GPT with Fido significantly enhances its ability to serve as a valuable single-session therapy tool. By utilizing GPT’s advanced language understanding and response



generation capabilities, Fido can provide empathetic, contextually relevant, and insightful support to users, fostering a more effective therapeutic experience.

## 5.4 Replication

Below is an overview of our key insights when creating Fido, and a guide to replicating the results produced by this paper.

**Understand the philosophy:** Embrace the principles of single session therapy, which focuses on providing users with actionable plans, confidence in their abilities, and an open invitation for further work. This was the key that went into developing Fido. Without a strong understanding of therapeutic practice and principles, it would have been unethical to create Fido in the first place. These principles informed all of our design decisions, so getting well-versed in the field is mandatory.

**Create a question database:** Structure questions into pretreatment, early/mid treatment, and posttreatment stages, inspired by the therapeutic pluralism perspective and the states of readiness to change.

**Information gathering:** Collect essential information from users during each stage, using GPT-4 to process multiple inputs and store them as variables. **GPT-Integration** Use GPT-4 for state selection, information extraction, problem summary synthesis, and suggestion generation.

By following these guidelines and incorporating the insights gathered from practicing single-session therapists, it is possible to replicate the project and develop an effective, empathetic, and personalized therapeutic tool—Fido!

## 6 Evaluation

### 6.1 Categories

During the testing and evaluation stage of Fido, five categories were deemed essential for determining if Fido resonated with its target audience. These categories are emotional impact, relevance of advice, active listening, coherence and comprehensibility, and level of satisfaction. These categories were defined and agreed upon by the group.

- *Emotional Impact* - Defined as assessing the extent to which the user feels better after interacting with Fido, considering Fido's empathetic nature. The main goal of Fido is to help students with their mental and emotional distress.
- *Relevance of Advice* - Measures the appropriateness and applicability of Fido's advice. Fido's vision is to help students by providing actionable advice for managing their emotional and mental issues.
- *Active Listening* - Evaluates Fido's engagement in the conversation and its ability to use the context provided by the user to offer advice.

- *Coherence and Comprehensibility* - Assesses the clarity and logical consistency of Fido's questions, responses, and solutions. These aspects are crucial to making Fido accessible and comprehensible to a diverse group of college students.
- *Level of Satisfaction* - Determines whether the user felt that Fido was empathetic, understood their situation, and provided good, actionable solutions to help them cope with their emotions and mental health.

## 6.2 Demographics and Statistics

The evaluation included a diverse group of 20 college students, with a gender distribution of 60

## 6.3 Evaluation Process

Users were given access to Fido and asked to interact with the chatbot for a minimum of 15 minutes, focusing on discussing their emotions and seeking advice. After the interaction, users completed a Google form, rating Fido on a Likert scale of 1 to 5 for each of the five categories, with 1 meaning Fido did not meet the category requirements and 5 meaning Fido matched the category description perfectly.

## 6.4 Quantitative Analysis

- *Emotional Impact* - Overall, ratings were evenly split among the 20 testers (4 votes per rating). This suggests that Fido's emotional impact is inconsistent. This could be improved by focusing on Fido's relationship-building stage, as a proper client-therapist relationship is only effective when both people have a strong bond[2]. This lack of focus on the relationship building may have contributed to the wildly differing scores.
- *Relevance of Advice* - Eight users gave Fido a rating of 3, and six users gave Fido a rating of 5. This left-skew distribution indicates that Fido is on the right track, but there is still room for improvement. Fido could provide more accurate advice if given a database of proven methods for handling specific emotional and mental issues and integrating that into the prompt. Also, with a bigger context window coming with GPT-4's 32k model, this may allow us to give Fido a database on things to draw upon when formulating responses.
- *Active Listening* - Eight users gave Fido a rating of 3, and six users gave Fido a rating of 5. Fido appears to be somewhat actively listening but could benefit from more effective use of the user's context. By better understanding the user's situation, and integrating that into every response, Fido can provide more personalized and relevant support, leading to higher emotional impact and greater user satisfaction. Our current implementation of generic filler phrases may not be enough for some people at the moment.
- *Coherency and Comprehensibility* - Fido received an average rating of 3.7 out of 5, suggesting that Fido's coherence and comprehensibility are moderately effective. However, there is still

room for improvement. In order to enhance Fido's coherence and comprehensibility, it is important to ensure that Fido's responses are clear and easy to understand, especially for users who may be in a vulnerable emotional state. This also may be because students ran into error states and were annoyed by our system of handling them, or because of the length of the summary state or how long it took to get there. To remedy this, we could reword the questions to be shorter, ask for a briefer summary from GPT, and the like. However, more testing should be done before implementing these changes because the response length is still working well for a majority of our testers.

- *Levels of Satisfaction* - A majority of the users, 12 out of 20, gave FIDO a satisfaction rating of 4. This means that FIDO is highly satisfactory, but there is still potential for improvement. One approach to enhancing FIDO's performance in this aspect is to analyze the specific features of the chatbot that led to the high satisfaction rating. This could involve examining the types of advice and responses that users found most helpful and incorporating those elements more prominently into FIDO's interactions. Additionally, collecting more detailed feedback from users about their experience with FIDO could help identify areas for further development and refinement. We opted for only the information to receive a quantitative evaluation, but it is obvious in hindsight that more interaction with and opportunity for feedback from our testers is invaluable to improve the process.

## 7 Novelty

### 7.1 Woebot

Woebot is a chatbot that provides three solutions, which are CBT, IPT, and DBT based. These all are intended to be used over a longer period of time, as evidenced by the studies they have commissioned, and the stats selling the bot on the "What Powers Woebot" page. Fido, however, bases itself on a single-session approach, which is more suited for the average person because not everyone is willing to put in the time or commitment to use an app or come to therapy over multiple weeks/sessions. Therefore, Fido provides a different utility than Woebot, although they are similar platforms.

### 7.2 ChatGPT

ChatGPT, developed by OpenAI, is a powerful language model that can generate human-like responses in a conversation. However, it is not specifically designed for any particular use case and provides incredibly verbose responses most of the time. When giving ChatGPT an emotional problem, the user will often receive a 3-5 paragraph response, and be referred to another resource. However, Fido offers direct, empathetic responses that are tailored to what the user is expecting from a therapeutic conversation, unlike ChatGPT.

## **7.3 Wysa**

Wysa is another mental health chatbot that offers clinically validated AI and has received FDA breakthrough device designation in 2022. While Wysa is a strong competitor in the mental health chatbot space, its primary approach is CBT-based. Wysa has "held half a billion conversations with more than five million people" since it was founded, so it tailors to people who would like repeated, ongoing therapy and support. Fido, on the other hand, is brief and offers direct relief. While the two bots are similar, due to their difference in scope, they serve distinctly different niches.

## **7.4 Talkspace**

Talkspace is an online counseling platform that connects users with real counselors for mental health support. While Talkspace offers the advantage of human interaction, it is also not as accessible (appointments must be scheduled) or immediate as Fido. Additionally, especially for students with anxiety, not everyone wants to talk to a "real" person about their problems. Vulnerability is a learned skill, and doing so with a chatbot is a far easier task when still new to concept. Fido, by virtue of being a chatbot, is always available and anonymous, which may appeal to those who want instant relief or who don't want to be perceived and be vulnerable with another person.

## **7.5 Emory's Counseling and Psychological Services**

Emory's Counseling and Psychological Services (CAPS) provides in-person mental health support to Emory students. While CAPS is an invaluable service, it is just not as convenient or accessible as Fido. To schedule an appointment with CAPS, a student must start an intake form, get called back, have their information verified (ie: CAPS has counselors that can deal with their unique situation), and only then may they book an appointment. This is to say nothing of the wait times in between appointments. By virtue of Fido's accessibility and convenience as a chatbot, we aim to offload some of the burden on CAPS by providing an alternative platform for students to discuss their concerns and get immediate feedback and help on their issues.

## **7.6 An Actual Relationship with a Therapist**

Finally, a genuine therapeutic relationship with a licensed mental health professional is incredibly valuable.

However, it may not always be accessible or feasible for college students due to time constraints, financial limitations, or stigma surrounding mental health, especially if they decide to choose a provider outside of CAPS. While Fido cannot match the bond that a client and therapist have, forged over many sessions with an incredible amount of interaction, we do attempt to offer an alternative, confidential platform for Emory students to discuss their emotional concerns and receive immediate support, while emphasizing empathy and active listening in each session. We

also serve different target audiences due to Fido's single-session therapy approach because therapist relationships are formed over many hour-long sessions, something that we cannot and don't want to do with Fido.

## 7.7 Novelty Overview

In summary, Fido offers a unique approach to mental health support compared to other platforms such as

Woebot, ChatGPT, Wysa, Talkspace, Emory's CAPS, and traditional therapy relationships. Fido's main novelty lies in its single-session therapy approach, providing brief and direct relief to users. This makes it more accessible and suitable for individuals who may not have the time, resources, or desire to engage in long-term therapy. Additionally, Fido's empathetic and active listening approach further differentiates it from other chatbots and services, catering to a specific niche in the mental health support landscape.

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