

OpenRiver

Nursing DNP Projects

Nursing - Graduate Studies

Spring 5-4-2021

Implementation of a Zoom Toolkit for Web-Based, Evidence-Based Health Promotion Programs

Samantha Brown sjbrown13@winona.edu

Julie Shelton jshelton15@winona.edu

Follow this and additional works at: https://openriver.winona.edu/nursingdnp

Part of the Nursing Commons

Recommended Citation

Brown, Samantha and Shelton, Julie, "Implementation of a Zoom Toolkit for Web-Based, Evidence-Based Health Promotion Programs" (2021). *Nursing DNP Projects*. 53. https://openriver.winona.edu/nursingdnp/53

This Project Paper is brought to you for free and open access by the Nursing – Graduate Studies at OpenRiver. It has been accepted for inclusion in Nursing DNP Projects by an authorized administrator of OpenRiver. For more information, please contact klarson@winona.edu.

IMPLEMENTATION OF A ZOOM TOOLKIT FOR WEB-BASED, EVIDENCE-

BASED HEALTH PROMOTION PROGRAMS

Samantha Brown BSN, RN and Julie Shelton BSN, RN

Winona State University

Department of Graduate Nursing

400 South Broadway, Suite 204

Rochester, MN 55904

sjbrown13@winona.edu

Ph: 507-450-2877

507.535.2578 (fax)

Abstract

This article describes a project to promote the utilization of online evidence-based programs for the self-management of chronic conditions for older adults. The project has been developed based on the findings of a comprehensive review of literature on the outcomes of online health promotion programs for people with chronic health conditions, and on the training needed prior to starting an online course. The project was completed in partnership with WellConnect[®], a non-profit organization facilitating community-based programs that support people in Southeast Minnesota with tools and resources needed to improve individuals' health and wellbeing.

Interviews with WellConnect[®] stakeholders, leaders, participants, and community members identified the need to develop a Zoom toolkit to assist leaders and participants of online evidence-based programs. Participants' access to internet, comfort with devices and access to virtual platforms was assessed. The goal was to create a sustainable web-based Zoom toolkit that can be utilized by leaders and participants to facilitate their success in using online evidencebased programs. The toolkit included several components: a step-by-step guide to using Zoom to attend a meeting, three short videos, and links to other resources including one-to-one technical assistance. The toolkit was evaluated by the authors using a pre- and post-toolkit usage survey that addressed usability and self-efficacy. Although post-survey responses were low, comments suggested that the toolkit has the potential to prepare older adults to utilize Zoom to access evidence-based health promotion programs.

Key Words

Evidence-based programs, Older Adults, toolkit, Zoom, Web-based learning

Introduction

Six out of 10 adults in America have a chronic disease and four in 10 adults have two or more chronic diseases (Centers for Disease Control, 2020). Chronic disease can be defined as a condition that lasts one year or more, requires ongoing medical attention, and limits activities of daily living (Centers for Disease Control, 2020). The National Alliance of Mental Illness (NAMI) reports one in five individuals live with a mental health condition (NAMI, 2020). Chronic illness and mental health conditions are a cause of disability and death for many individuals. For example, the American Public Health Association reports seven out of ten deaths among Americans each year are from chronic diseases, with heart disease, cancer, and stroke accounting for more than 50% of all yearly deaths (American Public Health Association, 2020).

Effective public health interventions and policies that target chronic diseases lead to a healthier population with lower health care spending, less school and workplace absenteeism, increased economic productivity, and improved quality of life (American Public Health Association, 2020). Low-cost, community-based, self-management programs for people with chronic disease have been developed to assist individuals in developing self-efficacy and self-management of their chronic conditions (Chronic Disease Self-Management Program [CDSMP], 2020).

WellConnect[®] is an innovative collaboration of healthcare providers, researchers, and public health and community partners in Southeast Minnesota that promotes community-based programs for improving health and wellbeing. The mission of WellConnect[®] "is to facilitate and maintain sustainable clinical-community linkages to evidence-based health promotion programs" (About WellConnect[®], 2020, n.p.). Programs are offered at low or no cost to the participants. Due to the COVID-19 pandemic the need to connect participants, who are primarily older adults to online evidence-based health promotion programs dramatically increased. A Zoom toolkit was designed to assist older adults in utilizing online evidence-based health promotion programs.

At the outset of the project, a literature search was conducted utilizing CINAHL, EBSCO, and PubMed databases to identify the benefits and limitations of online evidence-based health promotion programs. Key search terms included: internet-based, internet, chronic condition, computer-based, web-based, patient education, patient support program, evidencebased health promotion programs, patient portal use, CDSMP, diabetes, and chronic pain. Twenty-four relevant articles were identified, including four systematic reviews, six randomized controlled trials, four quasi-experimental studies, one cohort study, two integrative reviews and seven observational studies.

Most studies described a clear rationale for the development of online EBHPs. This included the need to provide support to clients who were homebound (Choi & Garcia, 2014), and to low income and uninsured populations with less access to healthcare (Choi and Garcia, 2014; Rod, 2016). Increased demand for chronic disease self-management programs and the ease of online delivery to people in rural areas were also identified in the literature review.

Based on the interventions and outcomes reviewed within the literature, there is compelling evidence that online interventions are effective in helping patients with chronic conditions. Lorig et al. (2006) found the internet-based CDSMP to be effective in improving health status after one year and suggested that this is a viable alternative to the face-to-face small-group CDSMP. Choi, An, and Garcia (2014) utilized research assistants (RAs) to assist participants with computer training and troubleshooting. Computer training was provided before and at the beginning of the Better Choices Better Health (BCBH) workshop. Arem and Irwin (2010) found an intervention which included an active weight loss component followed by an internet maintenance program of tailored material and self-reporting showed greater retention and may have more potential for inducing significant weight loss than face-to-face classes.

Several formats for delivery were evaluated within the studies reviewed, including faceto-face, web-based, and hybrid interventions. Some studies compared face-to-face platforms with web-based options, while others compared all three options to assess effectiveness. Choi, An, and Garcia (2014) and Lorig et al. (2006) both used the Stanford CDSMP, Better Choices, Better Health (BCBH) program. This program uses a small group approach, solely online, for people with chronic conditions and their families.

Mak et al., (2015) and Whitehead and Seaton (2016) focused on mHealth (mobile health) or eHealth (digital health) approaches. mHealth is the use of mobile devices such as a mobile phone or tablet to support the practice of healthcare, whereas eHealth is the healthcare practice supported by electronic processes and compared to mHealth is a much broader term. Both studies found that group participation and confidence in online platform use was associated with increased patient participation in healthcare and confidence in participating in their own healthcare.

Several interventions and features were described in the literature as crucial to the successful utilization of online EBP health promotion programs. These included using feedback from the participants in the design and usability of web-based tools, one-to-one assistance with technology, and easy access to an appropriate device and internet access. Choi, An, and Garcia (2014) compared older adults with no or limited computer skills, with 10 peers with high computer skills. Computer training was provided before and at the beginning of the BCBH workshop. All those who initially lacked computer skills were able to participate in BCBH with a few hours of face-to-face demonstration and training (Choi, An, & Garcia. 2014).

Patient portals are secure websites that allow patients to access their electronic health records (EHR) and other health tools (Nahm et al. 2018). Patient portals are widely available in the U.S. and a valuable tool for patients of any age. Research has shown a lower prevalence of portal use in older adults. Nahm et al. (2018) explored portal use in older adults with chronic conditions and found that preference for face-to-face interaction, lack of knowledge of portal information, and frustration in use were common reasons portals were not utilized. Lack of access to internet connected devices as well as lack of internet access were also related to non-portal use. Gordon and Hornbrook (2018) discussed the importance of assessment of whether patients have digital access, requisite skills, and preferences prior to recommending the use of web-based resources and tools.

In other initiatives, Stinson et al. (2014) recruited 23 participants with chronic pain to participate in a trial of an online program *iCanCope with Pain*. Perceptions of the participants informed further development of this self-management tool. Focus group interviews also confirmed the importance of education provided to the leaders of the programs. Timmerman et al. (2016) ensured appropriate training prior to implementation of a telehealth and web-based intervention for patients with operable lung cancers. Telephone and email support for the use of the training modules was also provided to both patients and HCPs. Improved self-efficacy was discussed often within the research, as well as overall improved well-being. These outcomes are consistent with the goals of this project in helping to transition participants to online EBHP learning platforms.

Consumer Views

In addition to the findings of the literature review, development of the toolkit was informed by data gathered from leaders and participants in local evidence-based programs. Following the cancellation of face-to-face EBHPs consequent to the stay-at home order issued in March 2020 because of the COVID-19 pandemic, some WellConnect[®] partners such as Catholic Charities of Southern Minnesota were able to offer programs online after extensive retraining of program leaders in the use of Facebook and Zoom. These programs included the Staying Active and Independent for Life program (SAIL) delivered via Zoom and Facebook, and a six-week course on self-management of chronic illness, *Living Well with Chronic Conditions (LWWCC)* delivered via Zoom. Phone interviews were completed with eight SAIL leaders, 23 SAIL participants and non-participants, and six LWWCC participants were conducted to learn more about participants' experiences of the online programs, including access to the internet, and devices such as iPads, smart phones, and laptops. Seventy responses to a Facebook survey were also used to illuminate prior experiences. Participants' knowledge and degree of comfort with using platforms such as Facebook and Zoom were explored.12 participants from the face-to-face programs who had chosen not to participate in online programs were also interviewed.

Most of the participants were familiar with using Zoom and Facebook prior to taking part in the online program. Participants had prior experience with Zoom because of church meetings, bible study, and/or other programs that moved to online formats during the COVID-19 pandemic. All the online participants interviewed had internet access prior to taking part in the online program. Participants indicated that they would continue to use either hybrid or online programs even after COVID-19 restrictions are lifted. Participants of LWWCC enjoyed not having to drive to the meetings and getting to know individuals from other geographic locations. One participant commented how Zoom "felt like a real classroom" because you can see everyone's face. Participants enjoyed hearing how others cope with their chronic conditions. Three of the participants experienced challenges using Zoom prior to the start of the class, specifically accessing the application and connectivity to Zoom. This information was provided by the instructors of the class.

Valuable insights were gained during the interviews with older adults who had chosen not to participate in online classes. It was found that lack of knowledge of available programs was a primary reason for lack of participation. Frustration with prior attempts to use platforms such as Zoom was also a barrier. Furthermore, participants revealed some distrust about platforms such as Facebook. Participants mentioned that lack of privacy and fear of being 'hacked' or taken advantage of on Facebook has led them to avoid it. One person shared that lack of resources such as internet and access to a laptop/tablet/smartphone were barriers to participating. The participant felt very isolated since face-to-face SAIL classes had stopped, but finances prevented subscribing to an internet service and purchasing a device. A few participants were only interested in face-toface options, whereas others would like to try online or hybrid options if someone would help them get onto the platforms. Participants would also like access to a technical support person for additional resources or troubleshoot issues.

Evidence-Based Model

The PARiHS model was used as a framework for implementation of the Zoom toolkit project. PARiHS is an acronym for Promoting Action on Research Implementation in Health Services. Ullrich et al. (2014) describe the framework "as a means for explaining the success or failure of implementation projects" and "useful for guiding the design of implementation interventions" (Ullrich et al., 2014 p27.). The PARiHS model assisted in having a planned, structured, and organized synthesis of the research to guide evidence-based practice into the Zoom toolkit implementation. The evidence was used to evaluate current community programs,

cost of platforms, and clients' needs and preferences. When assessing the program's readiness, the authors evaluated program leadership support and culture.

Design of the Toolkit

Based on the evidence reviewed for this project and the data gathered from stakeholders, the authors created an online Zoom toolkit that evidence-based program leaders and participants can use as a resource to access, utilize and trouble-shoot the Zoom platform. See Appendix A. Design of the toolkit was informed by several resources developed for ease of digital use by older adults. Three web-based resources were reviewed to guide the design of the toolkit. An assisted living facility called Fairing Way, located in Massachusetts created links on their webpage to YouTube videos that seniors could access for tips on downloading and accessing Zoom (Older Adults Guide to Using Zoom, 2020). The American Association of Retired Persons (AARP) partnered with Senior Planet to make a 50-minute video with detailed options for joining and using Zoom in addition to a webpage that offered helpful answers and tips regarding Zoom and frequently asked questions (FAQs) (Baig, 2020). Lastly, a very impactful site found was from Seniors Guide that offered an easy, basic, step-by-step set of instructions for participating on Zoom as well as a printable PDF (A Step-by-Step Guide to a Zoom Meeting, 2020).

The authors took aspects of the designs and incorporated the pieces they felt would be most helpful and not overwhelming. The video from AARP was informative, but it was thought to be too long, and might turn seniors away. The idea of including short videos highlighting key features, like the Fairing Way resource was thought to be particularly helpful. The toolkit design is simple, accessible, and tailored to the needs of the client group. It includes three main components: 1) a written step-by-step guide to help access Zoom and assist class participants in using the Zoom platform. 2) short Zoom troubleshooting videos; 3) links to other resources including one-to-one phone or email assistance.

A PDF format was chosen for the written step-by-step guide. It is customizable and can be printed. The Zoom toolkit is colorful and uses screenshots from Zoom with areas of interest highlighted so that it draws the eye of the user. A small group of undergraduate students at Winona State University helped create three videos covering the main issues users find problematic when using Zoom. One video focused on setting up an area in which to access Zoom, with a focus on lighting and noise. Another included a step-by-step demonstration of how to join a Zoom meeting. A third video included tips for troubleshooting audio and camera issues. Links to these videos were included in the pdf document.

The authors worked with Teaching Learning and Technology (TLT) staff at WSU to transform the toolkit into a document that could easily be uploaded and shared with other community organizations. The TLT staff met with the authors on many occasions to help navigate the updates to the toolkit, such as embedding the student videos into the PDF. The TLT staff and the technology team from WellConnect[®] uploaded the PDF and videos onto the WellConnect[®] website.

The toolkit was further developed after presenting it to the evidence-based practice committee and board members of WellConnect[®]. Feedback from the members shaped the toolkit to better serve their older adult populations. Based on member feedback the toolkit was completed and shared with key stakeholders within WellConnect[®] and organizational partners to share with leaders of EBP classes and participants.

Methods

The project was approved by the Institutional Review Board (IRB) of the host university prior to the implementation of the Zoom toolkit. Implied consent was obtained by the participants prior to the start of the classes. Ability to withdraw from the class or any component of the evaluation or withdraw from participating in the intervention while continuing in class was possible at any time for all participants and leaders. No incentives were offered to the leaders or participants of the online EBHP classes or surveys.

Participants

The original intent was to survey only older adults aged 65 and older, but for the purpose of time and need to complete this project, the age criterion was expanded to include adults 18 years or older. The focus was on adults in the United States and most of the respondents invited to complete the survey were in the Midwest.

Data Collection Process

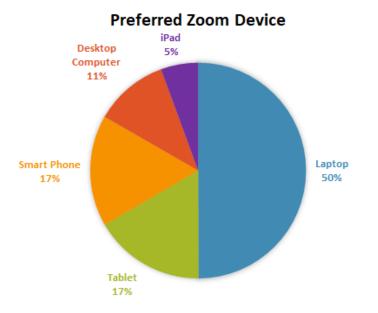
Participants were asked to complete the pre-survey regarding their experience using Zoom via Qualtrics, a web-based software that allows the user to create surveys and generate reports. About four to six weeks after being introduced to the Zoom toolkit, the participants were asked to complete the post survey, also using Qualtrics. Consultation with a statistician was utilized to ensure appropriate analysis and interpretation of the data collected from the participants. Descriptive quantitative data were collected and analyzed from the survey results by comparing pre- and post-survey results. Post-survey participants were asked to rate the Zoom toolkit on a scale of 1-10, with 1 representing not at all confident, and 10 extremely confident. Matching was completed by using a participant eight-digit identifier based on the participant's birthdate. The General Self-Efficacy Scale was used to determine participants' self-efficacy prior to and after using the Zoom toolkit. The Self-efficacy Scale includes 10 items. See Appendix B. For each of the items there is a four-choice response from "Not at all true' which scores 1 to 'Exactly true' which scores 4. The scores for each of the ten items are summed to give a total score. The total score ranges between 10 and 40, with a higher score indicating greater self-efficacy. Finally, both surveys included space for additional comments.

Data were then provided to the WSU statistician for analysis. Due to the small number of matched surveys, the analysis was completed using paired sample t-test rather than testing for differences using two-sample t-tests.

Results

At the time of data collection 18 participants completed the pre-survey, seven participants completed the post-survey, and there were four matched pairs.

Pre-survey

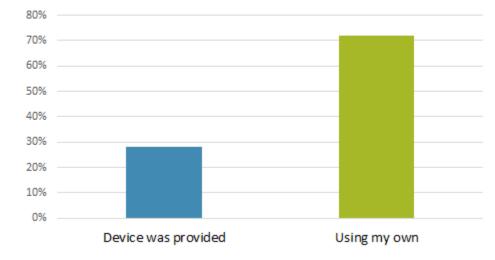


Question 2: What device are you primarily using to access Zoom?

	Count	% of Total
Laptop	9	50%
Tablet	3	17%
Smart Phone	3	17%
Desktop Computer	2	11%
iPad	1	5%

Table 1 Pre-survey Question 2

Question 3: Have you been provided with a device or are you using your own?



Question #3: Device Attainment

	Count	% of Total
Laptop	5	28%
Tablet	13	72%

Total Responses: 18

Table 2 Pre-survey Question 3

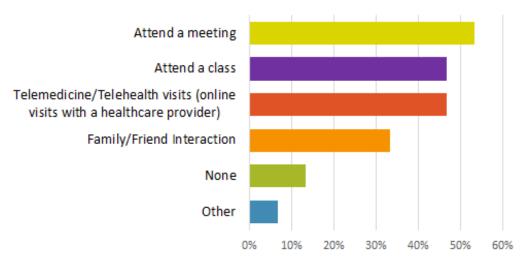
Question 5: Do you have any prior experience with Zoom?

Count	% of Total

Yes	12	67%
No	6	33%

Table 3 Pre-survey Question 5

Question 6: If [you have prior experience], what activities have you used Zoom for?



Zoom Activities

	Count	% of Total
Attend a Meeting	8	53%
Attend a Class	7	47%
Telemedicine/	7	47%
Telehealth visits	/	4770
Family/Friend	5	33%
Interaction		
None	2	13%
Other	1	7%

Table 4 Pre-survey Question 6

Question 8: Do you need any technology preparation or instruction before using Zoom?

	Count	% of Total
Yes	5	28%
No	13	72%

Table 5 Pre-survey Question 8

Responses included, "General overview of technology being used.", "Has used Zoom before, needs a solid introduction into the technology being used.", "After being given instruction, able to operate most technology.", "I printed out the instructions. I should be good!" and "I know so little - I don't know what I need".

Post-survey Results

Question 1: How would you rate the Zoom toolkit provided to you at the beginning of the course? (Scale of 1-10, 1 means not at all confident, and 10 means extremely confident).

	Average	Standard	Lower	Upper	
		Deviation	Deviation 95% Confidence		
			Interval	Interval	
Respons	6	3.11	3.12	8.88	
е					

Total Responses: 7

 Table 6 Post-survey Question 1

The average response was a six which equates to a response of "somewhat confident.

Question 4: Did you need to access the student technical support listed on the resource

page of the Zoom toolkit during this class?

	Count	% of Total
Yes	0	0%
No	6	100%
	5	100/0

Table 7 Post-survey Question 4

Participants were asked if they used the student technology support listed in the resource

page of the Zoom toolkit. Six (100%) answered "No". There was one participant who chose not

to answer the question.

Question 5: Would you recommend the Zoom toolkit to friends or family who are interested in learning about Zoom?

	Count	% of Total
Yes	4	80%
No	1	20%

Total Responses: 5

Table 7 Post-survey Question 5

Two participants did not answer this question. One participant who chose not to answer was the same one who wrote "I was not even able to locate the toolkit" in the post-survey. The participant who answered with "No" also wrote "It seems to work similar to Google Meet."

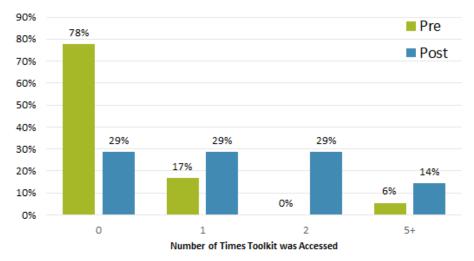
Pre- and Post-survey Matched Pairs

Question one examined confidence in use of Zoom. A response of 1 indicated not at all confident whereas 10 means extremely confident. Eighteen participants answered the pre-survey with a mean of 6.83, and seven participants answered the post-survey with a mean of 6.86. There was a negligible increase in the mean response, about 0.03 from pre to post survey and an increase in standard deviation as well. This led to a broader confidence interval. There is less than half the number of respondents in the post-survey than the pre-survey which is a factor in the increased standard deviation. statistical analysis of the differences between participants that responded in both surveys was not completed because of the small sample size, which would lead to unreliable results.

	Question 9: Pre-Survey		Question 3: Post-Survey		
	Count	% of Total	Count	% of Total	
0	14	77.8%	2	28.6%	
1	3	16.7%	2	28.6%	
2	0	0%	2	28.6%	
3	0	0%	0	0%	
4	0	0%	0	0%	
5 or more	1	5.6%	1	14.3%	

Matching Question 2: How many times have you accessed the Zoom toolkit?

Total Matched Responses: 4



Toolkit Access

Table 8 Pre- and Post-survey Matched Pairs Question 2

Analysis of responses to the self-efficacy scale in the pre- and post-surveys found that 14 participants completed the scale pre-survey and averaged 3.13 across all items, and two

participants completed it post-survey with a mean of 2.65. Both pre- and post-surveys showed a response of 3 on average which translates to "moderately true" on the scale.

Participants were invited in both the pre- and post-surveys to write any additional comments regarding the use of Zoom that might be of interest. Comments included "I don't like how I look on ZOOM (double chin, no makeup)," "I only know to sign on with the message sent me. I can't open zoom without the message or number.," "How to use breakout rooms and green screens," "It seems to work similar to Google Meet," and "I was not even able to locate the toolkit.".

Discussion

The use of online EBHP programs was well supported in literature and the results of this project were consistent with earlier research. Most of the use of Zoom for those who responded to the survey, was for business or to attend a class. The proportion of Zoom usage for interaction with family and friends at around 33%, may have increased due to the COVID-19 pandemic and the need for social distancing. Low class registration rates and low survey responses were a barrier in the data collection phase of the project. -Expanding partnerships within the community earlier in the project could have helped recruit more survey participants at this stage. These relationships would have assisted in distributing the Zoom toolkit more widely and allowed for more accurate assessment of its effectiveness.–

All participants responded "No" to needing help to access the technical support that was offered by the authors. This indicated that the Zoom toolkit was simple enough to navigate with no additional help. The Zoom toolkit is versatile and can be adapted to fit the needs of WellConnect[®] partner organizations. The Zoom toolkit was shared with many stakeholders in Southeast MN and verbal and written feedback from these stakeholders has been positive. The

toolkit is available in Portable Document Format (PDF) format and can be printed or accessed and shared online.

Another barrier resulted from working with the Teaching and Learning Technology (TLT) Center at Winona State University. Due to high demands on their time during a pivot to online learning with the COVID-19 pandemic, the Zoom videos and toolkit were not uploaded to the WellConnect[®] site within the original timeline. Employing IT personnel to assist with issues that arose might have accelerated the toolkit being accessed and utilized by more individuals.

Conclusion

In conclusion, the Zoom toolkit was found to be beneficial in assisting older adults to utilize Zoom to participate in EBHP programs. The COVID-19 pandemic delayed the project timeline, but also encouraged participants to use applications such as Zoom for communication, and so created advantages and disadvantages for the project. The COVID-19 pandemic also served as a barrier to class participation rates, as well as making it difficult to meet directly at teaching sites and work with stakeholders. There were technical issues with uploading the Zoom videos created by the undergraduate students into the toolkit and the WellConnect[®] website, and these delays extended the timeline. Continued work with stakeholders to distribute the survey to more course participants will provide a more accurate picture of the effectiveness of the Zoom toolkit.

This project has provided valuable insight into the use of a Zoom toolkit for leaders and participants to provide and access evidence-based learning on an online platform. Through the literature reviewed it is apparent that older adults can benefit from a toolkit such as this to help educate and guide them to be able to access classes online. Recent changes caused by the Covid-19 pandemic have accelerated the need for this intervention as face-to-face classes are not always preferred, nor feasible due to distance and inability to travel. The availability of a targeted toolkit, such as the one described in this paper, has the potential to increase access to evidencebased programs for health promotion, and ultimately, improve health outcomes. With the continuation of the Covid-19 pandemic, there is hope that more research, including that from this paper, will further inform and improve access to evidence-based health promotion programs.

Declarations

Funding (information that explains whether and by whom the research was supported)

Resources of \$9,000 have been secured through grants to assist with expenses toward developing the toolkit and to continue to support the WellConnect[®] program coordinator.

The monies used to procure these items was obtained by a separate grant that WellConnect[®] obtained in partnership with Catholic Charities of Southern Minnesota.

Conflicts of interest/Competing interests (include appropriate disclosures) Not applicable **Ethics approval** This study has been approved by Winona State University IRB # 1673749-2 **Consent to participate** Implied verbal consent for the pre- and post-survey data collection. **Consent for publication** Not applicable

Code availability (software application or custom code) Not Applicable

Authors' contributions Samantha Brown and Julie Shelton contributed to the study conception and design. Material preparation, data collection, and analysis were performed by Samantha Brown and Julie Shelton. The first draft of the manuscript was written by Samantha Brown and Julie Shelton.

Acknowledgement In addition to the authors listed on the manuscript, the following Winona State University faculty served as committee members for the author's DNP program oral defense. They also played an integral role in helping develop this project and manuscript. They are: Dr. Sue Davies PhD RN, Dr. Julie Ponto PhD, APRN, CNS, AGCNS-BC, AOCNS, Sue Degallier, Active Aging Program Administrator for Catholic Charities of Southern MN, the WellConnect[®] Coordinator Ginny PhD RN, and WellConnect[®] board members for participating in stakeholder interviews.

References

- A Step-by-Step Guide to a Zoom Meeting. (2020). Retrieved November 2020 from http://seniorsguide.com/technology/a-step-by-step-guide-to-a-zoom-meeting/
- About WellConnect[®]. (2020). Retrieved on January 16th, 2021 from:

http://www.wellconnectsemn.org/

- Arem, H. & Irwin, M. (2011). A review of web-based weight loss interventions in adults. *Obesity Management*, 12(5), e236-e242. DOI.org/10.1111/j.1467-789X.2010.00787
- Baig, E. (2020). How to use Zoom to stay connected during the Coronavirus. Retrieved on November 2020 from: http://www.aarp.org/home-family/personal-technology/info-2020/how-to-use-zoom.html
- Centers for Disease Control (2020). *Chronic illness in America*. Retrieved from: https://www.cdc.gov/chronicdisease/tools/infographics.htm

Choi, N., An, S., & Garcia, A. (2014). A feasibility study of lowincome homebound older adults' participation in an online chronic disease selfmanagement program. *Home Health Care Services Quarterly*, *33*(2), 106-120. DOI:10.1080/01621424.2014.908797

- Gordon, N., and Hornbrook, M. (2018). Older adults' readiness to engage with eHealth patient education and self-care resources: A cross-sectional survey. *BMC Health Services Research*, 18(1), 1-13. DOI: <u>10.1186/s12913-018-2986-0</u>
- Improving Health and Quality of Life: Juniper's Evidence-Based Programs. *Juniper*, (2020). Retrieved from <u>https://yourjuniper.org/Programs</u>

- Lorig, K. R., Ritter, P. L., Laurent, D. D. & Plant, K. (2006). Internet-based chronic disease selfmanagement: A randomized controlled trial. *Medical Care*, 44(11), 964-971. DOI:10.1097/01.mlr.0000233678.80203.c1
- Mak, W. Chan, A. Cheung, E., Lin, C. & Ngai, K. (2015). Enhancing webbased mindfulness training for mental health promotion with
 the health action process approach: Randomized controlled trial. *Journal of Medical Internet Research*, 17(1). DOI: 10.2196/jmir.3746
- Nahm, E. S., Zhu, S., Bellantoni, M., Keldsen, L., Charters, K., Russomanno, V., Rietschel, M., Son, H. J., & Smith, L. (2020). Patient portal use among older adults: What is really happening nationwide? *Journal of Applied Gerontology*, 39(4),442-450.
- Older Adults Guide to Using Zoom. (2020). Retrieved on November 2020 from http://fairingway.org/usingzoom/

Pfaeffli Dale L, Whittaker R, Jiang Y, Stewart R, Rolleston A, Maddison R. (2015). Text message and internet support for coronary heart disease self-management: Results from the Text4Heart randomized controlled trial. *Journal of Medical Internet Research*, 17(10), e237. doi: 10.2196/jmir.4944.

- Prodromou, M., Themistocleous, S., Theodoridou, K., Bokolas, V., Sitareniou, D., and Lavranos, G. (2019). Needs assessment regarding ICT for elderly people and their carers: The PROADAS study. *Hellenic Journal of Nursing*, 58(2), 163-171.
- Public Health and Chronic Disease Cost Savings and Return on Investment. *American Public Health Association*, 2020. Retrieved from:

https://www.apha.org/~/media/files/pdf/factsheets/chronicdiseasefact_final.ashx

Rod, K. (2016). Finding ways to lift barriers to care for chronic pain patients: Outcomes of using internet-based self-management activities to reduce pain and improve quality of life. *Pain Research and Management*, (2016), 1-

8, <u>http://dx.doi.org/10.1155/2016/8714785</u>

Self-Management Resource Center. 2020. Retrieved from:

https://www.selfmanagementresource.com/programs/small-group/chronic-disease-selfmanagement/

Stinson, J. N., Lalloo, C., Harris, L., Isaac, L., Campbell, F., Brown, S., Ruskin, D., Gordon, A., Galonski, M., Pink, L. R., Buckley, N., Henry, J. L., White, M., & Karim, A. (2014). iCanCope with PainTM: User-centred design of a web- and mobile-based self-management program for youth with chronic pain based on identified health care needs. *Pain Research and Management*, *19*(5), 257–265. https://doi.org/10.1155/2014/935278

- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S.Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35- 37). Windsor, England: NFER-NELSON.
- The National Alliance on Mental Illness. 2020. Retrieved from: <u>https://www.nami.org/Your-Journey/Individuals-with-Mental-Illness</u>

Ullrich, P., Sahay, A., Stetler, C. (2014). Use of implementation theory: a focus on

Timmerman, J., Dekker-van Weering, M., Stuiver, M., Groen, W., Wonter, M. (2016). Ambulant monitoring and web-accessible home-based exercise program during outpatient followup for resected lung cancer survivors: Actual use and feasibility in clinical practice. *CrossMark*, 11(6). DOI: 10.1007/s11764-017-0611-6.

PARIHS. Worldviews Evidence Based Nursing, 11(1):26-34.

doi:10.1111/wvn.12016

Whitehead, L. & Seaton, P. (2016). The effectiveness of self-management mobile phone and tablet apps in long-term condition management: A systematic review. *Journal of Medical Internet Research*, 18(5), e97. <u>https://doi.org/10.2196/jmir.4883</u>

Appendix A

Zoom Toolkit

WellConnect: How to Video Chat with Zoom

Zoom is a popular video chat application that has been used for a variety of purposes including business meetings, school classes, family visits and even medical appointments. Zoom works with most operating systems. You can use Zoom in your internet browser or you can download it directly to your phone, laptop or tablet. You DO NOT need a Zoom account to join a call or a meeting.



Well

2 To join the meeting you were invited to, enter your Personal Link Name or Meeting ID. Meeting IDs are numerical. You most likely received an email with the link for the Zoom call. You can click on the link in your email or enter it into the meeting field. Click Join when ready.



3) You don't need to download or run the Zoom application to join a meeting. Just click join from your browser in the bottom, right of your screen.

Launching_

Please dick Open zoom.us if you see the system dialog.

nothing prompts from browser, dick here to banch the meeting, or download & run Zoom If processed devolution or no the optimized in the part tensor



Explore Meeting Controls



Well Gnnect





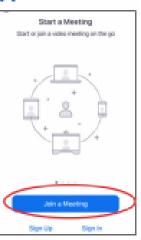
IMPLEMENTATION OF A ZOOM TOOLKIT



Well Gnnect

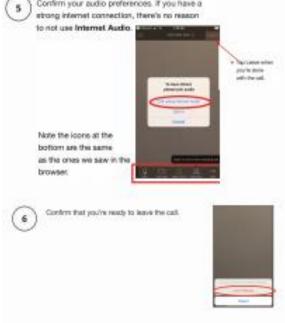
Using the Zoom App

The Zoom app is a great option for taking video calls on-the-go! The first step is to make sure you've downloaded the Zoom app on your smartphone. You can download it just like you would download any other app: from the App Store (iPhone) or Google Play Store (Android).









Well Connect

Successful Video Tips

 Background – Make sure what the camera can see in the background is clean and unclutered. Try to find a neutral space as a backdrap, like a wall or a clost. You want the focus to be on you.

 Camera positive – Your camera should be at eye level. When using a laptop for eldes calls, lots of people make the mistake of pushing the camera back – don't do this! Try using a stack of books or magazines to get your computer at the right height.

 Lighting – The room you choose should have good lighting. You might consider putting a lamp next to your computer facing your face to make sure that you look your best tool

Bye periads - Remember to make eye contact with the other participants. This means looking directly into the carriers - not at the image of vacred!

 Rehearse – Do a dress rehearsal to make sure that you know how to set everything up. You'll want to know hew to position your camera, how to use the technology, and what the background looks like on camera.

 Noise – Find a quiet space! Normal, everyday sounds can be very distracting on video. For example, if you live on a noisy street, sit as far away from the window as possible.

 Hand gestures - If you use your hands a lot when you talk, try to keep these gestures to a minimum. If there is a delay or a lag in the connection, it can look worse if your hand is blocking your face! Appendix B

Self-efficacy Survey Tool

GENERAL SELF-EFFICACY SCALE (ADULTS)

Directions: Please select the appropriate response for each item below.

#	ltem	1 Not at all	2 Hardly true	3 Moderately true	4 Exactly true
1.	I can always manage to solve difficult problems if I try hard enough.				
2.	If someone opposes me, I can find the means and ways to get what I want.				
3.	It is easy for me to stick to my aims and accomplish my goals.				
4.	I am confident that I could deal efficiently with unexpected events.				
5.	Thanks to my resourcefulness, I know how to handle unforeseen situations.				
6.	I can solve most problems if I invest the necessary effort.				
7.	I can remain calm when facing difficulties because I can rely on my coping abilities.				
8.	When I am confronted with a problem, I can usually find several solutions.				
9.	If I am in trouble, I can usually think of a solution.				
10.	I can usually handle whatever comes my way.				

Replicates the General Self-Efficacy Scale (Schwarzer, R., & Jerusalem, M 1995).

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S.

Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control

beliefs (pp. 35-37). Windsor, England: NFER-NELSON. Used with permission.

Appendix C

Qualtrics Pre survey questions:

We are interested in your experiences of using Zoom. Please answer the following questions

by clicking in the appropriate boxes. You will be invited to add an eight-digit number, your

birthdate, that will allow us to match your responses to our second survey in six weeks if you

choose to participate: however, your responses are anonymous.

- Q1. What device are you primarily using to access Zoom?
- Q2. Have you been provided with a device or are you using your own?
- Q3. If device was provided, who provided it?
- Q4. Do you have any prior experience with Zoom?

Q5. If so, what activities have you used Zoom for? Pick all that apply.

Q6. How would you rate your confidence in using Zoom from a scale of 1-10? 1 means not

at all confident, and 10 means extremely confident.

Q7. Do you need any technology preparation or instruction before using Zoom?

Q8. If yes, what kind of preparation or instruction would be helpful?

Q9. How many times have you accessed the Zoom toolkit?

Q10. Participant Identifier. Please use your birthdate: DDMMYYYY

Q11. Self-efficacy questionnaire (See Appendix B).

Q12. Please write any additional comments that you have regarding the use of Zoom that you think might be of interest.

Qualtrics Post survey questions:

We are interested in your experiences of using Zoom. Please answer the following questions by clicking in the appropriate boxes. You will be invited to add an eight-digit number, your

birthdate, known only to yourself that will allow us to match your responses from the first

survey: however, your responses are anonymous.

Q1. How would you rate the Zoom toolkit provided to you at the beginning of the course? (Scale of 1-10,1 means not at all confident, and 10 means extremely confident.)

Q2. How would you rate your confidence in using Zoom now from a scale of 1-10? 1 means not at all confident, and 10 means extremely confident.

Q3. How many times have you accessed the Zoom toolkit?

Q4. Did you need to access the student technical support listed on the resource page of the Zoom toolkit during this class?

Q5. Would you recommend the Zoom toolkit to friends or family who are interested in learning about Zoom?

Q6. Participant Identifier. Please write in your birthdate: MMDDYYYY

Q7. The Self-Efficacy survey (See Appendix B).

Q8. Please write any additional comments that you have regarding the use of Zoom that you think might be of interest.