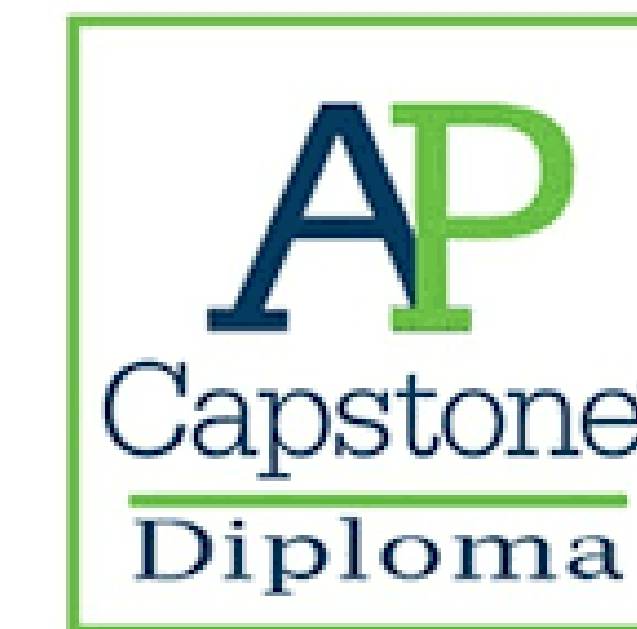# Wysa's Viability in High-School Psychotherapeutic Counseling

Do secondary honor students view Wysa as a viable alternative to traditional high school psychotherapeutic counseling?

Introduction

In the digital age, there has been a **need for a space** where students are open to counseling to **address mental wellness**. The isolation of the 2020 COVID-19 pandemic has raised concerns over the mental wellness of the youth and expansion of youth psychotherapy. In 2022, although **more than half** of all public schools in the United States provide mental health assessments, the Pew Research Center found that 58% **do not** provide mental health treatment for students with mental health disorders (Schaeffer, 2022). This leads to concerns of students' mindsets on school counseling systems. Student to school counseling system relationships **have always been strained**, as only 18% of all middle school and high school counseling meetings were for emotional concerns (Auger et al., 2018). Due to **lack of anonymity** and **efficiency in solving issues**, students tend to avoid counseling to save themselves from "awkward" situations. In recent years, there has been a **need for innovation in psychotherapy research**, and means such as **conversational artificial intelligence (CAI)** may address this growing issue. With benefits such as **higher treatment quality, lower costs**, and **catered algorithms** for techniques, CAI has been used to better the mental health of the global population.

Methodology

Wysa's platform as a mobile app, its anonymous responses, its algorithms being coded to match cognitive behavioral therapy, and its frequent usage in the CAI psychotherapeutic field allow for the best results. It is also qualified by its use of cognitive behavioral therapy, a technique that has been proven effective in school counseling, as well as Inkster, Sarda, and Subramanian's (2018) usage, whose study I based my method on. For the basis of my method, there was a need to measure how effective Wysa would be for students in mental health and their perception of Wysa as a counseling tool. To measure the effectiveness of Wysa, **the Patient Health Questionnaire-8 (PHQ-8)** was implemented to measure students' symptoms of depression before and after using Wysa. To measure students' perceptions, **a survey** was conducted after the usage of Wysa about their experiences, which was later coded into themes. Participants were given instructions to use Wysa during a duration of eight weeks. During this period, they were encouraged to **use the app regularly for the "Talk" option on Wysa**, which would provide them with mental health support.

Findings

Questionnaires taken by 34 secondary honor students yielded results justifying the collection of 26 samples, which still relatively represent the secondary honor student population in a public, majority-minority high school. Through an analysis of quantitative data from the questionnaires and qualitative insights gathered from the post-experimentation survey, several key conclusions have been drawn regarding the efficacy and benefits of Wysa.

Users	Pre-Experiment Mean	Pre-Experiment Median	Post-Experiment Mean	Post-Experiment Median
High	10.1	9	6.9473	5
Low	7.8333	9	6.5	8

Furthermore, analysis of variance (Mann–Whitney U) tests indicated a significant difference in pre and post-experimentation PHQ-8 scores (using the 0.05 significance measurement) among participants, highlighting the effectiveness of Wysa in improving mental well-being. Based on the Mann–Whitney U equation, the p-value for all participants' scores was 0.03572, meaning it was significant as the $p < 0.05$. Additionally, the p-value for the higher usage participants was 0.03078, a higher significance than with the average of all scores. However, the lower scores had a p-value of 0.63122, meaning that the significance was not very clear, as it was far from 0.05.

Distractions 9.1% **Response Time 22.7%** **Humanness 68.2%**
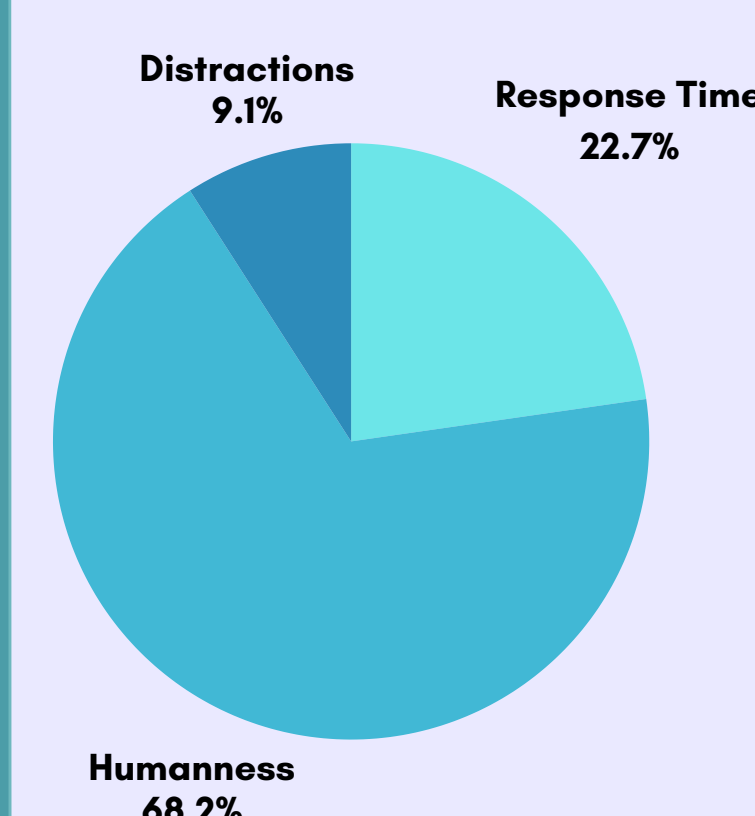
The qualitative insights from the post-experimentation survey revealed that participants actively utilized Wysa's tools and techniques to manage stressors more effectively. As Student U states, Wysa had given them a "new perspective," indicative of the CBT techniques adapted into the Wysa system. This indicates that Wysa not only contributes to reducing symptoms of depression but also aids in developing enhanced coping strategies among users. These coping strategies are essential for building resilience and improving overall mental health outcomes (Inkster, Sarda, and Subramanian, 2018).

Additionally, feedback gathered through the post-experimentation survey emphasized a high level of satisfaction with the Wysa app's features and functionalities. Participants praised the app's user-friendly interface and accessibility of mental health resources, contributing to a positive overall user experience. However, a frequent concern was Wysa's "personalized" responses, which were generally vague. Instances such as Student B stating that "They were not that helpful, it seemed to repeat the same things everyday and didn't give actual advice." or Student D stating that "It felt repetitive and at times I felt demotivated to discuss my issues with Wysa since I could predict the responses" exemplify how these concerns affect the experience of Wysa's usage, something that was not addressed in the field. Additionally, the question on the post-experimentation survey that asked participants if there have been any major events in their life demonstrates how Wysa has been able to help users cope with these events. According to the survey, 61% of students were able to better their mental health using Wysa's support tools such as creating a plan to better themselves or a list of goals and manifestations it asks the user to write.

Conclusion

Overall, this study's findings emphasize the body of knowledge's previous results–that CAI **reduces symptoms of depression** and **improve the well-being of its users**. However, CAI's natural language processing algorithms may become an issue if its development were to halt. This study found that **user experience was diminished by response time** and although it may have not reflected in the overall results, it is important to note its significance in the overall scope of CAI psychotherapeutic research, as **it may eventually lead to less engagement**. As we look into the future of the development of psychotherapeutic CAI, the field **must find ways to make user experience more enjoyable**.

Future Research

Because of my use of convenience sampling and the focus on a specific group of high-achieving students, **it makes it difficult to generalize findings to all students**. Future research could **explore the efficacy of Wysa** across a larger audience further than high-achieving students and compare its effectiveness with traditional counseling approaches. Future research **could also look through a larger time frame that would mimic a school setting**, possibly adopting the system for a school year to see whether results improve or plateau. Additionally, developers should **address concerns about personalized responses by enhancing the app's natural language processing systems** to further improve its effectiveness and user experience. An additional factor that was not explored in the body of knowledge was **the speed of responses**, which was how students became less likely to continue their interaction. Future research should **explore ways to create a human-like responsive CAI tool without having to buffer responses** to an extent that it diminishes user experience.