Project Methods

Goal

The goal of the project was to increase depression screening of the adult Crohn's disease (CD) population in the outpatient gastroenterology clinic setting using Patient Health Questionnaire 9 (PHQ-9). The secondary goal was to evaluate the provider perspective related to perceptions of depression and CD, as well as PHQ-9 utility.

Tools

PHQ-9

The PHQ-9 is a brief instrument for screening, measuring, and monitoring depression. It can be scored quickly by the clinician prior to or during an office visit. The PHQ-9 was developed with funding from Pfizer Incorporated (Inc.). Pfizer Inc. is the legal copyright holder and have publicly granted unrestricted access and use of the PHQ-9 (Pfizer Inc., 2010).

Nine-symptom Checklist

Name _____ Date _____

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

(For office coding: Total Score _____ = _____ + _____ + _____ + _____)

If you checked off *any* problems, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
☐	☐	☐	☐

(Kroenke et al., 2001)

PHQ-9 is a self-administered nine question tool that focuses on the nine Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV) criteria for Major Depressive

Disorder (MDD). The severity of each criterion is scored using a Likert scale of "0" (not at all) to "3" (nearly every day) over the past two weeks. Specific question content includes sleeping and eating habits, anhedonia, cognitive focus, and physical symptoms. Question nine asks about suicidal ideation (SI) and counts positively regardless of duration (Kroenke et al., 2001). There is a tenth question that is not part of total score but does inquire about the level of perceived difficulty of symptoms in daily function. A positive response to question ten is required to meet the criteria for the tentative diagnosis of depression (Pfizer, 2010).

Scoring of the PHQ-9 is approached in three steps.

1. Question one and/or two must be reported at a frequency of "more than half the days" (2) or "nearly every day" (3).
2. Next there needs to be a total of five or more of the questions positive for symptom presence; questions one through eight scoring either "2" or "3" and/or question nine scored "1", "2", or "3".
3. The third step is that question ten is reported as "somewhat difficult", "very difficult", or "extremely difficult."

Points for each of the questions are added to reach a total score. The total score is a severity index for the diagnosis of depression (Kroenke et al., 2001).

The PHQ-9 severity measure can range from 0-27. PHQ-9 score of 5-9 is indicative of minimal symptoms; 10-14 is indicative of Minor depression, Major depression that is mild, or dysthymia. Score of 15-19 indicates moderately severe Major depression, and a score $\geq$20 indicates severe Major depression (Pfizer, 2010). Research has demonstrated that PHQ-9 scores $\geq$10 have a both sensitivity and specificity of 88% for major depression (Kroenke et al., 2001).

Pretest and Posttest Surveys

The tools for both project goals were pretest and posttest surveys via Qualtrics, which measured the provider's perspective on utility/integration of the PHQ-9 and provider report of total PHQ-9 screenings completed. Both pre and posttest surveys were completed anonymously via an online Qualtrics survey link supplied in email communications. Each survey was composed of five questions scored on a five-point Likert Scale. Pretest and posttest each had two additional open-ended questions for editorial response. A single descriptive question regarding professional designation as either MD, DO, APRN, or PA completed the survey. The questions that remained the same on both surveys were:

1. Depression occurs at an increased frequency in the adult Crohn's disease population compared with the general population.
2. Routine screening for depression is the responsibility of all healthcare providers regardless of specialty.
3. I feel comfortable with identifying symptoms/diagnostic criteria of depression.
4. Routine depression screening could be integrated into my current practice without significant increase in resources or significant increased office visit time.
5. Pre: I am open to adding routine depression screening into my routine care of my adult patients with Crohn's disease.

   Post: I plan to add routine depression screening into my routine care of my adult patients with Crohn's disease.

Design

Pre-Implementation

A copy of the PHQ-9 with overview, scoring guide as published by Pfizer Incorporated (1999), and pretest survey were supplied via email to each provider two weeks prior to implementation of the project. Any additional educational material or this author's literature review were provided upon request to all participants. Providers were offered a meeting to address any questions or concerns any time prior to, during, or after implementation. All email communications included an "opt out" opportunity from future emails.

Implementation

A paper copy of PHQ-9 was supplied to adult patients with CD at the beginning of their office visit. The form was completed by the patient and scored by the provider. Further referral, or discussion was at the discretion of the provider. The completed form disposition was at the discretion of the provider. The presence of SI was immediately addressed at the office visit with any emergent or non-emergent referrals at the discretion of the provider.

Evaluation

Total PHQ-9 completed was reported on posttest survey by each provider. The pre-implementation rate of screening with PHQ-9 was zero percent per stakeholder report and this was confirmed via pretest survey.

Posttest surveys were disseminated via email one week after completion of full project duration. A reminder email was sent out two weeks after completion of project. Collection of data (posttest surveys) ceased at four weeks after the end of the project to allow for data calculation, organization, and interpretation. No completed PHQ-9 forms, patient specific

material, or patient identifiers were collected or reviewed. Final number of PHQ-9 administered/completed was reported on posttest survey.

Data Evaluation

The primary methods to evaluate the practice change implementation were determined to provide a mix of quantitative and qualitative data for interpretation. Quantitative data in the form of total number of PHQ-9 screening tools completed. Pre and posttest survey scores were evaluated and compared for any changes in perceptions identified through changes in weight on Likert scale. Qualitative data was obtained from provider responses to open ended questions. Descriptive data obtained will only be related to provider designation as a physician or advanced practice provider.