

Project Proposal: Problem Statement

What is the context?

Caregiving for a dementia patient is a huge challenge for those who are dealing with the changes in behavior and lifestyle of patients. Currently, it is estimated that there are over 5 million people in the United States living with dementia, and 35% of caregivers have reported that their health has gotten worse as a result of caring for elderly dementia patients [2]. Research conducted at Stanford also found that 40% of Alzheimer's caregivers die from stress-related disorders before the person with dementia they are caring for dies [1].

What is the problem?

There is a lot of room for improvement in terms of giving caregivers the best tools and resources to support their patients. There is a lack of resources for caregivers to learn from and knowledge of methods to utilize, like memory retention exercises like music therapy, memory training games, and repetition. Caregivers also lack better tools to monitor their patients and access to resources to understand and cope with the changes in their patients.

Why is it an important problem to solve?

Caregivers are extremely important components to the welfare of dementia patients. This is a huge problem since caregivers are often responsible for the direct care of dementia patients and interact with them daily. In order to provide their patients with the best possible care, caregivers need access to more tools and resources that can introduce them to newer methods and also help them cope with the changing behaviors of their patients. By increasing the availability of resources to caregivers, we are also indirectly helping dementia patients and giving them a better quality of life.

Why is a smartphone app a proper solution?

A smartphone interface is much more convenient for the caregiver or dementia patient to interact with. Phones are small and portable and can be carried in a caregiver's pocket. Whether the caregiver is at a patient's bedside or on the run, he or she will always have access to the resources that the app offers in contrast to having to find or log on to a computer. Phones also provide easy access to photo/video-taking recording, which are aspects that the app can utilize in order to afford patients with better care. A smartwatch interface would also be useful, especially for the actual dementia patients. Many dementia patients are elderly and are more familiar with using a watch than a smartphone. They can easily view information or interact with the smartwatch in this way.

Footnotes:

[1]

<https://med.stanford.edu/news/all-news/2002/05/stanford-study-focuses-on-effects-of-family-caregiving-for-patients-with-alzheimers-disease-dementia.html>

[2]

<https://www.alz.org/facts/>