

Implementation of a Community-Based Public Health Buddy Program for Transportation-Disadvantaged Older Adults

Center for Transportation, Environment, and Community Health

Final Report



by

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March 31, 2020

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1. Report No.		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Implementation of a Community based Public Health Buddy Program for Transportation-Disadvantaged Older Adults				5. Report Date March 31, 2019	
				6. Performing Organization Code	
7. Author(s) Siwon Jang, Ph.D., Savana Wright, MURP, Rebecca Liller, MPH, Nan Sook Park, Ph.D., Chanyoung Lee Ph.D., Mark Yo (ORCID ID # 0000-0002-7701-4270, Siwon Jang)				8. Performing Organization Report No.	
9. Performing Organization Name and Address University of South Florida Center for Urban Transportation Research 3808 USF Alumni Drive Tampa, FL 33620				10. Work Unit No.	
				11. Contract or Grant No. 69A3551747119	
12. Sponsoring Agency Name and Address U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590				13. Type of Report and Period Covered Final Report 10/01/2018 – 03/31/2020	
				14. Sponsoring Agency Code US-DOT	
15. Supplementary Notes					
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17. Key Words Healthy Buddy Project, older adult transportation, health and wellness promotion, community health.			18. Distribution Statement Public Access		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No of Pages	22. Price

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Abstract

Given that there is a well-established link between driving cessation among older adults and declines in physical, social and cognitive function, the mobility of an aging U.S. population is both a public health concern and transportation planning dilemma. In response, this study sought to determine whether a community-based “buddy” program that pairs college students with transportation-disadvantaged older adults could improve mobility and quality of life for older adults in Hillsborough County, Florida. In order to assess the efficacy of the buddy program model, developed in Phase I of the project, a pre-survey was issued to 62 older adults, recruited from Hillsborough County Senior Center locations. The survey established a baseline for participants' access to community transportation and health resources, prior to pairing case group participants with trained college student volunteers. Each participant from the case group was matched with a trained volunteer, who identified relevant transportation and health resources for the participant. Following program implementation, post-surveys were issued to both study groups, with 43 of the total enrolled participants completing the study. A paired samples T-test of the pre-post survey data from 21 eligible respondents in the case group found that the mean scores for post-test were higher than the mean scores for pre-test, but the score increase was not statistically significant.

1. Introduction

Background

From 2004 to 2014, there was a 27.7% increase in persons ages 65 or older, and by 2040, it is projected that 82.3 million Americans will be over age 65 (U.S. Census Bureau, 2017; U.S. Department of Health and Human Services, 2017). Considering that many older adults require alternative transportation options due to physical and cognitive declines associated with aging, communities must prepare to accommodate a growing population of older adults who can no longer drive, or who choose not to drive.

Moreover, older adults who lack practical transportation may also manage one or more chronic conditions, including arthritis, heart disease, diabetes, hypertension, among other physical ailments (U.S. Department of Health and Human Services, 2015). Lack of viable transportation can exacerbate these health conditions in older adults by causing them to struggle with disease management, including missed health care appointments, thereby delaying care or the use of medicine (Wills, Whitman, & English, 2017; Syed, Gerber, & Sharp, 2013). Given that there is a significant overlap between individuals who are transportation-disadvantaged and communities that are medically-underserved (Wills, Whitman, & English, 2017), a community-based intervention that incorporates transportation planning, public health education, and instructional technology is needed to maintain standards of well-being, health equity, and overall quality of life within an aging populous.

Among intervention options available at the community level, a “buddy” program that provides services or individualized support by pairing local volunteers with a community member in-need, have been effective at addressing a variety of social challenges. In 2012, the Winter Park Health Foundation, working in conjunction with the Florida College of Health Services, created a program that paired health students with older adults to teach a health-focused curriculum, which encouraged exercise and fall prevention among older adults. After the initial pilot program, many students remained in contact with their older adult buddy and participants continued exercising beyond the program’s conclusion (Winter Park Foundation, 2012). Additionally, although additional research is needed due to a high attrition rate within the study, in 2014 the University of Queensland Driver Retirement Initiative (UQDRIVE) found that promotion of alternative forms of transportation increased their usage among older non-driving adults (Liddle et al., 2014).

Considering these precedents, the Healthy Buddy Program was established in 2018 to improve the quality of life and mobility of transportation-disadvantaged older adults in Hillsborough County, Florida, by pairing participants with a trained student volunteer. The program model sought to utilize college students as buddies, to deliver a hybrid face-to-face and web-based intervention to improve older adults’ awareness and use of existing affordable transit

options and health resources within their community. This multidisciplinary approach sought to maximize the effectiveness of the program by enabling the implementation of a multi-level community-based intervention comprising an individual level (personalized health education materials), an interpersonal level (buddy program), and a community level (use of existing transit services). The expected synergistic effects of the program made this multidisciplinary approach unique and different from standard disciplinary research. In order to test the effectiveness of the Healthy Buddy concept, the project was divided into two phases. Phase I consisted of research and development tasks, and Phase II would consist of the implementation and testing of the Healthy Buddy Pilot Program in Hillsborough County, Florida.

Phase I: Program Research and Development

Phase I of the Healthy Buddy Program was completed in November 2018 and consisted primarily of research and development tasks. Phase I utilized primary and secondary sources to design a program that would improve the health and well-being of older adults through individualized support and alternative transportation assistance. The preliminary program concept, materials and website were informed by an in-depth literature review, community resource assessment and analysis of Florida Health data. Upon developing the initial program protocol and materials, qualitative interviews were conducted with fourteen older adults in Hillsborough County, Florida. Phase I participants were interviewed about their transportation and health needs, then introduced to the Healthy Buddy concept and program website.

Overall, the community needs assessment and sample population interview results presented a real need to improve older adults' awareness of existing transportation options in Hillsborough County, specifically for personal trips. The majority of the sample population wanted additional information on cost-effective or free transit choices and were also highly interested in preventative health resources like healthy eating and exercise. Interviewees provided feedback for improving the program website, such as increasing the font size and adding information on other local social services, such as food banks and hurricane preparedness resources for older adults. These findings were integral in the update of Healthy Buddy Program materials. The complete findings of Phase I are available in the report "Improving Quality of Life for Transportation Disadvantaged Older Adults through a Community-Based Healthy Buddy Program (2018)."

Phase II: Pilot Program Implementation

Phase II of the project began in October 2018 and concluded in March 2020. The second phase of the study sought to build upon the efforts of Phase I, by implementing and testing the updated Healthy Buddy Program model among the target population. By recruiting older adults at multiple senior centers across the County, Phase II utilized case and control groups to measure changes in perceptive health and well-being among program participants, compared to those that did not participate in the Healthy Buddy Program.

Report Organization

This paper serves to discuss survey results obtained in Phase II as well as lessons learned from the pilot implementation of the Healthy Buddy Program. Following the introduction, the report is divided into four Chapters. Chapter 2, *Methodology*, will discuss the methods adopted for testing the efficacy of the pilot Healthy Buddy Program in the community. Chapter 3, *Results*, details the survey findings as well as observations relating to program administration. The results of Phase II are analyzed in Chapter 4, *Discussion*, and summarized in Chapter 5, *Conclusions*.

2. Methodology

Research Design

The findings of Phase I, “Development of the Healthy Buddy Program,” informed the research design for Phase II. Phase II consisted of a pilot, randomized controlled trial with pre and post surveying to assess the Healthy Buddy Program’s effectiveness among older adults who participated in the Healthy Buddy Program. The second phase was divided into seven key tasks: (1) Participant recruitment, (2) pre-surveying, (3) student volunteer recruitment (4) student volunteer training, (5) program intervention, (6) post-surveying, and (7) data analysis. All study protocol and materials were approved by the University of South Florida Institutional Review Board (IRB).

Healthy Buddy Program Implementation (Phase II)

Participant recruitment (task 1). In the first phase the research team noted potential challenges related to working with transportation-disadvantaged older adults. Namely, that maintaining appointments for Healthy Buddy Program research activities and sessions would be exceptionally challenging for older adults who lacked reliable transportation. With this in mind, the research team established a working relationship with Hillsborough County Aging Services, which manages several senior activity centers across the county. County Aging Services provided a letter of support granting the Healthy Buddy Program permission to recruit at centers and conduct research on site.

Participants for Phase II of the study were recruited using flyers posted at four participating Hillsborough County Senior Centers. Separate flyers were created for the control and case sites (see Appendix A). Staff at each senior center location were informed about the study and assisted the research team with identifying potential participants.

Interview participants from Phase I who expressed interest in participating in the pilot-test of the program were also contacted and informed about the opportunity. A total of 62 older adults were enrolled in the study. Fourteen participants were recruited from Center A, 17 from Center B, 11 from Center C and 20 from Center D. To avoid contamination of the results, centers A and B acted as case sites and centers C and D acted as control sites. Participants in the control groups did not receive Healthy Buddy Program services during the study, but had the opportunity to receive the program services after completing the post-survey (task 6).

All participants who expressed interest in the study were first asked questions to determine their eligibility. Eligibility requirements were also outlined on all recruitment posters and senior center staff were aware of the study's enrollment criteria. To participate in the study, the following conditions were met:

- Participant was a Hillsborough County resident, age 65 or older
- Participant indicated they lack regular access to transportation
- Participant indicated they manage a chronic health condition
- Participant confirmed they have never been diagnosed with dementia

Pre-survey (task 2). Upon enrollment, all participants were given a paper pre-survey (See Appendix B) to determine their level of perceived quality of life in order to establish a baseline prior to the program intervention. The survey consisted of 26 questions, two of which were matrix tables that asked participants to indicate whether they agreed or disagreed with multiple statements. The first matrix, was adapted from the Survey of Health, Aging and Retirement in Europe (SHARE) self-administered questionnaire (Börsch-Supan et al., 2015) to measure quality of life and well-being. The second matrix was adapted from the Computer Anxiety Scale (CAS) (Cohen & Waugh, 1989) to understand participants use of technology and openness to a computer-based intervention.

Student volunteer recruitment (task 3). In order to recruit student volunteers for the program, flyers were developed and distributed through relevant university email listservs and shared with course instructors. The flyers were also printed and posted around campus in common areas, with a focus on hubs and common areas of the College of Public Health and School of Social Work. Flyers directed interested students to sign-up through the Healthy Buddy Program website, or to contact the volunteer coordinator for more information (see Appendix C).

An alternate flyer format was created to advertise Healthy Buddy student volunteer events, such as volunteer trainings and information sessions. The date and event location information were adjusted when needed, and distributed through the same channels as the general recruitment flyer (see Appendix C). The research team scheduled two information sessions, with a brief presentation of the program and volunteer responsibilities. The team also held one "office hours" session, where students could stop by during a designated time period and meet with the volunteer coordinator to sign-up and ask questions.

Ultimately, the program recruited and retained the most student volunteers from a social work course with volunteer hour requirements. Fifteen students signed-up to volunteer in the inaugural group and eleven completed all requirements to begin volunteering.

Student volunteer training (task 4). Before they were paired with an older adult buddy, each student volunteer was required to (1) attend a two-hour volunteer training and workshop, (2) complete a level 2 background check with Hillsborough County, and (3) obtain a Social/Behavioral Investigators and Key Personnel certification through USF IRB.

Healthy Buddy research staff kicked off the volunteer training process with a two-hour training and workshop event. An agenda was sent to all volunteers and research staff prior to the event (table 1), and all volunteers were provided with a folder containing the Student Volunteer Guide, Session One Guide (see Appendix D), an example of the IRB informed consent and an example of the survey instrument. Volunteers were given a presentation that covered the mission of the program, as well as an overview of the research methodology and IRB certification instructions, followed by a brief greeting from the research center director. Next, volunteers divided into small groups, led by research staff. Each staff member presented several scenarios from a worksheet (see Appendix D) that volunteers could potentially encounter during sessions with their older adult buddy. Students took turns practicing how they would respond to the proposed scenario and discussed as a group. For students that were unable to attend the event, individual trainings were held on a later date.

Table 2-1. Volunteer training agenda.

Time	Topic
1:00 – 1:30 pm	Welcome & Program Orientation
1:30 – 1:45 pm	Presentation from CUTR Director
1:45 – 2:30 pm *	Workshop - Working with Older Adults
2:30 – 3:00 pm	Overview & Questions

* Workshop portion may run longer. If needed, overview and question session will be shortened.

Following the Healthy Buddy Student Volunteer Training, research staff coordinated appointments with Hillsborough County to schedule each student for a level II background check. Students were also instructed to take the required IRB certification course so that they could be added to the study as key personnel, prior to program intervention. Research staff were available to students via meetings, phone calls and email to assist with the timely completion of the IRB training and certification process.



Figure 2-1. Student volunteers at the inaugural Healthy Buddy Training and Workshop.

Program intervention (task 5). Older adult participants in the case group were paired with a student from the pool of newly trained and certified student volunteers. Each student volunteer was expected to meet with their buddy for a minimum of two, one-hour sessions. To ensure the safety and wellbeing of students and study participants, all sessions took place within Hillsborough County Senior Centers, with the exception of two group field trips that occurred in parallel with sessions. For these field trips, student volunteers met at the designated senior center to participate in a Hillsborough County Area Regional Transit Authority (HART) Travel Trainer event with their older adult buddies. Both events were led by a Hillsborough County “Travel Trainer” to educate and promote the proper use of Tampa’s bus system. The first HART event showed participants and their buddies first-hand, how to use the HART bus system to travel from their center, to Downtown Tampa. The group visited the central HART terminal to receive senior identification passes, which allow older adults to ride HART busses at a discounted rate (Figure 2-2). The second event showed students and participants how to take the bus from the center to a nearby grocery store, and allotted time for participants to shop.

In the first session, students introduced themselves to their buddy, reviewed the study protocol, and interviewed them about their specific health and transportation needs. Students maintained detailed notes of their meeting and the responses provided by their buddy. Following the session, each student volunteer used information gathered during the interview to identify available community health and transportation resources that could benefit their buddy. Specifically, lists of affordable and free health and transportation resources were gathered through a literature review and a needs assessment in Phase I of the project (Table 2-2). Students then utilized the Healthy Buddy Program website (Hbuddy.org), also developed in Phase I, to identify relevant local resources for their buddy and create a personalized profile for the participant. Profiles were created using Wix, a web-development tool, to display local health and transportation information in a centralized and accessible location. All selections by student volunteers were reviewed by program research staff.



Figure 2-2. Student volunteers and older adults visiting HART.

Table 2-2. Local transportation options for older adults.

Service	Free of charge?
A1 Taxi	No
AmeriCare Ambulance Service, Inc.	No
Checker - Yellow Cab -Tampa	No
HART- Hillsborough Area Regional Transit Authority	No
HART Plus (Paratransit)	No
Home Instead	No
Lightfoot Center	Yes
Lyft	No
Samaritan Services of Sun City Center	Yes
Sunshine Line	Income-based
Uber	No
Harnish Transportation in Hillsborough County	No
Access2Care	No
A Better Solution of Sarasota	No
A Better Solution of Venice	No
ACC Medlink	No
MTM Florida Non-Emergency Medical Transportation	Medicaid Required

In Session Two, students met with their older adult buddy to review the selected resources and showed them how to access their personalized information. Although online profiles were created for each participant, the research team discovered that most participants were more open to receiving paper copies of the materials. Although efforts were made to make the website accessible for older adults, including a button that read aloud text to promote engagement for users with visual and hearing impairments, most participants wanted a physical copy of the information as well. Therefore, while all case group participants had the option to access to their personalized webpage by logging in on the Healthy Buddy platform, all participants also received their transportation and health dashboard as a print-out (Appendix E). Students showed their buddy their profile and, if requested, students could help their buddy schedule rides or sign-up for services. Case group participants were reminded that there would be a follow-up survey in several weeks.



Figure 2-3. Student volunteers conducting sessions with their older adult buddies.

Post-survey (task 6). Participants from both the case and control groups were given a paper post-survey, identical to the pre-survey issued at the start of the study, to determine changes in participants' levels of perceived quality of life. The research team sought to issue post-surveys to case group participants six weeks after their second buddy session. However, in practice, this timeline proved difficult to maintain, given that the older adult participants' attendance at the senior activity centers were not consistent. Many participants who were scheduled for a session or post-survey missed visits from their buddy and the Healthy Buddy team. Given the variable timeline for completion of sessions, the team calculated the average

time of program participation for the case group, to determine when to issue post-surveys to the control group. The average time for the case group was five weeks. This, plus the six-week waiting period, came out to an anticipated timeline of eleven weeks between pre-surveys and post-surveys among the control groups.

Data analysis (task 7). Paper survey data was entered into Qualtrics Survey Software for analysis. Each participant was assigned a unique code so that pre and post survey data from the same participant could be compared overtime, using a paired samples T-test analysis. Following coding of the survey responses, the T-test analysis was completed using SPSS statistical software. A total of 62 responses were received from both case and control groups. From this, 21 responses in the case group were eligible for a paired T-test analysis. In the control group, a significant number of participants dropped out of the study, with only 11 participants completing their post survey.

3. Results

Beyond measuring the efficacy of the Healthy Buddy Program model, the results obtained in Phase II of the study provided more insight into the needs and characteristics of the target population. This section presents basic demographic data from the pre and post survey, as well as the results of a paired T-test analyzed in SPSS Statistics, to understand changes in quality of life.

Pre-Survey Results

Demographics. Of 62 participants who completed the pre-survey, 74% of respondents were female. This ratio of male to female participants observed in the sample population is representative of the U.S. population at large, which has more females over the age of 65 than male, with disparities in numbers increasing with age (Roberts et al., 2018).

Almost half of responding participants self-identified as white, with one participant indicating they were both American Indian/Alaskan Native and White. Over one-third of participants indicated that they were Black or African American and 13.2% selected “prefer not to say.” One respondent identified as Asian (Table 3-1). Additionally, more than half of all respondents (53.6%) indicated that they were of Hispanic, Latino, or Spanish origin, with one participant answering “prefer not to answer” (1.8%).

Overall, the sample population consisted of more racial minorities than the aging population at both the county and national level. Although the racial make-up of the sample population was not representative of the aging population at large, several studies have observed that ethnic minorities and women are more likely to be transportation disadvantaged as they age (Kim, 2011; Choi, et al., 2013; Mezuk & Rebok, 2008). Given that participants were enrolled in the study on the condition that they “lacked regular access to transportation,” it was expected that the sample population would have a higher representation of women and minority groups.

Table 3-1. How would you describe yourself (Select all that apply)?

ANSWER(S)	N	%
White	25	47.2%
Black or African American	19	35.8%
Asian	1	1.9%
American Indian/Alaska Native & White	1	1.9%
Prefer not to say	7	13.2%
TOTAL	53	100%

Household composition. The majority of respondents indicated that their marital status was widowed, followed by divorced, and single (never married) (Table 3-2). Over one-third of respondents indicated that they currently lived with a family member or friend, and one-third of

respondents said they rent a home or apartment (Table 3-3). The majority of participants indicated that their household income was below \$20,000 a year, before taxes (Table 3-4).

Table 1-2. What is your marital status?

ANSWER	N	%
Divorced	19	31.7%
Married or in a domestic partnership	5	8.3%
Separated	2	3.3%
Single (never married)	10	16.7%
Widowed	24	40.0%
TOTAL	60	100%

Table 3-3. Which of the following best describes your current living situation?

ANSWER	N	%
I live with a family member or friend	20	35.1%
I rent a home or apartment	19	33.3%
I own a home	12	21.1%
I live in subsidized or affordable housing	6	10.5%
TOTAL	57	100%

Table 3-4. What is your total annual income before taxes?

ANSWER	N	%
Less than \$10,000	22	44.9%
\$10,000-\$19,999	18	36.7%
\$20,000-\$29,999	2	4.1%
\$30,000-\$39,999	1	2.0%
\$40,000-\$49,999	2	4.1%
Over \$50,000	4	8.2%
TOTAL	49	100%

Education. Finally, more than one-third of participants said they had a high school degree or equivalent (G.E.D), over one-quarter had an associate’s degree (A.A) or higher, and 21.1% of respondents had less than a high school degree (Table 3-5).

Transportation. The majority of respondents (62%) said they do not drive, with 17% of respondents indicating that they drive, but do not like to (Figure 3-1). Of those that indicated “yes,” the team observed that many participants selected this option if they still had the *ability* to drive, and was not necessarily an indicator that they did drive for all of their trips. Given that all participants were screened to see if they lacked reliable access to transportation, the research team believes participants who selected “yes” still struggle to conduct essential trips.

Table 3-5. What is the highest degree or level of school you have?

ANSWER	N	%
Less than a high school diploma	12	21.1%
High school degree or equivalent (e.g. GED)	21	36.8%
Some college, no degree	9	15.8%
Associate degree (e.g. AA, AS)	4	7.0%
Bachelor’s degree (e.g. BA, BS)	7	12.3%
Master’s degree (e.g. MA, MS, MEd)	2	3.5%
Professional degree (e.g. MD, DDS, DVM)	2	3.5%
TOTAL	57	100%

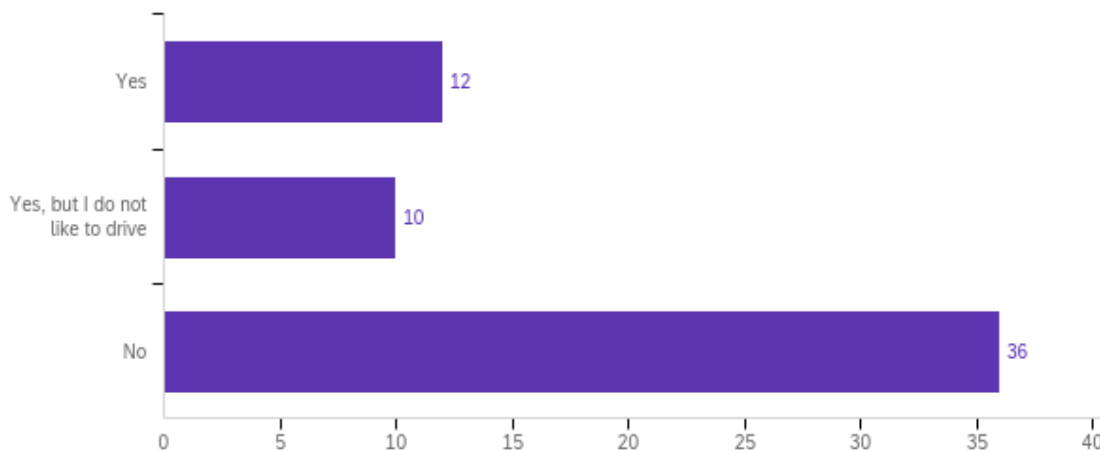


Figure 3-1. Are you currently able to drive?

Post-Survey Results

Due to unexpected challenges with participant retention, only 43 out of 62 enrolled participants completed a post-survey. Of the completed surveys, 22 were from the case group and 21 were from the control group. Of the study drop-outs, nine individuals had been absent from their respective senior centers for over a month, for unknown reasons. Center staff indicated that they had not heard from these individuals and were not aware of plans to return. Eight participants were simply “missed” by study staff due to inconsistent attendance at the senior center during visits by the study staff. Two individuals were out for over a month on vacation, and one participant fell ill during the course of the study and was not able to attend the center while post-surveys were distributed. Extensive efforts were made to follow-up with these individuals, especially those that were still attending the centers somewhat regularly but had missed previous survey visits. However, efforts to make contact with the remaining participants were cut short by growing concerns over the Coronavirus (COVID-19) outbreak, which reduced participant attendance in the final weeks of the study and ultimately led to the closure of all county senior centers.

Demographics. Of the 43 participants who completed the post-survey, 81.4% were female. This was slightly higher than the initial sample population. The racial demographics of the study population also changed slightly, with around 43% of respondents answering that they describe themselves as white, and around 38% indicating they identified as Black or African American (Table 3-6).

Table 3-6. Comparison of “How would you describe yourself (Select all that apply)?”

	POST-SURVEY		PRE-SURVEY	
ANSWER	N	%	N	%
White	17	42.5%	25	47.2%
Black or African American	15	37.5%	19	35.8%
Asian	1	2.5%	1	1.9%
American Indian/Alaska Native & White	0	0.0%	1	1.9%
Prefer not to say	7	17.5%	7	13.2%
TOTAL	40	100%	53	100%

Household composition. The majority of respondents indicated that their marital status was widowed, followed by divorced, married, single, and separated. Although the total number of responses decrease, a small unexpected increase was observed in the number of participants who indicated they were married or in a domestic partnership in the post-survey. This discrepancy may have been due to changes in marital status during the study, however it is likely that this observed increase is due to errors filling out the survey (Table 3-7). The majority of respondents indicated that they currently lived with a family member or friend (39.53%), rent a home or apartment (25.58%), and own a home (25.58%). (Table 3-8). Again, the majority of respondents indicated that their household income was less than \$20,000 a year before taxes

(Table 3-9). However, the number of participants indicating that they made \$20,000-\$29,999 a year increased since the pre-survey.

Table 3-7. What is your marital status? (Post-Survey)

ANSWER	POST-SURVEY		PRE-SURVEY	
	N	%	N	%
Divorced	13	31.7%	19	31.7%
Married or in a domestic partnership	7	17.1%	5	8.3%
Separated	0	0.0%	2	3.3%
Single (never married)	6	14.6%	10	16.7%
Widowed	15	36.6%	24	40.0%
TOTAL	41	100%	60	100%

Table 3-8. Which of the following best describes your living situation? (Post-Survey)

ANSWER	POST-SURVEY		PRE-SURVEY	
	N	%	N	%
I live with a family member or friend	17	39.5%	20	35.1%
I rent a home or apartment	11	25.6%	19	33.3%
I own a home	11	25.6%	12	21.1%
I live in subsidized or affordable housing	4	9.3%	6	10.5%
TOTAL	43	100%	57	100%

Table 3-9. What is your total annual income before taxes?(Post-Survey)

ANSWER	POST-SURVEY		PRE-SURVEY	
	N	%	N	%
Less than \$10,000	13	38.2%	22	44.9%
\$10,000-\$19,999	14	41.2%	18	36.7%
\$20,000-\$29,999	4	11.8%	2	4.1%
\$30,000-\$39,999	1	2.9%	1	2.0%
\$40,000-\$49,999	2	5.9%	2	4.1%
Over \$50,000	0	0.00%	4	8.2%
TOTAL	34	100%	49	100%

Education. Finally, the majority of participants said they had a high school degree or equivalent (G.E.D), followed by Associate degree (A.A) or higher, and 17.50% of respondents had less than a high school degree (Table 3-10).

Transportation. The majority of respondents (71.43%) said they do not drive, with 11.90% of respondents indicating that they drive, but do not like to.

Table 3-10. What is the highest degree or level of school you have? (Post-Survey)

ANSWER	POST-SURVEY		PRE-SURVEY	
	N	%	N	%
Less than a high school diploma	7	17.5%	12	21.1%
High school degree or equivalent (e.g. GED)	16	40.0%	21	36.8%
Some college, no degree	7	17.5%	9	15.8%
Associate degree (e.g. AA, AS)	1	2.5%	4	7.0%
Bachelor’s degree (e.g. BA, BS)	7	17.5%	7	12.3%
Master’s degree (e.g. MA, MS, MEd)	1	2.5%	2	3.5%
Professional degree (e.g. MD, DDS, DVM)	1	2.5%	2	3.5%
TOTAL	40	100%	57	100%

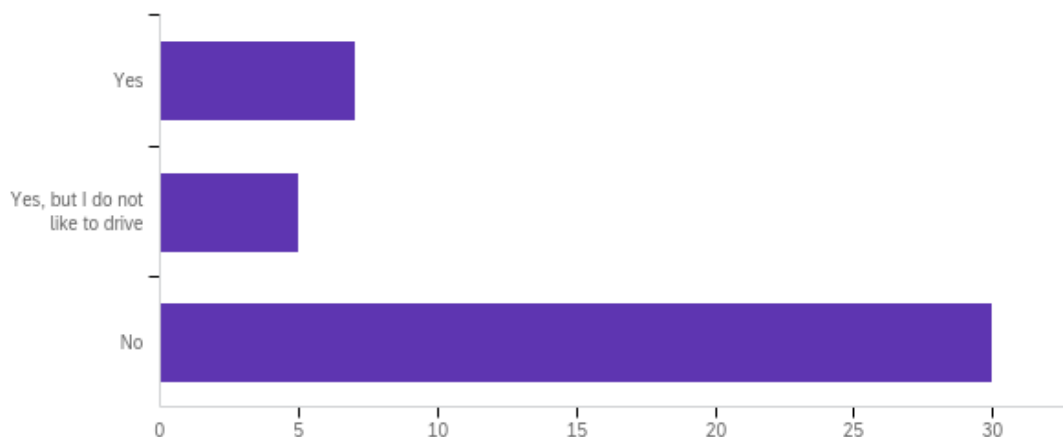


Figure 3-2. Are you currently able to drive? (Post-Survey).

Paired Samples T-Test

A total of 62 responses were received from both case and control groups, with 21 responses in the case group eligible for a paired T-test analysis. To examine the effectiveness of the Healthy Buddy Program before and after the program implementation, the Survey of Health, Aging and Retirement in Europe (SHARE) self-administered questionnaire (Börsch-Supan et al., 2015) was used in conjunction with other survey questions on demographics, transportation access and computer use. The survey instrument was developed to measure quality of life and well-being of older adults and consisted of 19 questions with four Likert Scale options: often, sometimes, rarely, and never. Each participant's Likert Scale responses were converted to a score for analysis. The mean score for post-test (55.62) was higher than the mean pre-test score (52.19) but was not statistically significant ($p > .58$).

Table 3-11. Case-Group paired T-Test Mean Scores

	MEAN	N	STD. DEVIATION	STD. ERROR MEAN
Pre-Test	52.19	21	10.043	2.192
Post-Test	55.62	21	11.720	2.557

4. Discussion

Lessons from Program Implementation

This section discusses several practical lessons from the first implementation of the Healthy Buddy Program, which should be considered for future iterations and adaptations of the program. Specifically, adjustments to program strategies for working with older adult participants and student volunteers could improve the effectiveness of the Healthy Buddy Program.

Working with older adults. The older adult participants were eager and interested to participate in the Healthy Buddy Program due to various transportation issues and mobility issues. Throughout the course of the study, research staff and student volunteers traveled to Hillsborough County Senior Center sites to meet with older adult participants for data collection, including pre/post-survey distribution, as well as one-on-one sessions with participants. Student volunteers were matched with an older adult based on schedule availability to meet at least once a week. In working with this population, students expressed challenges in contacting older adult buddies to schedule sessions.

Therefore, in an effort to successfully conduct study procedures, students traveled to meet with participants on multiple occasions, during the senior centers' hours of operations, based on days study participants indicated they would be attending. This created significant conflict with scheduling visits around student schedules and anticipating older adult presence at the center to successfully complete all requirements within the study timeline. Furthermore, the research team concluded that due to factors related to age and limited transportation options, participants may not always attend their center on the days they indicate, and frequently attended senior center events when most convenient.

For reiterations of the program, the research team feels that a designated, weekly schedule for visiting each senior center (i.e., visiting Center A every Tuesday and Thursday), would improve the retention of older adult participants, because older adult participants and senior center staff could establish an understanding on when study activities will be occurring. By establishing a weekly routine of Healthy Buddy related activities, older adults who enrolled in the program may make more of an effort to attend the center on the established days, thereby improving consistency of contact.

Working with student volunteers. Anecdotally, student volunteers were well-equipped to work with the case population and improve their awareness of existing resources. However, similar to the challenges faced with older adult participants, the recruitment, retention and coordination of university students presented some unexpected challenges. Of the volunteers who remained active in the Healthy Buddy Program all were enrolled in a social work course that required 20 hours of volunteer time during the semester in a related field. Given that volunteer hours were a requirement of the course, the students recruited through this method were the most motivated to attend volunteer events. Even so, students were limited to volunteer during the senior centers' hours of operation, which frequently overlapped classes and work. This, in addition to the variable schedules of older adult participants made completion of sessions in a timely manner challenging.

Based on this experience, the research team learned that setting consistent days and times for volunteer activities and center visits prior to recruitment would reduce coordination challenges with volunteers. If weekly meeting days and times were established before volunteers signed-up, then students who had pre-existing conflicts with course times and work schedules would not have enrolled in the program and sought alternative volunteer opportunities to fit their schedule. In order to accommodate student volunteer schedules and older adults' center attendance schedules, multiple visits a week were made to ensure all participants had adequate face-time.

Survey Findings

A total of 62 participants completed a pre-survey with 74% being female. According to research, these findings were consistent with the overall representation of the U.S. population of more females over the age of 65 than males (Roberts et al., 2018). Due to participants subjectively lacking adequate access to transportation, it was expected that the sample population would have a higher representation of women and minority groups.

Pre-survey results discussion. Pre-survey demographics showed half of respondents were white (47.2%) and more than half Hispanic, Latino, Spanish origin (53.6%). Secondly, the majority of participants were widowed, lived with a family member or friend, and had an annual income of less than \$10,000. For education, participants consistently answered receiving a high-school degree or equivalent (e.g. GED). For transportation, participants indicated they do not drive (62%) and drive but do not like to (17%).

Post-survey results discussion. Post-survey data showed 43 out of 62 enrolled participants were issued a post-survey. This includes 22 individuals from the case group and 21 from the control group. Furthermore, 9 participants were absent from the center for unknown reasons and researchers missed 8 individuals due to inconsistent attendance following numerous attempts to contact them (i.e., senior center visits and phone calls).

Post-survey demographics showed 81.4% of participants were female and slightly higher than the initial sample population. The majority of respondents were white (43%) followed by Black/African American (38%). Household structure was comprised of widowed and lived with a family member or friend. The annual income was reported at \$10,000-\$19,999 with a high school degree or equivalent (e.g. GED).

Pre and post-survey results discussion. In comparing pre and post-survey data, pre-survey data showed that the majority of individuals were female, white, widowed, and lived with a family member or friend. This was consistent with post-survey data. Secondly, pre and post-survey participants obtained a high school degree or equivalent (e.g. GED). Some discrepancies were concluded with annual income with the pre-survey of less than \$10,000 and post-survey \$10,000-\$19,999. Similarly, participants do not drive (62%; 71.4%) and drive but do not like to (17%; 11.90%).

T-test results discussion. The mean scores of the post-test were higher than the mean pre-test scores among case group participants. This increase in the mean score may illustrate some successes associated with the Healthy Buddy Program model, however the difference was not statistically significant ($p > .58$). A follow-up study with a larger sample size should be conducted to allow for the determination of the effectiveness of the program. Adding more

buddy meeting sessions to establish older adults' transit and health behaviors should be tested as well.

Study Limitations

In the present study, there were limitations related to study dropouts and survey distribution. Specifically, study dropouts reduced the sample size for the post-survey, thereby limiting the available data for the T-test analysis. In addition, some participants “skipped” questions on both the pre and post survey, or left answers blank due to misunderstanding questions or mismarking the paper survey. Therefore, some inconsistencies in answer choices were observed.

The study timeline was also different for case and control groups due to inconsistencies in attendance and scheduling issues. Some participants in the case group had the ability to wait 6 weeks following the second session for the post-survey while others waited longer due to lack of attendance at the senior centers. A few participants in the case group, waited less than six weeks between their second session and post-survey, due to the threat of senior center closure related to COVID-19.

The process of scheduling survey distribution and sessions with students and senior centers presented significant difficulties regarding availability of both parties. For example, the senior centers were often having classes or other social activities during Healthy Buddy visits. Because of this and the number of case participants, it was difficult to track the quality of student sessions (i.e., some sessions may have been more thorough than others), despite research staff attempting to overcome these issues by meeting with students and reviewing their notes and selected resources.

Finally, due to differences in certain factors, such as income and residential location among case group participants, transportation resources were sometimes limited (i.e., participants that live in a HART Flex Zone vs. those that do not). Therefore, some participants may have received unintended benefits and shown improvement over the course of the study simply due to greater transportation options.

5. Conclusions

The Healthy Buddy Program was established in 2018 to improve the quality of life and mobility of transportation-disadvantaged older adults in Hillsborough County, Florida, by pairing participants with a trained student volunteer. Specifically, the students assisted research staff with survey distribution and conducting sessions to develop a unique, personalized webpage that focused on specific transportation and health needs. These sessions with older adult participants served as an opportunity to gather additional information to provide adequate transportation options to older adults in Hillsborough County, Florida.

Following pre and post-survey distribution, the results of this research include that the majority of participants were white, female, and widowed. Participants also lived with a family member or friend and had minimal income (i.e., less than \$10,000; \$10,000-\$19,999). The educational status in pre and post-surveys showed participants only had a high school degree or equivalent (e.g. GED). For transportation, participants either did not drive or could drive but did not like to. According to the paired samples t-test, the mean scores of case group participants for post-test were higher than the mean scores for pre-test, but the score increase was not statistically significant. However, anecdotally, participants appeared to enjoy participating in the program and indicated that they learned about resources that they were unaware of prior to the program, although it was unclear whether participants were able to begin using these resources within the study period. Increased participant enrollment and retention would allow for determining the effectiveness of the program qualitatively. Furthermore, the research team suspects that additional time with study participants to discuss selected resources would improve overall scores in the study population.

Next Steps: Phase III

The primary goal of this research is to improve mobility for transportation disadvantaged older adults. Although efforts were made to provide a Spanish-language survey and other materials for bi-lingual participants with a Spanish first language, concerted efforts to make the program accessible to Hispanic/Latino older adults could facilitate efforts in resolving equity issues that exist for Hispanic/Latino communities. In public health, there is a growing need for focused research and community-based public health programs for Hispanic/Latino older adults at the national level.

In expanding the scope of the existing Healthy Buddy Program to include Spanish-language programming and materials, more at-risk older adults could participate and gain valuable resources for accessing transportation in their community. This research would identify barriers (i.e., education, geographical location, health disparities) using the existing Healthy Buddy model in accommodating the unique needs of this population through adding a Spanish-language version of the program.

6. References

- Börsch-Supan, A., T. Kneip, H. Litwin, M. Myck, G. Weber (Eds.) (2015). *Ageing in Europe – Supporting Policies for an Inclusive Society*. Berlin: De Gruyter.
- Choi, M., Mezuk, B., Lohman, M. C., Edwards, J. D., & Rebok, G. W. (2013). Gender and racial disparities in driving cessation among older adults. *Journal of aging and health*, 25(8_suppl), 147S-162S.
- Cohen, B. A., & Waugh, G. W. (1989). Assessing computer anxiety. *Psychological reports*,
- Kim, S. (2011). Assessing mobility in an aging society: Personal and built environment factors associated with older people's subjective transportation deficiency in the US. *Transportation research part F: traffic psychology and behaviour*, 14(5), 422-429.
- Liddle, J., Gustafsson, L., Bartlett, H., & McKenna, K. (2012). Time use, role participation and life satisfaction of older people: Impact of driving status. *Australian Occupational Therapy Journal*, (5). 384.
- Mezuk, B., Rebok, G. W. (2008). Social integration and social support among older adults following driving cessation. *Journal of Gerontology: Social Sciences*, 63(5), 298-303
- Roberts, A. W., Ogunwole, S. U., Blakeslee, L., & Rabe, M. A. (2018). *The population 65 years and older in the United States: 2016*. US Department of Commerce, Economics and Statistics Administration, US Census Bureau.
- Syed, S. T., Gerber, B. S., & Sharp, L. K. (2013). Traveling towards disease: transportation barriers to health care access. *Journal of community health*, 38(5), 976-993.
- U.S. Census Bureau. (2017). *Annual Estimates of the Resident Population for Selected Age Groups by Sex*. U.S. Census Bureau, Population Division.
- U.S. Department of Health and Human Services. (2015). *Health, United States, 2015*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
- U.S. Department of Health and Human Services. (2017). *2017 Profile of Older Americans*. U.S. Department of Health and Human Services, Administration on Aging.
- Wills, M. J., Whitman, M. V., & English, T. M. (2017). Travel distance to cancer treatment facilities in the deep south. *Journal of Healthcare Management*, 62(1), 30-43.
- Winter Park Health Foundation. (2012). *Buddy Program Benefits Seniors and Students*. Retrieved from: <https://www.wphf.org/2012/03/27/buddy-program-benefits-seniors-andstudents/>

Appendix A: Recruitment Flyers



RESEARCH STUDY

www.hbuddy.org

ARE YOU AN OLDER ADULT (65+) WHO STRUGGLES TO FIND TRANSPORTATION?

The Center for Urban Transportation Research (CUTR) is seeking Hillsborough County Residents, age 65 and older, to take part in a study relating to a new community-based program, designed to improve older adults' access to transportation and healthcare. This program is part of a research study at the University of South Florida (#Pro00041338, PI: Dr. Siwon Jang).

If the following statements describe you, then you may be eligible:

- I am a Hillsborough County Resident age 65 or older
- I lack regular access to transportation
- I manage a chronic health condition
- I have never been diagnosed with Dementia

Participation Benefits?

- Opportunity to voice older adults' real needs about transportation
- Opportunity to receive personalized information on transportation and chronic diseases if selected to participate in the pilot study

Time Commitment

- 2 to 4 hours total. The time will be spread out over the course of several months.

Compensation

- You will be compensated \$25 in gift cards if you complete all the scheduled study visits.

For additional information please contact:

Savana Wright
Center for Urban Transportation Research
Study Coordinator
(813) 974-6505
savanaw@cutr.usf.edu



IRB#00041338



Figure A-1. Case Group Recruitment Flyer



RESEARCH STUDY

www.hbuddy.org

ARE YOU AN OLDER ADULT (65+) WHO STRUGGLES TO FIND TRANSPORTATION?

The Center for Urban Transportation Research (CUTR) is seeking Hillsborough County Residents, age 65 and older, to take part in a study relating to a new community-based program, designed to improve older adults' access to transportation and healthcare. This program is part of a research study at the University of South Florida (#Pro00041338, PI: Dr. Siwon Jang).

If the following statements describe you, then you may be eligible:

- I am a Hillsborough County Resident age 65 or older
- I lack regular access to transportation
- I manage a chronic health condition
- I have never been diagnosed with Dementia

Participation Benefits?

- Opportunity to voice older adults' real needs about transportation

Time Commitment

- 40 to 60 minutes total to complete two surveys. There will be a two month interval between each survey.

Compensation

- You will be compensated \$25 in gift cards if you complete all the scheduled study visits.

For additional information please contact:

Savana Wright
Center for Urban Transportation Research
Study Coordinator
(813) 974-6505
savanaw@cutr.usf.edu



IRB#00041338



Figure A-2. Control Group Recruitment Flyer

Appendix B: Survey Instrument

Pre/Post Survey Instrument

1. Here is a list of statements that people have used to describe their lives or how they feel. We would like to know how often, if at all, you think this applies to you. (Please tick one box in each row)

	Often ₁	Sometimes ₁	Rarely ₁	Never ₁
	▼ ₁	▼ ₁	▼ ₁	▼ ₁
a) My age prevents me from doing the things I would like to	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
b) I feel that what happens to me is out of my control	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
c) I feel free to plan for the future	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
d) I feel left out of things	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
e) I can do the things that I want to do	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
f) Family responsibilities prevent me from doing what I want to do	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
g) I feel that I can please myself with what I do	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
h) My health stops me from doing things I want to	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
i) Shortage of money stops me from doing the things I want to do	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
j) I look forward to each day	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
k) I feel that my life has meaning	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
l) I enjoy the things that I do	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
m) I enjoy being in the company of others	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
n) On balance, I look back on my life with a sense of happiness	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
o) I feel full of energy these days	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
p) I choose to do things that I have never done before	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
q) I am satisfied with the way my life has turned out	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
r) I feel that life is full of opportunities	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
s) I feel that the future looks good for me	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

Source: Survey of Health, Ageing and Retirement in Europe. <http://www.share-project.org/>

2. Are you currently able to drive?

- Yes
- Yes, but I do not like to drive
- No

3. If you drive, to which of the following destinations do you drive (check all that apply)?

- Shopping, grocery store, bank
- Medical/dental appointments
- Social Outings (Friend or relatives home, restaurant, golf, etc.)
- Religious services
- School
- Work
- I do not drive to any destinations

4. Are there any circumstances under which you would prefer not to drive (check all that apply)?

- At night
- To a destination more than 3 miles away
- To a medical appointment when I am not feeling well
- On high-speed highways or freeways
- To an area of town that I do not know very well
- I do not drive to any destinations

5. Which of the following statements about private transportation services are true for you (Taxi, Yellow Cab, Uber, Lyft, etc.)?

- I use private transportation frequently
- I use private transportation sometimes
- I never use private transportation

6. Which of the following statements about door-to-door transportation services are true for you (Sunshine Line, Hart Plus, Hart Flex, etc.)?

- I use door-to-door transportation frequently
- I use door-to-door transportation sometimes
- I never used door-to-door transportation

- 7. Which of the following statements about your local public transportation system are true for you (Hart Bus Line, Downtown Trolley, etc.)?**
- I use public transportation frequently
 - I use public transportation sometimes
 - I never use public transportation
- 8. If any, who do you depend on for trips (check all that apply)?**
- Spouse
 - Children/Other relatives
 - Friends/Neighbors
 - Private services, such as taxis
 - Public services (bus system, Medicaid-paid transportation)
 - Volunteers (from churches or non-profit organizations)
 - Other: _____
- 9. Over the past 6 weeks, how much did you rely on others for transportation?**
- For all of my trips
 - For most of my trips
 - For about half of my trips
 - For some of my trips
 - For none of my trips
- 10. Over the next 1-3 years, to which of these destinations do you anticipate needing transportation to, because you will be unable to drive there?**
- Shopping, grocery store, bank
 - Medical/dental appointments
 - Social outings (friend or relative's home, restaurant, golf, etc.)
 - Religious services
 - School
 - Work
- 11. In the past 6 weeks, were you unable to travel to any of the following because you did not have transportation (your own car or a ride)?**
- Shopping, grocery store, bank
 - Medical/dental appointments
 - Social outings (friend or relative's home, restaurant, golf, etc.)
 - Religious services
 - School
 - Work

12. During the past 3 months, which of the following factors prevented you from taking trips outside your home (check all that apply)?

- Not comfortable driving/cannot drive
- Do not have a reliable vehicle
- Cannot afford gas, parking or insurance
- Cannot afford taxi/private transportation
- Do not have someone to drive me
- Do not have bus services in my area
- Cannot afford to take the bus
- Not familiar with transportation options in my area
- Do not feel safe when traveling outside my home
- Do not know who to call for help
- Other: _____

13. If any, please select all barriers that have prevented you from using door-to-door bus services (Sunshine Line, Hart Plus, etc.):

- I am not eligible to use these services
- I am not familiar with how to use these services
- These services do not feel safe
- These services are too expensive
- These services are not provided where I live
- These services are not provided at times when I need to travel
- I have to schedule these services too far in advance to be useful.
- These services often are full when I call for a ride.
- It takes too long to get to destinations on these services

14. If any, please select all barriers that have prevented you from using private transportation services (Taxi, Uber, Lyft, etc.):

- I am not familiar with how to use these services or who provides them
- These services do not feel safe
- These services are too expensive
- These services are not provided where I live
- These services are not provided at times when I need to travel
- I cannot use these services for health reasons (e.g., I am not physically able to ride in a taxi)
- These services are not reliable.
- The service cannot accommodate my wheelchair/walker.

15. If any, please select all barriers that have prevented you from using public transportation:

- I do not want to use public transportation
- I do not know if we have a public transportation system in my area
- I do not feel safe using public transportation
- I cannot afford to pay for it
- Service is not offered to destinations I want to visit
- They do not operate at times when I need to travel
- I do not have enough information about times, routes, etc. to use them
- It takes too long to get to destinations
- Service is not reliable
- I cannot walk to the closest bus stop.
- Service is not provided near where I live.
- The service cannot accommodate my wheelchair/walker.
- Other: _____

16. For each of the following statements about technology use, decide whether you agree or disagree (choose one box for each statement).

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	▼ ₁	▼ ₁	▼ ₁	▼ ₁	▼ ₁
a) I am confident in my ability to use a computer to find health and transportation information.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
b) I am confident that I can learn new computer skills.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
c) I avoid computers because they are unfamiliar or intimidating to me.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
d) I feel computers are necessary to find health and transportation information for myself.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
e) I have someone who can help me if I have computer-related questions.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

17. Please select the statements that best describes you (choose all that apply):

- I have a personal computer at home
- I have a smart phone or tablet
- I have access to a computer at my residence or a community center
- I have access to a friend or family member's computer

18. What is your average weekly computer use?

- Less than 1 hour
- 1 to 4 hours
- More than 5 hours

19. How would you describe your computer experience?

- Very knowledgeable and skilled
- Knowledgeable with skills
- Little knowledge and skills
- No knowledge or skills

20. What is your gender?

- Female
- Male
- Prefer not to say

21. What is your marital status?

- Single (never married)
- Married or in a domestic partnership
- Widowed
- Divorced
- Separated

22. Income: What is your total annual income before taxes?

- Less than \$10,000
- \$10,000-\$19,999
- \$20,000-\$29,999
- \$30,000-\$39,999
- \$40,000-\$49,999
- Over \$50,000

23. Which of the following best describes your current living situation?

- I own a home
- I rent a home or apartment
- I live in subsidized or affordable housing
- I live with a family member or friend
- I live in an assisted living community
- I live in a nursing home

24. Are you of Hispanic, Latino, or Spanish origin?

- Yes
- No
- Prefer not to say

25. How would you describe yourself (Select all that apply)?

- American Indian or Alaska Native
- Asian
- Black or African American
- Native Hawaiian or Pacific Islander
- White
- Prefer not to say

26. What is the highest degree or level of school you have completed?

- Less than a high school diploma
- High school degree or equivalent (e.g. GED)
- Some college, no degree
- Associate degree (e.g. AA, AS)
- Bachelor's degree (e.g. BA, BS)
- Master's degree (e.g. MA, MS, MEd)
- Professional degree (e.g. MD, DDS, DVM)
- Doctorate (e.g. PhD, EdD)

Appendix C: Volunteer Recruitment Materials

Student Volunteer Recruitment Flyers



Healthy Buddy Program

IMPROVING HEALTH THROUGH SUPPORT AND TRANSPORTATION



VOLUNTEER OPPORTUNITY FOR USF STUDENTS

The Healthy Buddy Program is a community-led initiative that aims to improve older adults' access to transportation and health resources in Hillsborough County.

Student volunteers will gain valuable experiences in the field by assisting an older adult "buddy" in identifying existing transportation opportunities and health resources in the community.

By making older adults aware of available resources, students will help their buddy navigate their community and improve their quality of life. If you have any questions about the program or volunteering, please visit us at hbuddy.org or email Savana Wright at savanaw@usf.edu.



BECOME A VOLUNTEER TODAY
<https://hbuddy.org/signup1>

Figure C-1: General volunteer recruitment flyer. Digital flyer was distributed through relevant USF email listservs. Printed flyers were posted around campus and shared with course instructors.



VOLUNTEER OPPORTUNITY!
 THE HEALTHY BUDDY PROGRAM
 OPEN HOUSE AND PIZZA SOCIAL

Are you a student looking for a fun and rewarding volunteer experience?

Stop by our open house any time from 12 pm - 2 pm to learn more about how you can help older adults in your community lead happy and healthy lives.

Pizza and refreshments will be provided at the open house.

 **Healthy Buddy Program**

06.25.19
 12PM-2PM | TUESDAY

CENTER FOR URBAN TRANSPORTATION,
 CUT100, 3808 USF ALUMNI DRIVE, TAMPA, FL 33620
ROOM 102



BECOME A VOLUNTEER TODAY

www.hbuddy.org

Figure C-2. Volunteer Open House Event Flyer.

Appendix D: Volunteer Training Materials

Healthy Buddy Workshop Scenarios

Introduction to your buddy

In this scenario, students will practice introducing themselves to their Healthy Buddy. The student will briefly summarize the purpose of the interview and obtain informed consent.

Example: Hello, _____. My name is _____ and I am working with the USF Healthy Buddy program. I am talking to you today because we are [describe the purpose in your own words & obtain informed consent].

The older adult will ask questions throughout this scenario about how the Healthy Buddy program will work and if the student can help them with managing their illness. The student will practice managing expectations of the older adult while being patient and polite.

As you work through this scenario, please consider the following:

- How will you describe the project?
- How will you obtain informed consent?
- How will you manage expectations and not make promises that you cannot keep?

Interview Scenario #1

In this scenario, the older adult is getting easily distracted and going off-topic from the interview questions. The student must tactfully steer the conversation back to the topic at hand without appearing rude or impatient.

Example: That was a really interesting story _____. I think it connects really nicely to the question I was hoping we could discuss a little further [repeat question].

As you work through this scenario, please consider the following:

- How will you react if the older adult misunderstands the question and gives you information based on their understanding of the question?
- How will you react if the older adult divulges personal information that is not relevant to the project?
- How will you react if the older adult shares a long story from their life?

Interview Scenario #2

In this scenario, the older adult reacts negatively to the question posed by the researcher. The student must remind the older adult that they do not need to answer a question if they do not want to. In addition, the student should try to diffuse the reaction.

Example: I'm really sorry to have upset you _____. I can tell that this question upsets you and I would like to remind you that you do not need to answer this question if you don't want to. Would you like to take a break before we continue? Can I get you a glass of water?

As you work through this scenario, please consider the following:

- How will you react if the older adult becomes agitated/angry?
- How will you react if the older adult becomes emotionally distraught?
- How will you react if the older adult becomes visibly uncomfortable?

Navigating a Website

In this scenario, the student is working with the older adult to fill out their forms on the computer. The older adult admits not having experience with computers and is unsure of how to perform tasks (e.g. opening a window, using a mouse, typing with a keyboard, etc.). The student should provide the older adult with the option to fill out the forms by hand. If the older adult wishes to continue with the computer entry, the student should provide assistance and guidance as needed throughout the process.

Example: Okay, _____. We are going to work on completing your registration now. I know that you mentioned that you're uncomfortable with computers but that you'd like to give this a try, so we're going to work through this together...

The student should also encourage the older adult to write down their username and password and to confirm their contact information. If possible, the student should set-up follow-up appointment within the next 1-2 weeks.

As you work through this scenario, please consider the following:

- What are some ways that you can help ensure that you or the older adult do not get frustrated or impatient during this process?
- What should you do if the older adult asks you to complete the forms for them?
- What should you do if the older adult decides halfway through the computer progress that they would rather complete the forms by hand?

Healthy Buddy Session One Guide

Session One Highlights

What to bring:

- Student's personal laptop
- Discussion outline and questions form
- Notebook and writing utensils

Primary goals:

- Explain the Healthy Buddy Program
- Become acquainted with your buddy
- Identify their transportation and health needs
- Introduce your buddy to website
- Help them create an account (if willing)
- Verify contact information

This guide contains a suggested timeline and a list of discussion questions to ask your buddy. Make sure to record your buddy's responses to each question and any other information relevant to the project. The information you record will aid you in developing their customized page on the Healthy Buddy website.

NOTE:

Time limits for each section are suggestions, and may require more or less time depending on your buddy's needs.

Session One Outline:

1. Introductory Period (10 minutes):

NOTE:

When talking to your buddy, be sure to emphasize that you cannot provide rides or healthcare services.

- Introduce yourself
- Get some basic details about your older adult buddy
- Gauge your older adult's attitude towards the meeting
- Explain your role is to help your buddy by improving their access to health information and helping them identify transportation resources that best fit their needs.

2. Interview Questions (40 minutes):

- Explain that you have several questions (below) to help you identify opportunities and resources for them.
- Let them know they can decline to answer any question, and they can end the session at any time.
- Write down your buddy's responses in your notebook

Discussion Outline:

1. What are your current means of transportation?
2. Does your healthcare provide transportation, if so, to what degree?
3. How open are you to using public transportation?
4. Is walking distance or going outside for extended periods of time problematic?
5. Are there any barriers to using public transportation (to help explore some public transportation options that may fit their needs)?
6. How open are you to using private transportation?
7. Are there any barriers to using private transportation (to help find possible private transportation that fits their needs)?
8. How much a month would you be willing to pay for transportation?
9. What is your household income? (explain that this is to determine if they qualify for any income-based transportation services but they do not have to answer if they feel uncomfortable)
10. What health conditions you currently manage?
11. What are some of your health concerns (healthy eating, exercise, etc.)?

3. Website Introduction (10 minutes):

- Introduce the program website and explain how it will benefit your buddy.
- Explain how we will use the information from the interview to create a customized site, which will be ready for them by the second session
- Assure them that you will review the website in more detail on your next visit (session 2), and that today you just want to show them around.

Visit the website (<https://hbuddy.org/>) and follow the suggested script to guide your buddy through the website:

Example Script:

“This is the website that we use to store the data we have collected, and your personalized pages.

The first tab is the “Home” page. This page is where we will provide all announcements and links to other important pages on the website.

This next tab is the sign-up page for any new student volunteers or older adult buddies seeking information can sign up for the Healthy Buddy program.

The “About” tab gives a brief description of our program and the staff that that organizes it.

“Chronic Diseases” contains some of the most common health issues among older adults, as well as a few health-related topics that are of interest.

The “Transportation” tab holds all of the data we have collected regarding transportation resources throughout Hillsborough County, this includes both public and private means of transportation.

Our “Resources” page provides important information for useful resources throughout the community for our older adults. It also includes contact information, along with a few resources we have been suggested by a few of interviewees when receiving feedback on the program.

Finally, we have a “Contact Us” page where anyone, regardless of if they have an account or not, can send a message directly to our Healthy Buddy Staff.”

NOTE:

Some older adults may be averse to using technology, try to encourage them to explore the website, but do not pressure them to create an account – we can provide a printed version of the information.

Login System:

“If you decide to create an account, you will be able to access up-to-date and personalized transportation, health, and community event information. Allow me to show you a sample version of the profile page” (use the following login information):

Username: mky@mail.usf.edu

Password: password

“As you can see in this example profile, all of this individual’s transportation options, health resources and community events are located in one place! The information on this page are determined by myself and the team based on the needs you indicated in your interview.” You will also be able to use this profile to send direct messages to myself or the Healthy Buddy Team.




This personalized page will have some small updates made on a monthly basis. Upon request from many of our interviewees, we do have option for a paper version of the resources. (This can be seen by click the “Printable Version” button.) The printable format contains the same information, but you will not have the ability to send us messages or receive updates.

Ask if your buddy is interested in creating a profile. If your buddy does not wish to create an account or does not have access to a computer, the student will provide a paper version of the information in session two).

- Verify their contact information (First / Last Name, phone, public location, email).
- Ask your buddy if they have any questions or suggestions?
- Discuss scheduling for the second session.

Appendix E: Healthy Buddy Profile Example

Mark's Personalized Page

	Transportation Options		Health Resources		Important Contacts
<p>papa \$20/hour includes 10 miles, 50¢/mile thereafter Phone: 1 (800) 348-7951 https://www.joinpapa.com/cities/senior-services-tampa/</p> <p>BATS Taxi \$2.50 pickup fee, \$2.40/mile Phone: (727) 367-3702 https://www.batstaxi.com/index.html</p> <p>Uber Varies Phone: N/A https://get.uber.com</p>		<p>Arthritis https://www.nia.nih.gov/health/osteoarthritis</p> <p>Healthy Eating https://www.nia.nih.gov/health/healthy-eating</p>		<p>Brandon YMCA Phone: (813) 273-1515 3097 S Kingsway Rd. Seffner, FL 33584</p> <p>Bob Gilbertson YMCA Phone: (813) 229-9622 110 East Palm Ave. Tampa, FL 33602</p> <p>Oaks Senior Center Phone: (813) 272-6829 101 E. Kirby St. Tampa, FL 33604</p>	

Senior Center Event Feed



- March 16th **Karaoke with Miss Linda**
1:00 PM Take the stage and join DJ Linda in singing a favorite song
- March 16th **Armchair Travel: India**
11:00 AM The Bollywood dance group from Hillsborough High School will perform
- March 17th **Oaks O'Green Fest**
11:00 AM Help us celebrate St. Patrick's Day with fun games and snacks
- March 18th **Farm to Table**
1:00 PM Nutrition Education Topic: Farm to table to you. Hosted by County Staff.
- March 20th **Women's History Month Celebration**
1:00 PM Learn about the many contributions of women in American history
- March 23rd **Myths Busted: Nutrition and Physical Activity**
1:00 PM Wellness Activity: Learn about the myths of nutrition and physical activity. Class lead by county staff.