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A Quality Improvement Initiative to Implement the Geriatric Depression Scale in a Geriatric Inpatient Psychiatric Unit

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A QUALITY IMPROVEMENT INITIATIVE TO IMPLEMENT THE GERIATRIC DEPRESSION SCALE IN A GERIATRIC INPATIENT PSYCHIATRIC UNIT

by

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Candice K. Hall

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Abstract

The World Health Organization (2017) estimated that over 300 million people worldwide have depression. According to the Centers for Disease Control and Prevention (2013), 7 million Americans over 65 years old experience depression annually. The United States Preventive Health Services Task Force recommends the use of a depression screening tool in the adult population. The purpose of this evidence-based quality improvement project was to improve screening for depression in an inpatient geriatric psychiatric unit. The primary objectives included educating nursing staff on depression screening and using the geriatric depression scale (GDS) to assess patient's level of depression at admission and discharge. The anticipated outcome was to implement the GDS and increase its usage from 0% to 70% within a 6-week period. Participants included fifty geriatric patients admitted to an inpatient geriatric psychiatric unit. Nurse manager motivation for change was a primary facilitator to the project. Results showed a 72% completion of the GDS at admission and a 34% increase upon discharge. Only 34% of the participants received both admission and discharge depression screening tools. Limitations included nursing staff lack of motivation, lack of committed senior leadership, and overall resistance to change. Staff buy-in is an important factor when implementing change, affecting the success of any project. Therefore, proper assessment of the culture's climate and incorporating staff members in the change process will lead to better outcomes. Recommendations include regular staff-training, motivational interviewing, and developing ready-made admission and discharge packets to include depression screening.

Keywords: Depression, geriatric depression scale, geriatric population, depression screening

Depression is the most common mental health illness found in the geriatric population. It is estimated that 2.6% of the geriatric population experiences a mood disorder (Brown et al., 2014). Depression affects more than 16.1 million Americans yearly (Anxiety and Depression Association of America, 2016). More than 300 million individuals worldwide live with depression; an 18% increase from 2005 to 2015 (World Health Organization, 2017). By 2030, the main cause for disability among the elderly will be due to depression (Anderson, 2015). Between 2004 and 2011, the cost associated with depression in the United States was determined to be $238.8 billion (Egede, Bishu, Walker, & Dismuke, 2016). Depression not only impacts the individual emotionally, but reduces an individual's quality of life, affects personal relationships and increases health care costs (Szanton, Thorpe, & Gitlin, 2014). Due to the under-diagnosis and lack of screening, diagnosis and treatment in the geriatric population has been less than optimal (Brown et al., 2014). It has been found that primary care physicians fail to recognize 30% to 50% of individuals with depression (O'Connor et al., 2016). The aim of this Doctor of Nursing Practice quality improvement (QI) project was to increase the rate of screening for depression in a geriatric inpatient psychiatric unit.

Statement of the Problem

The rate of depression increases with advancing age and has become the most common mental health disorder in the elderly population (Alpert, 2014). Fifteen percent of individuals ages 65 and over carry a diagnosis of depression yet only 10% of these individuals receive treatment for this disorder (Alpert, 2014). Individuals with depression have a higher risk for suicide (Crowder & Kemmelmeier, 2014). The risk for suicide in individuals over 80 is double that of the national average (Alpert, 2014). In the United States, approximately 10,000 elderly individuals die by suicide annually

(Stanley, Hom, Rogers, Hagan, & Joiner, 2015). It is estimated that with every suicide death, there are four elderly individuals who attempt suicide (Stanley et al., 2015).

Background and Significance

According to the United States Prevention Services Task Force screening for depression in adults is recommended (Siu et al., 2016). Screening for depression can support diagnosis, treatments, and follow-up care (Siu et al., 2016). According to the new mental health objectives for depression from Healthy People 2020, early screening for depression is recommended (Alpert, 2014). The Geriatric Depression Scale (GDS), is used as a screening tool in older adults. The GDS is a self-report depression screening tool consisting of 15 yes or no questions (Clinical Quality Measures, 2014). The GDS score has been found to have a high sensitivity of 92% and a specificity of 89% when compared to diagnostic criteria for major depression (Greenberg, 2012). The GDS is available in English and Spanish language. Currently hospitals and clinics nationwide are not required to implement a standardized depression screening tool in older adults (Siu et al., 2016). Lack of screening may lead to an under diagnosis of depression (Siu et al., 2016). With earlier detection and treatment, healthcare costs may be reduced, and patient outcomes may be improved (O'Connor et al., 2016). Inadequate knowledge and the lack of insight about depression and the importance of screening have led to challenges in providing efficient and appropriate care (Lynch, Berg, Manna, & Schade, 2016).

Assessment

The clinical site selected for this DNP project was a 13-bed geriatric inpatient psychiatric unit providing services for males and females over 55 in central Texas. The primary language spoken by the majority of patients was English, although with a minority being bilingual or Spanish-speaking only. The majority of patients were female with the most common diagnosis as

major depressive disorder. The second most common psychiatric diagnosis was schizophrenia. Healthcare professionals providing care included one psychiatrist, two psychiatric mental health nurse practitioners, one social worker/case manager, a nurse manager, and 13 staff members to include registered nurses, licensed vocational nurses, and mental health technicians. A daily treatment program was implemented to provide daily group psychotherapy. However, due to limited staffing, many of these psychotherapy groups were not being offered. Following a needs assessment, it was determined that no depression screening was used, and patients were not receiving education regarding their diagnosis. According to guidelines, it is recommended for adults to receive depression screening (Siu et al., 2016). Additionally, there was no standardized documentation. Staff were documenting symptoms, treatments, and progress in multiple places to include paper charts and the electronic medical record, making it difficult to assess patient progress and treatment. Patient education was lacking, which was dependent on patient admission and discharge dates and staff availability. The limited staff, financial resources, and supplies hindered educating patients about their diagnosis.

Organization's Readiness for Change

To assess the organization's readiness for change, the Practice Improvement Capacity Rating Scale was used (Appendix D). Interviews were conducted using the scale with the nurse manager, nurses including registered nurses and licensed vocational nurses, and the social worker/case manager of the geriatric psychiatric inpatient unit. The results of the scale were informative in revealing the lack of interest that the unit has for new initiatives, policies and procedures. Barriers noted a lack of committed senior leadership to support quality improvement projects, no designated compliancy officer to conduct QI projects, no current QI team in place, and the limited time and budget to perform projects. The staff showed mixed support for change

and quality improvement initiatives. Of those interviewed, the nurse manager appeared to be the most motivated for change.

Project Identification

Purpose

The purpose of this evidence-based quality improvement project was to increase the rate of screening for depression in a geriatric psychiatric inpatient acute care setting by implementing the use of the (GDS). Additionally, the purpose was to educate providers and staff on the purpose and use of the GDS and educate patients on their depression.

Objectives

Objectives for the project included: education of staff regarding the rationale and purpose of depression screening; assessment of the patient's level of depression; and education of patients regarding their diagnosis of depression.

Anticipated Outcomes

By March 2018, educate 100% of nursing staff on depression screening and the GDS. By March 2018, increase the screening rate of depression using the GDS at both admission and discharge of the geriatric inpatient psychiatric patients from 0% to 70%. By March 2018, increase the rate of education from 0% to 70% by providing an educational handout.

Summary and Strength of the Evidence

Current guidelines recommend screening for depression in adults. The U.S Preventive Services Task Force suggests implementing adequate systems to ensure accurate diagnosing, effective treatment options, and follow-up care when screening for depression (U.S. Preventive Services Task Force, 2018). The Veterans Affairs and Department of Defense clinical practice guidelines recommend annual screening for depression (U.S. Department of Veterans

Affairs, 2018). Furthermore, the guidelines recommend frequent screening for individuals with congestive heart failure and chronic medical illness, including the geriatric population (U.S. Department of Veterans Affairs, 2018). A systematic evidence review identified barriers to improvement implementation in an organization. The review concluded that staff education is necessary to create stakeholder buy-in, improve motivation, and support for qualitive improvement initiatives (O'Connor et al., 2016). Depression impacts the elderly population significantly, accounting for 13% of the elderly over the age of 80, 8-16% of community dwelling elders, 5-10% of medical outpatients, and 10-12% of the medical-surgical elderly patients (Greenberg, 2012). A level II study found that out of the 1,027 elderly individuals assessed, those with depression exhibited more characteristics of frailty and a faster progression to death (Brown et al., 2014). Depression has been linked to a 20-fold increase in the risk of suicide and is seen in 59-87% of suicides (Mewton & Andrews, 2015). A level II study comparing suicides among individuals who received screening to those who did not, found that with screening, a greater number of patients with depression were identified and engaged in treatment, decreasing the suicide rate by 48% (Oyama & Sakashita, 2016). Annually, the economic significance of depression accounts for $43 billion and $17 billion in lost work days (Agency for Healthcare Research and Quality, 2013). Between 2005 and 2010, the economic burden related to depression rose by 21.5% (Egede et al., 2016). The economic cost of depression is due to lost productivity, absenteeism, and working while sick (Cocker et al., 2014). Individuals who continue to work while depressed accounted an 80% loss in production with an estimated cost of 35.7 billion dollars annually (Cocker et al., 2014). The total estimated cost of depression in 2010 was $21.5 billion (Egede et al., 2016). Much of the cost can be attributed to direct medical costs, accounting for 50% of the overall costs

(Egede et al., 2016). In a level II study, investigators found that 50% to 80% of poststroke depression cases were undetected (McIntosh, 2017). Individuals with co-morbid medical illnesses may also have a higher risk in developing depression. Thirty-three percent of the 2.3 million individuals who survive a stroke will go on to develop depression (McIntosh, 2017). Approximately 33% of stroke survivors will experience depression (McIntosh, 2017). A prospective cohort study evaluated the effects of depression on recovery in geriatric patients (Shahab, Nicolici, Tang, Katz, & Mah, 2017). The study found that the GDS-15 is beneficial in accessing geriatric functional ability, disability, pain, cognition, and educational level (Shahab et al., 2017). The short form 15-item GDS will be used to measure depression (see Appendix B). Of the 15 item yes/no questions, 10 questions when answered positively indicate depression, while the other five questions when answered negatively indicate depression (Greenberg, 2012). Scores range from 0 to 15, 0 indicating no depression while 15 indicates severe depression (Greenberg, 2012). Completion of the screen takes approximately five to seven minutes to complete the scale (Greenberg, 2012). The scale has seen to be effective in differentiation of depressed versus non-depressed individuals ($r = .84$, $p < .001$) (Greenberg, 2012). The GDS can be used in all clinical settings. Overall, the geriatric depression scale has shown to be one of the most validated tools to screen depression in geriatric patients (Anderson, 2015). The GDS is clear and concise. Multiple studies have concluded that the scale has a good sensitivity and specificity rating. In a level II study, 121 outpatient clients with depression were assessed over 6 months; the results showed that with a longer period of not treating depression, the higher the risk for experiencing persistent depression symptoms (Ghio et al., 2015). Based on a study assessing the elderly patients' satisfactory level with a screening tool, the results showed 72.4% of the patients wanted to be screened at least yearly (Samuels et al., 2014). Depression

can be managed when detected and treated in a timely manner. Educating the elderly patients and implementing a depression screening tool are easy to use tools that can improve patient outcomes. Screening for depression can support proper diagnosis and treatment, thus reducing the risk for physical, cognitive, and functional impairments and improve the quality of life for individuals in an inpatient geriatric psychiatric setting (Greenberg, 2012).

Methods

Project Intervention

This quality improvement project was implemented between January 22, 2018 to March 3, 2018. With the assistance of staff, aggregate data to include demographics and diagnoses was collected on patients admitted to the geriatric inpatient psychiatric unit. The GDS was utilized to measure the patient's level of depression upon admission to the inpatient psychiatric unit and at discharge from January 2018 to March 2018. The inpatient acute psychiatric unit nursing staff was educated on the rational of the project in use of the GDS. The training was conducted at a staff meeting on January 18, 2018. The staff was educated on the purpose of the project, the objectives and interventions, and how to perform and implement the interventions. Staff education was evaluated using a sign-in sheet at the time of training which was then placed in each staff's unit compliancy folder. The training agenda and content was provided in a handout to staff, which is included in Appendix A. Individual staff teaching sessions were provided for further staff understanding throughout the project implementation. Following training of the staff, the go-live date for implementing the GDS occurred on January 22, 2018. On that day, initially the screenings were reserved for admissions. Both English and Spanish versions were administered depending on the patient's primary language. Each participant was administered the fifteen question GDS version. Depending on the patient's cognitive capacity, assistance from the

admitting and discharging nursing staff was available. Admission administration and completion rates were tracked by collecting the completed GDS forms from both the day shift and night shift nurses. This method was also used for tracking purposes of discharge administration of the GDS. The intervention tracked the rate of the nursing staff administering the GDS screening tool. The weekly collection of the GDS forms were documented on a de-identified excel spreadsheet on the DNP student's password protected laptop. A depression education handout was distributed to the participants at the time of admission. The education handout was supplied with the GDS at this time. The depression handout was attained from the organizations intranet, CERNER. This database provides various resources such as educational handouts for patients about multiple diseases and illnesses. The handouts are available in English and Spanish. The depression handout was specific to major depression, describing what it is, interventions to manage the symptoms, and when to seek help (see Appendix C). The admitting nursing staff discussed and educated the participants about the handout. The DNP student collected the results and presented the findings to the psychiatric unit staff.

Setting

The quality improvement project was conducted at an acute inpatient geriatric psychiatric unit located in central Texas. At this unit, patients receive mental health care, pharmacological interventions, and counseling services. Between September 2017 and October 2017, 52% of the patients were diagnosed with major depressive disorder. The unit is a 13-bed unit delivering care based on the patient-centered care concept. Patients participate in weekly treatment team meetings with their care team to monitor the patient's progress during their stay.

Population

Participants in this quality improvement project were patients who received mental health

services at a central Texas inpatient psychiatric unit between January 2018 and March 2018. Patients who were eligible to participate included the following:

- admission to the geriatric inpatient acute psychiatric unit;
- age 55 years old or older;
- possessing the ability to follow verbal and written instruction; and
- fluency and comprehension in English and/or Spanish language.

Patients who were not eligible to participated included the following:

- having a lack of cognitive ability to complete the GDS either written or with verbal prompting.

Organizational Barriers

In general, the staff members and leadership were receptive to implementing the proposed project. However, there were some barriers that hindered the process of implementing the proposed interventions. Per the Practice Improvement Capacity Rating Scale interview results, the unit's organizational barriers reflected the lack of committed senior leadership, lack of investment and interest in quality improvement projects by staff, and the limited resources and finances available (see Appendix D). Resistance to change was evidenced by the lack of staff involvement in previous implementations of quality improvement projects. The staff reported that patients' resistance was a barrier. A patient's cognitive ability, patient acuity, and desire to participate in the proposed interventions were essential for implementation. Given the exclusion criteria, patients who have the inability to complete the GDS were not included in the project.

Organizational Facilitators

The organization's main purpose is to provide compassionate high-quality care to their patients. The driving force that facilitated the implementation of the QI project was the staff and

leaderships shared culture and responsibility in meeting patient goals and ensuring patient safety. The unit psychiatrist was committed and engaged in implementing the proposed interventions. The psychiatrist fully supported the project as it was a future planned intervention that was planned. With this proposed intervention, the nurse manager was hoping to recognize beneficial treatments in improving patient depression and patient health outcomes. The unit is a 13-bed unit, possibly making pertinent data to be easily attained and collected. Additionally, the nursing staff was fully educated on caring for Spanish speaking patients, providing all admitted patients the opportunity to participate in this quality improvement project.

Ethical Considerations

The QI project exhibited limited risk and minimal harm to the participants. The safeguards included the project being completed in a secure psychiatric unit and the unit staff being available to provide emotional support for the participants throughout the implementation. Patients were able to decide if they wanted to participate in the QI project. An initial needs assessment was conducted to identify unit needs and improvements and to identify the data collection strategy. Patient data remained confidential, using no personal information or identification when accessing patient records and collecting data. Demographic data that was gathered included gender, age, diagnosis, and race/ethnicity. Using CERNER electronic health record system and patient paper charts, the collected patient information was identified and used to analyze the findings to develop aggregate data. The participants were de-identified by assigning each participant with a number. Only the DNP student and mentor had access to the participant's information and collected data. The DNP student and mentor collected this data through the password-protected electronic medical records system. To ensure patient confidentiality and protection, per the Health Insurance Portability and Accountability Act, the

participants personal data was secured and stored in the mentor's locked office. Prior to implementation, the University of the Incarnate Word Institutional Review Board (IRB), reviewed the proposed project to ensure compliancy. The IRB was exempt due to no direct patient care involvement and patient informed consents were not necessary.

Results

Prior to implementing the evidence-based quality improvement project, unit staff were educated on the project objectives. A sign-in sheet captured 100% of staff members attending the educational training that was provided the week prior to implementation. There was a total of 50 participants for this QI project. Table 1 illustrates the categorial demographics of the participants. There were 28 women (56%) and 22 men (44%) in the sample of patients who were admitted to the inpatient psychiatric unit from January 22, 2018 to March 3, 2018. The ages of the patients ranged from 55 to 89 years, with the average mean age of 66.6 years. The standard deviation of the distribution was 8.3 years.

Table 1

Demographic and Clinical Characteristics of Participants

Characteristic	Total Sample N=50
Patient Characteristics	
Age, mean (SD)	66.6 (8.3)
Gender, *n* (%)	
Male	22 (44)
Female	28 (56)
Ethnic group, *n* (%)	
White, non-Hispanic	25 (50)
Black	5 (10)
Hispanic	20 (40)
Asian	0 (0)
American Indian or Alaskan	0 (0)
Native	0 (0)

The total number of depression screening tools that were completed upon patient

admission was 36 (72%). The desired goal was achieved. This correlated with 72% of the patients receiving the major depression handout on admission. Upon discharge, only 17 (34%) GDS screens were completed, failing to reach the desired outcome of 70%. There were five (10%) of patients that were unable to complete the GDS due to cognitive impairment, as evidenced by the nurse documenting "unable to answer questions." One patient (0.2%) refused to complete the GDS. A secondary analysis identified that of these participants, only 17 received the GDS on admission and at discharge. A one-sample test was created to assess the 17 participants who received the admission and discharge depression screening tools. Table 2 illustrates the participants at admission having a significantly higher score with a mean of 7.82 than at discharge with a mean of 4.53.

Table 2

Results of One-Sample Test for the Patients Who Received Pre and Post-Intervention

Group	*n*	M (*SD*)	95% CI		*t* (df)	Sig. (2-tailed)
			LL	UL		
Pre-Score	17	7.82 (4.9)	5.28	10.36	6.5(16)	.000
Post Score	17	4.53 (3.6)	2.67	6.39	5.4(16)	.000

Note. CI = confidence interval; LL = lower limit, UL = upper limit

After implementation of the project, 71% of the nursing staff completed a survey that assessed the feasibility and overall success in implementing the GDS tool at the unit. Many staff nurses expressed the overall ease in understanding, completing, and calculating the patient's depression score. Some staff expressed minor difficulty in completing the screening tool with cognitively impaired patients and patients who refused.

Discussion

The aim of the QI project was to implement a depression screening tool in an inpatient

geriatric psychiatric unit. It was implemented by educating staff on the GDS, distributing depression handouts to admitting patients, and completing the GDS upon admission and discharge. After completion of the QI project, the data collected exhibited positive results. Educating the staff on the GDS, distributing depression handouts, and completing the GDS upon admission achieved their desired goals of, 100%, 72%, 72%, respectively. However, completing the depression screening tool upon patient discharge increased to 34%, unable to reach the desired goal of 70%. Potential explanations for failing to achieve this goal were identified. Patient demographics impacted the completion of the GDS upon admission and discharge. Approximately 10% of patients during the QI project who were admitted to the inpatient psychiatric unit were unable to complete the GDS individually or with assistance from the nursing staff. Cognitive impairments, including impaired orientation, delirium, severe dementia, and psychosis, hindered patient participation in completing the screening tool and using the major depression handout. In upcoming studies, it is imperative to identify ways in assessing depression in cognitively impaired patients. Staff reported an understanding in using and implementing the GDS in the inpatient psychiatric unit at the time of staff education. However, data identified a significant difference between GDS completion rates amongst day shift and night shift staff. Figure 1 illustrates the percent of completion and non-completion of the GDS upon patient admission and discharge amongst the two shifts. The results show that day shift nurses screened the majority of patients during admission and discharge. These findings can be represented due to the DNP student's presence on day shift, motivating staff to complete depression screenings. Nursing staff were asked to complete a survey upon QI project completion. Staff verbalized the feasibility in directing patients to complete the screening tool. Also, calculating the GDS score for each patient was not complicated for the assigned nurses.

The staff suggested further understanding and an overall unit decision as to where to document the scores and place the completed GDS at. Uniform consistency will have to be addressed for easy access to patient depression scores, so providers can assess and address them.

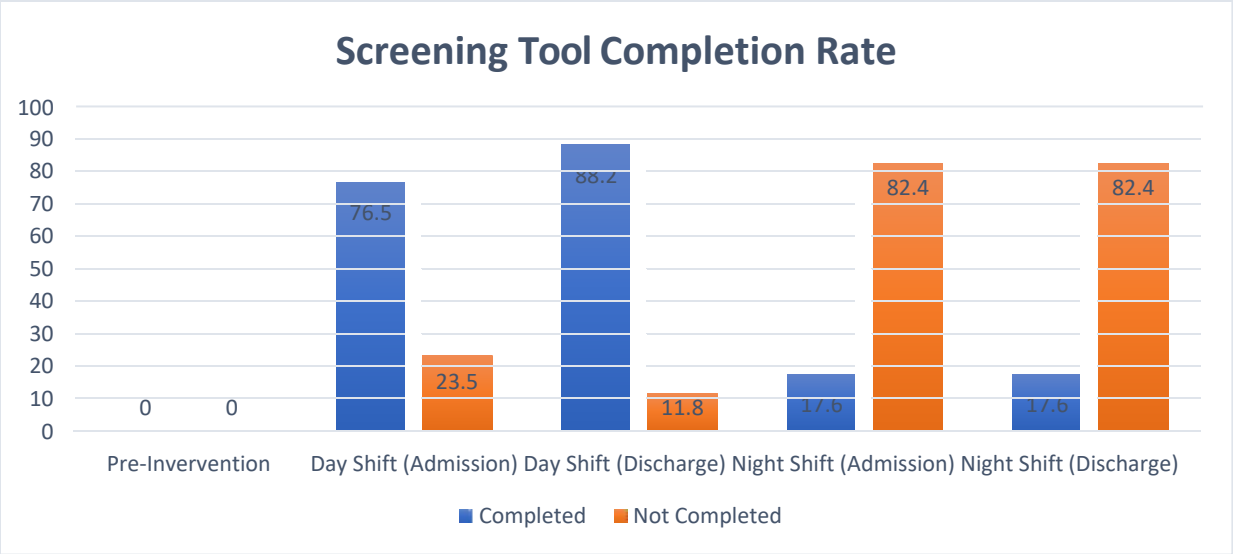

Figure 1. Nursing staff depression screening tool completion rates.

Even though the GDS screening rate upon patient discharge did not achieve its anticipated goal of 70% implementation, the overall QI project was successful. Some challenges were identified during implementation. Nursing staff consistency and readiness for change impacted the overall success of the project. Throughout the project, the nurses showed an overall lack of motivation and enthusiasm. The nursing staff appeared overloaded with tasks and reported frustration in which task had the highest priority. Throughout project implementation, there was resistance to change by the nurses due to being complacent in their daily routine. Limited nursing staff were willing to participate in the project. The DNP student conducted detailed explanations about the QI initiative throughout the implementation process. Signs were placed near the screening tool to continue informing staff to use the GDS tool during patient

admission and discharge. Additionally, staff discharge routine limited the overall GDS completion upon patient discharge. Upon discharge, nursing staff were occupied in discharging the patient rather than completing the GDS. This impacted the overall rate of success of the project. The main healthcare organization dictates the budget and with limited key team members and collaboration, resources are not being provided. The current projects that have been implemented are to improve current processes to comply with practices and national benchmarks such as the Texas Administration Code, the Joint Commission, the Centers for Medicare and Medicaid Services, and hospital policies. Recent changes in the organization and stakeholders will limited the engagement in this quality improvement project. One of these changes included the longtime CEO stepping down. The organization's plan is to begin a refreshment process to ensure that the board and its shareholder's interests are protected and executed effectively. The DNP student identified strengths of the QI project. The providers acknowledged the importance of having a screening tool, such as the GDS, to access and monitor the patient's depression level upon admission and discharge. The majority of patients were actively engaged in completing the scale and receiving the major depression handout. Even though there were a limited number of Spanish speaking staff members, the GDS is available in Spanish for the Spanish speaking patient population. The QI project was easily understood by staff, quick and easy to administer, providing pertinent patient data. The GDS screening tool is free and easily attainable. The results of this QI project closely compared to Heidenblut and Zank's (2014) study suggesting the significance in using the GDS as a useful screening scale to improve detection of depressive symptoms in clinical practice. Both studies evaluated participates with minor to severe depression and cognitively impaired. The findings suggest that additional resources must be used to accurately assess depression in individuals who are

cognitively impaired. Both studies were limited due to screening by oral interviewing and patient self-reporting.

Limitations

A limitation of the QI project included the relatively small sample size. The sample size of only 50 patients limited the amount of data extracted from the analysis, limiting results and overall evidence of effectiveness of the GDS. The lack of committed senior leadership hindered the success of the project. With the lack of leadership project reinforcement, the nursing staff had an overall lack of project investment. Findings of the study identified staff ambivalence, lack of motivation, and readiness for change. Additionally, staff complacency in their daily routine impacted the overall success of the project.

Recommendations

Findings from this quality improvement project suggest that by addressing negative barriers, sustainability of the project can be successful. The results of the study suggest the importance of regular staff-training to ensure staff understanding of the use and the applicability of the GDS. Further staff teaching about the importance of depression screening, the impact on patient outcomes, and meeting national accreditation guidelines and recommendations may further improve the likelihood of project sustainability. Continuous assessment of staff adherence towards new interventions can further succeed completion rates of the GDS. Additionally, developing ready-made admission and discharge packets to include the GDS and depression education handouts may improve the rate of completion by nursing staff upon patient admission and discharge. To continue implementation of the GDS at the inpatient psychiatric unit, the organization must make the screening tool easily accessible for staff. Access to the GDS in English and Spanish will furthermore improve completion rates. Other populations that may

benefit from the implementation of a GDS would be geriatric patients in outpatient services, assisted living, and or nursing homes.

Implications for Practice

To improve identification of depression, health care professionals can use an assessment tool to help assess depression. The use of a standardized assessment tool is an effective way to assess depression and aid in identifying depression in the elderly population. The GDS has been recognized as a validated tool in screening for depression in the geriatric population. The findings of this evidence-based QI project determined that a screening tool, such as the self-assessment tool (GDS), was an effective way in assessing patient depression. Staff buy-in is an important factor when implementing change, affecting the success of any project. Therefore, proper assessment of the culture's climate and incorporating staff members in the change process will lead to better outcomes. Regular staff education on mental health illnesses can improve knowledge and understanding when providing care to patients. Policy development and compliancy to national requirements and guidelines can improve patient outcomes. Lastly, the organization should implement quality measures that are sustainable to ensure the continuation of delivery quality care and meeting patient needs. Doctorally-prepared nurse practitioners (DNP-NPs) have the knowledge of designing, implementing, and evaluating appropriate psychiatric treatment interventions for an organization. DNP-NPs can implement change, assess the organizational climate, and improve the quality of care delivered to patients. DNP-NPs can research and integrate evidence-based practices, such as implementing a depression screening tool to promote healthcare improvements. DNP-NPs perform as quality improvement leaders and design trainings to enhance staff knowledge on depression screening. The DNP-NPs have the knowledge and resources to proactively develop QI initiatives to implement recommended

healthcare requirements. Additionally, the DNP-NPs can practice in areas of specialization to develop and implement policies that improve assessing patient depression.

References

Agency for Healthcare Research and Quality (2013). Screening for depression in adults Retrieved from https://www.ahrq.gov/professionals/clinicians-providers/resources/depression

Alpert, P. T. (2014). Depression makes the golden years not so golden. *Home Health Care Management & Practice*, *26*(3), 182-185

Anderson, D. (2015). Depression: to screen or not to screen?. *Age and Aging. (44).* 728-729

Anxiety and depression association of American (2016). Retrieved from https://adaa.org/about-adaa/press-room/facts-statistics

Brown, P. J., Roose, S. P., Fieo, R., Liu, X., Rantanen, T., Sneed, J. R., ... & Avlund, K. (2014). Frailty and depression in older adults: a high-risk clinical population. *The American Journal of Geriatric Psychiatry*, *22*(11), 1083-1095

Centers for Disease Control and Prevention (2013). Depression. Retrieved from https://www.cdc.gov/mentalhealth/data_stats/depression.htm

Clinical Quality Measures (2014). Adult recommended core measures. Center for Medicare & Medicaid Services. Retrieved from www.cms.gov

Cocker, F., Nicholson, J. M., Graves, N., Oldenburg, B., Palmer, A. J., Martin, A., ... & Sanderson, K. (2014). Depression in working adults: comparing the costs and health outcomes of working when ill. *PloS one*, *9*(9), e105430

Crowder, M. K., & Kemmelmeier, M. (2014). Untreated depression predicts higher suicide rates in US honor cultures. *Journal of cross-cultural psychology*, *45*(7), 1145-1161

Egede, L. E., Walker, R. J., Bishu, K., & Dismuke, C. E. (2016). Trends in costs of depression in adults with diabetes in the United States: Medical Expenditure Panel Survey, 2004–2011. *Journal of general internal medicine*, *31*(6), 615-622

Greenberg, S. A. (2012). The geriatric depression scale (GDS). *Best Practices in Nursing Care to Older Adults*, *4*(1), 1-2

Ghio, L., Gotelli, S., Cervetti, A., Respino, M., Natta, W., Marcenaro, M., ... & Murri, M. B. (2015). Duration of untreated depression influences clinical outcomes and disability. *Journal of affective disorders*, *175*, 224-228

Heidenblut, S., & Zank, S. (2014). Screening for Depression with the Depression in Old Age Scale (DIA-S) and the Geriatric Depression Scale (GDS15). *GeroPsych*, 27(1), 41-49

Lynch, J. R., Berg, S. T., Manna, J., & Schade, C. P. (2016). Making a Dent in Undiagnosed and Untreated Depression among Older West Virginians. *The West Virginia medical journal*, *112*(3), 60-66

Mewton, L., & Andrews, G. (2015). Cognitive behaviour therapy via the internet for depression: a useful strategy to reduce suicidal ideation. *Journal of affective disorders*, *170*, 78-84

McIntosh, C. (2017). A depression screening protocol for patients with acute stroke: a quality improvement project. *Journal of Neuroscience Nursing*, *49*(1), 39-48

O'Connor, E., Rossom, R. C., Henninger, M., Groom, H. C., Burda, B. U., Henderson, J. T., ... & Whitlock, E. P. (2016). Screening for depression in adults: An updated systematic evidence review for the U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality (US); 2016 Jan

Oyama, H., & Sakashita, T. (2016). Long-term effects of a screening intervention for depression on suicide rates among Japanese community-dwelling older adults. *The American Journal of Geriatric Psychiatry*, *24*(4), 287-296

Samuels, S., Abrams, R., Shengelia, R., Reid, M. C., Goralewicz, R., Breckman, R., ... & Eimicke, J. P. (2015). Integration of geriatric mental health screening into a primary care practice: a patient satisfaction survey. *International journal of geriatric psychiatry*, *30*(5), 539-546

Shahab, S., Nicolici, D. F., Tang, A., Katz, P., & Mah, L. (2017). Depression predicts functional outcome in geriatric inpatient rehabilitation. *Archives of physical medicine and rehabilitation*, *98*(3), 500-507

Siu, A. L., Bibbins-Domingo, K., Grossman, D. C., Baumann, L. C., Davidson, K. W., Ebell, M., ... & Krist, A. H. (2016). Screening for depression in adults: US Preventive Services Task Force recommendation statement. *Jama*, *315*(4), 380-387

Stanley, I. H., Hom, M. A., Rogers, M. L., Hagan, C. R., & Joiner Jr, T. E. (2016). Understanding suicide among older adults: a review of psychological and sociological theories of suicide. *Aging & mental health*, *20*(2), 113-122

Szanton, S. L., Thorpe Jr, R. J., & Gitlin, L. N. (2014). Beat the Blues decreases depression in financially strained older African-American adults. *The American Journal of Geriatric Psychiatry*, *22*(7), 692-697

U.S. Preventive Services Task Force (2018). Depression in adults screening. Retrieved from https://www.uspreventiveservicestaskforce.org/

U.S. Veterans Department of Veterans Affairs (2018). VA/DoD clinical practice guidelines. Retrieved from https://www.healthquality.va.gov/

World Health Organization (2017). Retrieved from http://www.who.int/mediacentre/factsheets/fs369/en

Appendix A: Staff Education Training

Who: Acute inpatient psychiatric unit nursing staff (to include RNs, LVNs, mental health technicians)

When: Monthly staff meeting

Where: Acute inpatient psychiatric unit employee conference room

What: Project Proposal

a.) Purpose of the project

1. Increase the primary rate of administration of the GDS at time of admission and at discharge
2. Track the level of depression from time of admission to time of discharge

b.) Interventions

1. At admission, administering the geriatric depression scale to participants
    a. Completed GDS will be placed in participant's paper chart
2. At admission, distribute depression handout to participants
3. At discharge, administering the geriatric depression scale to participants
    a. GDS will be placed in participant's paper chart
4. At discharge, have participant complete evaluation survey of the GDS

Why: Educate staff on proposed project to successfully implement the interventions

Appendix B: Geriatric Depression Scale (15-question version)

Geriatric Depression Scale: Short Form

Choose the best answer for how you have felt over the past week:

1. Are you basically satisfied with your life? YES / **NO**
2. Have you dropped many of your activities and interests? **YES** / NO
3. Do you feel that your life is empty? **YES** / NO
4. Do you often get bored? **YES** / NO
5. Are you in good spirits most of the time? YES / **NO**
6. Are you afraid that something bad is going to happen to you? **YES** / NO
7. Do you feel happy most of the time? YES / **NO**
8. Do you often feel helpless? **YES** / NO
9. Do you prefer to stay at home, rather than going out and doing new things? **YES** / NO
10. Do you feel you have more problems with memory than most? **YES** / NO
11. Do you think it is wonderful to be alive now? YES / **NO**
12. Do you feel pretty worthless the way you are now? **YES** / NO
13. Do you feel full of energy? YES / **NO**
14. Do you feel that your situation is hopeless? **YES** / NO
15. Do you think that most people are better off than you are? **YES** / NO

Answers in **bold** indicate depression. Score 1 point for each bolded answer.

A score > 5 points is suggestive of depression.
A score ≥ 10 points is almost always indicative of depression.
A score > 5 points should warrant a follow-up comprehensive assessment.

Source: http://www.stanford.edu/~yesavage/GDS.html
This scale is in the public domain.

The Hartford Institute for Geriatric Nursing would like to acknowledge the original author of this Try This, Lenore Kurlowicz, PhD, RN, CS, FAAN, who made significant contributions to the field of geropsychiatric nursing and passed away in 2007.

Appendix C: Major Depression Education Handout

NORTHEAST
BAPTIST HOSPITAL
Passionate people. Compassionate care.

8811 Village Drive
San Antonio, Texas 78217-5440
210/297-2000

Major Depression

What is depression?

Depression is a serious mood disorder that affects your whole body including your mood and thoughts. It touches every part of your life. It's important to know that depression is not a weakness or character flaw. It's a chemical imbalance in your brain that needs to be treated.

If you have one episode of depression, you are at risk of having more throughout life. If you don't get treatment, depression can happen more often and be more serious.

What causes depression?

Depression is caused by an imbalance of brain chemicals. Other factors also play a role. It also tends to run in families. Depression can be triggered by life events or certain illnesses. It can also develop without a clear trigger.

What are the symptoms of depression?

While each person may experience symptoms differently, these are the most common symptoms of depression:

- Lasting sad, anxious, or "empty" mood
- Loss of interest in almost all activities
- Appetite and weight changes
- Changes in sleep patterns, such as inability to sleep or sleeping too much
- Slowing of physical activity, speech, and thinking OR agitation, increased restlessness, and irritability
- Decreased energy, feeling tired or "slowed down" almost every day
- Ongoing feelings of worthlessness and/or feelings of undue guilt
- Trouble concentrating or making decisions
- Repeating thoughts of death or suicide, wishing to die, or attempting suicide (**Note:** This needs emergency treatment)

If you have 5 or more of these symptoms for at least 2 weeks, you may be diagnosed with depression. These feelings are a noticeable change from what's "normal" for you.

The symptoms of depression may look like other mental health conditions. Always see a healthcare provider for a diagnosis.

How is depression diagnosed?

Depression can happen along with other medical conditions. These include heart disease, or cancer, as well as other mental health conditions. Early diagnosis and treatment is key to recovery.

A diagnosis is made after a careful mental health exam and medical history done. This is usually done by a mental health professional.

How is depression treated?

Treatment for depression may include one or a combination of the following:

- **Medicine.** Antidepressants work by affecting the brain chemicals. Know that it takes 4 to 6 weeks for these medicines to have a full effect. Keep taking the medicine, even if it doesn't seem to be working at first. Never stop taking your medicine without first talking to your healthcare provider. Some people have to switch medicines or add medicines to get results. Work closely with your healthcare provider to find treatment that works for you.
- **Therapy.** This is most often cognitive behavioral and/or interpersonal therapy. It focuses on changing the distorted views you have of yourself and your situation. It also works to improve relationships, and identify and manage stressors in your life.
- **Electroconvulsive therapy (ECT).** This treatment may be used to treat severe, life-threatening depression that has not responded to medicines. A mild electrical current is passed through the brain. This triggers a brief seizure. For unknown reasons, the seizures help restore the normal balance of chemicals in the brain and ease symptoms.

With treatment, you should feel better within a few weeks. Without treatment, symptoms can last for weeks, months, or even years. Continued treatment may help to prevent depression from appearing again.

Depression can make you feel exhausted, worthless, helpless, and hopeless. It's important to realize that these negative views are part of the depression and do not reflect reality. Negative thinking fades as treatment begins to take effect. Meanwhile, consider the following:

- Get help. If you think you may be depressed, see a healthcare provider as soon as possible.
- Set realistic goals in light of the depression and don't take on too much.
- Break large tasks into small ones. Set priorities, and do what you can as you can.
- Try to be with other people and confide in someone. It's usually better than being alone and secretive.
- Do things that make you feel better. Going to a movie, gardening, or taking part in religious, social, or other activities may help. Doing something nice for someone else can also help you feel better.

- Get regular exercise.
- Expect your mood to get better slowly, not right away. Feeling better takes time.
- Eat healthy, well-balanced meals.
- Stay away from alcohol and drugs. These can make depression worse.
- It is best to delay important decisions until the depression has lifted. Before deciding to make a big change --change jobs, get married or divorced -- discuss it with others who know you well and have a more objective view of your situation.
- Remember: People don't "snap out of" a depression. But they can feel a little better day-by-day.
- Try to be patient and focus on the positives. This may help replace the negative thinking that is part of the depression. The negative thoughts will fade as your depression responds to treatment.
- Let your family and friends help you.

When to call your healthcare provider

If you have 5 or more of these symptoms for at least 2 weeks, call your healthcare provider:

- Lasting sad, anxious, or "empty" mood
- Loss of interest in almost all activities
- Appetite and weight changes
- Changes in sleep patterns, such as inability to sleep or sleeping too much
- Slowing of physical activity, speech, and thinking OR agitation, increased restlessness, and irritability
- Decreased energy, feeling tired or "slowed down" almost every day
- Ongoing feelings of worthlessness and/or feelings of undue guilt
- Trouble concentrating or making decisions
- Repeating thoughts of death or suicide, wishing to die, or attempting suicide (**Note:** This needs emergency treatment)

Key points about depression

- Depression is a serious mood disorder that affects your whole body including your mood and thoughts.
- It's caused by a chemical imbalance in the brain. Some types of depression seem to run in families.
- Depression causes ongoing, extreme feelings of sadness, helplessness, hopeless, and irritability. These feelings are usually a noticeable change from what's "normal" for you, and they last for more than two weeks.
- Depression may be diagnosed after a careful psychiatric exam and medical history done by a mental health professional.
- Depression is most often treated with medicine or therapy, or a combination of both.

Next steps

Tips to help you get the most from a visit to your healthcare provider:

- Know the reason for your visit and what you want to happen.
- Before your visit, write down questions you want answered.
- Bring someone with you to help you ask questions and remember what your provider tells you.
- At the visit, write down the name of a new diagnosis, and any new medicines, treatments, or tests. Also write down any new instructions your provider gives you.
- Know why a new medicine or treatment is prescribed, and how it will help you. Also know what the side effects are.
- Ask if your condition can be treated in other ways.
- Know why a test or procedure is recommended and what the results could mean.
- Know what to expect if you do not take the medicine or have the test or procedure.
- If you have a follow-up appointment, write down the date, time, and purpose for that visit.
- Know how you can contact your provider if you have questions.

Online Medical Reviewer: Ballas, Paul, DO
Online Medical Reviewer: Nelson, Gail A., MS, APRN, BC

Date Last Reviewed: 8/1/2016

Appendix D: Practice Improvement Capacity Rating Scale

Question	Weight	Criteria	Scripted Questions	Red (0 points)	Yellow (5 points)	Green (10 points)	Score	Comment
1	3	**Commitment: Senior Leadership: QI Champion/ sponsor** *Senior leadership: person or group that has responsibility for designation of time, finances, and resources* *(Physician, RN, office manager)*	Can you tell me about the commitment that senior leadership (the administration/ the practice) has made to the project? • Do you have a designated leader? • Is there a team that meets regularly? • In terms of time, finances, resources?	No designated leader for quality improvement *or* if designated, not actively engaged.	Leader designated for quality improvement work—however quality improvement team non-existent, *or* if exists, not meeting regularly to review project status/data.	Leader designated for quality improvement work and quality improvement team meets regularly to review project status/data and discuss improvement opportunities.		
2	3	**Commitment: Financial Resources**	IF NOT ANSWERED ABOVE: How do the leader and the QI team fit in QI work with their other responsibilities in the practice? • Are they paid for working on a QI project or is it volunteer work?	No time budgeted for QI activities. No specific funding to support QI activities.	Insufficient amount of FTE allocated for QI activities and/or limited/small amount of funding for QI activities.	Sufficient amount of dedicated FTE and funding allocated to QI activities.		
3	3	**Level of Physician Leader Support**	Do you have a physician leader who supports this effort? (Physician leader is one whom the other clinicians and staff look up to and identify as a leader.) • What is the relationship between this person and the QI team?	Physician leader has not been engaged in discussions regarding QI initiatives or has not yet confirmed their formal support.	Physician leader has confirmed their formal support of QI initiatives, but there are no regular meetings or interactions to discuss/review progress.	Physician leader demonstrates behaviors consistent with actively supporting QI efforts—this includes convening regular meetings with QI team leaders to review progress and help address issues/challenges.		
4	3	**Level of Practice Administrator Support**	Does your practice administrator or office manager support this effort? • How do they demonstrate this to the staff? (How does the staff know they support it?) • Do they meet with the QI team? • How do/will they help the QI team with this effort?	Practice administrator has not been engaged in discussions regarding QI initiatives or has not yet confirmed formal support.	Practice administrator has confirmed formal support of QI initiatives, but there are no regular meetings or interactions to discuss/review progress.	Practice administrator demonstrates behaviors consistent with actively supporting QI efforts—this includes convening regular meetings with QI team leaders to review progress and help address issues/challenges.		

5	3	**Competing Priorities**	Are there any changes that have occurred/are going to occur that may have an effect on this project? Are there any other projects the practice will be working on while this QI project is going on? • How do you see them affecting this QI project? • Do they overlap in terms of goals or data collection?	Currently converting to an EMR OR Significant staff turnover/changes OR # of QI projects competing for time of staff and resources OR Change in leadership expected or imminent OR Merger or acquisition anticipated in near future.	Modest competing priorities, such as end phase of EMR conversion OR Other QI projects, but winding down soon OR Relatively stable staff and leadership structure.	No significant competing priorities OR Significant issues/challenges impacting execution of QI activities AND Stable staff and leadership structure.		
6	2	**Communication**	• Does the rest of the staff know about this effort? • How have you kept the staff up to date with the progress of other projects in the past? • How are you communicating the work being done by the QI team to the rest of the practice?	Project not discussed at regular staff meetings, limited knowledge among practice physicians/staff, no data/information posted or distributed	Some effort devoted to sharing project information and updates with practice physicians/staff	Project information and updates discussed with practice physicians and staff at regular practice meetings, data/information shared, input/feedback recruited. Data posted in visible place.		
7	2	**Access/Use of QI Infrastructure/** **Resources Available in the Community**	Does your practice participate in any community improvement efforts? Any EMR sponsored or trade industry sponsored improvement efforts?	No practice awareness of QI infrastructure or resources available in the community.	Some awareness of QI infrastructure and resources available, but not yet accessing/using.	Practice is accessing/using QI infrastructure/resources available in the community.		

8	2	**Prior Experience Executing QI Projects**	Tell me about the improvement work your practice has done in the past • What kind of experience do the members of the QI team bring to the effort? • Do you keep a record of what you have tried and how it went? • How do you decide if what you try/ change is working? (You are looking for answers that indicate they use data to drive improvement.)	No identifiable improvement interventions pursued to date.	Improvement interventions pursued; but no formal QI method used (Model For Improvement, Lean, Six Sigma, etc.)	Previous improvement interventions pursued using formal QI method.		
9	2	**QI team designated with appropriate representation**	Who is/will be on your QI team? Why?	No QI team in place OR Several team members identified for QI activities, but there is a lack of balance representing the testing to be done (e.g., no RN included on team for PCMH)	Team members identified for QI activities. Balanced representation of staff based on QI activity. No patient partner on QI team.	Team members identified for QI activities. Balanced representation of staff based on QI activity. Patient/parent part of the team.		
10	2	**Reliability of data**	How reliable do you think your reports are? • Does the information seem accurate to you? • Do you compare your data to other practices or national benchmarks? • Is there someone who looks over the reports for accuracy? • Does the QI team review the reports?	No designated point person reviewing data for accuracy.	Point person designated, but no defined process for monitoring accuracy/timeliness of data.	Accuracy/timeliness of data monitored and addressed. Quality leadership person/team discusses data accuracy at regular intervals and identifies/pursues improvement opportunities.		

11	2	**Reliability of data collection**	How reliable do you think your data are? • Do you think the data you need are reliably entered into the EMR with each encounter? • Is there a way to tell if they are? • Does everyone follow the same process for getting info/data into the EMR?	Data collection solely dependent on clinicians at time of encounter.	Redundancy built into data collection process. Point person designated, but no defined process for monitoring accuracy/timeliness of data entry.	Defined process for monitoring accuracy/timeliness of data entry. Quality leadership person/team discusses data collection process at regular intervals and identifies/pursues improvement opportunities.		
12	2	**External Payment Incentives from Commercial/** **Governmental Payors Linked to the QI Project**	Is the practice being paid to participate in an improvement effort other than MU? Are you being paid to report on or meet quality measures?	Not currently.	Currently being discussed by commercial/ governmental payors, but not yet in place.	Currently in place.		
13	1	**Meaningful Use**	Where is your practice in terms of applying for meaningful use?	Not attested to meaningful use.	Meaningful use in design phase.	Meaningful use implemented and criteria met.		
14	1	**Source of IT support**	What do you do when you need to add fields to collect data or run reports? • Do you do this in office? • Do you need to contact someone outside the office? • Does this arrangement meet your needs/the needs for the QI project and QI team?	No internal or external IT support available to the practice.	Internal or external IT support available to the practice, but not meeting needs of QI initiatives.	Internal or external IT support to the practice is meeting the needs of QI initiatives.		

15	1	**Use of EMR/Registry/ Analytic Reporting Tool for Measurement/Data Reporting**	What data will you be collecting for this project? How do you plan to collect the data you will need for this project? • Is the information currently collected in your EMR? • Can you get reports based on the data from your EMR easily?	No EMR.	EMR in place, but data fields linked to key measures not embedded, or related data reporting capabilities (EMR, registry, or other analytic tool) not yet in place.	EMR with data fields linked to key measures embedded, and data reporting capabilities in place.		
						Total Score		
						Must-Pass Criteria Met	**Yes / No**	
Final Score—Circle level			**Red: 0-99**		**Yellow: 100-249**	**Green: 250 or greater and *all must-pass criteria met***		