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Adult Depression Screening in Primary Care

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Abstract

Routine depression screening of adults in primary care is recommended by many US professional organizations. This quality improvement project found a low baseline rate of screening at a primary care clinic and attempted to increase the rate by creating a revised depression screening workflow. The workflow was created based on staff recommendations gathered through Appreciative Inquiry-grounded interviews. Its efficacy was evaluated by comparing depression screening rates before and after its implementation, and staff evaluated outcomes with anonymous surveys. Overall depression screening rates at the clinic increased from 20.83% to 29.14% ($p < .001$) in response to the project's interventions. Continued improvement of the depression screening process at the clinic and other clinics in the parent organization calls for soliciting further staff suggestions and expanding evaluation measures.

Keywords: depression screening, quality improvement, appreciative inquiry, PDSA cycles, primary care

Adult Depression Screening in Primary Care

Depression is one of the largest contributors to adult disability in the US and is frequently encountered in primary care patients (Siu et al., 2016). Hasin et al. (2018) analyzed a national epidemiologic survey and reported that 10.4% of US adults were depressed at the time of the survey in 2012 and that 20.6% were depressed in their lifetime. The Center for Behavioral Health Statistics and Quality (2018) used another national survey that was coupled with in-person interviews to report that among US adults with depression, 63.8% had severe impairment and 35% were not treated for the disorder. During the COVID-19 pandemic in the US, the severity of depression symptoms increased in proportion to daily case numbers of COVID-19 infections (Haomiao et al., 2021). Globally, the prevalence of depression increased by 27.6% in relationship to increased COVID-19 infections and reduced mobility due to lockdowns and other restrictions (Santomauro et al., 2021). Stresses related to COVID-19 such as financial hardship, unemployment, violence, and disruptions to school have increased the incidence of depressive symptoms (Atkinson et al., 2020; Pfefferbaum & North, 2020; United Nations, 2020). The size of the problem of depression, the large number of individuals who go undiagnosed and untreated, the impact an individual's depression has on their life, and the ongoing influence of COVID-19 on depression support the case for routine depression screening among adults. This is precisely what the United States Preventative Services Task Force (USPSTF) recommends, that adults be routinely screened for depression in primary care settings, where appropriate follow-up care can be provided (Siu et al., 2016).

The purpose of this Doctor of Nursing Practice (DNP) project was to increase the rate of adult depression screening in a primary care clinic.

Problem Statement

The primary care clinic where this DNP project took place reported depression screenings for roughly 25% of patients in 2019 and roughly 26% of patients in 2021. The parent organization for the

clinic set a goal to screen roughly 42% of patients which reflects the 75th percentile for Federally Qualified Health Clinics (Quality Improvement Manager, personal communication, February 8, 2022). Increasing the rate of depression screening at the target clinic was therefore chosen as the quality improvement goal of by this DNP project.

Literature Review

The literature review covers the arguments for and against depression screening in the primary care setting and concludes with a recommendation for primary care clinics to regularly screen for depression in adults.

Search Strategy

Each article was categorized by its level of evidence according to a rating schema presented by LoBiondo-Wood and Haber (2018). The articles included range from expert opinion (the lowest level of evidence) to systematic reviews and meta-analyses (the highest levels of evidence). Articles utilized had to be available in English, published between 2015 and 2021 (or have significant historical importance or represent a unique perspective that would have otherwise been missing), and be indexed in PubMed, CINAHL, APA PsycInfo, or the Cochrane Database of Systematic Reviews. The following search terms were applied: primary care, depression screen, patient health questionnaire (PHQ) 2 or 9, adult, community health, and/or federally qualified health center. Sources were also drawn from bibliographies of those articles found through the above search strategy.

To Screen or Not to Screen

While the literature reviewed for this paper supports treating depression to reduce its impact on individuals, family members, and society writ large, there is some variance regarding how to identify depressed individuals who may benefit from diagnosis and treatment. The preponderance of the

literature agrees with the recommendation of the USPSTF to routinely screen adults for depression in settings that can appropriately follow-up that screening with a formal diagnosis and initiate treatment (Committee on Obstetric Practice, 2018; Community Preventive Services Task Force, 2014; Earls et al., 2010; Maurer et al., 2018; Nimalasuriya, 2009; & Siu et al., 2016).

It is worth noting the caveat in the USPSTF's recommendation, that screening must take place in a setting where there is appropriate follow-up diagnosis and treatment capability. Therefore, for this paper, the scope of this literature review was restricted to primary care, and specifically attempted to address whether it is beneficial for primary care clinics to routinely screen adults for depression.

Organizations that agree with the recommendation by the USPSTF, to routinely screen adult patients in primary care, include the Community Preventive Services Task Force (CPSTF), American College of Preventative Medicine, and American College of Obstetricians and Gynecologists; both the American Academy of Family Physicians and American Academy of Pediatrics expand this recommendation to include patients aged 12 to 18 (Committee on Obstetric Practice, 2018; CPSTF, 2014; Earls et al., 2010; Maurer et al., 2018; & Nimalasuriya, 2009). In each of these recommendations, screening is justified by: (a) the lack of evidence of harm caused by screening and (b) the benefits of treatment.

Two organizations were found that do not recommend routine screening. The Canadian Network for Mood and Anxiety Treatments (CANMAT) and United Kingdom's National Institute for Health and Care Excellence (NICE) recommend screening patients who have risk factors for depression such as familial history or symptoms consistent with depression (Lam et al., 2016; & NICE, 2010), but stop short of recommending routine depression screening. The CANMAT guideline proposes three potential problems with routine depression screening campaigns: (a) they question whether screening is effective for finding new cases of depression, (b) individuals with mild depression may not be helped by

available treatments, and (c) some patients will not adhere to treatment prescriptions and therefore will not benefit from them (Lam et al., 2016).

The NICE guidelines share similar concerns as the CANMAT guidelines. They argue that routine screening may: (a) create false-positives and expose individuals to side effects of treatments with no benefit, (b) spend resources on mild cases that would recover without intervention, (c) divert resources away from more severe cases, and (d) not be empirically beneficial based on current evidence (NICE, 2010). The NICE guidelines echo the recommendations of the CANMAT guidelines and recommend only screening individuals with a history significant for depression risk factors.

Support for Routine Screening. Routine screening identifies patients that would have otherwise been missed and consequently results in a roughly 10% reduction in depression because of increased treatment (Smithson & Pignone, 2017). Much of the evidence in favor of routine screening relies on successful treatment of depression rather than simply screening for depression – further support for the idea that screening must be done in an appropriate location where follow-up care can be provided. Mojtabai (2017) makes this clear when describing the state of the USPSTF recommendations, which he argues fail to gather direct evidence of benefit for screening. However, Mojtabai (2017) goes on to argue that this is sufficient in the absence of better, more direct, evidence for screening alone.

Despite a concerted effort to make a case that screening itself, without a follow-up diagnosis and treatment, provided benefit, no confirmatory evidence was found. One recent systematic review attempted to disentangle the effects of screening from the care that would follow a positive screen but found that it wasn't possible (van der Zee-van den Berg et al., 2017).

One question that the literature does answer is whether patients find screening acceptable. Shah et al. (2017) found that older adults felt that depression screening was valuable to their health.

Similarly, Kalra et al. (2018) found that depression screening was acceptable to private maternity patients in Australia and New Zealand.

There is a wealth of evidence for indirect benefits from increased detection of depression in primary care settings. There is evidence that: (a) increases in depression screening are associated with reductions in suicide rates (Sakashita & Oyama, 2015); (b) depression severity is reduced in postpartum women who are treated with CBT, pharmacotherapy, nondirective counseling, and other approaches (O'Connor et al., 2016); (c) adult patients report less depression when treated via a primary care protocol (Siniscalchi et al., 2020); (d) increases in screening are associated with increases in antidepressant prescription rates (Pfoh et al., 2020); (e) educational programs targeting health care providers and staff coupled with screening are associated with lowered depression symptom scores (Smithson & Pignone, 2017); and (f) screening increases the likelihood that depression, as a comorbid condition, is recognized and appropriately treated, and thusly, reduces complications (Mulvaney-Day et al., 2018).

In summary, there is a considerable body of literature that supports depression screening as an entry point to reducing mortality, morbidity, and costs, as well as a means of increasing quality of life and treatment access.

Arguments Against Routine Screening. The arguments against routine screening are based on indirect evidence of harm or lack of benefits rather than observations that screening itself causes harm to those who are screened.

One argument against routine screening states that there is a lack of direct, positive evidence for screening alone. McLintock et al. (2016) argue that there is no evidence that screening directly benefits patients; they determine that benefits of treatment cannot be tied to screening because they are not due to the screening alone. Similarly, the CANMAT and NICE guidelines conclude that there is

insufficient evidence to support routine screening because benefits of screening are indirect and based on response to treatment (Lam et al., 2016; & NICE, 2010).

While the CANMAT and NICE guidelines decline to consider potential indirect benefits of screening, they do consider potential indirect harm. They include in these indirect sources of harm the adverse effects of pharmacological treatments to patients and wasting of health system resources – the time, energy, and money spent to provide treatment if a patient doesn't follow through with, respond to, or achieve remission (Lam et al., 2016; NICE, 2010). The CANMAT and NICE guidelines also express concern about false positives from screening, noting that because no screening tool is 100% accurate, some patients will be unnecessarily exposed to side effects of treatments (Lam et al., 2016; NICE, 2010).

Sinyor et al. (2016) take another tack in identifying harms of screening by saying that routine screening in the primary care setting doesn't go far enough because the barrier of primary care is too high for some who would benefit from treatment. Sinyor et al. (2016) conclude that the problems that CANMAT and NICE have identified are valid concerns, but they do not make a clear recommendation for or against routine screening.

In summary, the arguments against screening are based on concerns for lack of direct benefit of screening, indirect harms associated with screening, validity concerns associated with commonly used instruments, and conservation of health system resources.

Depression Screening Tools

The most often used, validated depression screening instruments are the patient health questionnaire (PHQ)-2, PHQ-9 (Pfoh et al., 2020; & Siniscalchi et al., 2020), and the Edinburgh Postnatal Depression Scale (O'Connor et al., 2016). Other validated tools considered in a systematic review of mental health screening tools, that are not derived from the PHQ-2 or PHQ-9, are combination tools such as the Hospital Anxiety and Depression Scale, Web-Based Depression and Anxiety Test, Mental

Health Inventory-5, World Health Organization-Five Well-Being Index, and Brief Case-Find for Depression (Mulvaney-Day et al., 2018).

Screening Recommendations and Summary

Primary care settings can play an important role in recognizing and treating depression because of primary care providers' ability to diagnose and treat or refer. Harms of screening have not been established in the literature reviewed here, and patients generally accept and value depression screening. The indirect benefits of treatment outweigh the potential of missing a case with catastrophic consequences, and the most commonly available depression screening tools are well validated.

Setting

The primary care clinic, where this project was carried out, is a Federally Qualified Healthcare Clinic (FQHC) that is a part of a larger care organization that operates several dental clinics, school-based clinics, and more than a dozen primary care clinics throughout the Puget Sound region. The parent organization serves 50,000 – 100,000 patients annually – the majority of whom are at or below the federal poverty level. The targeted clinic is in an urban setting in Seattle, WA, has an attached pharmacy that offers discounted medications through a federal 340B program to qualified patients, and has on-site behavioral healthcare providers.

Project Purpose

The purpose of this DNP, quality improvement (QI) project, conducted at the above-mentioned primary care clinic, was to improve their depression screening protocol and increase the proportion of patients screened for depression. Grounded in both an Appreciative Inquiry (AI) and Plan-Do-Study-Act (PDSA) QI framework, the purpose was to explore whether depression screening would be more universally implemented if the input of multiple stakeholders was incorporated into depression-

screening protocols. The goal was to create a standardized workflow for depression screening with clear roles and responsibilities. Evaluation included: (a) a survey of staff perceptions of the revised depression screening process and (b) a comparison of the proportion of patients screened for depression in the clinic before and after implementation of the revised depression screening workflow.

Theoretical Frameworks

The organizational goal of increasing depression screening rates was already in place at the time of the project's conception, yet those goals had not been met with organizational directives alone. The AI framework was, therefore, chosen because of its focus on exploring and building upon the input of multiple stakeholders who regularly perform the day-to-day work of depression screening in the clinic. The AI approach promises to build hope, improve attitudes, enhance cooperation, and encourage individuals to imagine a future state that is inherently good (Cooperrider et al., 2008).

Alongside the AI framework, the PDSA QI framework was applied because of its wide use in QI projects and specific applicability in the healthcare context. The PDSA cycles encourage an iterative approach to process improvements that proceeds through the 'plan'-step where goals are defined, the 'do'-step where the plan is implemented, the 'study'-step where initial evaluations are monitored, and the 'act'-step where lessons from the previous steps are applied before another iteration or larger application of the improvement process is implemented (Langley et al., 2009).

Methods

Protection of Human Subjects

The proposed project and instruments were submitted to the Seattle University Institutional Review Board (IRB) for assessment of potential harm to human subjects. After consideration of the project's proposed activities, the IRB concluded the project was not human participant research, and

therefore not subject to further IRB review (Seattle University IRB Administrator, personal communication, January 1, 2022). Similarly, the parent organization where the project took place, found the proposed study to be a QI project and not human subject participant research (Director of Nursing, personal communication, October 7, 2021).

Recruitment, Participants, and Stakeholders

Inclusion criteria for participation included: (a) employment at the clinic where the project took place (e.g., part-time or full-time employees with the clinic as their primary work site) and (b) being directly involved in depression screening (e.g., front desk staff, medical assistants [MAs], registered nurses [RNs], providers, and supervisors). Individuals were excluded from participation if their work did not involve regular interaction with patients (i.e., back-office administrative staff), they worked with patients solely in a behavioral health role (i.e., licensed mental health counselors, social workers, and psychiatric nurse practitioners), or they worked with patients solely through the pharmacy (i.e., pharmacy technician and pharmacist). Those invited to participate, according to the above criteria, included five front desk staff, three MAs, two RNs, three advanced registered nurse practitioners, and one medical doctor, for a total of fourteen (N=14) individuals. Invitations were extended to the above individuals via email.

Project stakeholders included the patients that the clinic serves, the clinic staff involved in depression screening, the behavioral health team at the clinic, clinic administration, and the parent organization's QI team. Because there are clear recommendations to screen for depression in primary care (Committee on Obstetric Practice, 2018; Community Preventive Services Task Force, 2014; Earls et al., 2010; Maurer et al., 2018; Nimalasuriya, 2009; & Siu et al., 2016) and reported evidence that patients find depression screening acceptable (Kalra et al., 2018 & Shah et al., 2017), this project was not seeking direct input from patients on the clinic's depression screening workflow. The behavioral

health team, although attached and co-located at the same site as the primary care clinic, was excluded because their patients are screened for depression at medical appointments or according to a separate depression screening workflow. Finally, administrators and the QI team were excluded because while they endorsed and supported the project, the AI-grounding of the project focused on those individuals that perform the day-to-day tasks that the project was attempting to change.

Improvement Process and Evaluation Procedures

This quality improvement project centered around the creation and implementation of a revised depression screening workflow for the targeted clinic. It was created to include specific roles and responsibilities for each job class and was based on the input of participating staff members, supervisors, and the site medical director (SMD). Previous implementation science projects have demonstrated that successfully integrating mental health screening projects into primary care practices necessitates providing staff with a clear sense of their roles and responsibilities as well as an understanding for the work of other staff involved in the effort (Ramanuj et al., 2018).

The first step in the creation of the revised depression screening workflow was to collect ideas about how the depression screening workflow could be improved with staff interviews. In concert with an AI approach, during interviews, ideas to improve the depression screening workflow were solicited. Then, interviewees were asked what specifically they and others in the same job class could do to improve the depression screening workflow. Finally, they were asked how changes made to the depression screening workflow could be made to endure. The interview guide is included in the appendix (see Appendix A).

Once interviews were completed, short surveys were sent to all who had been invited to interview. This initial survey asked participants whether they: (a) understood what their role and responsibility was in the depression screening workflow, (b) how regularly they participated in

depression screening, (c) whether they were aware of a standardized depression workflow, (d) what made depression screening easy, and (e) what made depression screening difficult. The purpose of the initial survey was to collect baseline information prior to implementation of the revised depression screening workflow and was important in preparation to the PDSA cycle 'study'-step. The initial and follow-up surveys are included in the appendix (see Appendix B).

The next step was to create the revised depression screening workflow. To do this, a conventional qualitative content analysis was performed as described by Hsieh and Shannon (2005) to identify themes shared by interviewees during the previously described AI-grounded interviews (data analysis is described in more detail in a later section). These themes were then included in a rough draft of a revised depression screening workflow, focused on providing clear roles and responsibilities to individuals in specified job classes. This rough draft was then presented to the SMD for their input and approval. Finally, the draft was presented to supervisors of each job class for their input and approval. The creation of this revised depression screening workflow constituted the PDSA cycle 'plan'-step.

With the revised depression screening workflow created, the next step was the PDSA cycle 'do'-step (i.e., putting the plan into action). First, small-team meetings were held with members of each job class where questions could be addressed in a less formal setting than an all-staff meeting. During these small-team meetings individuals were invited to ask questions and participate in teach-backs to demonstrate understanding of their role and responsibility in screening for depression under the revised workflow. The start of the implementation phase of the project officially began with an all-staff meeting and an email announcement. Paper and email copies of the revised depression screening workflow were provided, and participants were directed to a company intranet site hosting a copy of the revised workflow. After the all-staff meeting, staff were asked to use the revised workflow to guide them in depression screening activities for the following four weeks. Individuals were encouraged to ask their supervisors, the SMD, or me if they had questions during the implementation phase of the project.

During the four-week implementation phase of the project, the SMD and I met regularly to discuss common and poignant questions that arose from staff as they utilized the revised workflow. During the implementation phase, changes to the revised workflow were made by the SMD with input and approval from staff supervisors. The SMD and supervisors communicated these changes to those individuals whose roles and responsibilities were directly impacted by the changes and to the rest of staff involved in depression screening through email updates and replacement of the company intranet workflow document. This phase of the project was an extension of the PDSA cycle 'plan'- and 'do'-steps.

Following the four-week implementation phase of the project, the PDSA cycle 'study'-step began; this phase of the project was the evaluation phase. This began with a follow-up survey going out to individuals who had been invited to participate in the AI-grounded interviews and initial surveys, as well as newly hired staff who met inclusion criteria but were not employed at the clinic when the project began. This follow-up survey was identical to the initial surveys sent out with the exception that it asked respondents to think about the four weeks of the implementation phase when responding to questions about the revised workflow in the clinic. Changes in responses from the initial survey to the post-implementation survey provided evaluation data for whether the revised workflow affected: (a) staff understanding of their roles and responsibilities, (b) regular participation in depression screening, (c) access to a written depression screening workflow, (d) perception of what makes depression screening easy, and (e) perception of what makes depression screening difficult. During the evaluation phase of the project, the QI team gathered data on the proportion of patients screened for depression in the clinic during the four weeks that comprised the implementation phase, in preparation for comparison to earlier collected baseline data.

With the pre- and post-implementation phase data available, staff perceptions and patient screening outcomes were compared to evaluate the revised depression screening workflow's impact on

the project's goals. This data analysis comprised the PSDA cycle 'study'-step and will be described in more detail in a later section.

The iterative nature of the PDSA cycle meant that the final presentation of this DNP project to the clinic staff, the SMD, clinic administrators, and the QI team was potentially the beginning of a PDSA cycle 'act'-step. Based on the evaluation phase conclusions, the SMD, the clinic administrators, and the QI team will determine if further iterations of the PDSA cycle at the clinic or other clinics run by the parent organization are warranted.

Measurement and Instruments

Participants consented to a 15–20-minute interview focused on exploring ways to improve the depression screening workflow at the clinic. Ideas shared during the staff interviews were analyzed for themes using conventional content analysis. The interviews solicited ideas for improving the depression screening process in general and focused on changes that the interviewee believed to be sustainable and actionable for themselves or those in the same job class. A copy of the interview guide is included in the appendix (see Appendix A).

To measure the change in staff perceptions of the depression screening workflow before and after the revised depression screening workflow was implemented, investigator-developed pre- and post-implementation surveys were sent to staff members who had been invited to participate. These pre- and post-surveys were identical, except for the survey directions which asked participants to reflect on the previous depression screening workflow (in the case of the pre-implementation survey) and to reflect on the revised depression screening workflow in place during the implementation phase of the project (in the case of the post-implementation survey). Copies of the two surveys are included in the appendix (see Appendix B). The surveys included three Likert scale questions and two open-ended questions.

The QI team provided baseline data showing the proportion of patients screened for depression – using either the PHQ-2 or PHQ-9 – prior to the implementation of the revised depression screening workflow. This pre-implementation period data represented the four weeks prior to implementation (marked by an all-staff meeting where the revised depression screening workflow improvement plan was introduced). Similarly, the QI team provided data on the proportion of patients screened for depression at the clinic during the four-week implementation period of the project.

Data Analysis

Interview data were collected in the form of extensive hand-written notes taken during the interviews, and these data were analyzed following the steps of conventional content analysis as described by Hsieh and Shannon (2005). This included immersion in the data, notation of initial impressions, development of codes for those impressions, identification of exemplars for codes, codes sorted into categories, relationships explored and defined among categories, and development of a hierarchy of categories. Each question's responses underwent conventional content analysis to produce codes and categories that then informed the revised depression screening workflow. Hierarchal organization of roles and responsibilities for a specific job class prioritized suggestions given by members of that job class (i.e., suggestions from front desk staff took priority over suggestions from other job classes when the suggestions related to roles and responsibilities assigned to front desk staff); this was done to maintain the AI-grounding of the interviews.

Data from the investigator-developed survey were analyzed using Chi-square analysis. Responses were compared pre- and post-implementation. Open-ended responses were summarized using conventional content analysis.

Finally, the number of patients seen and screened for depression and the number of patients seen but not screened for depression, during the four weeks preceding implementation and the first

four weeks of implementation, were compared. This comparison was based on a Chi-square analysis comparing the proportion of clients screened before and after implementation of the new screening protocol.

Results

Fourteen individuals were invited to participate in AI-grounded interviews, and seven agreed (N=7), representing members of each job role (e.g., front desk staff, MAs, RNs, and providers). The AI-grounded interview data, in the form of extensive notes taken during the interviews, were reviewed until a sense of comprehension and data saturation was achieved after numerous readings, re-readings, coding, and re-coding of the text. Initial impressions were translated, slowly and iteratively, into twenty-seven codes, and exemplar responses were identified for each code. Codes and their associated exemplars were then sorted into three categories with identifiable relationships to one another. Those categories were: (a) the current state of depression screening, (b) the desired state of depression screening, and (c) a gap state of issues that would need resolution to make practice change possible or sustainable. Categories, codes, exemplar quotes, code weights, and code sources are presented in the table below (see Table 1).

Table 1

Conventional Content Analysis of AI-Grounded Interviews: Categories, Codes, Exemplar Quotes, Code Weighting, and Sources

Category	Code	Exemplar Quote	Times Coded in Interviews	Code Source
Current state	Providers order screeners to be given by patient services representatives	"Whenever I ask for the screener to be given in the notes section of someone's appointment, [PSRs] will hand out the screener."	10	Provider, PSR

	(PSRs) via appointment notes			
Current state	PSRs give screeners at first appointment	"[PSRs] give out paper screeners to new patients as well as return patients when provider's scrub the appointment notes and request a depression screener for the patient."	7	MA, Provider, PSR
Current state	Providers act on results of screeners	"… and if it's positive I may start medications and/or refer them to behavioral health."	4	Provider
Current state	Patients trust information from providers about reason for screening	"I find myself doing a lot of patient education on the rationale for the screening activity. I let them know that this is a way to get measurable information about what's going on with their mental health, and that their mental health is important and connected to their physical health."	4	MA, Provider
Current state	Providers order screenings beyond first appointment screenings	"… and I review the need for depression screening at this appointment."	1	Provider
Current state	PSRs help orient pts to the clinic	"PSRs are listening and holding space for people who may be in distress."	1	PSR
Current state	Staff will do what they are told	"I guess if everyone is supposed to do it then they will do it."	1	MA
Desired state	The Patient Health Questionnaire-2 (PHQ-2) is easy to administer and can be administered verbally by the medical assistant (MA) or the Provider	"Sometimes when they haven't answered the paper screener, [MAs] can just ask them the questions. This isn't normally the problem for the first visit, but with the PHQ-2 questions, they are very easy to ask and enter them into the chart while you are rooming them."	6	MA, Provider
Desired state	All patients can be given a screener at every visit	"Perhaps the best way to approach this would be to give the PHQ-2 to every patient for a time and see what happens?"	5	Provider, PSR

Desired state	Providers can pivot to screener to clarify differentials	"Sometimes there is a need to 'pivot' to a screener, but this can be a workflow buster. Sometimes I do it, though, depending on the situation."	3	Provider
Desired state	Patients can be sent screeners over MyChart	"Can we send these to telehealth patients? [PSRs] may be able to do this, but we've never been shown how to do so."	2	Provider, PSR
Desired state	Registered Nurses (RNs) administer screeners as part of annual wellness visits	"Currently, [RNs] don't do any depression screening. [RNs] used to, as a part of the annual wellness visits, but those were suspended due to covid."	2	RN
Desired state	Established patients seeing a new provider should be screened for depression	"It would be nice to extend the automatic screening to visits where the patient is new to the provider they are seeing – not just if they are a new patient to the clinic."	1	Provider
Desired state	Follow-up positive PHQ-2 screens with a Patient Health Questionnaire-9 (PHQ-9)	"If they have 1 or more positive on the PHQ-2, then [MAs] give them the full PHQ-9 on paper. But sometimes they don't want to do that on paper and it's hard to get them to answer the questions."	1	MA
Desired state	Patients trust information from RNs about reason for screening	"[RNs] are good at communicating sensitively with people who may be a little resistant to screening in general."	1	RN
Desired state	RNs can administer screeners at joint appointments with providers	"Another place where RNs could do this is during suboxone appointments, this is another one of the places where RNs see a patient right before a provider does."	1	RN
Desired state	RNs can order screens before provider appointments in the appointment notes	"… [RNs] could help setup an appointment with their provider to discuss their concerns – they would hopefully be screened there."	1	RN
Desired state	Specific reasons for appointments should be reasons	"Another 'automatic' reason to give a screener should be if the appointment is primarily for mental health – anxiety or	1	Provider

	to screen for depression	depression. Most the time [providers] ask for this through the appointment note modification, however, I would like those words to mean to the PSR team to please give a screener when they check-in.“		
Desired state	When providers order screeners, they should use standardized language in the appointment notes	“One little thing that could help [PSRs] a lot is if there was more standardization of the appointment note when the provider wants a depression screener.”	1	PSR
Desired state	When the PHQ-2 is administered verbally, it needs to be recorded as a screening	“I assess for depression when it’s on the differential, but I don’t always note that they have been specifically screened for it.”	1	Provider
Gap	Patients need to understand the reason for screening	“I’d like to have a script that can help me explain why we’re giving the screeners out. [PSRs] have a script for the sexual-orientation and gender identity questions, and I think having a sentence or two that can explain why we’re handing [screeners] out would be really helpful.”	6	Provider, PSR
Gap	Staff must understand changes to screening process for changes to stick	“Maybe telling [staff] about why we’re doing this, and especially during covid – so the why, and the why now could help make any changes stick. I think that most of our staff is very open to changes, especially if we know why it is helpful for our patients.”	5	MA, Provider, PSR, RN
Gap	Standardization of paperwork locations will support consistent screening	“Some of the forms themselves look like they are overly photocopied, and some are difficult to read.”	2	PSR
Gap	Staff need demonstrations of standard workflows to make changes stick	“Announce the changes at an all-staff meeting, give demonstrations of how it all works differently, and give out flyers and cheat sheets that go over the changes.”	1	PSR
Gap	Staff need to know their efforts are	“By seeing the improvement in health – by seeing people change. By seeing people	1	PSR

	working to make changes stick	more stable. Perhaps by polling patients for how they feel they are being treated for their mental and physical health care. Feedback around how the depression screening numbers are looking – and sharing that with staff."		
Gap	Standardization of workflow will make changes stick	"Making whatever the changes are official by making it a part of a standard workflow. This way everyone gets trained on the same workflow and has access to the same advice on exactly what to do. Yeah, standardization."	1	PSR
Gap	Workflow needs to be standardized	"I sometimes don't know who is going to enter the results, so I end up with a stack of screeners at my desk that I make sure are entered. I'm getting along fine with the way it is, but it certainly would save time to know exactly who will be entering the information."	1	Provider

Coded interview data were then transformed into recommendations to be included in the revised depression screening workflow. As not all coded responses resulted in recommendations, hierarchical organization of codes was initially achieved by selecting for codes which resulted in recommendations, secondarily by the code weighting (number of times the code was mentioned in the AI-grounded interviews), and finally by resolving conflicting recommendations – where recommendations conflicted, the interview source was prioritized (e.g., front desk staff making recommendations for front desk staff job roles in depression screening were prioritized over other job roles making recommendations for front desk staff job roles). In the above manner, the interview data were transformed into twenty recommendations for the revised depression screening workflow.

Creation of the Revised Depression Screening Workflow

The revised depression screening workflow was created from the recommendations derived from the AI-grounded interviews and conventional content analysis described above. Recommendations were organized according to which job role would be responsible for their implementation, and a draft

of the revised workflow was created with clear job roles associated with each recommendation. This draft was then taken to the SMD for their input and approval. The SMD removed one of the recommendations and added another before approving the draft. This modified draft was then taken to the front desk staff and MA supervisors for input and approval. The front desk staff and MA supervisors reviewed the draft workflow and approved it without alteration.

Recommendations Requiring New Resources

Some recommendations required creation of a resource or action beyond establishment of the revised depression screening workflow. These included: (a) creating scripts for addressing interactions with patients around the depression screening process that were predicted by staff to be challenging, (b) creating 'cheat-sheets' for front desk staff and MAs to quickly identify steps to depression screening, (c) defining a list of keywords in appointment notes that would trigger a PHQ-9 screening, (d) demonstrating workflow processes in small-groups, and (e) establishing a revised workflow for front desk staff to electronically send depression screening instruments to patients with virtual or telephone appointments.

The first four recommendations were completed before the implementation phase of the project. Scripts, 'cheat-sheets,' and PHQ-9 keywords were distributed alongside the revised depression screening workflow. Demonstrations of workflow processes in small groups were conducted one to two days prior to the start of implementation. The revised depression screening workflow, front desk staff 'cheat-sheet' and associated scripts, and MA 'cheat-sheet' and associated script are included in the appendix (see Appendix C, Appendix D, and Appendix E).

The fifth recommendation, the creation of a workflow for front desk staff to electronically send depression screening instruments to patients with virtual or telephone appointments, was not completed prior to the start of the implementation phase. This final recommendation was not deemed

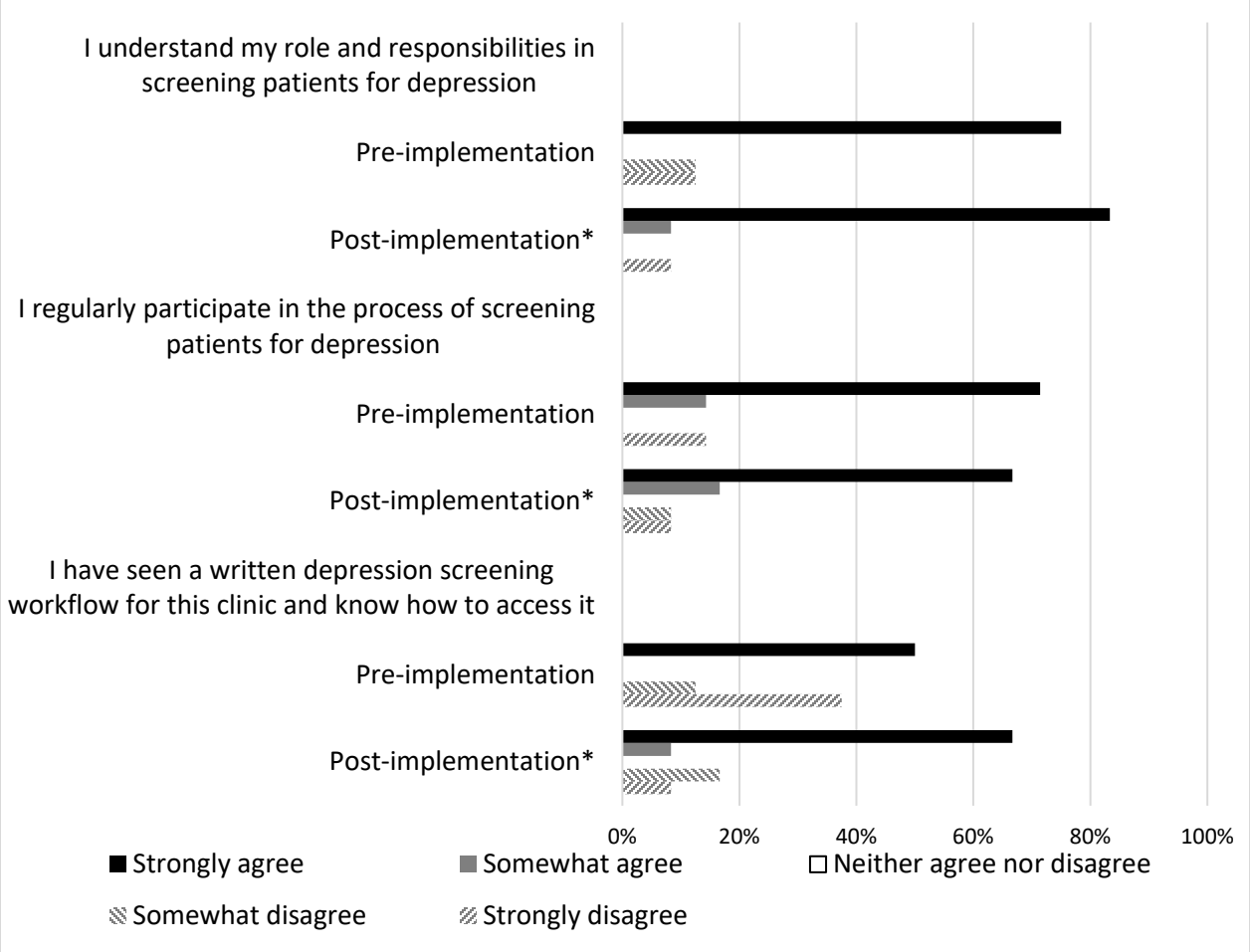
possible given the current system and workflow for handling patient responses to electronically sent questionnaires.

Survey Responses

Pre-implementation surveys were sent to staff that were invited to participate in the AI-grounded interviews, and of the fourteen invited, there were eight (N=8) pre-implementation survey respondents. Post-implementation surveys were sent to eighteen staff members that held job roles addressed by the revised depression screening workflow, and there were twelve (N=12) post-implementation survey respondents. The reason for the difference in invitations is that the clinic made staffing changes in the interim months between the time of the AI-grounded interviews and the end of the implementation phase of the project. Pre- and post-implementation Likert scale responses were compared using a Chi-square test; changes were found to be significant ($p < .005$) for all measures. The Likert scale responses to the surveys are shown in the graph below (see Figure 1).

Figure 1

Pre- and Post-implementation Staff Survey Likert Reponses



*p < .005. **p < .001.

The results of the conventional content analysis of open-ended survey responses are reported in the table below (see Table 2).

Table 2

Conventional Content Analysis of Open-ended Staff Survey Responses

Category	Code	Exemplar Response	Times Coded in Surveys	Code Source (Pre- or Post-implementation)
Supportive factor	Supplies are readily available and support my work	"Printed copies are easily available in clinic."	5	Pre & post

Supportive factor	Other job roles support my work	"I don't have to do much, it happens automatically. The different colored paper lets me know quickly that it has been done!"	4	Pre & post
Presence of clear workflow	Easy to incorporate into my work	"The process increases the number of patients who have finished the screen before I go in for the visit."	3	Pre & post
Fulfilling work	Depression screening feels caring	"I care about our patients and screening for depression, so participating feels good."	1	Post
Patient is cooperative	Patient is cooperative	"Protocol of depression screening tool is straightforward and familiar to clients for most part."	1	Post
Patient is uncooperative	Patient is uncooperative	"What makes it difficult is that patients do not want to fill out the PHQ-9 form."	4	Pre & post
Time waster	Patient slows down workflow	"Takes time for the patient to complete and can hold up flow for this reason."	2	Post
Time waster	Paper screeners are wasteful	"… uses a huge amount of paper …"	1	Post
Time Waster	The workflow is complicated	"… clip boards are constantly cycling through the clinic."	1	Post
Prefer less-than-routine screening	Competing priorities	"Sometimes I would forget still."	2	Pre & post
Prefer less-than-routine screening	Routine screening is too frequent	"Standardization of depression screening questions and the cascade of perceived redundancy that feels insensitive to both provider and client as [sic]".	1	Post
Lack of clear workflow	Lack of clear workflow	"Sometimes we are unsure of which patients to give it to and when, as sometimes provider want them [sic] to be given to already established patients."	2	Pre

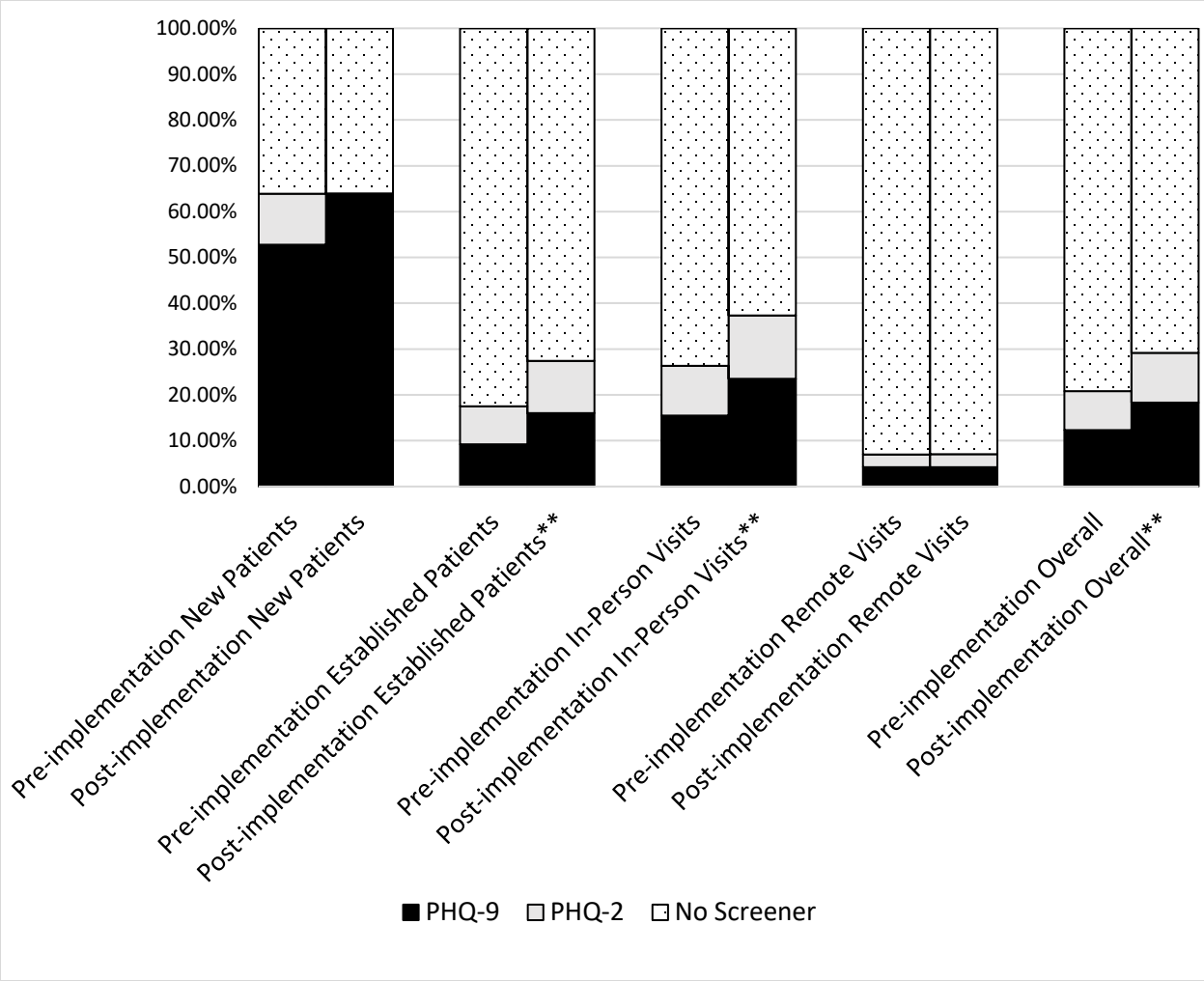
Prefer to include other screenings into workflow	Prefer to include other screenings into workflow	"The new form has excluded the GAD that I also want pts [sic] to complete."	1	Post

Patient Screening Rate

Baseline data, representing the four-week period prior to the implementation phase, and implementation phase data, representing the four-week period after the all-staff meeting, were collected by the QI team. These data encompassed: (a) new patient appointments completed with a medical provider at the clinic, (b) established patient appointments completed with a medical provider at the clinic, (c) in-person patient appointments completed with a medical provider at the clinic, and (d) remote patient appointments completed with a medical provider at the clinic. Each of the preceding included: (a) the number of patients for whom a PHQ-9 depression screening was recorded at the time of their appointment, (b) the number of patients for whom a PHQ-2 depression screening was recorded at the time of their appointment, and (c) the number of patients for whom no depression screening information was recorded at the time of their appointment. From these data, the overall rate of screening was calculated, and pre- and post-implementation data were compared using Chi-square tests (see Figure 2).

Figure 2

Comparison of Screening Rates Pre- and Post-implementation



*p < .005. **p < .001.

Conclusions

The purpose of this DNP project was to improve the depression screening workflow and increase the number of patients screened for depression at the targeted clinic. While these purposes were broadly achieved, there is room for further improvement.

Staff surveys were used to evaluate staff responses to the revised workflow. The Likert scale responses showed a statistically significant change on the three assessed items (p < .005). Responses to the question about role understanding moved to more positive responses, potentially as a response to job roles being explicitly stated on the revised workflow, as well as the small group and all-staff meeting

where roles and responsibilities were explained. Responses to the question about whether a staff member had seen and knew how to locate a depression screening protocol also moved to more positive responses, potentially as a response to the handing out, emailing, and standardized placement of the revised workflow on the company intranet. Responses to whether a respondent regularly participated in the screening for depression were slightly more negative overall, potentially because providers were spending less time on the screening process, as was indicated in two of the post-survey open-ended responses.

The project's purpose was to increase the rate of depression screening at the targeted clinic and in that, it succeeded, raising the overall screening rate from a baseline of 20.83% to 29.14% ($p < .001$). The parent organization holds an overarching goal of screening roughly 42% of patients, and although the project's result was statistically significant, it did not achieve the QI goal in the four-week time frame the project studied. The intervention increased the in-person depression screening rate to 37.33% ($p < .001$), and the established patient depression screening rate to 27.40% ($p < .001$). The proportion of PHQ-9 screening forms given at initial appointments increased but was not statistically significant, and the overall rates of screening at initial appointments and remote visits remained virtually unchanged and were not statistically significant.

Limitations

One limitation to the project was the duration. Being only four weeks long, the project analyzed less than one full PDSA cycle. The spirit of PDSA cycles is to iterate through changes and continually learn from failures and expand on successes. One recommendation of this project is, therefore, that this iterative process continue from the present analysis to implement the next round of changes to the depression screening process at the clinic. These proposed changes will be presented in the following sections.

Staffing changes during the project, from interviews to evaluation, presented a limitation as well. For example, at the start of the implementation phase, there were staff members who had not been invited to participate in the interviews because they had not yet been hired, but the revised depression screening workflow had already been created. Some of these staff members expressed concerns about the project during small-group and all-staff meetings, but because of their hire date, were not afforded an opportunity to participate in the same way as other staff members. As the purpose of the interviews was two-fold: (a) to gather multiple stakeholder inputs and (b) to enhance cooperation and improve attitudes (Cooperrider et al., 2008), this was a loss for the project, and potentially affected the morale and participation of those staff members who may have perceived the project as an external edict rather than a project to which they were contributing.

Another limitation included the lack of participation from the behavioral health staff. This was an oversight in the project, as their input could have improved collaboration between the on-site behavioral health staff and medical staff. This connection is a potentially important part of treating depression in primary care patients, even while it is not immediately relevant to detecting depression. This connection was brought up at the all-staff meeting; as individuals thought through the process of detecting depression, several had questions about what to do when potential depression is detected. At least one staff member noted that they felt uneasy proceeding with a project to increase the number of patients screened for depression without a specific plan for addressing higher rates of detected depression. While they were reassured that each provider who assesses depression is trained to appropriately respond, it was not immediately clear if this concern was alleviated by that reassurance.

Addressing the screening rate during remote visits was a challenge. The lack of change in the remote visit depression screening was likely due to two factors. Not all patients utilize the electronic health record's smart phone application or associated website, making it impossible to securely send a depression screening form for a remote appointment to them. Another problem with remote screening

is that questionnaires must be sent by a provider so that responses are appropriately routed. Routinely adding this to the provider workflow was deemed an unrealistic ask by the SMD. This is a potential area for improvement in future iterations. For these reasons, this project did not attempt to incorporate changes to the remote visit depression screening workflow that were recommended by staff. Instead, an email to providers was sent out with instructions on how providers can send depression screening forms electronically for their remote visits.

Clinical Implications

This QI project increased role understanding and likely increased participation in screening by certain job roles while reducing time spent on screening by providers. Some of the pre-implementation, open-ended responses indicated that there was a certain amount of confusion as to individual job roles in screening for depression, and at least one post-implementation survey response indicated that regular participation in screening made the staff member feel more efficacious in their work. Furthermore, due to the increase in overall screening, there was more patient screening data available for providers to utilize in providing care. Each of the following: (a) perceived self-efficacy of staff, (b) decreased need for provider time to be spent on the screening activity, and (c) increased screening data for patients are trackable and could be targets for future evaluation.

While the project moved forward with the suggestion that screening tools could be given out at each visit, there is an open question of whether depression screening at every medical visit for every patient is the right practice for this clinic. Furthermore, there are other screening tools for other conditions that individual providers and administrators would like patients to regularly complete. Deciding what the right pace of screening for various conditions and how to organize those screening tools so that they work well together, reduce the sense of redundancy, and increase the completion of the screening tools is an important consideration for the next iteration of this project.

At one point, late into the implementation of the project, the front desk staff supervisor asked me if there was a way to find what health screenings a patient was due for prior to their appointment. The clinic's electronic health record (EHR) does have the capability of showing which screenings are due for an individual patient. This feature could be used to determine the pace at which health screening tools for various conditions are given. Utilizing this feature, the frequency of screening for various conditions can be set by providers and front desk staff could use it to determine what screening tools to hand out. MAs could enter the results of screening tools and communicate with providers about non-completion in much the same way as with depression screening. Further conversations on the best ways to utilize this aspect of the EHR are recommended for the next phase of this project.

One consideration for further analysis would be to explore how the depression screening workflow affected the rate of screening for other conditions. A post-survey response indicated that at least one staff member perceived screening for anxiety had reduced because the forms had been changed as a part of the project. Previously the PHQ-9 was always paired with an anxiety screening tool. While the anxiety screening tool is available as a stand-alone instrument, it was not given out alongside the PHQ-9, unless specifically requested by the provider, and therefore it is likely that the screening rate for anxiety dropped. This is further support for the idea that multiple screening tools for various conditions need to be included in future work on this project.

After the all-staff meeting there was a small group of staff members that asked for further information about how to handle patients that might become agitated by being presented with screening questions, either by handing them a paper screening tool or asking the screening questions verbally. Both the pre- and post-implementation responses indicated that lack of patient cooperation with the screening activity made the process of screening for depression difficult. The next iteration of this project could develop a more nuanced perspective of how this lack of cooperation was expressed by patients and use this information to develop ways to enhance patient cooperation with screening.

During implementation, front desk staff mentioned that the flow of clipboards in the clinic was a barrier to efficiently screening each patient. The fact that patients were being handed a clipboard with a form that needed to be given to the MA or RN rooming the patient meant that the clipboard most often went to the exam room rather than being returned to the front desk. The clinic administrator created a clipboard drop box that MAs and RNs could use to return clipboards to the front desk halfway through implementation, and just prior to this the front desk supervisor purchased more clipboards for the clinic. Whether these solutions adequately addressed the problem of having enough clipboards and getting them back to the front desk is an area for future inquiry and problem solving.

Because screening itself doesn't diagnose depression, one obvious question to ask is whether depression was diagnosed more often alongside the increased rate of screening. Screening also doesn't immediately equate to more treatment either, but there might be a relationship. One could ask whether behavioral health referrals or antidepressant medication prescription rates were influenced by the increased rate of screening. Another use of the screening instruments is to monitor treatment response, and to gauge whether increased rates of screening had an impact on treatment monitoring, future iterations of this work might look for paired antidepressant medication dosage changes with administration of depression screens. All these areas: (a) relatedness of diagnosis rates to screening rates, (b) relatedness of treatment rates to screening rates, and (c) relatedness of dosage adjustments to screening rates are possible areas for secondary analysis as a continuation of this project.

Another area for potential secondary analysis relates to billing. Because depression screening is an annually billable activity, it would be reasonable to inquire whether reimbursement for depression screening activity changed in relationship to the increased screening rate.

Future Areas of Inquiry. Several possibilities for further inquiry were identified. These include staff perceptions of:

- self-efficacy in relation to screening activities
- amount of provider time spent on the screening activity
- provider's sense of utility of increased screening data
- reasons for patient non-cooperation with screening

These also include logistical factors:

- what other screening activities need to be regularly completed
- how to best utilize the EHR to organize the administration of multiple screening activities
- how to manage the flow of screening materials (clipboards, pens, and paper screening forms) within the clinic

Future analyses could also include data on the association between:

- new diagnosis rates and screening rates
- new behavioral health referrals and screening rates
- new antidepressant prescriptions and screening rates
- antidepressant dosage changes and screening rates
- billing, reimbursement, and screening rates

Reflections on the QI Process

Routinely screening for depression in primary care is recommended by national care guidelines. The question of exactly how frequently this screening should take place for an individual patient, however, depends on the needs of the patient and their provider's judgment. The interventions utilized by this project may have been predicted to reach the QI team's goal of roughly 42%, as the revised workflow that was created has a clearly delineated plan to screen every patient that presents in-person for a medical appointment. So, the fact that the increase and total rate, while statistically significant,

was considerably less than clinical goals warrants further evaluation and refinement of the QI processes. There are likely several reasons why the QI goal was not reached, some of which were covered above in the limitations section.

The nuances developed by the interview data and survey responses are perhaps the most powerful part of this work, despite the difficulty quantifying and measuring them. The input of multiple stakeholders proved to be invigorating to discussion in the clinic on how to best address potential depression screening in the clinic. This input exposed questions of whether there was enough time, psychological security, and treatment resources to meaningfully screen every patient for depression at every medical visit. Discovering, understanding, and responding to all the nuances that came up was not something that this project was capable of planning for in one iteration of AI-grounded interviews and one turn of a PDSA cycle. Instead, this work would best be slowly and thoughtfully pursued, with a self-awareness that the work will often falter and need correcting. Indeed, this is the spirit of the PDSA cycles.

The process that was developed was done with the cooperation and trust of the staff that participated. It demonstrated both their capacity for working together and commitment to learning and improving patient care. The fact that a student led the project both undercuts and enhances the findings of the project. On the one hand, participants might have perceived their contributions as less meaningful than if they were being asked to contribute by a supervisor or QI team member sent by senior leadership. On the other hand, the fact that they were being asked for input by a student may have enhanced their openness and encouraged more trust because there might have been less fear of saying the wrong thing. Of course, these are speculations, but as future iterations of this work are considered, the question of openness and trust should be addressed.

This project took place at an interesting moment in the parent organization. The parent organization, during the project's implementation, hired a new chief executive officer and director of behavioral health. As these important leadership positions were filled, it was also announced that the organization intended to focus on depression screening – not specifically connected to or influenced by this project. Because of this, there was increased attention on the results and methods of this project by senior leadership. In this regard, this project fit an important role, by happenstance, of beginning a conversation about how best to do this work of improving the depression screening process across the parent organization, clinic-by-clinic.

The challenges at this clinic will be very different than at others. For instance, while there are non-English translations of the PHQ-9 and PHQ-2 available, there are languages spoken frequently at other clinics for which there are not readily available translations (i.e., Amharic and Oromo). There are likely many other differences: pre-existing procedures, habits, and unofficial workflows that will influence iterations of this work at other clinics in the parent organization.

The central idea that this project can offer to future work in this area, then, is to suggest sitting in problem identification longer than might be expected. The value of the AI-grounded interviews is that they didn't just speak to questions of workflow and logistics but revealed attitudes that wouldn't have been seen without them. Similarly, the surveys yielded concerns that might not have been available if they were not anonymous. The parent organization has shown itself to be a sensitive steward of this kind of work and will likely be able to continue with this spirit of the work as it seeks to improve the depression screening process across its network of clinics.

One last idea to share to further work in this area, is that there are many opportunities for informal feedback that this project was not able to fully document. This is where, in the literature on mental health integration in primary care, the concept of a practice change champion seems important.

Being a student, while involved in the clinic, I was not able to self-identify as a champion for this process change because of the naturally time-limited nature of the project and the need to produce a scholarly paper. A practice change champion, someone who is deeply committed to the work and supported by the organization, would be able to engage these informal moments more completely and weave them into multiple iterations of future PDSA cycles.

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Appendix A

AI-Grounded Interview Guide

Thank you for making time to meet with me. I've asked you to join me for this interview to get your ideas about how depression screening works at the clinic, and ways that we can improve the depression screening process. First, I want to get an idea about how depression screening goes right now, here at [the clinic]. Specifically, what is your part in the process?

What would you say is one of the things in the depression screening process that is working well right now?

What sorts of ideas do you have to improve the depression screening process?

What specifically do you think you and others in your job role could do that would make the depression screening process better for everyone?

If we are to improve the process of depression screening, what could you and others in your job role do more easily than anyone else in the process?

If we were able to make those changes, how do you imagine we could get them to stick?

Thank you so much for these ideas! I really appreciate you taking the time to share them.

Appendix B

Initial Survey

Thinking about the depression screening workflow at [the clinic], please indicate how much you agree or disagree with the following statements.

I understand my role and responsibilities in screening patients for depression:

[Strongly Disagree] [Disagree] [Neither Agree nor Disagree] [Agree] [Strongly Agree]

I regularly participate in the process of screening patients for depression:

[Strongly Disagree] [Disagree] [Neither Agree nor Disagree] [Agree] [Strongly Agree]

I have seen a written depression screening workflow for this clinic and know how to access it:

[Strongly Disagree] [Disagree] [Neither Agree nor Disagree] [Agree] [Strongly Agree]

What makes the process of screening patients for depression an easy of your work?

What makes the process of screening patients for depression a difficult part of your work?

Follow-up Survey

Thinking about the *last four weeks using the revised* depression screening workflow at [the clinic], please indicate how much you agree or disagree with the following statements.

I understand my role and responsibilities in screening patients for depression:

[Strongly Disagree] [Disagree] [Neither Agree nor Disagree] [Agree] [Strongly Agree]

I regularly participate in the process of screening patients for depression:

[Strongly Disagree] [Disagree] [Neither Agree nor Disagree] [Agree] [Strongly Agree]

I have seen a written depression screening workflow for this clinic and know how to access it:

[Strongly Disagree] [Disagree] [Neither Agree nor Disagree] [Agree] [Strongly Agree]

What makes the process of screening patients for depression an easy of your work?

What makes the process of screening patients for depression a difficult part of your work?

Appendix C

Revised Depression Screening Workflow

This document is a part of a project to increase the number of patients screened for depression. What follows is a standardized workflow with specific roles and responsibilities for each job role involved in depression screening during a primary care visit.

Why screen for depression?

Depression is one of the leading causes of disability worldwide, and this is data from *before* covid. Because of stigma, shame, and lack of access to mental health care, people with depression often don't get a diagnosis or treatment. That means that addressing depression, here in primary care, is necessary to meet our vision of 100% access to high quality health care. While primary care may not be the last stop in addressing an individual's mental health problems, it is frequently their first.

Screening for depression in primary care is also recommended by important associations and their care guidelines. Because of these recommendations insurance companies pay for depression screening in recognition that when we find and treat depression, healthcare costs are lower in comparison to if we waited until it was a bigger problem. Furthermore, some of the grants that our organization receives ask for us to screen a certain percentage of our patients for depression.

Why screen for depression, now?

Because of covid everyone has been under tremendous stress. While stress and grief are normal, depression isn't. Strangely, when times are tough, people can get the message that they "just need to suck it up," and ignore their stress, grief, and hurt. When normal stress and grief build up (in combination with other factors) it can turn into depression. So now, *because of covid*, we are seeing

increases of mental health problems, but we also know there are a lot of mental health problems we *can't see*. Screening for depression is one way we can help.

Patient Services Representatives

You are often holding space and maintaining boundaries for patients that are in distress. That kind of work, in and of itself, is therapeutic, and you are a part of a team – you don't have to do it all yourself – none of us can. Part of the changes to the depression screening workflow mean giving out a depression screener to every patient that is seeing a medical provider; some of them will be getting the longer form (the **PHQ-9, printed on green paper**) and some of them the short form (the **PHQ-2 printed on blue paper**). These will, ideally, be filled out while the patient is waiting to be called back and the patient will give them to the MA/RN/Provider when they get to the exam room. If the patient has questions about the screener, you can let them know that their clinical team will be able to answer their questions, and there are a few short scripts included below that you can use if you find them useful.

- PSRs give a PHQ-9 at check-in to the following patients:
  - new to the clinic and seeing a provider for the first time
  - when they are being seen for an annual wellness visit
  - if any of the following keywords are in the appointment notes:

Antidepressant	Insomnia
Annual Wellness Visit or AWV	Pain
Depression	PHQ9
Fatigue	Sleep

- PSRs give all patients seeing a medical provider (MD, DO, ARNP, or PA) a PHQ-2 at check-in if they have not been given a PHQ-9
- PSRs restock **PHQ-2** (**printed on blue paper**) and **PHQ-9** (**printed on green paper**) forms in the front desk areas by printing off copies from a file located on shared storage (**Network/storage/shared/[Clinic Name]/Depression Screeners**)

- PSRs encourage patients to fill out the depression screen paperwork by saying something like:
  - "We give these to everyone so your provider can address your health comprehensively. Please fill it out in your chair and hand it to the person who calls you back to the exam room. If you have any questions while you are filling it out, the person who calls you back to the exam room or your provider will be able to answer them."
- Some other sample scripts for responses to patient questions/concerns:
  - Patient: "*What will happen if I'm honest when I'm filling this out?*"
    - PSR: "Your provider wants you to be honest, they do their best work when you are. They can talk with you more about your answers when they look at it with you in the exam room."
  - Patient: "*I already did one of these the last time, do I have to keep doing it?*"
    - PSR: "Thank you for filling it out! We ask everyone to fill these out regularly, it's kind of like how they take your blood pressure and vital signs when you come in."
  - Patient: "*Of course I'm depressed, you would be too if…*" (tells elaborate story with lots of private details and traumatic content)
    - PSR: (politely interrupting) "Sorry, I'm going to interrupt you; that sounds hard, and I'm not trained in helping with that, but your provider is. They will be able to talk through this with you. For now, I ask that you fill that out and someone will come take you to the exam room where you can talk with your provider."

Medical Assistants

Your work collecting health information and labs, preparing for procedures, and generally keeping providers organized makes it possible for patients to get efficient and comprehensive care. You are likely already doing most of the things that are included below, but they are written out to make sure everyone is working from the same expectations. The workflow below asks that you enter the results of all paper depression screeners (filled out before you room them or afterwards), verbally give (and enter the results of) the PHQ-2 while rooming the patient if they haven't filled out the paper screener, and give the PHQ-9 when the PHQ-2 is positive (**score is 3 or higher**). If the patient is refusing to participate in the paper screener and the verbal screener, simply let the provider know, there's no need to argue or coerce the patient; by asking each time and gently encouraging, the hope is that it will eventually become routine for them. If the patient has refused to complete a paper screener, but they do respond to the verbal PHQ-2 and it is positive (**score is 3 or higher**) offer the PHQ-9; but again, if they refuse, that's okay, simply let the provider know they were positive on the PHQ-2 but refused the PHQ-9. There is a short script included below that you can use if you find it useful.

- MAs collect paper depression screeners from patients while rooming them and enter the results of the PHQ-2 or PHQ-9 into the EHR
    - If the results of the PHQ-2 are positive (**score is 3 or higher**) MAs reflexively administer the PHQ-9
- If the patient has not filled out their paper depression screener:
    - MAs verbally give the PHQ-2 and enter the results into the EHR
        - If the results of the PHQ-2 are positive (**score is 3 or higher**) MAs reflexively administer the PHQ-9
    - MAs give gentle encouragement to patients to fill out depression screeners at future appointments

        - If the patient refuses to answer the PHQ-2 questions verbally, the MA lets the provider know the patient refused to participate in the depression screening activity
    - MAs restock **PHQ-2** (**printed on blue paper**) and **PHQ-9** (**printed on green paper**) forms in the exam rooms by printing off copies from a file located on shared storage (**Network/storage/shared/[Clinic Name]/Depression Screeners**)
    - A sample scripted response to a common patient question:
        - Patient: "*I already did one of these the last time, do I have to keep doing it?*"
            - MA: "Thank you for filling it out! We ask everyone to fill these out regularly, it's kind of like how they take your blood pressure and vital signs when you come in."

Registered Nurses

While you aren't involved in most depression screens, your health education work can prepare patients for future depression screening and reduce confusion and friction in the clinic. During annual wellness visits your part of depression screening will be to enter the results of the PHQ-9 into the patient's chart. For patients who haven't filled it out, your role is to provide education around the importance of screening for depression and how addressing mental health concerns relates to the patient's overall health. Then attempt to help them fill out the PHQ-9 or verbally administer the PHQ-2 (and reflex to the PHQ-9 if the PHQ-2 is positive [**score is 3 or higher**]).

During nurse-only visits, mental health concerns may come up. When you are recommending patients discuss mental health concerns with a provider, use the appointment note line to ask for a PHQ-9 for patients that you would like to be thoroughly screened for depression at the appointment you make for them.

- RNs collect paper depression screeners from patients while rooming them for annual wellness visits, and enter the results of the PHQ-9 into the EHR
- If the patient has not filled out their paper depression screener:
  - RNs give education to patients as to the importance of the depression screening and attempt to help patients fill out the PHQ-9
    - If the patient still declines to fill out the PHQ-9
      - RNs verbally give the PHQ-2 and enter the results into the EHR
      - RNs re-offer the PHQ-9 if the PHQ-2 is positive (**score is 3 or higher**), and enter the results of the PHQ-9 into the EHR
    - If the patient refuses to participate in the depression screening activity all-together, RNs let the provider know of the refusal
- RNs make appointments with medical providers and use the word '**PHQ9**' in the appointment notes to trigger a PHQ-9 screening when they deem appropriate

Providers

The United States Preventative Services Taskforce recommends screening for depression only in a setting where a provider can offer treatment or referral. This workflow doesn't impact your medical decision making but does attempt to screen more patients. Your current work in dyads, scrubbing appointment notes, will change so that you will only be deciding whether you want the PHQ-9 or not – all your patients should be getting a PHQ-2, and those with a positive PHQ-2 (**score is 3 or higher**) should be reflexively screened with a PHQ-9. This should make it easier to track treatment response, explore differentials, address care gaps, and find more patients who would benefit from treatment. Another change to the workflow is that there is a clear expectation that the person rooming the patient will enter the results of the screening activity *unless you give the screen verbally yourself*.

- Providers use their judgment, Care Gaps, and Health Maintenance topics to determine which patients need a PHQ-9 at appointment check-in
- Providers scrub appointment and use the word '**PHQ9**' in the appointment notes to trigger a PHQ-9 screening at check-in
- Providers give education to patients as to the importance of the depression screening activity
- Providers verbally give the PHQ-2 to patients who have refused to participate in the screening activity
    - If providers verbally give the PHQ-2, enter the results into the EHR

Appendix D

PSR Cheat Sheet for the Depression Screening Workflow

1. Give a **PHQ-9 (green)** to the following **medical** patients:
    a. New to the clinic
    b. Establishing with a new PCP
    c. One of the following keywords is in the appointment note:
        - Antidepressant
        - Annual Wellness Visit
        - AWV
        - Depression
        - Fatigue
        - Insomnia
        - Pain
        - PHQ9
        - Sleep
2. Give a **PHQ-2 (blue) to all other medical patients** seeing a provider (MD, ARNP, PA, DO, etc.), do not give them for lab or nurse-only visits
3. Restock **PHQ-2** (**printed on blue paper**) and **PHQ-9** (**printed on green paper**) forms in the front desk areas by printing copies from files located on shared storage: (**Network/storage/shared/ [Clinic Name]/Depression Screeners**)

Sample Scripts and Responses

Encouraging a patient to fill out their depression screening paperwork:

PSR: “We give these to everyone so your provider can address your health comprehensively. Please fill it out in your chair and hand it to the person who calls you back to the exam room. If you have any questions while you are filling it out, the person who calls you back to the exam room or your provider will be able to answer them.”

Patient: “*What will happen if I’m honest when I’m filling this out?*”

PSR: “Your provider wants you to be honest, they do their best work when you are. They can talk with you more about your answers when they look at it with you in the exam room.”

Patient: “*I already did one of these the last time, do I have to keep doing it?*”

PSR: “Thank you for filling it out! We ask everyone to fill these out regularly, it’s kind of like how they take your blood pressure and vital signs when you come in.”

Patient: “*Of course I’m depressed, you would be too if…*” (tells elaborate story with lots of private details and traumatic content)

PSR: (politely interrupting) “Sorry, I’m going to interrupt you; that sounds hard, and I’m not trained in helping with that, but your provider is. They will be able to talk through this with you. For now, I ask that you fill that out and someone will come take you to the exam room where you can talk with your provider.”

Appendix E

MA Cheat Sheet for the Depression Screening Workflow

1. Collect completed screener
    a. If it is a completed PHQ-9, enter the results in the patient's chart
    b. If it is a completed PHQ-2, score the results, if the PHQ-2 is positive (**PHQ-2 score is 3 or higher**), give the patient a paper PHQ-9
2. If they did not complete a paper screener
    a. Verbally give the PHQ-2
    b. Score the results, if the PHQ-2 is positive (**PHQ-2 score is 3 or higher**), give the PHQ-9
3. If they did not complete a paper screener and they refused a verbal screener
    a. Let the provider know they refused to participate
4. After the visit, collect any paper screeners and ensure results are entered in patient's chart
5. Restock **PHQ-2** (**printed on blue paper**) and **PHQ-9** (**printed on green paper**) forms in the exam rooms by printing copies from files located on shared storage: (**Network/storage/shared/ [Clinic Name]/Depression Screeners**)

Sample Response to a Common Question

Patient: "*I already did one of these the last time, do I have to keep doing it?*"

MA: "Thank you for filling it out last time! We ask everyone to fill these out regularly, it's kind of like how we take your blood pressure and vital signs when you come in."