Google Home and a Safe Living Environment

Introduction

Today, more adults wish to age in place and maintain their independence as they age. Although their abilities and needs may limit what they can do, technology can help older adults age in place safely. There is a wide range of devices available for almost every aspect of life. According to the International Classification of Functioning, Disability and Health (ICF), assistive products can be used in daily living to for environmental control in order to facilitate the individual's control over their setting (World Health Organization, 2017).

Today, Smart Home technology is widely available to consumers. They are affordable, highly customizable, and essentially offer a voice controlled personal assistant. The three most popular models on the market are the Amazon Alexa, Apple HomePod, and Google Home systems. Today we will be exploring the Google Home and some add on components that can help make the home a safer space.

Google Home

The Google Home system requires a smart phone or tablet as well as a main hub.

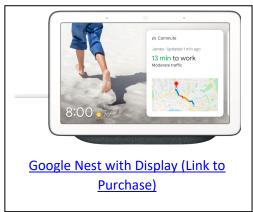
There are three models available:

- Google Home Mini
- Google Home
- Google Home Max

All three models have the same personal assistant software, and the main difference between the three are the areas that they

cover and the strength of the speakers. The Google Home Mini is the most affordable and customizable option, as the consumer can choose to place one or more in various areas of their home as needed.

In addition to the main hub, the Google Nest Hub is available as an add-on component. The Nest



Hub and Nest Hub Max provide the functionality of the Google Home with a large interactive screen that can display notifications, reminders, lists, and more.

One of the main advantages to using a Google Home system is that it provides the ability to automate the home. Home automation can help keep older adults safe and independent in their own homes by reducing the prevalence of falls, improving the quality of life of older adults who use them, and decreasing the number of caregiving hours provided to those who require



assistance with ADLs and IADLs (Fruphy, Lindstrom, & Burdick, 2016).

In addition to controlling the home, the Google Home system can help caregivers and family members monitor the activities and safety of their loved ones, while also maintaining their privacy. The smart home system allow older adults to remain in their homes longer, while providing health-care professionals, family members, and caregivers the ability to know that they are safe and healthy (Furphy, Lindstrom, & Burdick, 2016).

Add-On Components to Create a Safer Environment

- <u>Smart Lightbulbs (\$10 and up):</u> Smart lightbulbs can be connected to the Google Home System to create voice-controlled lights. The Google Home System allows lightbulbs to be assigned to specific rooms and areas. They can be turned on and off via the app or by voice control. The brightness can also be adjusted similarly. Depending on the brand and type of smart bulb, the color of the light can also be changed.
 Smart Lightbulbs can be installed in ceiling and wall fixtures as well as in lamps. They can increase safety and decrease the risk of falls by providing an option for better lighting that does not require an older adult to feel around for a light switch. Lights can be turned on from other areas of the home, as well as before entering the home.
- <u>Smart Plugs (\$15 and up):</u> Smart plugs provide the ability to turn ordinary electronic objects into voice-controlled objects. Smart plugs are plugged into electric outlets through the home and then connected to the Google Home app. They can be named and sorted into specific rooms and areas and turned on and off with voice controls or the app. Household electronics and gadgets can be plugged in and controlled via the Smart Plugs, increasing safety in the home. For example, if an iron is plugged into a smart plug and left on, it can easily be checked to see if it was turned off via the app. The smart plug can be shut off, which will in turn shut off the iron.
- <u>Cameras (\$20 and up)</u>: Cameras can be placed around the home and controlled via the google home app and separate apps (depending on the brand and type of camera). These can be placed in agreed-upon areas to provide safe and secure monitoring while maintaining an older adult's privacy.
- <u>Other components:</u> smart locks, thermostats, doorbells, speakers, household appliances. There is a huge range of technology available to automate the home!

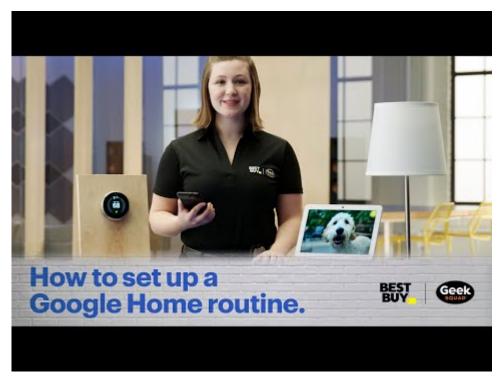
Creating Routines

The easiest way to create a safe, automated home is by utilizing the "routine" feature of Google Home. This creates a routine of tasks that are activated via a simple command. Here is an example:

Hey Google, Good Morning!: Lights turn on, date and time update, medication reminder, weather update, alerts for daily activities and events

Hey Google, Good Night!: All lights are shut off around the house, hallway light is turned on, medication reminder, front door camera turns on

These can be easily created via the Google Home app on a phone or computer. Below is a video tutorial of how to create routines:



This website has an in-depth picture tutorial about how to create routines.

Final Thoughts

The Google Home system and a customizable combination of smart technologies can help an older adult lead a safer and more independent life in their own home by providing a voice-controlled assistant. The system can easily be used by those with vision, mobility, and dexterity issues as well because it is mainly voice-activated. Additionally, caregivers, family members, and health professionals can request access into the systems to provide better care and telecare when needed. The Google Home system provides an efficient way to create a safer environment for older adults to remain independent in their own homes.

References

- Furphy, K. A., Lindstrom, D., & Burdick, D. (2016). Occupational therapy with aging adults: Promoting quality of life through collaborative practice (K. F. Barney & M. A. Perkinson, Authors). St. Louis, MO: Elsevier.
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