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Implementation of One-on-One Activities Aimed at Improving Residents PHQ9 Scores and Overall Quality of Life

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Quality Improvement Project

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I. Abstract

In long term care facilities, due to the increased amount of isolation and restrictions during the Covid-19 pandemic, there has been an increase in the PHQ-9 scores (depression) amongst the geriatric population. Isolation from their families, friends, group activities and other residents was shown to have major effects on their mental health. Throughout our time spent working with residents in the long-term care setting, we focused on the improvement of the residents' mental health and improving their quality of life. It is proven that if someone has good social interactions with other people, then they are more likely to live a healthier and better life. In order to decrease the PHQ-9 scores of the selected residents within the long-term care facility, we did an array of activities with the individuals based on options we provided. Some of the options we offered were reading a book together, playing cards, and coloring. Sometimes our time was spent having a conversation. We met with these individual residents for about 30 minutes when they were available. As a result of completing this project, we were able to observe residents enjoying their one-on-one time with us while doing an activity that they enjoy. Overall improving their quality of life. Upon further review of the methods that we used during our research; we identified some implications. Some individuals in our sample that obtained high PHQ-9 scores were Alzheimer's or dementia residents. These individuals may have skewed our data due to the extent of their condition upon questioning. Alzheimer's leads to depression and chronic sadness in all diagnoses. Unfortunately, whichever stage the disease is in, it is difficult to understand how these individuals are feeling. Overall, we hope to see an increase in the residents' quality of life when group activities and visitations resume without limitations.

II. Topic/Focus

After observing at the facility and talking to the faculty, the list of problems we identified are:

- Increased pressure ulcers
- An increase in depression
- Lack of activities
- Obesity among the residents
- Poor staffing retention
- Increased falls among the residents
- Poor pain management

After looking at all of these problems, we chose to focus on the increased depression among the residents at the facility by analyzing their PHQ-9 scores. Due to the lack of staffing during Covid-19, lack of one-on-one time, and no group activities, there was an increase in depression among the residents. People need to have social interactions in their life in order to live a healthy and meaningful life. Living in a long-term care facility already limits a person's social interactions and now, with Covid-19, they are even more limited. During the Covid-19 pandemic and now currently following it, a study was done and showed that the levels of anxiety and depression were significantly higher in residents due to the isolation and quarantine protocols in place (Alonso-Lana et. al, 2020). We found it could be beneficial to read aloud or do an activity with a resident individually. To measure the severity of depression we chose to look at the PHQ-9 scores of the residents. According to their scores we found residents that ranged from mild to severe depression. The impact of this issue on the facility is decreased participation, decreased health outcomes, and overall decreased wellness amongst the residents.

This can cause a decrease in the resident's physical health as well as their mental health. Social interaction amongst people is proven to lead to better mental health conditions and overall, better wellness. If we can decrease the severity of the depression, then the residents will be able to live a healthier and more meaningful life.

By implementing our one-on-one activities and social interactions with the residents we hope to see an improvement in their mental health and overall quality of life. Our goal by the time we leave the facility is to decrease the PHQ-9 scores for the selected residents that agreed to participate in the activities we offered. Thus, decreasing depression within the facility and increasing interaction amongst the residents and staff. Recent technology helps them see and talk to their loved ones, however talking to someone over the phone versus in person is vastly different. We hope that Covid-19 will eventually not put a hinder on the social interactions that the residents are receiving within the facility, but while it is still an issue, our interventions will help the residents feel ‘alive and living’ again.

III. Analysis

We know from looking at the residents PHQ-9 scores that there are more residents now who are mild-moderately depressed than before. Covid-19 has played a significant role in the increasing number of residents who have become more depressed prior to the pandemic. The facility has many protocols in place to help social distance the residents to prevent the spread of Covid-19. However, this means that group activities throughout the day and week have been canceled to decrease the risk of the residents contracting the deadly virus. Along with activities being canceled, outside visitors were also unable to enter the building due to the Covid-19 protocol. With all the unfortunate effects Covid-19 has had on the geriatric population, especially

in long-term care facilities, short staffing has also played a part in decreased one-on-one time with the residents. If the number of depressed residents keeps increasing, then there will need to be more emphasis on how to interact diligently with them and how to ensure that they are receiving quality care. Due to some of the residents having dementia or high PHQ-9 scores, we hope to see an improvement in quality of life resulting from residents having one-on-one time. It is our goal to find out if spending one-on-one time with the residents will improve their PHQ-9 scores and overall well-being.

		Not at all	Several days	More than half the days	Nearly every day
1.	Little interest or pleasure in doing things	0	1	2	3
2.	Feeling down, depressed, or hopeless	0	1	2	3
3.	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4.	Feeling tired or having little energy	0	1	2	3
5.	Poor appetite or overeating	0	1	2	3
6.	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7.	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8.	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9.	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Figure 1.1: The current PHQ-9 assessment used at Assumption Home.

Proposed Treatment Action by PHQ 9 Score

PHQ-9 Score	Depression Severity	Proposed Treatment Actions
0-4	Non – Minimal	None
5-9	Mild	Watchful waiting; repeat PHQ 9 at follow-up
10-14	Moderate	Review treatment plan if not improving in past 4 weeks; Consider discussion of additional support such as pharmacotherapy
15-19	Moderately Severe	Consider adjusting treatment plan and/or frequency of sessions; Discuss additional supports such as pharmacotherapy; For SonderMind Anytime Messaging clients, consider converting from asynchronous to synchronous therapy channels
20-27	Severe	Adjust treatment plan; focused assessment of safety plan and pharmacotherapy evaluation/ re-evaluation; If emergent then refer to higher level of care; Likely Not a candidate for asynchronous/text therapy

Figure 1.2: PHQ-9 Score Breakdown

Literature and Research Related to our Problem

There is research related to increasing PHQ-9 scores in long term care sites within the past couple of years and how relevant depression symptoms are becoming. According to Robert Figlerski, PHD (2018), “Individuals admitted to a skilled nursing facility have just experienced a significant medical setback, which has left them, either temporarily or permanently, physically, and emotionally vulnerable. In addition to their acute and chronic medical conditions, other stressors such as the uncertainty of their future, physical decline, multiple transitions and living in a challenging environment can all take an emotional toll” (Figlerski, 2018). In nursing homes, the patient's autonomy, self-determination, and independence are compromised. Not treating the current residents struggling with depression in the facility can hinder their quality of life, care, and overall physical wellbeing. Nine out of ten long term care facilities reported exacerbated or new psychological symptoms such as sadness, depressive symptoms, and deterioration of cognitive abilities among residents due to the isolation and quarantine policies during the Covid-19 pandemic. During Covid-19 mental health distress among residents was exacerbated due to

loneliness and uncertainty, external support was no longer possible, and staff themselves were scared. This study made it clear that the importance of residents' psychological needs is just as important as their physical health needs (Kaelen et al., 2021). At the end of the day what matters is the quality of life that the residents experience and that is our main goal.

In a study published by Bethell et al. (2020), the authors talked about how Covid-19 has taken a disproportionate toll on people living in long-term care facilities. Although the measures taken to protect the residents from the Covid-19 virus were needed for their safety, it had a devastating impact on the residents' social connections and mental health. The residents typically have a lot of social interactions with the other residents, family members, and community members coming in for volunteer services. With the Covid-19 pandemic, many of these interactions came to a stop. Social connection is good for health and well-being (Bethel et al., 2020). In this study, thirty-five studies were done to test the association between social connection and depression. Twenty-eight out of the thirty-five studies, equivalent to 80% found that better social connection was associated with less depression. Two cohort studies using data from the Resident Assessment Instrument (RAI), found that more social engagement also leads to less cognitive decline. Two of the cross-sectional studies reported that better social connection was associated with less boredom as well as less daily crying and psychiatric morbidity. Another study done by Donovan and Blazer (2020) found that social isolation and loneliness are clear risks for death, depression, anxiety, and cognitive disorders such as major cognitive impairment. Health care professionals may be the first people to recognize these signs of depression and loneliness and so it is important that they are trained to recognize these symptoms and know how to intervene to prevent these serious adverse outcomes (Donovan & Blazer, 2020).

It is proven that if someone has good social interactions with other people, then they are more likely to live a more positive life which will help both their mental and physical health. Because Covid-19 has removed the social interactions amongst residents in long-term care facilities, it has decreased the overall health of residents. There was a review completed to see how the decrease in social interactions impacted the mental health of long-term care residents and practical solutions. Most residents reported a deep sense of loneliness (Bethell et. al., 2020). This is something that was taken away from them during Covid-19, with no volunteers or group activities occurring within the facility. A solution that would be inexpensive, once volunteers were allowed back in, would be to have the volunteers interact and do something that the residents enjoyed for a brief period of time if they were willing.

Social participation, which includes participation in a sport, religious, cultural, recreational, political, or community volunteer organization has shown an increase in the health of the geriatric population. This can promote the geriatric population to be more physically active along with having improved cognitive function. Being socially active also improves quality of life, decreases comorbidities and disabilities, and increases muscle mass (Sepúlveda-Loyola et. al., 2020). The geriatric social participation struggled immensely when Covid-19 was in full swing. Being socially active has many health benefits that can directly affect the geriatric population and has the potential to decrease residents' depression to a point where medications would no longer be needed.

Hearing and vision loss in the geriatric population also takes a toll on residents' ability to participate in social activities, especially in larger groups (Petrovsky et. al., 2019). As stated above social interactions and social participation have many positive effects on mental and physical health, so being unable to see or hear can majorly affect residents' participation. When

spending time with residents some struggled with hearing our voices or seeing pictures displayed in the book we were reading. Residents with hearing and vision impairments would benefit from receiving one-on-one visits or activities compared to group activities.

When looking at the different residents' conditions amongst the facility, it is prevalent that residents in a long-term care facility are more at risk for developing depression. There was a study done in 2017 that showed 60% of the 221 residents that were examined reported depressive symptoms (Almomani & Bani-Issa, 2017). This was only one facility but recognizing that depression symptoms are this common amongst residents in one facility means that there is a good chance that it is common in other facilities as well. With this information all health care professionals that work with these residents need to be able to identify the manifestations of depression and be able to implement the best evidence-based practices to help the residents.

Root Cause/Data Collection

In long-term care facilities, due to the increased amount of isolation and restrictions during the Covid-19 pandemic, there has been an increase in the PHQ-9 scores (depression) amongst the geriatric population. In Assumption Home during Covid-19, they cut out group activities, restricted visitors and/or visiting hours, were short staffed, residents ate meals in their rooms by themselves, and the staff were pre-occupied with managing Covid-19 throughout their facility. Therefore, creating an environment where residents did not get enough social interaction and attention from those around them. Unfortunately, the mental health of Assumption Home residents was severely affected by the necessary protocols introduced because of the Covid-19 pandemic. Throughout our time spent working with the residents in the long-term care setting, we focused on the improvement of the residents' mental health and improving their quality of life. It is proven that if someone has good social interactions with other people, then they are

more likely to live a healthier and higher quality life. To decrease the PHQ-9 scores of the selected residents within the long-term care facility, we did an array of activities with the individuals based on options we provided along with activities that they enjoyed doing.

Solution Developed

Once we decided to focus on improving the PHQ-9 scores of the residents at Assumption Home, we started brainstorming ideas on how to do this. Some of the ideas we produced were doing physical activity with the residents, trying to implement a healthier diet, improving their sleeping schedules, and increasing interactions with their friends and families. Doing physical activity with the geriatric population can be particularly challenging. All the residents have vastly different abilities when it comes to physical activity, this would be hard to implement due to the limited mobility of the residents. Implementing a healthier diet would help with the mood and obesity within the facility. However, this can be challenging because they are limited to the kinds of food, they are able to provide. This would also take a lot longer than the amount of time we have for this project. Improving the quality of sleep the residents are getting would also improve their mood. This would be challenging to implement because we do not have any sort of technology to track or monitor their sleep and so we have no data to start with. Increasing social interactions with friends and family also improves mental health. However, with Covid-19, the visiting policies are much stricter. This intervention is not feasible during the Covid-19 pandemic, being the root cause of this issue. However, we did decide that spending one-on-one time with the residents and socializing with them could be beneficial for their health. After reviewing the different interventions, we brainstormed, our group decided to actively work with the residents who volunteered to spend one-on-one time with us. The only caveat we had was that the residents who volunteered to participate only had mild to moderate depression. Our goal

was to increase their mood and quality of life which would in turn decrease their PHQ-9 score. We met with the residents and discussed different activities that they liked to do for fun. These activities ranged from reading picture books, playing cards/games, talking, and listening to music, to arts and crafts. Covid-19 limited the different activities that we could participate in with the residents and how many could attend each activity at one time. We chose these activities based on the residents' enjoyment of literature, games, music, and conversations. Research stated one of the best ways to improve mood and depression is to spend one-on-one time with the person and do something that makes them happy (Bethell et. al., 2020).

According to a peer review article done for *Journal for Healthcare Quality*, depression among residents in long-term care facilities is a rising problem. In their article, they wrote that in the past, anti-depressant medication was the first-line treatment, but with the growing risks of side effects, this treatment has raised concerns (Crespy et. al., 2017). After their studies, they have found that a growing body of evidence suggests that psychosocial interventions such as behavioral activation, psychotherapy, and social support can alleviate depressive symptoms. Unfortunately, these approaches are used less commonly than medications in long-term care facilities. They go on to say that as new research findings emerge, there is a challenge in integrating into the daily protocol the latest evidence-based practices to reduce depressive symptoms (Crespy et. al., 2017). They investigated specific clinical guidelines for evidence-based treatment and found improvement in residents when these guidelines were implemented. These guidelines included behavioral activation which seeks to increase the availability and frequency of activities the residents enjoy; restorative nursing and exercise; and enhanced social support from family as well as social work and pastoral services.

This article captivated our attention as we have been working in long-term care facilities since high school and have witnessed first-hand the improvement that residents show when they are given attention. We were anxious to develop a plan to interact with the residents at Assumption Home. Our first thought was that this solution would be quite easy for us to implement, cost-effective, and would benefit the residents' mental health and quality of life. It required no additional purchases, no extra burden on the staff, relative ease in implementation, and we hoped that the residents would benefit the most from it.

IV. Implementation

Our plan of implementation started within a few shifts at the long-term care facility. We created an excel sheet with each resident that agreed to participate and what their previous PHQ-9 scores were. The initial PHQ-9 scores we compared our results to were completed in the timeframe of November 2021- January 2022. We also included on the excel sheet the activity that they enjoyed and would like us to do with them for thirty minutes each time. Care teams would access each resident’s depression severity score and the interventions received. The resulting report would allow staff to quickly see trends in residents' depression scores, measure progress toward symptom relief, and problem solve during wellness rounds.

The resources needed throughout this implementation process were provided to us at the facility or by the residents themselves. Towards the end of the second groups rotation, we re-scored the selected residents using the PHQ-9 depression scale to see if the resident's depression severity improved or not. We know that because some of the residents we worked with have dementia or other cognitive impairments, we may not see an improvement in their PHQ-9 scores. However, the impact of spending one-on-one time with them made a difference each day in their quality of life and overall mood.

The evaluation of the success or improvement of our intervention was difficult to assess. On paper, there seemed to be no difference in PHQ-9 scores. Although within the first few times of implementing our social interaction intervention, other staff members said that they had seen a change after the residents got to participate in an activity that they personally enjoyed. They commented on how well the residents were doing. While this might not appear as a statistic on paper or in reports, we were encouraged by the positive verbal reports of the long-term care facility staff. There were situations when other factors played into the scores such as surgery and illness. Furthermore, we were still impressed with how our interactions influenced the residents. We simply spent time listening and conversing with the residents. It is so important for the residents to feel heard and that they matter.

The objectives we hope to achieve through our solution are to see an improvement in PHQ-9 scores and an overall improvement in the quality of life of the residents. It is known that when you enter a long-term care facility often the resident's quality of life is decreased. It was worse during Covid-19 because residents were quarantined, no group activities were taking place, no visitors were allowed to enter, and the facility was severely short-staffed.

With restrictions gradually easing regarding long-term care facilities, residents' family visits and group activities, we would like to see more aggressive implementation of social interactions amongst the residents. A volunteer program using the resources of the community would be a suitable place to start. Volunteers from local schools, churches, veteran groups, and the community could go in and read books, play games, or listen to music with the residents. Adopt-a-senior-program or Grand Friends could be started that would incorporate a visit, cards, letters, or other ways to make a connection with the resident on a regular basis. People with a knack for writing could interview residents and write down their memories and then present

them with an anthology of vignettes of their life stories. These stories could then be read back to them showing the resident that their life has value and that their life experiences will always be near and dear to their hearts. This could also be a great keep's sake for the residents' families.

The geriatric populations in long-term care facilities have value and are a great asset to our communities. So often we hear long-term care facilities residents say that they are a burden to others. They need to know that they can still contribute to society. Their minds are full of life lessons and great experiences that many enjoy hearing. They have an abundance of wisdom to share with others. Sharing their lives with others through social interactions is one way of improving the quality of life for these residents. One of the objectives of long-term care facilities should be channeling this wealth of experience and wisdom and passing it on to others. Our group's small gesture toward this goal brought satisfaction to the residents and for each of us.

V. Dissemination and Evaluation

When we started our Quality Improvement project, we primarily wanted to get the staff at Assumption Home's opinion. During their daily stand up, we presented them with a couple of different project options. The nurses gave us valuable feedback on how to go about performing our project as well as suggesting certain residents who may benefit from the quality improvement project the most. In order to ensure the organization was committed to the project, once we had a fully developed plan on how we were going to conduct our project, we presented it to the staff once more at stand up to make sure everyone was on the same page and if they had any concerns, questions, or comments for us. They also gave us great feedback on what type of activities were available for us to use like books, puzzles, card games etc. The most support that we received was from the Director of Nursing as well as the other RNCC's and floor RNs. They were always there if we had any questions or needed anything from them. We do not believe that

anyone would be against the implementation of the project. Since group activities were stopped and visitors were limited, residents did not get the same social interaction that they once had. The only person who might be against it is if a visitor is seeing a resident and would not want us to spend time with them while they are with their loved one.

In order to keep staff motivated, we presented our project and our findings to the management team with a presentation laying out how our project went and some of the results along with evidence-based research to back it up. We stressed the importance of making sure to take five minutes out of their day to simply talk with the resident they are seeing to maintain and increase their quality of life. We also suggested reaching out to local community groups to bring in more volunteers to enable residents to receive more one-on-one time and social interaction.

To start our implementation plan, we went around to all the residents that our preceptors recommended for our project. We asked them if they would be interested in our group taking thirty minutes out of their day for one-on-one time. We also asked the residents what type of activity they would prefer. Once they gave us permission, we asked them what time of day worked best for them for us to get the best results. After asking permission from all the residents, we compiled all this information and put it into an Excel document. This document also helped the second rotation of student nurses pick up where the first group left off.

After organizing all our information, we initiated our plan and spent thirty minutes a day (while we were at the facility) spending one-on-one time with the residents. The implementation of the plan went according to plan, the only issue that we ran into was the inconsistency of the residents. Some of the residents we worked with had dementia, Alzheimer's, or other cognitive impairments which made it difficult for them to focus. Sometimes other residents would be visiting with family members, taking naps, or doing physical or occupational therapy. Once we

had finished our clinical rotation, we then did another PHQ-9 assessment on the residents that we spent one-on-one time with. There were some differing circumstances, but we were able to work around it.

Overall, we believe that we met the objectives of our plan. Looking at our results, some of the residents either increased their PHQ-9 scores, stayed the same, or did not increase in scores. We were still able to make a difference in their day and improve their overall quality of life. Subjectively, the nursing and other staff members were incredibly happy with our outcome and loved to see us interacting with the residents. The only issue we ran into during the implementation of our plan was finding our selected residents and making sure they had enough time for us to sit down with them. To better this project, we could have asked our nurses, physical therapists, occupational therapists for our select residents' schedules, so we could adjust to their schedule and not ours, thus being able to meet with them every time we went into the facility. We could have also done our own initial PHQ-9 assessment on the selected residents instead of using the facilities previous assessments to make sure they were accurate and more up to date. The facility and staff were committed to the plan, as they could see a great deal of increased positivity and mood between the residents from the brief interactions.

Presentation to Facility

For our quality improvement project, we decided that it would be best if we presented our findings to the management team. The management team consists of the director of nursing (DON), registered nurse (RN) case managers, minimum data set (MDS) nurse, admissions nurse, and dietary manager. To catch them all at a time when they are all together and are not overwhelmed with work is right after their morning stand up meeting. This is an interdisciplinary

meeting time that helps to maintain the continuity of care. Here we were able to give our presentation to all of them so that they could have a shared understanding of our project.

The learner centered outcomes we composed were for the staff to understand what the PHQ-9 scores of resident's measures, for staff to be able to identify multiple nonpharmacological interventions to improve the mental health and quality of life of the residents at Assumption Home, and to understand how the mental health of the residents also affects their physical health. With these outcomes in mind, we printed out the power point for them to take notes on and to write the answers to their quizzes as well. We tested the management team's knowledge with a three-question quiz at the beginning and the end of the power point.

Pre-Quiz

- What does the PHQ9 assessment measure?
- What is a nonpharmacological intervention to improve the quality of life and decrease depression among the residents at Assumption Home?
- What is a sign that a resident is starting to have a decrease in their mental health?

Post-Quiz:

- What is the importance of the PHQ9 assessments and what does it measure? Does staff feel that the interventions implemented improved the resident's quality of life, even if the PHQ9 scores did not decrease?
- When staff sees a change in a resident's mental health, what are three interventions one could do to improve the residents' quality of life and mental health?
- What are three signs or symptoms that a resident is starting to have a decrease in their mental health or are suffering from depression?

We then asked someone to share. The MDS nurse's answers were consistent with an understanding of the outcomes as well as others who were nodding their heads and pitching in some answers too. Because of this our presentation was more of a refresher than a teaching

lesson. After listening to us speak and there being no questions at the end, we gave the post quiz and had another person read their answers aloud. She added nonpharmacological measures that we discussed such as music therapy and more signs and symptoms of depression in the geriatric population such as weight loss, withdrawal, and tiredness. This showed us that they were attentive to our material.

Overall, our teaching strategy worked for the facility. We presented the management team with a printed handout along with a small quiz they can give to the rest of the employees at Assumption Home and the connecting buildings. This allows continuity of care if they choose to continue with our quality improvement project. The team agreed collectively that this was one of their favorite quality improvement projects although our data was inconclusive in the end.

Resources

Almomani, F. M., & Bani-Issa, W. (2017). The incidence of depression among residents of assisted living: prevalence and related risk factors. *Clinical interventions in aging*, *12*, 1645–1653. https://doi.org/10.2147/CIA.S147436

Bethell, J., Aelick, K., Babineau, J., Bretzlaff, M., Edwards, C., Gibson, J.-L., Colborne, D. H., Iaboni, A., Lender, D., Schon, D., & McGilton, K. S. (2020, November 26). *Social connection in long-term care homes: A scoping review of published research on the mental health impacts and potential strategies during COVID-19*. Journal of the American Medical Directors Association. Retrieved January 27, 2022, from https://www.sciencedirect.com/science/article/pii/S1525861020309919

HYPERLINK "https://www.mcknights.com/blogs/clinical-and-financial-ramifications-of-undiagnosed-depression-in-snfs/"

Crespy, S., Haitsma, K., Kleban, M. et al. (2017). Reducing depressive symptoms in nursing home residents: evaluation of the Pennsylvania depression collaborative quality improvement program. *Journal for Health Care Quality.* JHQ-D-15-00008 76..88 (abramsonseniorcare.org)

Donovan, N., & Blazer, D. (2020, December). *Social Isolation and Loneliness in Older Adults: Review and Commentary of a National Academies Report*. Science Direct. Retrieved April 12, 2022, from https://doi.org/10.1016/j.jagp.2020.08.005

Figlerski, R. W. (2018, July 6). *Clinical and financial ramifications of undiagnosed depression in snfs*. McKnight's Long-Term Care News. Retrieved February 8, 2022, from https://www.mcknights.com/blogs/clinical-and-financial-ramifications-of-undiagnosed-depression-in-snfs/

Kaelen, S., Boogaard, W. van den, Pellecchia, U., Spiers, S., Cramer, C. D., Demaegd, G., Fouqueray, E., Bergh, R. V. den, Goublomme, S., Decroo, T., Quinet, M., Hoof, E. V., & Draguez, B. (2021, March 26). *How to bring residents' psychosocial well-being to the*

heart of the fight against covid-19 in Belgian nursing homes-a qualitative study. PLOS ONE. Retrieved April 6, 2022, from https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0249098

Petrovsky, D. V., Sefcik, J. S., Hanlon, A. L., Lozano, A. J., & Cacchione, P. Z. (2019). Social Engagement, Cognition, Depression, and Comorbidity in Nursing Home Residents With Sensory Impairment. *Research in gerontological nursing*, *12*(5), 217–226. https://doi.org/10.3928/19404921-20190627-01

Sepúlveda-Loyola, W., Rodríguez-Sánchez, I., Pérez-Rodríguez, P., Ganz, F., Torralba, R., Oliveira, D. V., & Rodríguez-Mañas, L. (2020). Impact of Social Isolation Due to COVID-19 on Health in Older People: Mental and Physical Effects and Recommendations. *The journal of nutrition, health & aging*, *24*(9), 938–947. https://doi.org/10.1007/s12603-020-1469-2

SonderMind. (n.d.). *PHQ9*. SonderMind Therapy and Counseling. Retrieved April 20, 2022, from https://www.sondermind.com/private-practice/phq9-overview