

Standardized Follow-up Plan For Depression Through The Implementation Of Provider Note and Nurse Follow-up Phone Call Templates

Farrah Lee Rosentreader*

Creighton University, United States of America

Corresponding author: farrahrosentreader@gmail.com

ABSTRACT

Background: Depression is highly prevalent in primary care settings and depressed patients of all ages are seen by their Primary Care Provider (PCP) for treatment (Datto et al., 2003). In order to adequately treat depression, PCPs must follow the clinical guidelines for follow-up.

Purpose: The purpose of this project was to implement a standardized follow-up plan for patients aged 12 and older with a positive screen for depression using the Patient Health Questionnaire (PHQ-9) screening tool.

Methods: The setting was a rural clinic in Broken Bow, Nebraska. The sample included 89 patients seen between September 1 -November 30, 2020 who met the criteria of a PHQ-9 score of 5 or greater compared with 47 patients seen between September 1 -November 30, 2019. Quantitative data was analyzed using descriptive statistics, frequency and means and compared between before and after implementation of this quality improvement project.

Results: In 2019, 11.3 % of patients reported depression. That more than doubled to 25.6 % in 2020. Of the depressed patients in 2019, 36.2% had mild depression, while the number almost doubled to 60.7% in 2020. The 2020 PHQ-9 results were reviewed from most severe down to mild depression. Of the 35 patients with the highest severity, 89% had at least one measure completed representing an adequate follow-up plan. Referral rates improved from 12.8% in 2019 to 14.6% in 2020. Medication was the most common treatment in both years with 57.4% in 2019 and 27% in 2020. Completed follow-ups improved from 45.5% in 2019 to 73% in 2020; with 1 nurse phone call follow-up and one CSSR-S completed.

Conclusion: It is unknown the affects from the 2020 pandemic. However, an increase in mild depression shows a need to know how to treat sub-threshold depression. The use of the template as a guide led to improvement on all measures. However, some measures were used only sparingly and use may be improved with increased acceptance of the guide.

Keywords: Depression, Follow-up, PHQ-9, Template, Referral.

Received April 29, 2021; Revised May 28, 2021; Accepted June 17, 2021

DOI: <https://doi.org/10.30994/jnp.v5i1.140>



The Journal of Nursing Practice, its website, and the articles published there in are licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

BACKGROUND

Depression is highly prevalent in primary care settings and depressed patients of all ages are seen by their Primary Care Provider (PCP) for treatment, instead of a mental health provider (Datto et al., 2003). Recognition and screening of depression has improved in the recent years, but appropriate treatment and follow-up still do not follow treatment guidelines (Jones et al., 2006). Jones et al. (2006) report 46-51% of patient with depression are detected in primary care settings, but only half of those receive any treatment and even fewer receive treatment according to recommended guidelines. The American Psychiatric Association (APA, 2019) recommends regular follow-up because it provides patient support and education, facilitates dosage adjustments and promotes an alliance between patients and their providers. Building rapport with patients will increase their compliance and aid in them getting better results from their treatment plan. Follow-up care is an important part to the overall outcome of the patient's depression. Research has found that only 1/3 of patients achieve remission with the 1st treatment option (Jibson, n.d.). Therefore, it is essential to follow-up with patients as to whether the treatment plan is working. Almost half of treated patients discontinue antidepressant therapy within the first month of treatment (Jones et al., 2006). Often times, patients experience adverse effects from the medications or no improvement of symptoms and decide to stop treatment without contacting their prescriber.

Central Nebraska Medical Clinic (CNMC) in Broken Bow, Nebraska is a privately owned family practice clinic that lies in the heart of rural Nebraska. CNMC is governed by an Accountable Care Organization (ACO) that requires them to report on several different quality measures. One of which is the screening for clinical depression and providing a follow-up plan. The leaders at CNMC reported that they were falling short on this quality measure and wanted help improving their workflows for creating a follow-up plan of care.

In the rural area of Broken Bow there is a need for mental health services and counseling. Within the community there is a small number of counselors, one that specializes in children and adolescents and a few that focus on adults. Regardless if anyone is able to use counseling services, the counselors still cannot prescribe medications. This means the primary source of help is solely from the patient's PCP. Sadock et al. (2017) report approximately 75 % of patients seen in primary care settings are in need of behavioral health services but many PCP's lack the confidence to treat these psychological problems like depression. It becomes increasingly imperative PCP's collaborate with a behavior health service to help treat the patient. Collaboration is especially warranted if the PCP feels like they are not able to help the patient improve.

This is important to the rural community because depression impacts the family. Some of the ways it impacts the family is if the patient is unable to care for loved ones. Often leaving children or adolescents to fend for themselves. Or the patient has a loss in employment resulting in socioeconomic hardship. This then creates poor living conditions for the entire family. The data shows that for every 1-point increase in PHQ-9 score, patients experienced an additional mean productivity loss of 1.65% (ICSI, 2013). Even minor levels of depression symptoms were associated with decrements in work function with \$17 billion in lost work productivity annually (Beck, 2011; ICSI, 2013; Pignone et al., 2013). Mental disorders, including depression, anxiety disorders, and substance use disorders are associated with increased medical care and employer costs, and lead to premature mortality.

As reported by World Health Organization (WHO, 2020) depression is also linked to decreases in physical health, obesity and cardiovascular disease. The U.S. Preventive Services Task Force (USPSTF, 2016) estimates that 5 to 9 percent of Americans have a major depressive disorder that leads to high health care utilization and \$43 billion annually in total and indirect costs. It is important PCP's know how to adequately treat depression

and how to follow the clinical guidelines for follow-up. This will improve the patient's clinical symptoms and subsequent ripple effect it has on those around the patient and rising costs of care.

OBJECTIVE

The purpose of this project is to implement a standardized follow-up plan for all patients, age 12 and older, that have a positive screen for depression with the Patient Health Questionnaire (PHQ-9) screening tool. The evaluation of this project will be measured by the following outcomes: 1) occurrence rate in the number of referrals to therapy between pre and post intervention 2) occurrence rate in the number of scheduled follow-up visits and/or nurse phone calls between pre and post intervention 3) number of completed follow-up visits and/or nurse phone calls between pre and post intervention.

The specific aims/interventions are: (a) Implement a Suicide Risk Assessment Tool: Columbia Suicide Severity Rating Scale (C-SSRS) (b) Compile of list of behavior health service references within the area for referrals (c) Implement a depression follow-up plan inside the providers note which links physician orders to the behavior health service referrals and follow-up options (d) Implement a nurse follow-up phone call template and (e) Educate staff on new documentation tools.

METHODS

Sample:

This quality improvement project used a convenience sampling method to determine the subjects. Initial inclusion criteria were patients age 12 and older; scoring five or greater on the PHQ-9. Exclusion criteria was patients younger than 12 years of age or patients that score less than five on the PHQ-9. Of the initial population, any patients who scored equal to or greater than 10 on the PHQ-9 were further assessed for adequate treatment and follow up plan.

A pre implementation sample was collected from September 1st- November 30th, 2019 on patients screening positive with a score equal to or greater than five on their PHQ-9 tool. All patients that present to CNMC are screened with the PHQ-2 tool first (see Appendix C). Then those that score a three or greater are then given the PHQ-9 tool. The electronic medical record (EMR) was used to initially collect the patients that were screened using the PHQ-9 tool. Manual review of the charts was used to determine which patients screened positive. This number of patients became the pre implementation sample.

For the post implementation sample, data was collected from September 1st- November 30th, 2020 on patients who screened positive with a score equal to or greater than five on their PHQ-9 assessment. After the implementation of triggers into the providers documentation, some of the data was able to be assessed without manual review by pulling a report with the built-in data points. However, for completeness, a manual review of post implementation charts was completed to correctly capture data enter by providers not utilizing the documentation tools.

The overall 2019 sample size of 416 patients screened, resulted in 47 patients being positive with a PHQ-9 of 5 or greater. Of those 47 patients, 31 had a PHQ-9 of 10 or greater showing Moderate-Severe Depression. For the 2020 sample, 348 patients were screened, resulting in 89 patients being positive with a PHQ-9 of 5 or greater. Of those 89 patients, 53 had a PHQ-9 of 10 or greater showing Moderate-Severe depression.

Setting

The setting took place in a rural medical clinic located in Broken Bow Nebraska. CNMC is a privately owned for-profit clinic that has four Physicians, four Physician Assistants and one Nurse Practitioner providing service to patients. According to Melham Medical Center (2019), the community hospital in Broken Bow, there is a town population of 3,522, yet the clinic services patients in surrounding communities estimating a population of 8,000 patients as determined by a community needs assessment. Of these patients the 2010 census data culturally categorized Broken Bow residents as 95.7% white, 2.8% Hispanic or Latino, 0.7% African American, 0.7% Native American, 0.1% Asian. Median household income \$43,068 with a median age of 36.6 years old (Census Reporter, 2018). Broken Bow is a city within Custer County that belongs to the Loup Basin Public Health District. A Loup Basin Public Health District survey in 2015 showed within their nine county district, that 13.7% of Custer County respondents reported they have been told they have depression (Melham Medical Center, 2019).

Within the clinic the providers all document using their EMR called Practice Partners. Three of the four physicians have scribes that follow them into the room to help them document their notes. All other providers do their own documentation on the patients' medical record. Each provider has an assigned "primary care nurse" that may be a Registered Nurse or Licensed Professional Nurse that makes follow-up phone calls for the provider. Provider's also have assistants such as a Medical Assistant, Medication Aide or Certified Nursing Assistant that help room their patients during the visit. "Primary care nurses" or the term "nurse" is used for the licensed individual that puts in orders, or makes the follow up phone calls. Occasionally nurses have to float to cover absences, but they are still responsible for following through with tasks given to them by their provider. In this case, the providers put in orders requesting the primary care nurse to place a follow up phone call to a patient. The orders flow from the provider or the scribe completing the documentation and is received by the scheduling desk. The scheduling desk then messaged the primary care nurse to add it to his or her schedule.

Recruitment

There was no recruitment necessary for this quality improvement project. Sampling was completed through historical chart review.

Data Collection

The PHQ-9 is the depression scoring tool that was used. It is a nine question, questionnaire that asks how often the patient has "been bother by any of the following in the last 2 weeks" (ICSI, 2013). Scores range from 0-Not at all, 1-Several days, 2-More than half the days, 3-Nearly every day (ICSI, 2013). A patient scoring a total of 0-4 points has no depression, 5-9 points has mild depression, 10-14 points has moderate depression, 15-20 has moderately severe depression, and 21-27 points has severe depression (ICSI, 2013). The PHQ-9 screening tool has shown to have a 95% sensitivity and 88.3% specificity (Patten et al., 2015). The PHQ-9 has been validated for measuring depression severity and is a tool for both detecting and monitoring depression in primary care settings (ICSI, 2013; Kroenke, 2010; Wittkamp, 2007). The data is collected using a paper tool that is given to the patients and the score is entered by the primary care nurse after the paper is completed by the patient. Often it is left with the patient to fill out while waiting for the provider to enter the room.

With the help of the Medical Records Department, key triggers within the providers documentation were built. First, two categories called "existing medication" and "changes or newly adjust medication" was added into the template to capture medication usage.

Second, the follow-up visits and/or follow-up phone calls that are ordered by the provider was an item built that could capture whether the provider selected a qualifying trigger for an adequate follow up plan. Next, within the template an order for referral was built to capture whether the patient was referred to a therapist for further evaluation and treatment. The pre implementation data was collected manually by individual chart review with each of the areas being assessed.

For the post implementation data, reports were pulled on all patients scoring positive on their PHQ-9 and who had data elements built from the implementation build selected. Due to an inconsistency in the usage of the depression template, patients scoring five or greater were still manually reviewed to assess for medication usage, referral rates to counseling and scheduled follow-ups with their completion rates.

In addition to the items captured above, simple descriptive statistics: average age and sex, with no identifying properties were collected. The information was tabulated in excel, using a passcode protected computer and was not copied to a USB or any files shared.

Intervention

There were five specific aims/interventions implemented in the summer of 2020. First is the implementation of a Suicide Risk Assessment Tool. The leadership team agreed that the Columbia Suicide Severity Rating Scale (C-SSRS) was an adequate tool to further assess a patient that is potentially suicidal. The C-SSRS is consistent with what patients would receive if cared for at Melham Medical Center, in the affiliated hospital as an inpatient. For this study we implemented the C-SSRS if the patient answered positive to question number nine on the PHQ-9. The C-SSRS then was filled out face to face by the provider asking the patients details about their plan. This tool asks the patients about whether he or she has a plan and how serious they are in acting their plan out. The reason this is an important intervention is because the PHQ-9 tool assesses for severe depression but it does not provide the proper questions to determine the suicide risk. Following up with a suicide risk assessment is an invention that the CMS quality measure requests as an available option in the management of depression. The use of this tool was built as a checkable option inside the providers depression template.

To help support the referral of patients to a behavioral health services a list of available counselors in the area was provided to the team at CNMC. The providers had reported in years past they did not have good options to give to the patient in regards to behavioral health counselors and therapists. This compilation was used by providers when explaining the area options to the patient.

In an effort to standardize follow-ups at CNMC, the next intervention was to work with the Medical Records department to build connections inside the providers note template that linked to an order, which scheduled the patient for a follow-up and/or referrals. The links allowed for provider autonomy in choosing the necessary timeframe for each patient. There was a link for one week and two-week follow-up phone calls to be conducted by the provider's primary nurse. In addition, face to face follow-up links were built for two-week, three-week, one month and six weeks. In the literature in a multivariate analysis, three or more follow-up visits in the first 12 weeks of treatment was associated with twofold increased odds for the receipt of an adequate duration of antidepressant therapy (Jones et al., 2006). Once the patient becomes stable on their pharmacotherapy the visits may decrease to every 3-12 months (ICSI, 2013).

To help support the nurses in making the follow-up phone calls as ordered by the provider, nurse follow-up phone call templates were built. These guided the nurse through important questions to ask the patient. The questions included: a reassessment of the PHQ-

9 tool, review of a list of side effect of newly prescribed pharmacotherapy, a question as to whether the patient has been taking the medication as directed and a question regarding any thoughts of suicide. Due to the black box warning of many SSRI's causing an increase in suicidal ideation, the last question was for safety and monitoring.

The last intervention used to support all the documentation tools was education provided to the providers, scribes, scheduling desk and all primary care nurses. This education was held on August 25th at 5:00 pm and again on August 26th at 7:00 am. As well as, follow-up luncheon was completed on September 2nd at 1:00 pm for any staff members that had not attended the original two meetings. This education was largely attended and provided positive feedback from staff. It was deemed a desirable quality improvement project for the patients they see in clinic.

Ethical Considerations

With this quality improvement project, none of the interventions directly involved a patient. The project focused on standardizing documentation and follow-up processes. Therefore, on August 6th, 2020 the Institutional Review Board (IRB) approval was waved due to it being a quality improvement project. As for the human data, all data retrieved from the EMR was deidentified and kept in a passcode protected excel file. There was no ability to identify a patient and no financial reward for implementing these interventions.

RESULTS

In 2019, 47 patients reported a positive score of five or greater on their PHQ-9 assessment. This was 11.3% of the initial sample population (47 out of 416 screened), showing depression. Of those 47 patients, 31 had a PHQ-9 of 10 or greater showing Moderate-Severe Depression. Twenty-three of the patients were male and 24 of the patient's female, with an average age of 41 years old.

For the 2020 sample, 89 patients reported a PHQ-9 of five or greater. At 25.6% (89 out of 348 screened) of patients reporting depression, this was double the number of reports of depression than in 2019. Of those 89 patients, 35 had a PHQ-9 of 10 or greater showing Moderate-Severe depression. There were 29 males and 60 females whose average age was 56 years old.

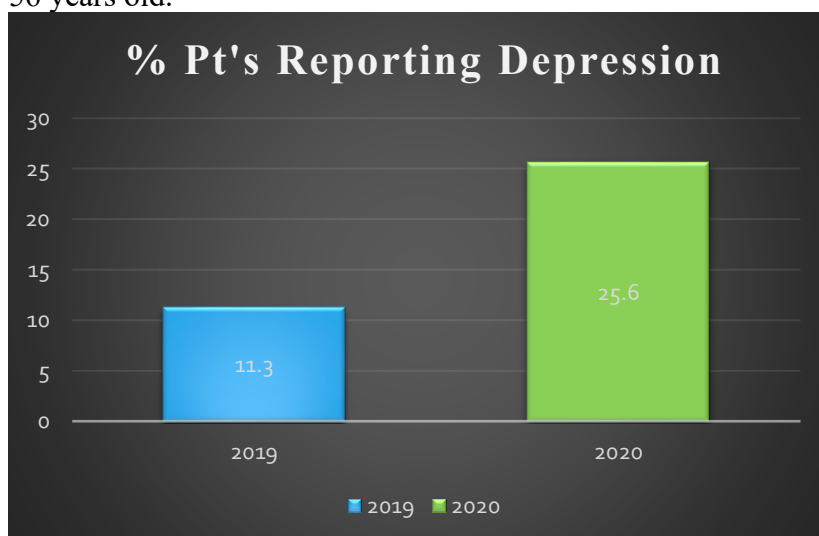


Figure 2. Percent of patients screened reporting depression comparing 2019 to 2020 data.

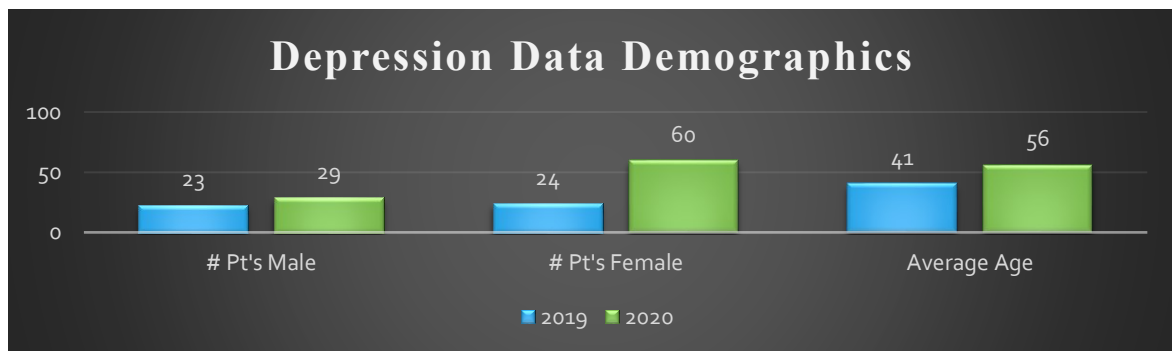


Figure 3. Number of males vs. females in each reporting period and the average age of the participants reviewed.

Of the PHQ-9 scores in 2019 there was 36% (n=17) mild, 25.5% (n=12) moderate, 25.5% (n=12) moderate to severe and 13% (n=6) severe. Of those reporting mild depression the largest percent at 35.3% (n=6) was in the age range of 20–39-year old's. In that same age range of 20–39-year old's, they were the top reporting group reporting severe depression

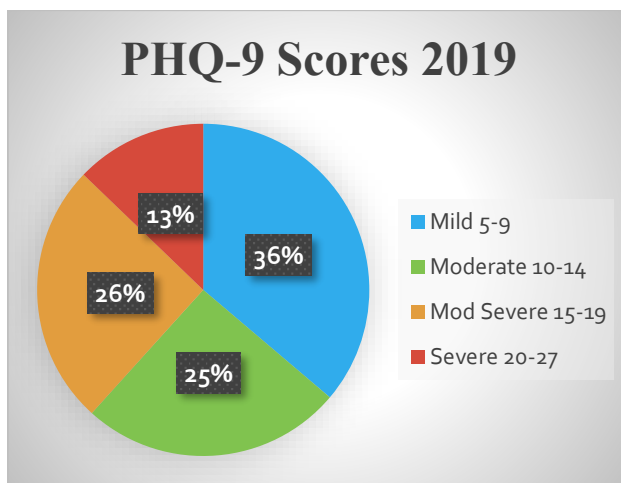


Figure 4. Percent of 2019 Participants rating their PHQ-9 mild, moderate, moderate-severe and severe.

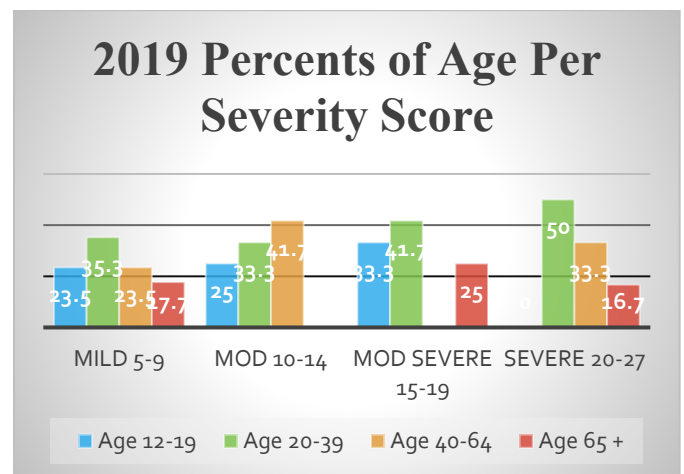


Figure 5. Each category of 2019 PHQ-9 data broken down by age range, showing the percent of each age per category.

as well (n=3).

In 2020 there is a large increase in the percentage of reported mild depression. This jumped from 36% (n=17) in 2019 to 61% (n=54) of the positive PHQ-9's in 2020. Of these mild scores 46.3% (n=25) were 65 years old and greater. The age ranges from 20-39 and 40-64 tied at 37.5% (n=3) in the severe category

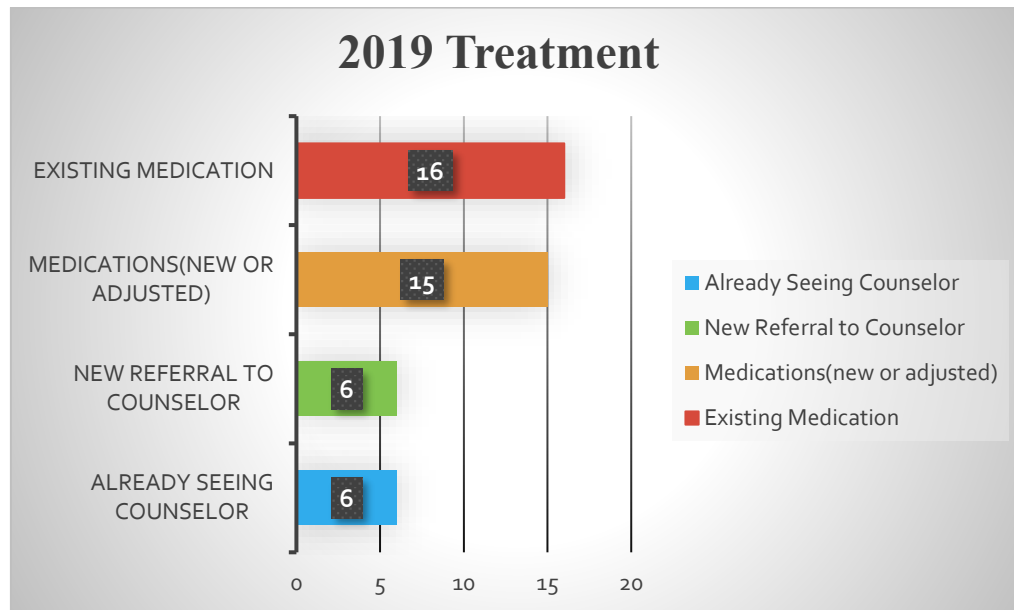


Figure 8. Number of 2019 patients receiving different types of treatment.

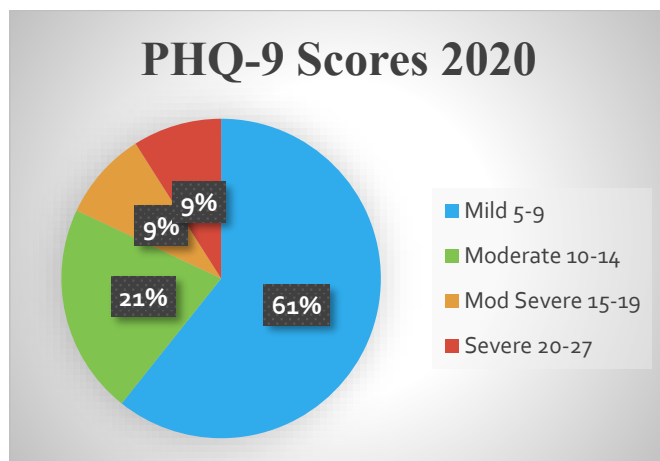


Figure 6. Percent of 2020 Participants rating their PHQ-9 mild, moderate, moderate-severe and severe.

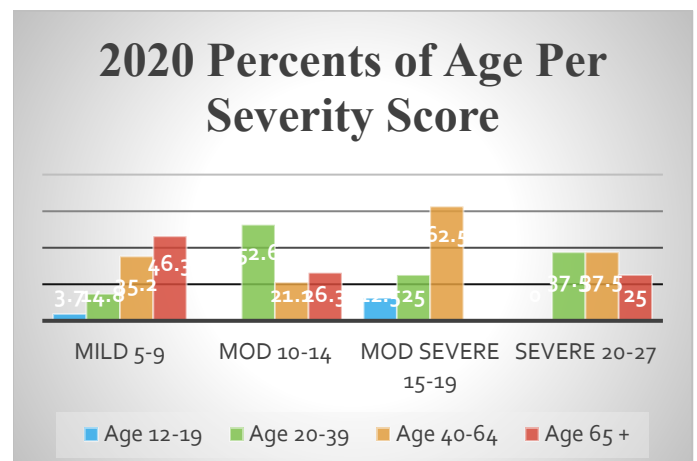


Figure 7. Each category of 2020 PHQ-9 data broken down by age range, showing the percent of each age per category.

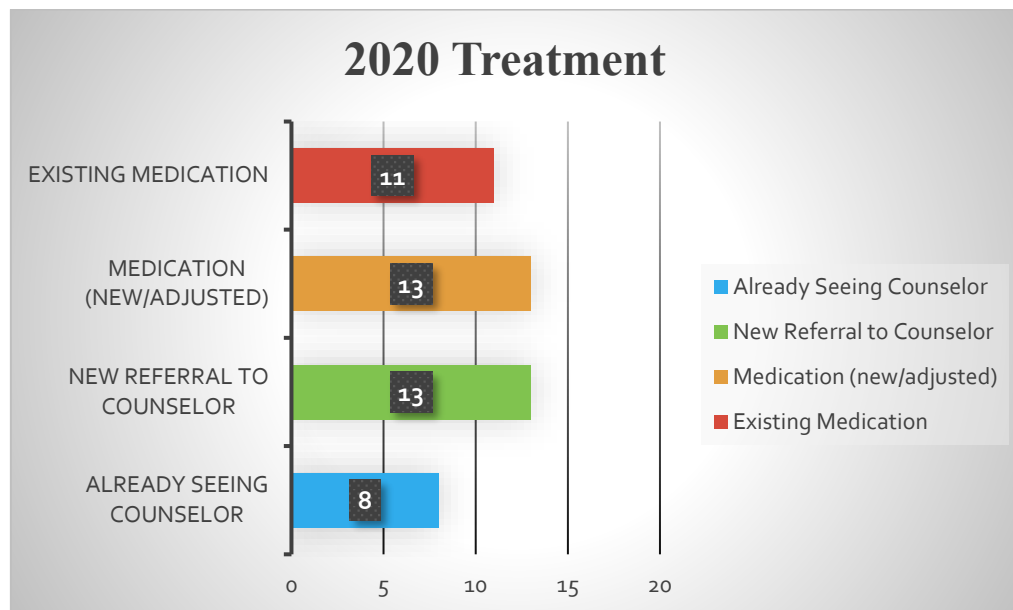


Figure 9. Number of 2020 patients receiving different types of treatment.

Referral rates improved from 12.8% (n=6) in 2019 to 14.6% (n=13) in 2020. Existing medications and new or adjusted medications combined was the most common treatment in both years with 57.4% (n=31) in 2019 and 27% (n=24) in 2020. Poluzzi et al., (2013, pp 2095) states “cooperation between primary care and psychiatrists could decrease antidepressant prescription for cases of sub-threshold or mild depression”.

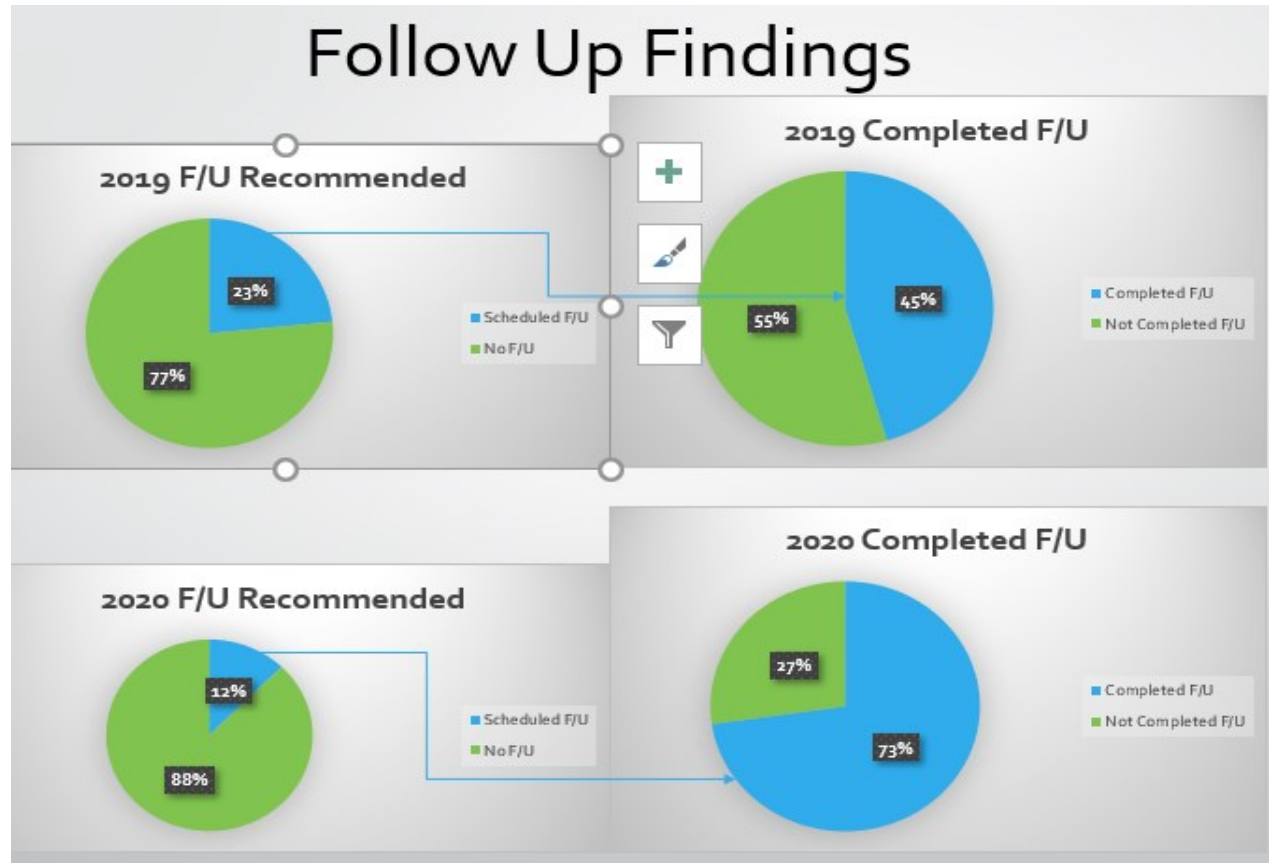


Figure 10. Percent of follow-ups in 2019 & 2020 that were recommend and of those, the percentage that was completed.

Although the number of patients did not change with only 11 patients scheduled for a follow in both years (23% = 11/47 in 2019 and 12% = 11/89 in 2020). Of those in 2020, a great percentage did follow through with completing their follow-up appointment. Completed follow-ups improved from 45.5% (n=5/11) in 2019 to 73% (n= 8/11) in 2020. Two other pieces of the depression template used was one nurse phone call follow-up ordered and completed in 2020 and one C-SSRS was completed on a patient with a severe PHQ-9 rating of 27.

DISCUSSION

In this quality improvement project several interventions were completed such as the implementation of the C-SSRS suicide tool, compiling a list of behavioral health services within the area, implementing a follow-up plan template within the EMR that linked referrals to behavior health services and to schedule follow-ups, implemented a nurse follow-up phone call template and education for all staff regarding the new documentation tools. These interventions were implemented to help standardize the follow-up plan for individuals with depression and create higher quality care. We did find that the overall implementation of the project did improve patient outcomes in referrals to counselors and completed follow-up visits.

The outcomes of seeing a decrease in the percentage of medications used and the increase in referrals to counseling is consistent with the literature, as Poluzzi et al., (2013) does report counseling can be more beneficial for patients with sub-threshold or mild depression. In the increase in mild depression seen in 2020 it is unsure if it is related to an increased awareness of depression opening the door to more conversations with providers or if it is the affects of the 2020 COVID-19 pandemic causing many older adults to be fearful of social interaction leading to isolation and depression.

Regardless the cause we know that the increased educational awareness for providers shows positive outcomes for setting patients up with an adequate follow-up plan (ICSI, 2013; Kroenke, 2010). Setting a patient up with an adequate follow-up plan can lead to increased compliance of medication regimen and utilization of counseling services that prior to a visit with the provider would have been over looked (APA, 2019; Franx et al., 2014; ICSI, 2013; O'Donnell et al., 2013). Together the combination of CBT and medications will be much more effective than with medications alone (ICIS, 2013; Jones et al., 2006; Mullins et al., 2006). As providers we must continue to advocate for counseling services as this is found to be the most beneficial in reframing negative behaviors and thoughts (Vries et al., 2015).

Limitations

Some of the limitations of this study include the sample size of patients where the built-in depression template was used, was a small number (n=11/35). Some providers still provided an adequate follow-up plan manually within the body of their treatment note. Since some providers did not utilize the new templates in the EMR, the data had to be manually reviewed. In review it was found that providers still cared for patients appropriately, just without sole use of the new templates.

Another limitation out of the control of the researcher, is the setting being a rural area with limited access to behavioral health services. Even with a list of available options in the area, there is still not more than four counselors that come to Broken Bow and only on certain days of the week. There were other options listed outside of the community for those that prefer not to see a counseling service in town for fear of a stigma being attached

to them for needing behavioral health services. This limitation concurs with the literature about mental health barriers within rural areas.

Future Implications

For patients with sub-threshold or mild depression rating from 5-9 on the PHQ-9, it is believed that even though a score of this value is not necessary to treat with medication, it is still important to treat. Providers seeing patients that report mild depression should be equipped to coach the patients on positive coping strategies and increasing the awareness of when to seek help if the depression continues to grow. In this project of the patients that increased in 2020 a majority of these patients were only rating a 5-9 on the PHQ-9 but undoubtably that still means the patient is suffering from depression. It would be interesting to see if the trend changes in 2021 as life begins to open back up due to COVID-19 vaccinations and many of those suffering from isolation can begin to enjoy life a little more.

Future steps for this project include continual up keep of the counselor referral list and education to providers on the importance of discussing treatment plans for all degrees of depression. Educating providers on the importance of assessing and treating depression will open the door to more in-depth questions about depression.

As for the template usage by providers, this is another area for improvement that would be recommended if the study was repeated. More education and follow-up with individual providers could improve the awareness and usage of the built-in EMR templates.

CONCLUSION

In summary, this quality improvement project aimed at improving many of the documentation tools within the clinic's EMR for patients with depression. This standardized approach to creating an adequate follow-up plan did show positive patient outcomes with the increase in referral rates to counseling, increase in follow-up visits completed and the usage of the provider and nurse template to complete documentation during patient visits.

The sustainability of this project is in great need for our patient population that continues to have reports of depression. The referral list has been shared electronically with the clinic manager and providers, so edits can be made as new behavioral health services come into the community. It is expected the ACO that the clinic reports their quality measures to, will continue to keep this measure in focus. If the clinic would change their EMR, the templates themselves may have to be rebuilt if found necessary. However, greater emphasis is needed on provider awareness of adequate treatment for depression to help foster a proper follow-up plan.

ACKNOWLEDGMENTS:

There was no funding for this QI project. Thank you goes out to Central Nebraska Medical Clinic for allowing the implementation of this project.

CONFLICTS OF INTEREST

No financial incentive or conflicts of interest related to the work on this QI project.

REFERENCES

Agency on Healthcare Quality and Research. (2008). Screening for Depression in Adults. Retrieved from <https://www.ahrq.gov/prevention/resources/depression/depsum1.html>

- Agency for Health Care Policy and Research. (1993). AHCPR Clinical Practice Guidelines. Guideline: Acute Phase Management with Medication and Psychotherapy. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK52224/#A15903>
- America's Health Rankings.Org. (2019). Suicide rates per state. Retrieved from <https://www.americashealthrankings.org/explore/annual/measure/Suicide/state/NE>
- American Psychological Association (2019). Clinical Practice Guideline for the Treatment of Depression Across Three Age Cohorts: Guideline Development Panel for the Treatment of Depressive Disorders. Retrieved from <https://www.apa.org/depression-guideline/guideline.pdf>
- Beck, A., Crain, A., & Solberg, L. (2011). Severity of depression and magnitude of productivity loss. *Ann Fam Med.* (9) pp. 305-11; Institute for Clinical Systems Improvement, 2013.
- Butow, P., Price, M. A., Shaw, J. M., Turner, J., Clayton, J. M., Grimison P., Rankin, N., & Kirsten, L. (2015). *Clinical pathway for the screening, assessment and management of anxiety and depression in adult cancer patients: Australian guidelines* John Wiley & Sons, Inc. doi:10.1002/pon.3920
- Census Reporter. (2018). Census Reporter – Broken Bow, Nebraska. Retrieved from <https://censusreporter.org/profiles/16000US3106610-broken-bow-ne/>
- Datto, C. J., Thompson, R., Horowitz, D., Disbot, M., & Oslin, D. W. (2003). *The pilot study of a telephone disease management program for depression* doi:10.1016/S0163-8343(03)00019-7
- Eriksson, M. C. M., Kivi, M., Hange, D., Petersson, E., Ariai, N., Häggblad, P., Agren, H., Spak, F., Linblad, U., Johansson, B., & Björkelund, C. (2017). *Long-term effects of internet-delivered cognitive behavioral therapy for depression in primary care – the PRIM-NET controlled trial* Taylor & Francis Ltd. doi:10.1080/02813432.2017.1333299
- Franx, G., Huyser, J., Koetsenruijter, J., van der Feltz-Cornelis, Christina M., Verhaak, P. F. M., Grol, R. P. T. M., & Wensing, M. (2014). *Implementing guidelines for depression on antidepressant prescribing in general practice: A quasi-experimental evaluation* BioMed Central. doi:10.1186/1471-2296-15-35
- Institute for Clinical Systems Improvement. (2013). Healthcare Guideline: Adult Depression in Primary Care. Retrieved from <https://www.icsi.org/guideline/depression/>
- Jha, M. K., Grannemann, B. D., Trombello, J. M., Clark, E. W., Eidelman, S. L., Lawson, T., Geer, T., Rush, A., & Trivedi, M. H. (2019). *A structured approach to detecting and treating depression in primary care: VitalSign6 project* Annals of Family Medicine. doi:10.1370/afm.2418
- Jibson, M. (n.d). Where to from here? Evidence-Based strategies for treatment of refractory depression. Professor of Psychiatry. University of Michigan.
- Jones, L. E., Turvey, C., & Carney-Doebbeling, C. (2006). *Inadequate follow-up care for depression and its impact on antidepressant treatment duration among veterans with and without diabetes mellitus in the veterans health administration* doi:10.1016/j.genhosppsy.2006.08.002
- Kaiser Permanente Medical Care Program. (2012). National Adult Depression Clinical Practice Guideline. Retrieved from http://www.providers.kaiserpermanente.org/info_assets/cpp_cod/cod_depression_guideline_0712.pdf

- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of general internal medicine*, 16(9), 606–613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Kroenke, K., Spitzer, R.L., Williams, J.B. (2003). The Patient Health Questionnaire-2: validity of a two-item depression screener. *Medical Care*, 41:1284–92.
- Kroenke, K., Spitzer, R., Williams, J., & Löwe, B. (2010). The patient health questionnaire somatic, anxiety, and depressive symptom scales: a systematic review. *Gen Hosp Psychiatry* (32) pp. 345-359; Institute for Clinical Systems Improvement, 2013.
- Liu, Z., Yu, Y., Hu, M., Liu, H., Zhou, L., & Xiao, S. (2016). *PHQ-9 and PHQ-2 for screening depression in chinese rural elderly* Public Library of Science. doi:10.1371/journal.pone.0151042
- McDonald KM, Sundaram V, & Bravata DM. Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies (Vol. 7: Care Coordination). Rockville (MD): Agency for Healthcare Research and Quality (US); 2007 Jun. (Technical Reviews, No. 9.7.) 5, Conceptual Frameworks and Their Application to Evaluating Care Coordination Interventions. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK44008/>
- Melham Medical Center. (2019). Community Needs Assessment. Retrieved from <https://irp-cdn.multiscreensite.com/a8c802d4/files/uploaded/2019%20Community%20Needs%20Assessment.pdf>
- Miranda, R., Soffer, A., Polanco-Roman, L., Wheeler, A., & Moore, A. (2015). *Mental health treatment barriers among Racial/Ethnic minority versus white young adults 6 months after intake at a college counseling center* Taylor & Francis Ltd. doi:10.1080/07448481.2015.1015024
- Mullins, C. D., Shaya, F. T., Meng, F., Wang, J., & Bron, M. S. (2006). *Comparison of first refill rates among users of sertraline, paroxetine, and citalopram* doi:10.1016/j.clinthera.2006.02.006
- Mundt, J. C. (2010). *Feasibility and validation of a computer-automated columbia-suicide severity rating scale using interactive voice response technology*. Oxford:
- Na, P. J., Yaramala, S. R., Kim, J. A., Kim, H., Goes, F. S., Zandi, P. P., Vande Voort, J., Sutor, B., Croarkin, P., Bobo, W. V. (2018). *The PHQ-9 item 9 based screening for suicide risk: A validation study of the patient health questionnaire (PHQ)-9 item 9 with the columbia suicide severity rating scale (C-SSRS)* doi:10.1016/j.jad.2018.02.045
- O'Donnell, A. N., Williams, B. C., Eisenberg, D., & Kilbourne, A. M. (2013). Mental health in ACOs: missed opportunities and low-hanging fruit. *The American journal of managed care*, 19(3), 180–184.
- Păsărelu, C. R., Andersson, G., Bergman Nordgren, L., & Dobrean, A. (2017). *Internet-delivered transdiagnostic and tailored cognitive behavioral therapy for anxiety and depression: A systematic review and meta-analysis of randomized controlled trials* Routledge. doi:10.1080/16506073.2016.1231219
- Patten, S. B., Burton, J. M., Fiest, K. M., Wiebe, S., Bulloch, A. G. M., Koch, M., Dobson, K., Metz, L., Maxwell, C., & Jetté, N. (2015). *Validity of four screening scales for major depression in MS* doi:10.1177/1352458514559297
- Pignone, M., Gaynes, B., Rushton, J., Burchell, C., Orleans, T., Mulrow, C., & Lohr, K. (2013). Screening for depression in adults. Agency for Health Research and Quality. Retrieved from: <https://www.ahrq.gov/prevention/resources/depression/depsum1.html>

- Poluzzi, E., Piccinni, C., Sangiorgi, E., Clo, M., Tarricone, I., Menchetti, M., & De Ponti, F. (2013). *Trend in SSRI-SNRI antidepressants prescription over a 6-year period and predictors of poor adherence* doi:10.1007/s00228-013-1567-8
- Posner, K.; Brown, G.K., Stanley, B.; Brent, D.A., Yershova, K.V., Oquendo, M.A., Currier, G.W., Melvin, G.A., Greenhill, L., Shen, S., Mann, J.J. (2011). ["The Columbia-Suicide Severity Rating Scale: initial validity and internal consistency findings from three multisite studies with adolescents and adults"](#). The American Journal of Psychiatry. 168 (12): 1266–77. doi:10.1176/appi.ajp.2011.10111704. PMC 3893686. PMID 22193671.
- Ross, E. L., Vijan, S., Miller, E. M., Valenstein, M., & Zivin, K. (2019). *The cost-effectiveness of cognitive behavioral therapy versus second-generation antidepressants for initial treatment of major depressive disorder in the united states: A decision analytic model* doi:10.7326/M18-1480
- Sadock, E., Perrin, P. B., Grinnell, R. M., Rybarczyk, B., & Auerbach, S. M. (2017). *Initial and follow-up evaluations of integrated psychological services for anxiety and depression in a safety net primary care clinic* John Wiley & Sons, Inc. doi:10.1002/jclp.22459
- Simon, G., Ralston, J., Savarino, J., Pabiniak, C., Wentzel, C., Operskalski, B., Gregory, S., Ralston, J., & Operskalski, B. H. (2011). *Randomized trial of depression follow-up care by online messaging* doi:10.1007/s11606-011-1679-8
- United States Preventive Services Task Force. (2016). Screening for Depression in Adults. US Preventive Services Task Force Recommendation Statement. *JAMA*. Retrieved from <https://uspreventiveservicestaskforce.org/home/getfilebytoken/BnHj53HwgSBNXMvnyavxfS>
- Vries, Y., Jonge, P., Kalverdijk, L., Bos, J., Schuiling-Veninga, C., & Hak, E. (2016). *Poor guideline adherence in the initiation of antidepressant treatment in children and adolescents in the netherlands: Choice of antidepressant and dose* Springer Nature. doi:10.1007/s00787-016-0836-3
- WebMD. (2020). Guide to Psychiatry and Counseling. Retrieved from: <https://www.webmd.com/mental-health/guide-to-psychiatry-and-counseling#2>
- Weir, K. (2019). Worrying trends in U.S. suicide rates. American Psychological Association. Retrieved from <https://www.apa.org/monitor/2019/03/trends-suicide>
- Weobong, B., Weiss, H. A., McDaid, D., Singla, D. R., Hollon, S. D., Nadkarni, A., Park, A.-L., Bhat, B., Katti, B., Anand, A., Dimidjian, S., Araya, R., King, M., Vijayakumar, L., Wilson, G. T., Velleman, R., Kirkwood, B. R., Fairburn, C. G., & Patel, V. (2017). Sustained effectiveness and cost-effectiveness of the Healthy Activity Programme, a brief psychological treatment for depression delivered by lay counsellors in primary care: 12-month follow-up of a randomised controlled trial. *PLoS Medicine*, 14(9), 1–21. <https://doi.org/cuhsl.creighton.edu/10.1371/journal.pmed.1002385>
- Wittkamp, K., Naeije, L., & Schene, A. (2007). Diagnostic accuracy of the mood module of the patient health questionnaire: a systematic review. *Gen Hosp Psychiatry*. (29) pp. 388-95; Institute for Clinical Systems Improvement, 2013.
- World Health Organization. (2020). *Depression*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/depression>