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**Impact of Anxiety in School Aged Children and Adolescents in Rural Settings**

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NURS 8263: DNP Project

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August 04, 2023

### **Abstract**

The widespread prevalence of youth anxiety has a strain on rural communities lacking screening access. The Screen for Child Anxiety Related Emotional Disorders (SCARED) Tool is widely validated to assess anxiety. The project's purpose analyzed clinician's adherence to screening youth with a chief complaint of anxiety or as a behavioral referral at Shaw Medical. The principal investigator implemented a SCARED educational protocol which consisted of SCARED handouts, mock training interviews, a post-educational survey, and chart audits. A descriptive research design using a retrospective chart review examined SCARED screenings in 100 youth aged 8-18 listing sociodemographic statuses of gender, race, and welfare status. The project aim evaluated clinicians SCARED screening reliability based on implemented policies. Excel data collection measured clinician's tool utilization and excluded prior anxiety diagnosed charts. The project compared 100 pre-intervention charts and 50 post-intervention charts detailing increased screen results post-education. The pre-intervention results revealed 61% of charts had missing or incomplete SCARED Tool screenings. However, the post-intervention chart review measured 100% of SCARED Tool screenings administered successfully. The usage of the SCARED tool at Shaw Medical enhanced practitioners' ability to diagnose anxiety, improve the ability to treat childhood anxiety through early detection, and increase patient outcomes.

*Keywords:* SCARED Tool, Anxiety, Screening, Youth, Child

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### **Impact of Anxiety in School Aged Children in Rural Settings**

The increasing rate of mental health disorders in the United States (US), specifically in school-aged children and adolescents, has become a growing crisis. As a result, healthcare providers have been deemed with the task of finding viable solutions that can reduce the stigma associated with mental health conditions (Harvey & Clark, 2020). According to the Center for Disease Control and Prevention (CDC) (2023) the main mental health disorder affecting an estimated 9.4% or 5.8 million children between the ages of 3-17 years of age is anxiety, and this rate has continued to increase since 2012. Therefore, early detection and screening of anxiety-like symptoms may help healthcare providers deliver the proper care and follow-up to those school-aged children and adolescents, who may be dealing with this mental health problem.

A needs assessment conducted through a retrospective chart review at the project site, Shaw Family Medical clinic who cares for underserved community of the Mississippi Delta, found an increasing number of patients with anxiety-like symptoms. Although a standardized process for assessing anxiety via the use of the SCARED (Screen for Child and Adolescents Related Emotional Disorders) tool was in place, it was not properly utilized. The SCARED Tool represented a 41-item questionnaire designed to assess child or adolescent symptoms over a period of three-months (Birmaher et al., 1999). The SCARED tool then provided questions designed to determine whether a child or adolescent is experiencing anxiety based on pertinent information related to the child's mood and behavior over a three-month time frame (Birmaher et al., 1999). In addition, to the child, the parent is also assessed over the three-month time frame to determine if the child's behaviors correlate to observed findings from the parent (Birmaher et al., 1999). After data is gathered, a scoring scale is determined based on the findings to help guide

the clinician's along with further assessment of whether a type of anxiety disorder is present and applicable for diagnosing.

The purpose of this quality improvement project was to educate the staff and providers on the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. The PICO question that guided this quality improvement project was: (P) In underserved school-aged children ages eight to eighteen years with undiagnosed anxiety, (I) will the implementation of a standardized process to assess for anxiety-like symptoms through the use of the evidence-based SCARED tool, (C) compared to the under-utilization of the tool (O) impact the utilization of the tool by clinicians, and identify patients with anxiety (T) in a 4-week period?

### **Background of the Problem**

Anxiety disorders prevalence rates have skyrocketed in children and adolescents through recent years, and although screenings are available, utilization has not exhibited the best results (Reardon et al., 2018). Individuals have interchangeably used anxiety; however, understanding the true significance of the disorder is imperative to seek proper treatment. Experiences of anxiety episodes may occur through nervous thoughts or situations; nevertheless, once it has resolved and the level of comfort is returned through recalibrated adjustments of the mind, the symptoms dissipate (Hateli, 2020). However, the word anxiety has become overused; and no longer seems to capture how debilitating the disease process may be once it has reached a level of clinical diagnosis (Hateli, 2020). Therefore, efforts to assess children and parents surrounding barriers to receiving professional screening, treatment to access, and diagnosis is discussed to minimize challenges and recognize symptoms (Reardon et al., 2018).



The problem of anxiety in youth is a pressing concern that affects an average of 7.44% of children (3-17) (Mistry-Patel & Brooker, 2023). A research study conducted by Mistry-Patel and Brooker (2023) detailed results consistent with lower socioeconomic status children with increased risks for anxiety related behaviors due to factors including poverty level. Therefore, considering data surrounding the need for early detection of anxiety in youth, specifically in a rural community acknowledged the need for an assessment of youth anxiety. The needs assessment serves as an imperative approach of setting priorities and determining criteria for various phases to produce a solution to elevate or form a new plan (Ryan et al., 2021).

The needs assessment served to support the proposed improvement of utilization of the SCARED Tool by clinicians at the Shaw Family Medical Clinic to provide early detection through screening which affects youth in rural communities. The improvement benefited the current health care delivery system process by ensuring effective screening of anxiety in school-aged children. The goal of Shaw Family Medical Clinic was to make improvements through screen utilization by making positive changes within the clinic system through education and chart audits which determined utilization rates among clinicians. The needs assessment process resulted in an adequate selection for the proposed project site at Shaw Family Medical among the youth population aged eight to eighteen with contributing factors of sociodemographic status. The needs assessment can impact global or national levels in the future if anxiety is left untreated, causing anxiety to develop into debilitating issues later in life (Mistry-Patel & Brooker, 2023).

The underserved community where the quality improvement project was conducted was in a rural town in the heart of the Mississippi Delta. The community of Shaw, Mississippi is a small-town community with an approximate population of less than 2,000 citizens, with a below

level income margin in comparison to the entire State of Mississippi reported at \$32,833, significant for a 56.38% poverty rate (World Population Review, n.d.). The racial demographics for Shaw, MS list a 90.59% inhabitant of African American's as opposed to Caucasians and any other race accounting for approximately 9% of the total population (World Population Review, n.d.). According to Morrissey and Kinderman (2020) poor socioeconomic status youth have an increased likelihood of experiencing anxiety and depression during adulthood. Therefore, factors surrounding sociodemographic status, poverty rates, and a majority African American town led to determining the importance of a needs assessment for the town of Shaw, MS.

According to Caldwell et al. (2019) the rate of anxiety is increasing at an alarming pace in school-aged children. Therefore, clinicians working together to solve the problem of anxiety in youth through screening for early detection is imperative to provide a decrease in the number of cases. Stakeholders may represent an individual, group, or organization who may have interest, influence, involvement, or impact on the project's success (Moran et al., 2017). A primary stakeholder consisted of the advanced practice registered nurses (APRN) at the Shaw Family Medical Clinic. The clinicians played a pivotal role in direct impact of care through early detection of anxiety using the SCARED screening tool. The choice of whether the SCARED Tool was properly administered served as a direct impact upon the child due to incomplete data collected for early detection of anxiety.

The overall aim served to promote early detection of youth for anxiety through utilization of the SCARED Tool, providing education through handouts for measure improvements, and providing utilization measures for the post screen after education of the tool. The specific goal resulted in improvement in the number of clinician screening of SCARED Tool results and proper completion after education was provided for proper insight of screening.

### **Review and Summary of Relevant Literature**

The outcome of excessive anxiety leads to negative effects surrounding childhood and adolescents in more than 20% of children during school aged years (Caron et al., 2022). The literature review allows thorough deductions to be derived from findings to formulate the project question and receive insight into meaningful results surrounding the use of the SCARED tool to assist with screenings of the underserved community. The purpose of this literature review is to detail the reliability and validity of the SCARED Tool implemented at Shaw Family Medical.

A comprehensive electronic database search of the literature was enacted to further examine the implementation of the SCARED Tool protocol to assist with providing a literature review that supported the quality improvement project. The literature review was gathered from research-based databases which include Science Direct, Cumulative Index to Nursing and Allied Health Literature (CINAHL) Plus with Full Text, Cochrane Database of Systematic Review, EBSCO, Complimentary Index, Pub Med, Google Scholar, Psych-Info, and Directory of Open Access Journals. The literature review key search terms were selected based on direct relation to the stated PICOT question and included: SCARED Tool, anxiety, screening, youth, child, school-aged children, and adolescents. The use of Boolean operators, AND/OR were initiated to optimize the search results. The inclusion criteria represented research studies referring to the PICOT question with focus on quality and consistent evidence; furthermore, search-limiting phrases and studies were excluded if the articles provided did not address the PICOT question. The purpose of the exclusion criteria was to ensure high quality of evidence through the literature search for data interpretation.

A research study by Friesen and Markowsky (2021) examined the prevalence of anxiety in the adolescent population, utilizing the SCARED Tool to determine the validity and reliability

of the screening. The SCARED Tool was recommended in the literature due to success of validation, availability as a parent or child version, range of various anxiety disorder screening, easily accessible, and availability of free online prints for clinicians (Friesen & Markowsky, 2021). The availability of screening in both the parent and child's language provides accurate and effective means of communication amongst the patient, parent, and clinician. In addition, the SCARED Tool provides a two-part screening with separate questionnaires to be completed by the parent and the child with points computed in a Likert-type manner (Friesen & Markowsky, 2021). Afterwards, the points will determine if an anxiety disorder is present using the entire calculated results and considering individual subcategory findings (Friesen & Markowsky, 2021).

A meta-analysis study by Runyon et al. (2018) examined by psychometric properties of the SCARED instrument by analyzing internal reliabilities for both test versions, extent of parent vs child responses, and test re-test reliabilities. A total of 65 studies were conducted between 1997 and 2017 utilizing a random-effect model to determine consistency of variances for all examined effects (Runyon et al., 2018). The psychometric properties weighed the parent and child version of the SCARED tool and reported excellent consistencies of internal reliabilities on a total score (Runyon et al., 2018). In addition, the SCARED tool provided moderate to large test-retest reliabilities and moderate to large parent-child agreement rates (Runyon et al., 2018). Runyon et al. (2018) described the child and parent versions of the SCARED instrument as a vigorous psychometric property well performed consistently in communities, clinics, and countries.

A cross-sectional study conducted with 729 adolescent participants determined if issues related to sociodemographic and personal factors played a role in anxiety cases (Madasu et al.,

2019). The SCARED tool was utilized for the study due to reports of high validity and recommended findings to evaluate children from eight to eighteen years of age (Madasu et al., 2019). The SCARED tool determined that outcome of prevalence of anxiety amongst those who participated in the scale resulted in 22.7% with anxiety (Madasu et al., 2019). The rate of anxiety showed higher among girls (27.6%) than boys (18.3%), and social anxiety disorder resulted in the most common anxiety disorders amongst the participants in the study at 14.3% (Madasu et al., 2019). In addition to the results, it was noted that lower-middle class, female population, and stressful situations reported by the youth in the past year all played major factors in the SCARED tool increased rates of anxiety (Madasu et al., 2019). There were no gaps listed in the article; however, there are indications of better access needed for quality care and diagnosing due to the rural areas and weak delivery of primary care to youth and adolescents in need of mental health services (Madasu et al., 2019).

Robe et al. (2022) conducted a meta-analysis study of random effects model that utilized the SCARED tool. The psychometric properties of the SCARED tool were utilized to conduct a study of forty-one questionnaire items with 1,106 youth with ages ranging from 9 to 16 years of age to determine weighted validity (Robe et al., 2022). The response displayed excellent internal consistencies regarding scale scores and various specifications of anxiety (Robe et al., 2022). The sociodemographic and other associated factors reported a two-time higher prevalence rate of anxiety in females than males, with comparable results in earlier findings regarding female adolescents' prevalence of anxiety (Robe et al., 2022). Additionally, adolescents from lower-middle class families' rate of anxiety doubled as opposed to adolescents from upper class families (Robe et al., 2022). Furthermore, results yielded no meaningful results related to age, completed educational background, family type, living status, work status, or school status (Robe

et al., 2022). The overall research study proved to be effective in the SCARED diagnostic process regarding the validity and equity of the tool (Robe et al., 2022).

Ivarsson et al. (2018) provided an evaluation of the SCARED tool in psychiatric outpatients of youth to determine the level of sensitivity, specificity, and validity. The longitudinal study was conducted with 239 outpatient youth over a three-year period with a parent and child questionnaire version (Ivarsson et al., 2018). The parent rated anxiety sensitivity ranged from 75%, and a 79% range with the child rated sensitivity (Ivarsson et al., 2018). The results yielded valid and reliable psychometric properties amongst the screening tools for the SCARED tool (Ivarsson et al., 2018). A gap in findings discussed mixed results amongst the SCARED tool regarding the efficiency in screening of questioning, small sample sizes, and a compromise in the cut-off score sensitivity (Ivarsson et al., 2018). However, overall findings recommend usefulness for the SCARED screening of anxiety but specify that it is not to replace direct communication and diagnoses, and should not be used singularly (Ivarsson et al., 2018).

A pilot study by Shreve et al. (2021) determined the impact that anxiety has on children regarding social and academic performances using a SCARED tool with yoga interventions for 10 min over an 8-week period. The SCARED Tool was utilized as a validated tool for screening disorders (Shreve et al., 2021). A quantitative analysis of the types of anxiety was determined, and a pretest and posttest SCARED Tool design was utilized amongst 71 third and fourth graders, with age ranges of 8-10 years old utilizing a convenience sample (Shreve et al., 2021). The pre-SCARED test indicated that 44% of testers score was <25, which indicates no anxiety, and the post-SCARED test revealed an increase in 59% of testers with a score <25 after testing and yoga intervention (Shreve et al., 2021).

In addition, the importance of understanding the factors that play a significant role in anxiety include demographics of children, which provides further insight into factors affecting the child. A research study performed by Shreve et al (2021) determined that on average, half of participants in the SCARED tool demographics lived with both parents, received free and reduced lunches, and had both parents graduate from high school. However, the anxiety scores were still elevated which depicts that there are other factors that may be affecting the children. Therefore, it is imperative to understand that in children with demographics that are neutral, with elevated rates of anxiety, it can only be imagined how the levels would differ in students with worse demographic areas. Unfortunately, it is important to acknowledge that children with socioeconomic disadvantages are unlikely to receive services geared towards diagnoses to determine mental health services (McGovern et al., 2022). Therefore, testing using the SCARED tools is important to determine and provide reductions in general anxiety and appropriate treatment (Shreve et al., 2021). In addition, although the study yielded effective results, there were gaps in the study including the small sample size and an unreliable teacher assessment report, which could have caused a skew in results (Shreve et al., 2021).

### **Statement of the Problem**

The problem statement served to identify the compliance of the clinicians within the Shaw Family Medical Clinic through education of staff and providers on the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. The overall goal was support for the health and well-being of school aged children and adolescents (eight to eighteen years of age) within underserved communities. The quality improvement project explored findings associated with results using the Excel data collection to audit utilization with the SCARED tool, determine

sociodemographic status such as race, age, sex, ethnicity, exclusions and inclusions, and diagnosis of anxiety. In addition, the SCARED tool questionnaire determined the effects of anxiety in relation to children in rural areas.

According to Kirubasankar et al. (2021) most anxiety disorders start during childhood with geographical locations serving as a major factor influencing mental disorders. Therefore, the consequences have proven to be detrimental if the problem of anxiety is not screen appropriately due to possibilities of disability, poor function in quality of life, or decreased productivity of work due to feelings of increased worry or guilt (Kirubasankar et al., 2021). Therefore, with levels of anxiety in school aged children at increased rates, the need for the QI project was evident. The proposed project helped contribute to the solution of decreasing anxiety by holding clinicians accountable by measuring the level of compliance utilizing the SCARED Tool. By measuring utilization, a consensus of early detection will be possible to make certain those individuals placed in roles to provide services are adhering to protocols and policies to contribute to the solution.

### **Purpose of the Project**

Anxiety disorders are one of the most diagnosed psychiatric disorders amongst children and adolescents (Robe et al. 2022). The United States of America has estimates that range from a national representative survey that depicts a rating of 7.1% of school aged children between the ages of 3-17 years of age with a current anxiety problem (Robe et al., 2022). Consequently, the ratings reveal that children with anxiety symptoms have an increased risk of developing poor academic adjustments, increased risk of depression, substance abuse, and other complications related to increased social service costs (Robe et al., 2022). Therefore, it is imperative to bring awareness to debilitating risk factors through early screening associated with untreated or



undiagnosed anxiety disorders, which can negatively affect student outcomes and social and economic standards.

The project's purpose was to bring awareness of education to clinicians regarding the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. The clinicians consisted of a group of six Family Nurse Practitioners (FNP's) whose practice experiences ranged from 3 to 32 years. The FNP has rights within their scope of practice (SOP) to treat psychiatric disorders such as mild depression and anxiety; however, the level of education covers the basis of mental health care and is not sufficient in preparation to treat complex disorders (Balestra, 2019). The problem of the project measured the compliance rate of administration of the tool in youth ages eight to eighteen years old. The measured level of compliance brought awareness to the importance of mental health screening and intervention (Balestra, 2019).

The PICO question that guided this quality improvement project was: (P) In underserved school-aged children ages eight to eighteen years with undiagnosed anxiety, (I) will the implementation of a standardized process to assess for anxiety-like symptoms through the use of the evidence-based SCARED tool, (C) compared to the under-utilization of the tool (O) impact the utilization of the tool by clinicians, and identify patients with anxiety (T) in a 4-week period?

### **Change, Change Framework, Scope, and Limitations**

#### **Scope**

The purpose of the QI project was to educate the staff and providers on the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. The outcome measured adherence post-education and determined the number of youths who experienced anxiety-like symptoms. Overall, the project

goal provided awareness through early detection of anxiety in youth by incorporating and following the SCARED screening tool to promote mental health well-being and adherence by clinicians who have taken an oath to provide the best level of care as healthcare professionals.

The inclusion criteria included school age children and adolescents at least eight to eighteen years of age that attended the Shaw School District. The exclusion criteria included any students under the age of eight, over the age of eighteen, and any youth with a previous diagnosis of anxiety. The QI project took place using a retrospective chart review, where the population participants were school aged children and adolescents with ages ranging from eight to eighteen years with complaints of anxiety or behavioral referral. Additionally, the clinicians at the clinic were participants who underwent monitoring through evaluation of the SCARED Tool. The Shaw Family Medical Clinic was the location where the data was gathered over a period of approximately four weeks.

### **Limitations**

Limitations represent project weaknesses in a QI project that can cause outcome impacts on the project (Ross & Zaidi, 2019). A barrier of the QI project concerns discrepant reporting in the child or parent completing the SCARED tool on behalf of the child (Behrens et al., 2019). Although there is a parent version available, the parent data can potentially serve as an inconsistency of the extent of recognizing internal symptoms in comparison to the child's experienced symptoms. According to Behrens et al (2019) parents tend to report less symptoms than children overall and this discrepancy can cause threats to research study. An additional limitation includes lack of interest in completion of the SCARED questionnaires by the child due to inability to recognize internal or external symptoms of anxiety (Birmaher et al., 2019).

Although a follow-up measure was provided, the results of only 4-week measurements may cause a relapse in the process of clinicians after the period has passed to measure charts for adherence. Regarding the project, the program was pre-set with timelines and dates previously configured, so the project times were dependent on the provided period. An additional limitation included the fear of change or attitudes of misunderstanding towards standardized tools implemented for utilization at Shaw Family Medical due to compliance rate of utilization of the SCARED Tool. Understanding the attitudes and compliance issues with implemented tools of clinicians may help determine efforts to provide training or encouragement within practice (Jensen-Doss & Hawley, 2011).

### **Delimitations**

Delimitations refer to the boundaries in a QI project, based on the investigators decision of what information to include and exclude from the report. The purpose of setting delimitations is to prevent goals from becoming larger than able to measure. A delimitation in the project is to only screen charts with youth being screened for anxiety complaints or behavioral referrals. Furthermore, the delimitation of the QI project will serve to exclude all students under the age of eight and over the age of eighteen). In addition, the QI project will not address the perceptions of the clinician's approval of the implemented SCARED Tool. The purpose of specific information allows for a narrow range that will not have additional information focusing on a large goal of findings.

### **Change and Change Framework**

Ferlie and Shortell: Framework for Change is a four-level model of the health care system that represents concepts that identify levels required for change (Ferlie & Shortell, 2001) (See Figure D). The four levels of change represent the individual patient, the care team, the

organization, and the political and economic environment (Ferlie & Shortell, 2001). The QI project provides measure improvement in the change of an issue. Therefore, the change framework specifically relates to my QI project as the need assessment is identified as a change required in the current way clinicians utilize a policy implemented tool for screening children and adolescents for anxiety. The SCARED tool was implemented into policy in January of 2023 by the Shaw Family Medical Clinic. However, a gap was identified as lack of utilization of the tool by clinicians, resulting in delayed screening and poor adherence to policy.

Level 1: The Individual Patient represents the school aged children and adolescents who are the defining factor in the patient-centered system. The needs assessment for the QI project is to ensure proper measures of screening are utilized for early detection and proper screening of youth with complaints of anxiety or behavioral referral through clinical administration of the SCARED tool to the youth and parent. A changing force in healthcare delivery is shifting the perspectives of clinicians to consider youth and parents in the process of reporting (Ferlie & Shortell, 2001). The first level of change relates to the QI project SCARED tool, as the questionnaire is a two-part screen that requires reporting from both the child and the parent related to an analysis of how the child has felt over the last three (3) months related to anxiety.

Level 2: The Care Team represents the six (6) healthcare practitioners in the clinic who are responsible for screening youths' w/ anxiety complaints or behavioral referrals using the policy implemented SCARED tool. Additional care team members include the parent who is part of the microsystem to participate in the SCARED tool questionnaire to determine the best possible response for early detection of anxiety of the youth. The process guides efficient higher quality care associated with the team, while recognizing the challenges w/ team development (Ferlie & Shortell, 2001). A changing force in healthcare delivery is shifting the perspectives of

clinicians to consider youth and parents in the process of reporting (Ferlie & Shortell, 2001). The behavioral outcome of the project was geared towards detecting anxiety within youth through a questionnaire administered by the clinician to the youth and parent. The environmental causes determined the socio-demographic status including age, ethnicity, race, and family economic status to determine issues among the youth screened for anxiety in the Shaw Family Clinic.

Level 3: The Organization represents the clinic where infrastructure is provided with necessary resources to support the lever of change and manage resources to all care teams (Ferlie & Shortell, 2001). The Shaw Family Medical Clinic represents the organization where the SCARED screening was implemented to provide early detection of anxiety in youth. The Shaw Clinic has implemented the policy of the SCARED tool that was adopted for early detection for youth anxiety after determining a needs assessment within the community. According to Ferlie and Shortell (2001) clinical organizations' challenges vary from burden of care and cost, causing increased pressures to accomplish more tasks with limited staff to meet projected budget costs. The average time a clinician at Shaw Medical must visit each patient varies from 15-30 min depending on the needs assessment.

Level 4: The Political and Economic Environment represents the influence of performance and structure of the health care system (Ferlie & Shortell, 2001). The policy implemented at the Shaw Family Clinic represents an understanding of the need for early detection of youth screening for anxiety and the imperative need surrounding the possible impact of effects later in the child's life. United States Preventative Service Task Force (USPSTF) (2022) recommended children and adolescent screenings to begin at age eight to eighteen years of age, with benefit noted in early detection to begin improving outcomes after a positive screening.

An additional political environment includes House Bill No. 1283 which represents the “Mississippi School Safety Act of 2019” clause 263-277 which discusses a policy to implement standardized behavioral health screening and referral protocols and procedures (Baker et al., 2019). The Shaw Family Medical Clinic is the only facility in Shaw, MS that also services the Shaw School District, where a policy has been set in place to provide proper screening of youth for early detection. Although the screening for this QI project takes place at the clinic, it relates directly with the need for proper utilization of the SCARED tool for adaptation to recognize anxiety where political changes has already been set-forth in the school setting for change.

According to Ferlie and Shortell: (2001) the Framework for Change utilizes each area of change within the four levels of the individualized patient, healthcare practitioner, organization, and economic environment. The individualized patient represented the youth being screened for anxiety, the healthcare practitioner detailed the screening tool utilization, the organization of Shaw Clinic detailed where the tool was implemented, and the economic environmental expressed possible long-term effects of negatively adhering to the screening policy.

### **Theoretical Framework**

Anxiety represents a negative impact on mental health if it is left untreated which can lead to debilitating disorders throughout the lifespan (Robe et al., 2022). A key factor to early detection of anxiety is through clinical screenings. Standardized screening tools utilized by providers have proven to be more effective in the identification of behavioral and psychosocial issues in youth than clinical assessment alone (Robiner, 2005). Theoretical frameworks help guide the implementation of quality improvement projects, as they help link the methodology and research question (Boslaugh, 2022). The theoretical framework utilized for this quality improvement

project was the Theory of Planned Behaviour (TPB), adapted from Organizational Behavior and Human Decision Process by Ajzen I (Boslaugh, 2022).

The Theory of Planned Behaviour concepts are defined as (Boslaugh, 2022) (see Figure E):

1. Attitudes toward the behavior: an individual's positive or negative evaluation represents a self-performance of the behavior.
2. Subjective norm: individual's perception of pressures or relevant beliefs as to why the behavior should not be performed.
3. Perceived behavioral control: individual's perceived ease or difficulty in subject performance of the behavior.
4. Intention: individual's readiness to perform behavior, determined by attitude towards behavior.
5. Behavior: individual's observable output noted from the response from the situation.

The TBP framework was fitting of the research topic related to utilization of the SCARED screening tool for early detection of anxiety by clinicians at Shaw Medical. The first step of the TBP framework represented the attitudes toward the behavior (Boslaugh, 2022). The clinicians at the Shaw Family Medical Clinic's utilization of the policy implemented SCARED tool resulted in lack of screening and adherence by the clinicians. The attitudes of the staff beliefs regarding the validity of the SCARED screening resulted in poor acceptance, lack of training, increased time spent with the patient, and unwillingness to convert to a newly implemented screening based on findings from the pre-intervention chart review. The attitudes of the SCARED tool led clinicians to non-adherence through administration of the tool to the youth entering the clinic with complaints of anxiety like-symptoms. Instead, most clinicians continued to utilize previous methods of screening, such as DSM-V.

The second step of the TBP framework depicted the subjective/professional norms (Boslaugh, 2022). The professional norms represented an influence of the decision to implement a new screen at the clinic based on the stakeholder's decision in January of 2023. The SCARED policy that was implemented represented an increase in the perceived importance of the tool. Additionally, there were clinicians who attributed the lack of screening adherence to stressors of increased work demands and beliefs that current practice treatment for detecting anxiety was sufficient.

The third step of the TBP framework represented the perceived behavioral control (Boslaugh, 2022). The clinician's expressed difficulty in utilizing the tool due to misunderstanding of the calculation process, forced screening with minimum training, and increased time required to administer the tool and return in ten minutes to gather screens, calculate data, and then begin the process of assessment and treatment in addition to the screening tool.

The fourth step of the TBP framework represented the intention of the behavior (Boslaugh, 2022). After the pre-intervention chart review was collected, an intervention plan, the SCARED protocol was initiated to provide education of the SCARED tool through handouts, a mock interview, post-SCARED survey, and a chart audit Excel tool. The intention was to determine the clinician's readiness to perform screenings after educational training was completed.

The fifth step of the TBP framework represented the behavior of the outcome (Boslaugh, 2022). After training was incorporated into practice, an observable response was noted based on the target utilization of 100% effectiveness of the training. The clinician's intentions and perceptions changed regarding the SCARED tool after proper education and training was performed and allowed a favorable outcome satisfactory for the clinic and the youth experiencing anxiety-like symptoms seeking treatment.



### **Summary**

Early screening and detection proved successful amongst anxiety disorders in the youth population (Hateli et al., 2022). Anxiety disorders in youth have had increased rates in the past years, and if left untreated can lead to various debilitating disorders across the lifespan (Hateli et al, 2022). The scholarly project provided insight into the purpose of the project of providing education for adherence of the SCARED screening tool for early detection while providing insight regarding the background issues surrounding the problem of anxiety in youth. A relevant literature review depicted the results surrounding the validity and reliability of the SCARED Tool. The Ferlie and Shortell (2001) change framework were used to depict the necessary changes required to promote adherence of the SCARED Tool utilization by clinicians, while the theoretical framework, Theory of Planned Behavior depicted a step-by-step cycle that represents the clinician's behavior for the SCARED Tool. The QI project collaborated amongst various cycles to promote and optimize necessary results and changes necessary for improvement in a scholarly project. Lastly, the main objectives were satisfied in determining if the clinicians adhered to implemented policy and was provided and accepted in areas of quality, fidelity, and quality work to provide insight into future success in providing care (Pina et al., 2020).

## **SECTION II: METHODS**

### **Introduction**

The rates of anxiety in children are alarming; however, lower socioeconomic status children have increased risks for anxiety associated with developmental context (Mistry-Patel & Brooker, 2023). There are various tools created to screen for anxiety in school aged children and adolescents; however, the Shaw Clinic utilized the SCARED tool due to ease of accessibility, parent and child version, and age range of eight to eighteen. The purpose of screening tools is to

highlight relevant clinical data through cutoff scores, not to be used singularly for diagnosis purposes (Malow et al., 2015). The Shaw Family Medical Clinic is in a rural town in MS where clinicians are tasked with utilizing the policy implemented SCARED Tool to screen children for early onset symptoms of anxiety. The purpose of the quality improvement project was to educate the staff and providers on the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. The problem of lack of adherence to the screening tool in the Shaw Clinic is a major problem that may affect the ability of appropriate screening, diagnosing, and potentially lead to debilitating issues due to lack of early detection and treatment.

### **Project Design**

The study utilized a descriptive research design. The method utilized was quantitative and was carefully selected for the study inquiry. The investigator utilized the descriptive method which was suitable for the QI project resulting in an overall assessment gain in the QI project. A retrospective chart review was utilized to collect sufficient data for the QI project in supporting the study inquiry method and design. A retrospective chart review of 100 school aged and adolescent charts were randomly selected out of 123 total pre-intervention charts between January to May of 2023. The charts were intentionally screened for utilization of the SCARED tool administered by clinicians when youth entered the clinic with complaints of anxiety or behavioral referrals. The SCARED tool was implemented into policy at the Shaw Family Medical Clinic in January of 2023 with utilization listed as mandatory for documentation with all complaints of anxiety by youth ages eight to eighteen. A quantitative design was utilized in the Summer of 2023 to evaluate the adherence of clinical screening at the Shaw Clinic. Data collection included the youth's age, gender, race, welfare status, and marital status of the student

household. Additional data collection included inclusion of youth aged eight to eighteen, exclusions of youth younger than eight and older than eighteen and previous diagnosis of anxiety, whether the tool was administered properly, if the parent and child version was completed, SCARED results and diagnosis.

The implementation framework Plan-Do-Study-Act (PDSA) was utilized as the design in the QI project to accelerate the improvement process in the Shaw Clinic. The investigator in the QI project detailed the lack of adherence of clinician screening of the SCARED Tool at the Shaw Clinic and detailed findings after a SCARED Educational Protocol was proposed within one month. The outcome predicted that clinician's education had a positive impact on adequately screening youth's anxiety.

Implementation science (IS) plays an imperative role in identifying barriers to address gaps in the translation of evidence into policy and programs. The implementation framework, Model for Improvement: Plan, Do, Study, Act (PDSA) change cycle primarily entails the initiation and understanding of a specific plan of accomplishment, focuses on understanding what plan is being accomplished, understanding if a change is improvement, and identifies the changes that will result in improvement (Knudsen et al., 2019).

Anxiety disorders are recognized by using validated screen tools to identify criteria and symptoms that need to be recognized early to minimize the potential impact on the quality of life (Friesen & Markowsky, 2021). Therefore, the QI project planned to accomplish and maintain results of compliance for clinician usage of the SCARED tool for early detection of anxiety in youth through screening. To determine change, the only reliable means would be to collect data (Ungvarsky, 2023). Therefore, a needs assessment was conducted at the Shaw Family Medical Clinic that determined a lack of proper screening through a retrospective chart review. Lastly,

understanding modifications that are necessary for quality improvement determined whether change impacted progress. The clinician's deficiency of utilization of the SCARED tool although policy implemented is due to lack of knowledge for clinicians and unacceptance of change by others to only utilize the DSM-V, which was the previous way of screening.

The PDSA Cycle was designed by the US Institute for Healthcare Improvement (IHI) as a four-step tool of system process improvement based on the work of W. Edwards Deming (Ungvarsky, 2023). The four steps in the PDSA Cycle are: (See Figure F)

1. Plan- determine participants, establish specific objectives and processes, determine what is being done as an improvement, and configure a plan.
2. Do- set and implement the plan.
3. Study- assess collected and measured results.
4. Act- Apply changes based on results.

The first step in the PDSA Cycle is the planning phase (P), which provides an evaluation of clinicians involved in the new process, predicting what will happen and why, and measuring outcome determinants. The "Plan" phase depicts specific improvement efforts of what is trying to be accomplished. During the plan phase, a needs assessment was conducted to determine an objective within the clinical practice. The gap between the promise of scientifically proven interventions and their successful implementation in the real world persists in a wide variety of contexts. According to Bradshaw & Vitale (2021) Doctor of Nursing Practice (DNP) prepared nurses are needed to help close a 17-year research-to-practice gap. Moreover, a problem issue was identified that will measure the adherence of clinician's utilization of the implemented SCARED Tool within the clinical practice. Additionally, a data collection tool was created through Excel to determine specific data that would be collected in the next step of the cycle.

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A needs assessment was conducted at the Shaw Family Medical Clinic which identified recently implemented policies within the year 2023. Further investigation of deciphering through policies, determined that the SCARED Tool policy was implemented in January of 2023 and further investigating showed a lack of clinician screening through a retrospective chart review. The findings suggested a need for a quality improvement plan revolving onto the SCARED Tool. An Excel data sheet was created and used to collect data and determine screening using the SCARED tool was not administered properly. The Excel data collected information related to the SCARED Tool along with sociodemographic of the patient. The SCARED Tool questions included documenting whether the SCARED screening was administered, completed properly by answering each question, and whether the tool was administered to both the parent and child. In addition, the SCARED Tool collected sociodemographic information related to the population to determine those most affected through early detection at the Shaw Family Medical Clinic. The sociodemographic status included age, race, gender, welfare status, family household status (M/S), inclusion of ages eight to eighteen, and exclusions of youth younger than eight or older than eighteen, and previous diagnosis of anxiety.

The plan consisted of a retrospective chart review involving the charts of school aged youth ages eight to eighteen at the Shaw Clinic. The electronic health record listed a total of 123

children and adolescents who had been seen in the clinic between the time of January to May of 2023. The charts were obtained by using the Shaw Family Clinic laptop for a list of all 123 charts. The data was then imputed into an Excel document to list each child's sociodemographic status excluding the name or birthdate into the document and draw a random sample utilizing the software's random number generator and began gathering data from the first 100 random selection. Each chart was reviewed to omit any patients with a previous history of anxiety or age greater than eighteen; however, there were no charts with this range of information available.

The purpose of the chart review was to determine utilization of the SCARED Tool by clinicians in determining whether they are efficiently screening youth for early detection of anxiety. The plan was to utilize the SCARED Tool Excel data collection sheet to measure whether the chart review was administered, completed properly by both the child and parent, and to review documented screening results. The SCARED Tool was implemented for usage for youth screening of anxiety in age ranges of eight to eighteen within the clinic in January of 2023. The QI project took place at the Shaw Family Medical Clinic in Shaw, MS.

The data was collected through a retrospective chart review detailing whether the clinicians were properly utilizing the SCARED Tool. A chart investigation determined that the data collected detailed that utilization was not being administered properly. Therefore, an educational intervention consisting of the validated SCARED handout listing the parent and child questionnaire version with result screenings were distributed to clinicians and a mock interview (See Appendix E) was enacted by the investigator and the DNP mentor/owner highlighting proper administration. After the educational intervention, a post-survey was completed by the clinician entailing whether understanding of the trial was understood based on a post-intervention chart review of 50 charts. Additionally, the post-intervention survey results of

understanding and an increase in the post-SCARED tool data collection chart review, will determine if the change resulted in improvement from previous pre-intervention results (Appendix D). The assumption is that if the SCARED Tool utilization rates increase, then the education was impactful for change in meeting its intended outcome. The change can be a result of improved rates of screening by utilization of the SCARED tool by clinicians after education was provided. The improvement in clinicians' rates can result in improved care through education and implementation of the educational program and coordination of care.

A second Excel data collection was used to determine the level of adherence of the clinician measured post- education intervention. The data for utilization through the SCARED education handout and mock interview was rated by marking agree, neutral, or disagree for performance and understanding of the SCARED Tool. The clinicians were tasked with voluntarily providing feedback regarding if the education will lead to proper completion of the tool after education and listed an understanding of providing the documents to both the parent and the child. Additionally, the survey listed an understanding for exclusion due to age not between the ages of eight to eighteen years, and whether a diagnosis of anxiety resulted, by circling either agree, disagree, or neutral by the clinician. In addition, after data collection revealed that clinicians are not properly utilizing the SCARED Tool, the Excel data collection was provided to the DNP mentor/owner who agreed to continue the upkeep of the weekly screen of charts for audits of clinicians SCARED Screening utilization.

The doing phase (D) was comprised of developing the educational intervention plan and securing clinic approval. This step also included providing education to the clinicians on proper use of the tool, as well as entailing a brief mock interview to provide understanding of proper administration. A pre-intervention chart review was conducted, along with a post education

intervention survey to determine adherence of the SCARED Tool administration. During the phase, the new process was evaluated to determine if any barriers were met. Proper documentation and evaluation during the initiation phase was imperative to discuss any issues and unexpected observations. An acceptance in the clinic was expected due to efficient results of surveys detailing understanding and willingness to learn from the thorough education provided. Moreover, Dr. Davis, DNP mentor and CEO approved the protocol for immediate use. The doing phase conducted the plan by utilizing the chart review to collect data using Excel, collect overall scores from the SCARED Tool, describe unexpected issues, and to review analyzed data collected.

The studying phase (S) consisted of evaluation of adherence of policy through utilization by clinicians within the Shaw Clinic. Prior to the scholarly project, the SCARED Tool was implemented in January of 2023 to provide screening of youth and adolescents for early detection of anxiety complaints. The project specifically focused on utilizing measures to provide education to increase the level of adherence. After determining that there was a needs assessment, the focus was to improve the current measure process of administration of the tool by clinicians. After development of the new protocol, 50 additional charts were evaluated to determine improvement in rates of adherence post-education. The study phase also consisted of evaluation of post educational results by survey of clinicians. There was no initial baseline knowledge survey obtained as the SCARED Tool was not a new tool introduced to the clinicians, but rather an investigation to determine if clinicians were following clinic policy. An educational in-service focused on a breakdown of the validated and reliable SCARED Tool document focusing on the benefits of providing screening for early detection of anxiety in youth.



Additionally, a mock interview and a post-education survey utilized determined the level of understanding and knowledge by the clinician.

Lastly, the Act phase (A) determined the proper adjustments imperative to the success of the QI project. The anticipated increase in the workload for the clinicians during implementation of a new protocol process may be perceived as a new barrier in the process. Nevertheless, the act phase provided details regarding acceptance of informational results and made a motion to adapt, adopt, or abandon data, and plan for the next cycle (Knudsen et al., 2019). The idea of what is considered the integration of best research evidence with clinical expertise and the current practice of what is being performed and implemented in a setting may vary in the real world (Melnyk & Fineout-Overholt, 2019). The difference between the two is what leads to gaps between evidence and current practice with extended periods of time required to adopt new practices (Eekholm et al., 2020). A gap may be identified through unsatisfactory performance, lack of competency, or patient outcome (Eekholm et al., 2020). This phase revealed finding outcomes of whether the clinician's adherence of the SCARED Tool was properly utilized; however, if the outcomes are not achieved then the process will begin again for the PDSA Cycle until the outcome is achieved. Although barriers were to be expected, an overall adoption of the protocol was expected.

The QI project's planning process included an educational SCARED handout, a mock training interview, post-educational survey, and an Excel data collection tool that was easily accessible for auditing clinician's charts for SCARED Tool adherence. Next, education was introduced by the investigator to the clinicians regarding proper utilization of the SCARED Tool. Afterwards, the clinicians received training on the use of the chart audit tool to gather data to ensure proper utilization of the screening tool by verifying data for efficiency and adherence to

the policy implemented SCARED Tool. An initial retrospective chart review was conducted that determined the lack of adherence to the SCARED Tool screening based on results. The initial review allowed the investigator to study the collected data and implement a plan of action for change. Finally, the active stage created a policy change within the screening process of youth anxiety to include the detailed SCARED handouts, mock interview training, post-educational survey, and SCARED chart audit tool.

The inclusion criteria included youth aged eight to eighteen and exclusion criteria was youth younger than eight or older than eighteen and previous diagnosis on anxiety. Written consent was obtained from the Shaw Family Medical Clinic prior to the initiation of the study. The Institutional Review Board (IRB) exemption from Arkansas State University was also granted due to the lack of study presented on human subjects.

### **Sample and Setting**

The targeted population for the purpose of this study was charts of school aged children and adolescents between the ages of eight and eighteen years of age seeking primary care services between January and May of 2023. The exclusion criteria were utilized to remove participants with a prior diagnosis of anxiety, under the age of eight, or over the age of eighteen. A total of 123 charts were presented, and after considering exclusions, a random sample of 100 charts were selected for review. The Shaw Clinic was selected as the study setting; therefore, the clinicians located at the clinic were selected as the intervention population. The Shaw Clinic is comprised of six Family Nurse Practitioners, who represent the intervention population. The clinicians have schedules comprised of full and part-time employees, responsible for providing care and screening youth at the clinic. The overall purpose of the project was to measure the level of adherence of screening of the SCARED Tool through administration to the targeted

youth population entering the clinic with complaints of anxiety or behavioral referrals. There was no recruitment strategy as a retrospective chart review was conducted for the target population, and the intervention population agreed to the study based on a signed agreement from the investigator and the clinical site.

The QI project's identified population was school aged children and adolescents between the ages of eight (8) to eighteen (18) years of age. The intervention population were clinicians of the Shaw Family Medical Clinic. The problem measured utilization of the implemented SCARED Tool questionnaire by the providers within the clinic. The inclusion implied that the school age child must be at least eight (8) to eighteen (18) years of age, attend the Shaw School District, have no previous diagnosis of anxiety, and be a current student completing the tool. Additionally, the clinician must be a licensed employee of the Shaw Family Clinic. The exclusion was students under the age of eight (8) and over the age of eighteen (18), a non-student within the Shaw School District, previous diagnosis of anxiety, or an unlicensed or non-clinician of the Shaw Family Clinic. There was no recruitment plan associated with this quality improvement project as the chart review served as the only method of data collection for youth screening.

The microsystem level addresses the interaction amongst the interprofessional team member and the patient. The school aged child entering the clinic for a complaint to the clinician for anxiety, or a behavioral referral from the Shaw School District represents a microsystem. At the microsystem level, the youth, the parent, and clinician should gather information concerning the visit, discuss goals of care, and discuss different treatment options or therapy based on the individual patient's needs. Regarding the DNP QI project, the disconnect begins at the

microsystem level where the clinician's adherence was not completed properly to promote early detection through screening.

The microsystem focused on gathering specific information geared towards helping to identify the need for screening through data collection. Other concerns may include race, ethnicity, socioeconomic status, or if bullying is a factor by a child's peers which can lead to anxiety related issues. The purpose of efficiently completing the SCARED Tool with both the parent and child version is imperative to have additional data with effective screening and diagnosing. The parent is a key factor in the microsystem, as they surround the child daily and learn the most from behaviors to efficiently explain symptoms of behaviors to the clinician (Campos-Gil et al., 2020). As the clinician gathered information and understand whether a parent is present and active in the child's life plays a major factor in anxiety, along with understanding if there was extended-family present in the home and the challenges that may burden the family system as a result may also be problematic. Other concerns may include race, ethnicity, socioeconomic status, or if bullying is a factor by a child's peers which can lead to anxiety related issues. Although the microsystem is a small system, it also serves as the most influential system in a child's life (Campos-Gil et al., 2020).

The level of mesosystem represents the communication processes or operating procedures of standards based on healthcare management for quality improvement of the organization or community (Aranda et al., 2023). The clinical mesosystem of the Shaw Family Clinic represented the essential building blocks of competency within the organization to utilize validated tools for screening of potential issues associated with anxiety in the youth through screening and early detection. The Shaw clinic has implemented the usage of the SCARED Tool for anxiety for youth with complaints of anxiety or behavioral referrals. The tool is completed by

the child and adult and is administered by the clinician. The clinic represented the organization with specific procedures implemented per policy to the clinical staff within the facility. The purpose of the QI project was to educate the staff and providers on the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. Based on findings, the clinician's adherence is affecting the clinic's utilization of the policy which can lead to delay of care and lack of policy adherence. The clinic was directly affected; therefore, based on findings a SCARED protocol was initiated along with a chart audit to promote adherence through policy change.

The macrosystem focused on representation of system policies such as the chief operating officers or board of directors within a clinical setting (Likosky, 2014). The SCARED Tool represented a chain of command followed by the clinic based on research of a validated tool that was utilized within healthcare for anxiety screening in school aged children between the ages of eight to eighteen years of age. The micro-meso-macro system depicts a thorough example of various stages within the clinical system and how each is affected on various levels.

The clinicians at the Shaw Family Medical Clinic worked as a clinical microsystem that provided services to the community and local school district in the town. A microsystem described a small group of people working together to supply quality care for a particular group of people (White et al., 2021). The clinicians utilized in the project are a part of a larger organization, Shaw Family Medical Clinic (SFMC). SFMC is a 10-room primary care clinic located in Shaw, MS. The clinic provides services to the entire community of Shaw, MS, and the nearby surrounding small towns. The clinic is the only one located within the town and has partnered with the Shaw School District to provide services to the youth within the community and school district. Therefore, this is the reason this clinic was selected for the study location.

### **Instrumentation**

The retrospective chart review data collection was comprised of instruments used to measure the targeted outcome. The target population of school aged children and adolescents were screened to determine if the clinicians administered the SCARED Tool. The SCARED Tool is known for its effectiveness of validity and reliability in aiding clinicians with screening for various anxiety disorders (Ivarsson et al., 2018). The validity and reliability of this screening tool has been documented and proven efficient in determining anxiety in school aged children and adolescents (Kirubasankar et al., 2021).

The SCARED Tool consists of 41 items with a parent and child version available for screening (See Figure A) (See Figure B). The child and parent versions of the SCARED Tool have moderate parent-child agreement and good internal consistency, test-retest reliability, and discriminant validity, and it is sensitive to treatment response (Kirubasankar et al., 2021). The ease of completing the user friendly (parent/child) SCARED tool makes the screening a viable choice for evaluation and takes approximately 10 minutes to complete from start to finish. The SCARED tool is a simple screen used to gather appropriate data and can be completed by the parent and the child and is free at no additional charge (Behrens et al., 2019). The scoring where each question on the SCARED tool is measured is based on a scaled score of 0-2, with an increased score representing a likelihood of anxiety occurring frequently within a three (3) month time (Robe et al., 2022). Responders are asked to rate the frequency of each symptom on a 3-point scale: 0 = almost never, 1 = sometimes, or 2 = often. The total score is obtained by summing all items, and higher scores indicate a higher probability of anxiety disorders (Robe et al., 2022).

The data collected from the SCARED Tool was entered into an Excel spreadsheet for easy access and documenting. The first column consisted of student charts, which were utilized by collecting data from a chart review of 100 student charts. The next five columns consisted of sociodemographic information of the students including the age, gender, ethnicity/race, welfare status, and family household status of married or single. The next columns represented whether the screening tool was administered, completed properly, and completed by the parent and child. The next columns detailed the exclusions which included prior anxiety disorders and ages less than eight or greater than eighteen. Finally, the last two columns listed the SCARED results and listed whether an anxiety diagnosis was formulated after gathering screening information and further assessment details from the clinician.

Additionally, the data Excel spreadsheet was utilized after the SCARED education protocol was initiated to detail information regarding the clinician survey results. The first column listed the number of clinicians, which was six Shaw Clinic Family Nurse Practitioners. The second column provided ratings from 1-3, which listed whether the clinician understood the educational training after completion. The answers were labeled as (1)- agree, (2) neutral, and (3) disagree with the educational information provided. The next ten columns detailed the answer choice by each clinician and provided the answer response by the clinicians.

Furthermore, the Excel data spreadsheet was utilized to capture 50 post-intervention charts utilizing a retrospective chart review. The purpose of the post-intervention was to determine if the educational protocol was understood by the clinician and to determine adherence after in-depth education, training, and surveying. Lastly, the Excel data spreadsheet was used to initiate a chart audit to continue to monitor the adherence of the nurse practitioners. The sustainability of the implemented protocol is determinant on screening. Therefore, a chart audit

was initiated using the same method for the Excel data retrospective chart review to audit clinicians' charts to ensure proper screening for chart evaluation.

### **Data Collection**

A retrospective chart review was conducted utilizing charts of school aged youth at the Shaw Family Medical Clinic with age ranges between eight to eighteen years of age. The charts were selected randomly by sorting data from the time of January to May of 2023. The process of utilizing a random assignment helped minimize potential for selection bias (Melnik & Fineout-Overholt, 2019). The electronic health record listed 123 children who had been seen in the clinic between the time of January to May of 2023. There was a total of 123 charts eligible for random sample; however, 100 charts were selected by Excel random sample. The random sampling was obtained by using the Shaw Family Clinic laptop's electronic health record (EHR) to list each child's age, gender, and race, and saved utilizing the Excel document on the principal investigator's encrypted flash drive. A random sample was conducted from the Excel software random number generator for data for 100 charts. Each chart was reviewed to omit any patients with a previous history of anxiety or age greater than eighteen; however, there were no charts with this range of information available.

Data was collected utilizing the SCARED Tool Excel data document and measured to determine the adherence based on the number of charts detailing a chief complaint of anxiety like symptoms or behavioral referrals. The collection process determined charts that were completed properly, improperly, and listed documented results of anxiety diagnosis. After the chart review was completed, it was determined that the clinicians at Shaw Family Medical's documentation of the SCARED Tool was out of compliance with implemented policy. Nevertheless, a four (4)-week plan was devised and initiated after the pre-intervention data was



collected detailing non-adherence using the SCARED Tool. The plan included a SCARED protocol where staff were educated on proper utilization, using SCARED Tool handouts, mock interviews, post-survey clinician results, and utilization of post-intervention chart audit for screening.

The Excel data collection was used to measure pre-and post-intervention charts by determining the number of clinician's properly and improperly utilizing the SCARED tool to youth. The data was collected for adherence of the SCARED tool by clinician's using a simple method of selecting yes for administration or adherence and no for non-adherence or non-administration. The performance and proper completion of the SCARED Tool allowed the collection to depict the level of compliance by clinicians. In addition, other categories that were measured included anxiety diagnoses, parent and child version screening completed, and exclusion criteria of less than eight or older than eighteen. The items listed were measured and selected by marking yes or no utilizing the same process for each retrospective chart review for pre- and post-intervention. Data was retrospectively acquired by chart review from January to May of 2023, and the process was repeated from June to July of 2023, four weeks after the clinician's post-education. The intervention and control groups were compared using SCARED protocol for the intervention group.

The QI project took place at the Shaw Family Medical Clinic in Shaw, Mississippi. A contract agreement was signed and approved by the Shaw Family Medical Clinic before access to entry was gained into the clinic. The clinic office provided a safe and confidential workplace where necessary data was gathered for the QI project. The contract was obtained by the principal investigator who contacted the clinic through an inquiry which regarded the site for guidance of a potential quality improvement project. The principal investigator discussed in detail potential

topics regarding the project and detailed the hopes of creating improvement within the clinic. Dr. Nora Davis, the owner of the private practice granted permission for clinical access to begin considering a QI project through a needs assessment. The principal investigator participated in the informational technology (IT) department for computer access, training, and Health Insurance Portability and Accountability Act of 1996 (HIPPA) training. All data collected using Excel was stored on the principal investigator's encrypted flash drive.

### **Data Analysis Methods**

A random sample retrospective chart review of school aged children and adolescents aged eight to eighteen was conducted from the Shaw Family Medical Center. The chart review utilized for the QI project determined the adherence of the SCARED Tool administration by clinicians based on the chief complaint of anxiety like symptoms or behavioral referrals by youth. The problem statement served to identify the compliance of the clinicians within the Shaw Family Medical Clinic through education of staff and clinicians on the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool.

For this project, a group of charts were reviewed to examine current practice prior to the education implementation, which consisted of 100 student records. After the intervention, 50 student records were examined. Therefore, the total number,  $n = 150$  with  $n = 100$  individual records in the pre-implementation group and  $n = 50$  in the post-implementation group. Demographic traits were examined to discern if there were statistically significant differences in proportions or means between each group. The pre-implementation age was  $M = 13.05$  ( $SD = 3.4$ ) and the post-implementation age was  $M = 12.8$  ( $SD = 3.31$ ) and were not statistically significantly different  $t(148) = .463$ ,  $p = .644$ . There were no statistically significant differences

in proportions, as demonstrated by Chi-Square tests of proportion, in gender ( $p = .356$ ), ethnicity (all participants were African American), welfare status ( $p = .182$ ), or marital status within the household ( $p = .783$ ), demonstrating the groups examined prior to and after implementation, despite differences in sample size, were similar on all demographics. There were also no differences in those diagnosed with anxiety ( $p = .607$ ) and no differences in results on the SCARED tool for pre-implementation  $M = 19.5$  ( $SD = 10.7$ ), compared to post-implementation  $M = 19.2$  ( $SD = 11.1$ ). Again, this further demonstrates that the groups were comparable at both timepoints.

In the pre- implementation group, 39% of SCARED tools were completed properly, and the post-implementation group revealed 100% of SCARED tools were completed properly. However, there were statistically significant differences in proportion based on the SCARED screening performance where only 39% were performed in the pre-implementation group but 100% were screened in the post-implementation group,  $X^2(1) = 51.4, p < .001$ . In addition, 39 (39%) of screenings were completed accurately in the pre-implementation group, which were completed by the dyad of parent and child together. Furthermore, the post-implementation group, had 100% of screenings completed by the parent-child dyad, this was a statistically significant difference in proportions based on implementation group,  $X^2(2) = 89.0, p < .001$ .

The total scores on the SCARED were also compared against demographics to see if there were statistically significant differences based on gender, marital status of the home, and welfare status. There were no statistically significant differences in mean scores between males ( $M = 17.3, SD = 11.3$ ) and females ( $M = 21.3, SD = 10.2$ ),  $p = .086$  or in those from single families ( $M = 19.9, SD = 10.96$ ) or married families ( $M = 17.5, SD = 10.74$ ),  $p = .397$ . While there were not statistically significant differences between the SCARED scores of those who are

not on welfare ( $M = 16.5$ ,  $SD = 11.13$ ) in comparison to those who are on welfare ( $M = 21$ ,  $SD = 10.5$ ),  $p = .056$ , it should be noted that this  $p$  value is very close to  $.05$  and may have practically important findings. The American Statistical Association has urged researchers to consider important findings and not make decisions solely around  $p$  values, and since this one is so close to the threshold, as one could argue is similar for gender, these should be further explored in larger studies (Wasserstein & Lazar, 2016). The rates of anxiety in children and adolescents with low socioeconomic status suffer from mental health issues more often than those youth with high socioeconomic status (Reiss et al., 2019). Therefore, consideration should be considered for the threshold regarding the status of welfare in youth with anxiety.

Finally, there were six clinicians that participated in a survey designed to measure the post-educational survey and how they agreed, disagreed, or were neutral to the statements. The clinician's post-educational survey consisted of ten questions all geared towards selecting the level of understanding regarding the post-survey of the SCARED educational handout, mock interview, and chart audit questions utilizing the Excel data sheet from the chart review. The post-survey asked ten questions regarding the clinicians' level of understanding of the SCARED Tool after training was received in the form of handouts for SCARED utilization, mock interviews, and a chart audit tutorial for the SCARED Tool. The survey was created to grasp the clinician's knowledge post-training with three responses which depicted whether the clinician agreed, disagreed, or had a neutral understanding regarding the protocol implemented. Additionally, the survey allowed the principal investigator to determine if the content acknowledged that the content taught was understandable and meaningful to increase productivity with utilization. Furthermore, the results revealed that all six clinicians were in full agreement on all statements that represented understanding of the training which expressed that

after the SCARED Protocol was reviewed, clinicians understood how to properly administer and score the tool to enhance findings during practice.

### **Data Management Methods**

The retrospective chart review from the pre- and post- intervention yielded data that was collected from the patient's medical records at the Shaw Clinic. The MEDHOST electronic medical record system was utilized and provided a secure and password protected database. Data was acquired from the principal investigator with no patient identifiers of patient data utilized for the QI project. After the inclusion and exclusion criteria were met the 123 chart reviews that met criteria were listed in the Excel data sheet by a numbering system of student one, student two, etc. There was no identifiable data recorded for patient information, resulting in a unique identifier that only the principal investigator understood. The Excel data sheet was then utilized for random sampling using the Ablebits Tools. The investigator selected the utilities app, random drop-down box, and the randomize generator randomly changed the order of the student numbers and the first 100 charts were selected for the study. The same fashion was conducted for the post-education retrospective chart review where 57 total charts were gathered and the first 50 were randomly selected for review.

All data for the chart review was obtained from the charts of the school aged children and adolescents with direct documentation from the clinicians at the clinic. All data collected using Excel was stored on the principal investigator's encrypted flash drive. The principal investigator-maintained confidentiality always during the project, protected participants information from data breach, and used no personal patient data during the QI project. The records utilized were stored on an encrypted flash drive by the principal investigator during the project and will be maintained for three years at the completion of the QI project. In addition, the principal

investigator's Excel data collection tool will be removed at the end of the three-year data maintenance time.

### **Ethical Considerations**

Ethical considerations were respected while gathering information, findings, and outcomes of this QI project. The Collaborative Institutional Training Initiative (CITI) certificates were successfully completed prior to submitting the Institutional Review Board (IRB) criteria to ensure research ethics (Bradshaw & Vitale, 2021). The Arkansas State University's IRB approval was granted on June 01, 2023, to begin the work for this project. The IRB reviewed data submitted for the project and determined that no engagement in research involving human subjects would take place. Therefore, approval of my QI project was granted successfully. The QI project utilized a retrospective chart review where 100 charts were screened for adherence prior to education. Additionally, 50 charts were screened for adherence post education including a post-survey administered to the clinicians at the clinic regarding understanding of the education. An agreement for obtaining data from the Shaw Family Medical Clinic was obtained and a copy was emailed to Arkansas State University's IRB. Implied consent was acquired from clinicians by completion of the survey at the facility where an agreement was set-up between the investigator and practice site.

This QI project was deemed with minimal risk to participants and minimum probability of harm or discomfort during the project suspected to be minimal based on daily encounters of routine examinations or tests. There are minimal risks involved in this quality improvement project, with the only threat listed as confidential. The only patient identifiers collected were ages, race, sex, and welfare status. The patient collection was labeled by numbering each student. There were no subject identifier names or birthdates listed on the data collection sheet. The

results were utilized for the purpose of the quality improvement project, with anonymous questionnaire screening, patient confidentiality, and compliance of confidentiality. All chart review data extracted for the purpose of this quality improvement was listed on an encrypted flash drive with access only granted to the investigator. Moreover, data collected from the retrospective chart review will be managed until the duration of the study is completed and afterwards will be properly discarded in an appropriate technique.

### **Timeline, Budget, and Resources**

The DNP project timeline consisted of processes beginning with the project planning and proposal development that initially began April 17, 2023, through June 01, 2023. The proposal approval DNP team was formulated over a duration of one week from April 20-27, 2023. During the time of May 08-23, 2023, information was submitted, finalized, and approval for practice at the Shaw Family Medical Clinic. The next phase detailed the lengthy process of IRB submittal on April 27, 2023, to rejection, re-submittal, and finally approval of the IRB submission and approval process on June 01, 2023. The process of clinic documentation began on June 01, 2023, after approval was granted. The data collection, intervention, and implementation began between June 05 to July 06, 2023. The data analysis began during the beginning of June 2023, and the writing results, findings, and implications process began from June 2023 to July 2023. The final DNP oral defense was submitted on July 28, and the oral defense presentation will take place on August 04, 2023. Lastly, graduation from Arkansas State University will take place on August 12, 2023.

The DNP project budget depicts projected and actual cost surrounding traveling expenses to and from the clinical location with a difference of two hours away from the investigator's primary location. The DNP mentor/owner waved the charging fee for assistance in the project

and clinical site. The DNP mentor is the owner of the clinic where the QI project is performed. In addition to the clinic site, there were no charges granted for use of printers or other equipment that may be needed during the QI project. The miscellaneous cost for food, refreshments, and traveling expenses was a projected expense with the total costs expected to be higher due to constant traveling and purchasing food items. In addition, there was no direct charge to the researcher due to educational meetings within the facility. Lastly, the cost of the statistician was able to be removed after receiving direction from a math instructor at Shaw High School related to navigating through statistics.

The resources for the project will include the medical clinic site, medical records, DNP mentor, staff members, SCARED Tool, and math professor. The various areas of the QI project resources provide thorough understanding surrounding assistance of input. The area of study that has required extensive research includes the framework and methods section that depicts understanding into data collection, data analysis, data findings, and research information. The clinic site has provided necessary resources to perform the retrospective chart review, provide education to staff, and discuss results. The medical record provided information necessary for a retrospective chart review to collect data efficiently. The DNP mentor has provided thorough input surrounding the project including The DNP Essentials, information concerning budget tasks, and proposal developments are imperative to providing resources for improvement. The staff members have provided insight into the QI project and discussed thoughts surrounding the SCARED tool, education provided, and completed a survey. The SCARED tool provided detailed information for a handout for the project and listed essential information pertinent for improving detection of anxiety in youth. The math professor provides key information necessary



to navigate forward utilizing Excel as a spreadsheet software for my data collection results using Statistical Package for the Social Sciences (SPSS), a statistical analysis software.

Understanding the importance of resources of identifying family profiles based on the level of family satisfaction, family support, importance assigned to family, work-life balance, and household economic situations can affect the mental health balance of a child (Orellana et al., 2022). According to Hadiwijaya et al. (2019) studies have determined that overall satisfaction in the family domain is a top priority in the overall satisfaction of life as opposed to other life domains which can affect anxiety. Children receiving proper resources is imperative to intercept potentially impactful situations including the quality of life for a child with anxiety.

### **Summary**

The quality improvement project has various facets of data that are composed to determine whether the proposed topic of anxiety screening makes an impact on the topic. The scholarly project obtained a process to seek data regarding the phase of anxiety to determine outcomes. The PDSA Cycle depicted a plan to consider steps to take for adherence of clinicians of the SCARED Tool in current practice. The sample and setting were discussed in detail relating to the school aged child and adolescent as the target population at the Shaw Family Medical Clinic. The dependable and validated SCARED Tool was the instrument used for measuring responses of youth experiencing anxiety-like symptoms when administered by the clinician. In addition, data was collected by the principal investigator utilizing the Microsoft Excel Data Sheet for gathering data concerning sociodemographic status, SCARED Tool administration, utilization, and inclusions of age eight to eighteen (8-18) and exclusions of youth younger than eight (8) or older than eighteen (18) with previous anxiety diagnosis. Additionally,

the data analysis determined that the project's end results were statistically significant based on the SCARED Tool pre-and post-implementation of education.

### SECTION III: RESULTS AND DISCUSSION OF FINDINGS

#### **Introduction**

The growing rates of anxiety in the US represent one of the most prevalent psychiatric disorders in youth across the lifespan leading to potential debilitating outcomes affecting student's social and economic standards (Robe et al., 2022). Therefore, understanding the importance of early detection through screening is imperative to bring awareness and advocate for school aged children and adolescents. The rise of mental health disorders has led to alarming rates and has deemed healthcare providers with the task of reducing the stigma (Harvey & Clark, 2020). The problem identified at the Shaw Family Medical Clinic involved a lack of adherence to the policy implemented SCARED Tool, resulting in the need for training for proper usage. The PICO question that guided this quality improvement project was: (P) In underserved school-aged children ages eight to eighteen years with undiagnosed anxiety, (I) will the implementation of a standardized process to assess for anxiety-like symptoms through the use of the evidence-based SCARED tool, (C) compared to the under-utilization of the tool (O) impact the utilization of the tool by clinicians, and identify patients with anxiety (T) in a 4-week period?

The scholarly project provided an interpretation of quality improvement findings and presented statistically significant data of successful training of clinicians and fulfilled the project's purpose. The project's purpose was to bring awareness of education to clinicians regarding the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. Furthermore, the data findings

resulted in the quality improvement project providing knowledge that contributed to the practice and profession of nursing.

### **Summary of Methods and Procedures**

The Statistical Package for Social Sciences (SPSS) Version 28 was used for all analysis. Demographics were analyzed for frequencies and percentages. Nominal and categorical data were first analyzed with frequencies and percentages and then for inferential testing, Chi-Square tests of proportion were used. Group comparisons for continuous data (age and SCARED results) included independent samples t-tests and analysis of variance for between-group testing.

The scholarly project's inquiry method utilized a quantitative analysis of descriptive statistics for the quality improvement project. The descriptive approach was in tandem with the research design, which facilitated the identification of patterns across categories of demographics (Renner & Taylor-Powell, 2003). According to Bradshaw & Vitale (2021), the variable must be categorized as either nominal, ordinal, or scale before selecting an appropriate statistical test. In addition, the test only works for categorical data, such as gender and ethnicity but does not work for numerical data such as height or weight (Connelly, 2019). The DNP project utilized a nominal approach to classify variables into categories for sociodemographic data which included gender, age, race, and welfare status. The quantitative design was appropriate for the study as it provided statistical modeling through manipulation of numerical data with a statistical analysis through descriptive data depicting behaviors through research for the program evaluation expressed with numerical value (Melnik & Fineout-Overholt, 2019).

Additionally, the data collected represented an appropriate statistical method which utilized the chi square test. The chi square test determined whether there was a relationship between the categorical variables from a random sample which determined if the expected and

observed results were well-fitting (Melnyk & Fineout-Overholt, 2019). The descriptive statistical approach was in cycle with the research design that facilitated the identification of patterns across demographic categories. The descriptive design from the extracted data included observed to expected frequencies, percentages, classification of data, and identified patterns across the various demographics including, age, race, and sex (Melnyk & Fineout-Overholt, 2019). The SCARED Tool retrospective chart review was grouped together based on gender status which identified the responses based on age and ethnicity. Furthermore, the welfare status and no welfare reported represented a categorical comparison, along with whether households represented a married or single-family system. Additionally, the number of clinicians who did and did not utilize the tool was measured in the pre- and post-intervention phase.

The initial data analysis plan determined the measure of SCARED tool utilization by clinicians through administration when students were brought to the clinic by their parents with complaints of anxiety or as a behavioral referral through descriptive statistics. The project analyzed a pre-intervention retrospective chart review of 100 students from January of 2023 to May of 2023 and a post-intervention chart review of 50 students over four weeks in June of 2023. An Excel spreadsheet of each student's chart identified nominal categories for review of patterns. The nominal categories included age, gender, ethnicity, parents' marital status, and welfare status which developed a frequency-count table. The data collected results determined the effectiveness of the SCARED protocol based on a comparison of pre- and post-intervention data. By evaluating how the clinic utilized the SCARED tool allowed the principal an understanding of the effectiveness of the tool within the setting. The effectiveness was based on completion of the screening tool, proper age range screening based on guidelines, and the need for diagnosing or follow-up.

A special observation in the data set noted that although there was no statistically significant difference between the SCARED scores compared to those who were and were not on welfare, the p value is remarkably close to 0.05, which may have important findings. According to the literature, children from low socioeconomic status families exhibit prominent levels of anxiety (Robe et al., 2022). Therefore, it is imperative to consider key factors and not solely base outcomes surrounding only the p value with close thresholds (Wasserstein & Lazar, 2016) (see Table A-H).

### **Summary of Sample and Setting Characteristics**

The quality improvement project was conducted in a small town of less than 2,000 citizens where Shaw Family Medical serves as the only clinic located in Shaw, MS. The clinic is comprised of a ten-bed facility that has six full-time and part-time clinicians comprised of Family Nurse practitioners, and one office manager. The targeted population for the purpose of this study was the charts of school aged children and adolescents between the age of eight to eighteen years of age with a chief complaint of anxiety like-symptoms or behavioral referrals between January and May of 2023. A total of 123 charts were obtained for review with all charts meeting inclusion criteria and no charts meeting exclusion criteria. After obtaining all charts, a randomized sample was conducted utilizing Microsoft Excel's Ablebits tool for randomizing. The retrospective chart review was conducted with 100 charts which reviewed school aged children and adolescents eight to eighteen years of age.

The intervention population consisted of six Shaw Family Medical Family Nurse Practitioners who worked full-time and part-time, with years of experience that ranged from three to thirty-two years of employment at various work sites. The education and training were attended by all six clinicians with 100% participation recorded. The pre-implementation

retrospective chart review revealed only 39% of clinicians properly utilized the tool, while 61% were not performed or completed incorrectly. The post-implementation results revealed a 100% adherence to the SCARED Tool utilization by clinicians after education and training (see Table A-H).

### **Major Findings**

The retrospective chart review of 100 charts pre-and 50 charts post-findings represented no statistically significant differences in mean scores between males (mean) ( $M = 17.3$ , (Standard Deviation)  $SD = 11.3$ ) and females ( $M = 21.3$ ,  $SD = 10.2$ ),  $p = .086$ . However, more females than males were screened using the SCARED Tool. According to the USDHHS (n.d.) anxiety disorders prevalence rates are higher among adolescent females (38.0%) than males (26.1%) beginning by age six (USDHHS, n.d.). The pre-implementation retrospective chart review detailed 39% of clinicians who successfully completed the screening properly by administering the SCARED Tool to both the parent and child for completion. Moreover, anxiety affects youths, with signs often undetected due to lack of screening by medical providers (Remes et al., 2016).

Additionally, the findings regarding the youth who are not on welfare in comparison to those who are on welfare, it should be noted that this  $p$  value is remarkably close to .05 and may have important findings. Rates of lower socioeconomic status youth show increased risks for anxiety due to behaviors & poverty level (Mistry-Patel & Brooker, 2023). The project consisted of African American youth who participated in the study with no diversity due to the nature of all African American town. Although the project depicted no diversity, the prevalence rate of anxiety by race majority affects White Americans who have a more demonstrated symptoms of anxiety as opposed to minority groups (Mistry-Patel & Brooker, 2023).

The Theory of Planned Behavior (TPB) represents the theoretical framework of five steps that relate to the findings. The first and second steps: attitudes, subjective norms, and perceived behavioral control represented the pre-intervention stage where chart reviews were measured to evaluate the clinician's percentage of SCARED tool utilization. The review yielded a 39% utilization rate of SCARED tool screenings, which emphasized a disconnect within the clinician's perception of the screening tool. The third step represented the perceived behavior after initiating the SCARED protocol which consisted of SCARED tool handouts, mock interviews, post-survey questionnaire, and a chart audit tool to measure adherence post-intervention. The fourth step represented the intention of the clinician's after receiving educational training related to SCARED tool utilization. The SCARED protocol revealed a 100% post-survey questionnaire by clinicians which stated an understanding of all educational training received. Finally, the fifth step represented the behavior of the clinician after receiving interventions for proper screening. The behavior of the observable output represented a change in understanding and utilization of the SCARED tool based on the post-survey and post-chart review which revealed a 100% utilization of the screening tool.

The DNP project represented a scholarly experience through the project which considered a needs assessment area of focus for a quality improvement project. The principal investigator determined potential barriers that could arise during the process of planning, initiating, implementing, evaluating, or disseminating a scholarly project by considering the sample and setting of the project. Potential barriers of a scholarly project may include IRB issues, unrealistic deadlines, or inadequate project budgets (Morris et al., 2021). The principal investigator encountered difficulty with initially gaining access to the project site due to project issues that were geared more towards research than quality improvement. The initial IRB process

began towards the end of April 2023 and was not approved until June 01, 2023. Therefore, there were changes required, that eventually resulted in approval of the project and project site. In addition, an issue with unrealistic deadlines was a potential barrier for the principal investigator; however, after a re-design of the timeline the issue was resolved.

Lastly, the principal investigator began the planning stage of resources pertaining to budgets to eradicate a potential barrier or finances related to the scholarly project. The initial planning phase began with locating a clinical site that charged no fee for mentorship or other associated fees, which led to a potential problem with excessive spending during the project. Barriers exist in DNP project's; however, important consideration is to determine the barriers and navigate through the project to complete the project (Morris et al., 2021).

### **Implications for Nursing Practice**

In youth who may be exhibiting signs and symptoms of anxiety, screening to promote early detection is imperative to recognize and treat anxiety during the early phases. Clinicians who provide proper screening promote early awareness of proper debilitating issues in youth. Understanding reasons why clinicians lack adherence of screening is imperative to promoting change towards bridging the gap and promoting optimal quality care. The clinician undergoes daily stressors surrounding patient satisfaction, adequate diagnosing, and the need to detect early symptoms of anxiety through screening for adequate treatment. Based on the findings, the clinician must understand that they have a responsible

Although the impact on anxiety in youth may not occur immediately regarding financial impacts, lack of treatment could lead to further behavioral concerns as the child grows into adulthood. Behavioral concerns can lead to the child acting out or causing a delay of learning due to signs and symptoms of anxiety. Youth may have difficulty maintaining schoolwork or



attending certain classes due to specific types of anxiety including social and separation anxiety disorders. Additionally, if proper screening is not initiated to correct treatments of anxiety early on, the youth turned adult could experience loss of employment, disability, and decrease in quality of life (Ridenour et al., 2021). In addition to local effects, mental health disorders cause global health related burdens and are a leading cause of the disabling mental disorder of anxiety and depression worldwide in 2019 (Santomauro et al., 2021).

The effects of anxiety in school aged children can vary depending on specific situations. The US Preventive Services Task Force recommend screening children and adolescents beginning at age eight to eighteen for symptoms of anxiety to produce reduction of cases of anxiety and decrease the level of burden in future scenarios (US Preventive Services Task Force, 2022). Therefore, the findings for nursing practice mean that more studies must be conducted to determine adherence with screening tools in patients. The data indicates that changes are necessary and needed, specifically for early detection in disorders to prevent future debilitating issues. Through early detection and screening, the effects can lead to treatment of disorders effectively and efficiently (Santomauro et al., 2021).

The sustainability of a project determines the importance and significant interest of the program to withstand through improvement initiative (Cook & Mayahara, 2022). The staggering statistical rates of anxiety diagnosis in youth reveal why early detection of onset is imperative to begin proper treatment. The DNP project is sustainable in that the implemented protocol for monitoring adherence in clinicians is cost effective and will not cause major adjustments in current practice of the clinician.

The plan was to initiate a SCARED protocol to provide further education to the clinicians in a clinic where clinicians can advocate for effective screening of youth. Furthermore, a chart

audit screening tool was initiated to further monitor adherence of clinicians to allow more frequent chart reviews to make certain proper protocols per policies were being upheld. In addition, mid-level goals will be geared towards implementing the SCARED educational protocol as part of the current plan of treatment within the practice setting. Through collaboration with the DNP mentor and clinicians within the clinic, a process of change will become evident within the program through educational training and chart auditing. A program evaluation represents a feasible selection due to the constraints surrounding time. A retrospective chart review allowed the investigator the opportunity to analyze current adherence of screenings using the SCARED Tool at the Shaw Family Medical Clinic. After obtaining the chart review data, a SCARED protocol and chart audit-initiated education surrounding usage of the SCARED Tool was provided to the clinicians within the practice setting. The long-term goals would be to initiate an in-app or online version of the SCARED Tool protocol and have a chart audit tool synchronized into the computer system application. The overall goal of the project is to implement policy changes with supporting evidence-based data to support the changes.

Overall, the project was designed to make meaningful changes in the practice setting due to lack of adherence to the current way screening is obtained. The purpose of health screening aims to detect early onset of signs and symptoms through treatment at an early stage, thereby leading to a reduction in burden of expenses and ensuring a reasonable quality of life (Kim & Ho, 2023). By upholding that purpose, evidence exists that there is a lack in current policy; therefore, the need for practice change exists. Therefore, the project design was centered around the needs assessment of screening adherence to make meaningful changes at the Shaw Family Clinic.

### **Recommendations**

The QI project yielded multiple recommendations for future work to be done in this project. The QI project represented a smaller study size; however, studies with significantly larger amounts of participants can increase the generalizability related to the findings. Ethnic and cultural diversity within studies would contribute to the generalizability of the findings and improve findings in various ethnic and cultural backgrounds. Additionally, adherence of evidence-based practice guidelines improves outcomes for the clinician and organization, but most importantly the health and well-being of the patient and parent through early detection of illnesses.

Further research is needed and necessary for policy implementation to provide a smoother and cohesive method for delivering the screening tool to the youth and parents. The current method involves the clinician gathering the chief complaint and distributing a paper copy of the SCARED Tool (parent and child version) for completion. After completing in approximately 10 minutes, the clinician is then tasked with calculating results, providing further assessment, and then diagnosing. Overall findings recommend usefulness for the SCARED screening of anxiety but specify that it is not to replace direct communication and diagnoses, and should not be used singularly (Ivarsson et al., 2018). Afterwards, the clinician is responsible for uploading the screening tool onto the electronic chart record. The recommendation would be to implement a version of the SCARED tool onto the patient portal where the parent and child can respectfully complete their version in the waiting area. The recommended method would decrease time spent with the clinician allowing more time in the visit to be focused on diagnosis and treatment options.

## **Discussion**

The pre-intervention test and the post-intervention test comparison detailed a significant statistical difference following completion of the educational SCARED protocol competency. The overall goal of the project was to educate the staff and providers on the SCARED Tool, to identify patients between the age of eight to eighteen years with anxiety-like symptoms, and to monitor the utilization of the tool. The clinicians responded positively to the project and acknowledged the simplicity of the protocol provided pertinent information to enhance daily screening measures. There have been reports indicating the use of teaching methods shown to be effective in changing physicians' practices through improvement of screening rates based on education (Ortmeyer et al., 2022).

Regarding the implication of nursing practice, the principal investigator believes that the sustainability of the implemented protocol will be deemed successful based on an improvement initiative. The findings have revealed success regarding the number of clinicians who have successfully completed the program with noted results in screening the post-intervention test. In addition, the findings represent the importance of increased adherence to utilization of the SCARED Tool due to proper education, implied understanding, and competent screening. Regarding the recommendation, more research is needed for measuring clinician's competency in the clinical primary care setting with a larger and more diverse sample size.

The quality improvement revealed strengths which included effective educational approaches utilized to train the clinicians concerning proper screening methods. The results of screening the post-implementation revealed that screenings are imperative and can be distributed with hopes of providing the best care to the youth by proper utilization. An additional strength of the quality improvement project is the validated and reliable SCARED Tool utilized for administration by the clinicians. Growing rates of mental health disorders in the US affecting

school-aged children and adolescents has deemed healthcare providers with tasks to reduce anxiety through early detection (Harvey & Clark, 2020).

In addition, to the project, there were limitations noted which included, the small sample size of 100 pre-intervention charts, and 50 post-intervention charts, the lack of diversity amongst other areas of race within the project due to 100% inclusion of African Americans, or the limited time frame of four weeks for the for-project completion and implementation. The use of further quality improvement projects would benefit from clinician results of adherence utilizing the SCARED Tool.

### **Conclusions and Contributions to the Profession of Nursing**

Anxiety is a major concern that affects youth; and manifests as social problems and negative behaviors during initial stages (Mistry-Patel & Brooker, 2023). Therefore, the need for early detection of anxiety is paramount to reduce rates of debilitating life changes if left untreated. Healthcare screenings that are sufficiently utilized lead to earlier detection and diagnosis of disorders by the clinician due to initiative-taking management and screening of the problem (Coombs et al., 2021).

The scholarly project sought to translate research into practice through developing and implementing a structural process to provide an educational protocol for adherence of SCARED Tool administration by clinicians for youth screening. The findings from this QI project evaluation revealed a lack of educational screening through improper documentation and failure to administer the tool while assessing youths with chief complaints of anxiety. The findings revealed a need for policy change within the Shaw Clinic. The most difficult barriers were clinicians' limited time to interact with patients and increased demands of quality healthcare performance. Although barriers are noted, the project's end results were statistically significant

in improving the screening usage within a four-week time. The chart audits focused on whether the SCARED Tool completion was adequately performed by clinicians and post-education surveys acknowledged the clinicians understanding of the tool.

The DNP project was satisfactory in allowing DNP Essentials to be successfully met by the principal investigator. The DNP project successfully met all short-term goals and now will shift towards an evaluation long-term. An opportunity to collaborate with various members of the Shaw Clinic organization allowed an improvement in a policy implemented tool that lacked adherence by clinicians. The guidance and opportunities created has allowed the investigator to collaborate with the clinicians to ensure best practice was successfully completed after developing educational protocols to ensure the future development of leadership skills and competencies by the DNP investigator. The ultimate desire with this QI project is to continue investigating future studies with screening tools analyzing youth with potential anxiety disorders for early detection to curve the gap of detection. The DNP's ultimate role is to be a change agent through leadership and evidence-based data to make quality improvements in projects like this one for early detection of anxiety in youth by promoting proper adherence of screening in clinicians.

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**Table A**

Sociodemographic Status- Gender

**SCARED Results \* Gender**

**Report**

SCARED Results

Gender	Mean	N	Std. Deviation
Female	21.26	46	10.206
Male	17.32	44	11.340
Total	19.33	90	10.896

**ANOVA Table<sup>a</sup>**

		Sum of Squares	df	Mean Square
SCARED Results * Gender	Between Groups (Combined)	349.585	1	349.585
	Within Groups	10216.415	88	116.096
	Total	10566.000	89	

**ANOVA Table<sup>a</sup>**

		F	Sig.
SCARED Results * Gender	Between Groups (Combined)	3.011	.086
	Within Groups		
	Total		

a. With fewer than three groups, linearity measures for SCARED Results \* Gender cannot be computed.

**Measures of Association**

	Eta	Eta Squared
SCARED Results * Gender	.182	.033



**Table B**

Sociodemographic Status- Gender and Ethnicity

**Gender \* Group**

**Crosstab**

Count

		Group		
		Pre-Education	PostEducation	Total
Gender	Female	48	28	76
	Male	52	22	74
Total		100	50	150

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.853 <sup>a</sup>	1	.356		
Continuity Correction <sup>b</sup>	.563	1	.453		
Likelihood Ratio	.855	1	.355		
Fisher's Exact Test				.390	.227
Linear-by-Linear Association	.848	1	.357		
N of Valid Cases	150				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 24.67.  
 b. Computed only for a 2x2 table

**Ethnicity\_Race \* Group**

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**Crosstab**

Count

		Group		
		Pre-Education	PostEducation	Total
Ethnicity_Race	African American	100	50	150
Total		100	50	150

**Chi-Square Tests**

	Value
Pearson Chi-Square	. <sup>a</sup>
N of Valid Cases	150

a. No statistics are computed because Ethnicity\_Race is a constant.

**Table C**

Sociodemographic Status- Welfare

**SCARED Results \* WelfareStatus**

**Report**

SCARED Results

WelfareStatus	Mean	N	Std. Deviation
No Welfare	16.45	33	11.127
Welfare-EBT	21.00	57	10.498
Total	19.33	90	10.896

**ANOVA Table<sup>a</sup>**

		Sum of Squares	df	Mean Square
SCARED Results * WelfareStatus	Between Groups (Combined)	431.818	1	431.818
	Within Groups	10134.182	88	115.161
	Total	10566.000	89	

**ANOVA Table<sup>a</sup>**

		F	Sig.
SCARED Results * WelfareStatus	Between Groups (Combined)	3.750	.056
	Within Groups		
	Total		

a. With fewer than three groups, linearity measures for SCARED Results \* WelfareStatus cannot be computed.

**Measures of Association**

	Eta	Eta Squared
SCARED Results * WelfareStatus	.202	.041

**Table D**

Sociodemographic Status- Welfare and Family Household

**WelfareStatus \* Group**

**Crosstab**

Count

		Group		
		Pre-Education	PostEducation	Total
WelfareStatus	No Welfare	31	21	52
	Welfare-EBT	69	29	98
Total		100	50	150

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**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.781 <sup>a</sup>	1	.182		
Continuity Correction <sup>b</sup>	1.328	1	.249		
Likelihood Ratio	1.758	1	.185		
Fisher's Exact Test				.205	.125
Linear-by-Linear Association	1.769	1	.184		
N of Valid Cases	150				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.33.  
 b. Computed only for a 2x2 table

**M\_S\_FamilyHousehold \* Group**

**Crosstab**

Count

		Group		
		Pre-Education	PostEducation	Total
M_S_FamilyHousehold	Single	78	38	116
	Married	22	12	34
Total		100	50	150

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.076 <sup>a</sup>	1	.783		
Continuity Correction <sup>b</sup>	.005	1	.945		
Likelihood Ratio	.076	1	.783		
Fisher's Exact Test				.837	.468
Linear-by-Linear Association	.076	1	.783		
N of Valid Cases	150				

**Table E**

Sociodemographic Status- Family Household (Married or Single)

**SCARED Results \* M\_S\_FamilyHousehold**

**Report**

SCARED Results

M_S_FamilyHousehold	Mean	N	Std. Deviation
Single	19.86	70	10.959
Married	17.50	20	10.743
Total	19.33	90	10.896

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**ANOVA Table<sup>a</sup>**

		Sum of Squares	df	Mean Square
SCARED Results * M_S_FamilyHousehold	Between Groups (Combined)	86.429	1	86.429
	Within Groups	10479.571	88	119.086
	Total	10566.000	89	

**ANOVA Table<sup>a</sup>**

		F	Sig.
SCARED Results * M_S_FamilyHousehold	Between Groups (Combined)	.726	.397
	Within Groups		
	Total		

a. With fewer than three groups, linearity measures for SCARED Results \* M\_S\_FamilyHousehold cannot be computed.

**Measures of Association**

	Eta	Eta Squared
SCARED Results * M_S_FamilyHousehold	.090	.008

**Table F**

SCARED Completed Properly (Y/N)

Notes					
3 of 4		Processor Time	00:00:00.03		
		Elapsed Time	00:00:00.00		
		Dimensions Requested	2		
		Cells Available	524245		

Case Processing Summary						
	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Group * SCAREDCompleteProperly YN	150	100.0%	0	0.0%	150	100.0%

Group * SCAREDCompleteProperlyYN Crosstabulation					
Group	Pre-Education	Count	SCAREDCompleteProperlyYN		Total
			No	Yes	
		Count	61	39	100
		% within Group	61.0%	39.0%	100.0%
		% within SCAREDCompleteProperly YN	100.0%	43.8%	66.7%
	PostEducation	Count	0	50	50
		% within Group	0.0%	100.0%	100.0%
		% within SCAREDCompleteProperly YN	0.0%	56.2%	33.3%
Total		Count	61	89	150
		% within Group	40.7%	59.3%	100.0%
		% within SCAREDCompleteProperly YN	100.0%	100.0%	100.0%

Page 3

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	51.404 <sup>a</sup>	1	<.001		
Continuity Correction <sup>b</sup>	48.907	1	<.001		
Likelihood Ratio	68.937	1	<.001		
Fisher's Exact Test				<.001	<.001
Linear-by-Linear Association	51.062	1	<.001		
N of Valid Cases	150				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.33.  
b. Computed only for a 2x2 table

**Table G**

SCARED Completed Properly ((Y/N) Group

SCAREDScreenPerformedYN * Group					
				Page 17	
<b>Crosstab</b>					
Count	Group				
		Pre-Education	PostEducation	Total	
SCAREDScreenPerformed	No	61	0	61	
YN	Yes	39	50	89	
Total		100	50	150	
<b>Chi-Square Tests</b>					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	51.404 <sup>a</sup>	1	<.001		
Continuity Correction <sup>b</sup>	48.907	1	<.001		
Likelihood Ratio	68.937	1	<.001		
Fisher's Exact Test				<.001	<.001
Linear-by-Linear Association	51.062	1	<.001		
N of Valid Cases	150				
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.33. b. Computed only for a 2x2 table					
<b>SCAREDCompleteProperlyYN * Group</b>					
<b>Crosstab</b>					
Count	Group				
		Pre-Education	PostEducation	Total	
SCAREDCompleteProperly	Yes	39	50	89	
YN					
Total		39	50	89	
Page 18					
<b>Chi-Square Tests</b>					
	Value				
Pearson Chi-Square	.a				
N of Valid Cases	89				
a. No statistics are computed because SCAREDCompleteProperlyYN is a constant.					

**Table H**

SCARED Pre-Post Education Chart

**Group Statistics**

Group	N	Mean	Std. Deviation	Std. Error Mean
Age Pre-Education	100	13.05	3.395	.339
PostEducation	50	12.78	3.309	.468

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**Independent Samples Test**

Levene's Test for Equality of Variances      t-test for Equality of Means

		F	Sig.	t	df
Age	Equal variances assumed	.081	.776	.463	148
	Equal variances not assumed			.467	100.372

**Independent Samples Test**

t-test for Equality of Means

		Significance		Mean Difference	Std. Error Difference
		One-Sided p	Two-Sided p		
Age	Equal variances assumed	.322	.644	.270	.583
	Equal variances not assumed	.321	.641	.270	.578

**Independent Samples Test**

t-test for Equality of Means

95% Confidence Interval of the Difference

		Lower	Upper
Age	Equal variances assumed	-.882	1.422
	Equal variances not assumed	-.877	1.417

**Independent Samples Effect Sizes**

		Standardizer <sup>a</sup>	Point Estimate	95% Confidence Interval	
				Lower	Upper
Age	Cohen's d	3.366	.080	-.260	.420
	Hedges' correction	3.384	.080	-.258	.418
	Glass's delta	3.309	.082	-.259	.421

a. The denominator used in estimating the effect sizes.  
 Cohen's d uses the pooled standard deviation.  
 Hedges' correction uses the pooled standard deviation, plus a correction factor.  
 Glass's delta uses the sample standard deviation of the control group.

**Table I**

Post-Survey Questionnaire

		Statistics						
		Q1	Q2	Q3	Q4	Q5	Q6	Q7
N	Valid	6	6	6	6	6	6	6
	Missing	0	0	0	0	0	0	0

		Statistics		
		Q8	Q9	Q10
N	Valid	6	6	6
	Missing	0	0	0

**Frequency Table**

Q1				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q2				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q3				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q4				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q5				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q6				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q7				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q8				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q9				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0

Q10				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	100.0	100.0



Figure A

Screen for Child Anxiety Related Disorders- Child Version

Screen for Child Anxiety Related Disorders (SCARED)

Child Version - Page 1 of 2 (To be filled out by the CHILD)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Directions:**  
Below is a list of sentences that describe how people feel. Read each phrase and decide if it is "Not True or Hardly Ever True" or "Somewhat True or Sometimes True" or "Very True or Often True" for you. Then for each sentence, fill in one circle that corresponds to the response that seems to describe you for the last 3 months.

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True
1. When I feel frightened, it is hard for me to breathe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I get headaches when I am at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I don't like to be with people I don't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I get scared if I sleep away from home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I worry about other people liking me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. When I get frightened, I feel like passing out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I follow my mother or father wherever they go	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. People tell me that I look nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I feel nervous with people I don't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. My I get stomachaches at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. When I get frightened, I feel like I am going crazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I worry about sleeping alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I worry about being as good as other kids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. When I get frightened, I feel like things are not real	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I have nightmares about something bad happening to my parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I worry about going to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. When I get frightened, my heart beats fast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I get shaky	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I have nightmares about something bad happening to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Screen for Child Anxiety Related Disorders (SCARED)

Child Version - Page 2 of 2 (To be filled out by the CHILD)

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True
21. I worry about things working out for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. When I get frightened, I sweat a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I am a worrier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I get really frightened for no reason at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. I am afraid to be alone in the house	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. It is hard for me to talk with people I don't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. When I get frightened, I feel like I am choking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. People tell me that I worry too much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. I don't like to be away from my family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. I am afraid of having anxiety (or panic) attacks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. I worry that something bad might happen to my parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. I feel shy with people I don't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. I worry about what is going to happen in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. When I get frightened, I feel like throwing up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. I worry about how well I do things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. I am scared to go to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. I worry about things that have already happened	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. When I get frightened, I feel dizzy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. I feel nervous when I am with other children or adults and I have to do something while they watch me (for example: read aloud, speak, play a game, play a sport)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. I am shy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*\*For children ages 8 to 11, it is recommended that the clinician explain all questions, or have the child answer the questionnaire sitting with an adult in case they have any questions.*

Developed by Boris Birmaher, MD, Suneeta Khetarpal, MD, Marlane Cully, MEd, David Brent, MD, and Sandra McKenzie, PhD. Western Psychiatric Institute and Clinic, University of Pgh. (10/95). Email: birmaherb@msx.upmc.edu

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**Figure B**

Screen for Child Anxiety Related Disorders- Parent Version

Screen for Child Anxiety Related Disorders (SCARED)

Parent Version - Page 1 of 2 (To be filled out by the PARENT)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Directions:**  
Below is a list of statements that describe how people feel. Read each statement carefully and decide if it is "Not True or Hardly Ever True" or "Somewhat True or Sometimes True" or "Very True or Often True" for your child. Then for each statement, fill in one circle that corresponds to the response that seems to describe your child for the last 3 months. Please respond to all statements as well as you can, even if some do not seem to concern your child.

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True
1. When my child feels frightened, it is hard for him/her to breathe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. My child gets headaches when he/she is at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. My child doesn't like to be with people he/she doesn't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. My child gets scared if he/she sleeps away from home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. My child worries about other people liking him/her	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. When my child gets frightened, he/she feels like passing out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. My child is nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. My child follows me wherever I go	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. People tell me that my child looks nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. My child feels nervous with people he/she doesn't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. My child gets stomachaches at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. When my child gets frightened, he/she feels like he/she is going crazy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. My child worries about sleeping alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. My child worries about being as good as other kids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. When he/she gets frightened, he/she feels like things are not real	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. My child has nightmares about something bad happening to his/her parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. My child worries about going to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. When my child gets frightened, his/her heart beats fast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. He/she gets shaky	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. My child has nightmares about something bad happening to him/her	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Screen for Child Anxiety Related Disorders (SCARED)

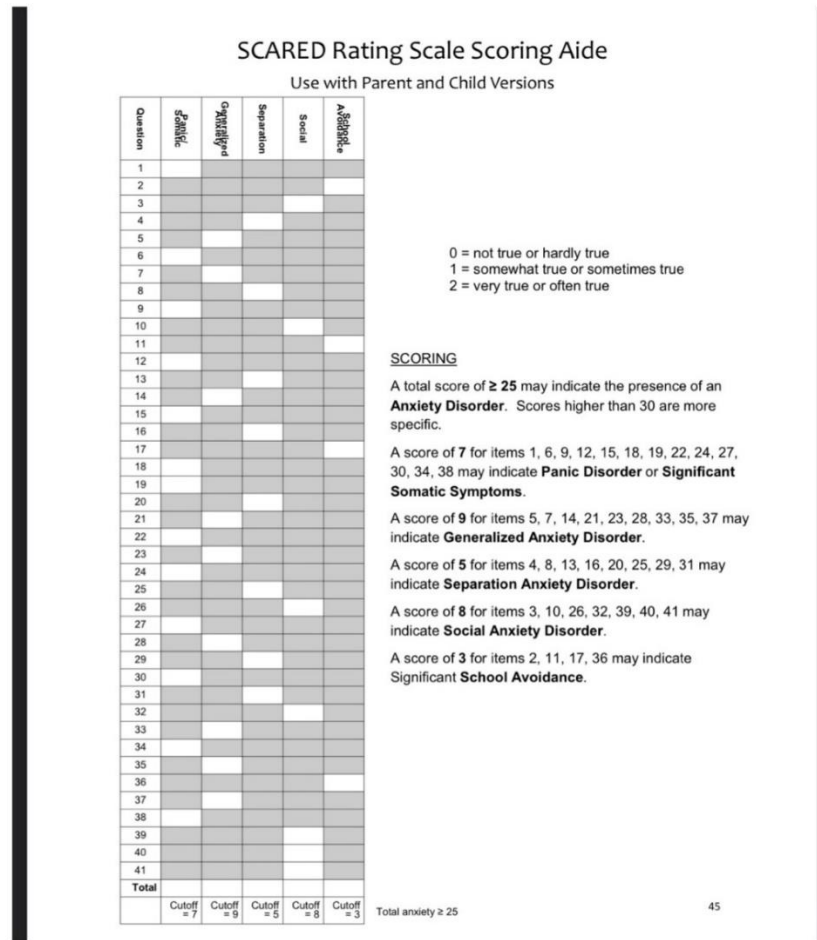
Parent Version - Page 2 of 2 (To be filled out by the PARENT)

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True
21. My child worries about things working out for him/her	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. When my child gets frightened, he/she sweats a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. My child is a worrier	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. My child gets really frightened for no reason at all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. My child is afraid to be alone in the house	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. It is hard for my child to talk with people he/she doesn't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. When my child gets frightened, he/she feels like he/she is choking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. People tell me that my child worries too much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. My child doesn't like to be away from his/her family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. My child is afraid of having anxiety (or panic) attacks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. My child worries that something bad might happen to his/her parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. My child feels shy with people he/she doesn't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. My child worries about what is going to happen in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. When my child gets frightened, he/she feels like throwing up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. My child worries about how well he/she does things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. My child is scared to go to school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. My child worries about things that have already happened	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. When my child gets frightened, he/she feels dizzy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. My child feels nervous when he/she is with other children or adults and he/she has to do something while they watch him/her (for example: read aloud, speak, play a game, play a sport)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. My child feels nervous when he/she is going to parties, dances, or any place where there will be people that he/she doesn't know well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. My child is shy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Developed by Boris Birmaher, MD, Suneeta Khetarpal, MD, Marlene Cully, MEd, David Brent, MD, and Sandra McKenzie, PHD. Western Psychiatric Institute and Clinic, University of Pgh. (10/95). Email: birmaherb@msx.upmc.edu

Figure C

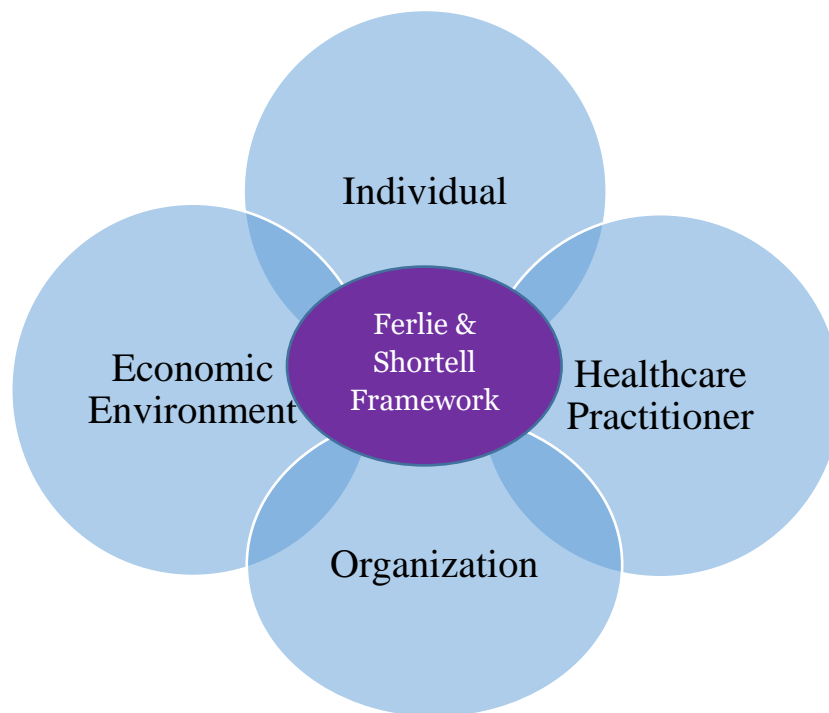
SCARED Rating Scale Scoring Aide



**Figure D**

Change Framework: Ferlie and Shortell

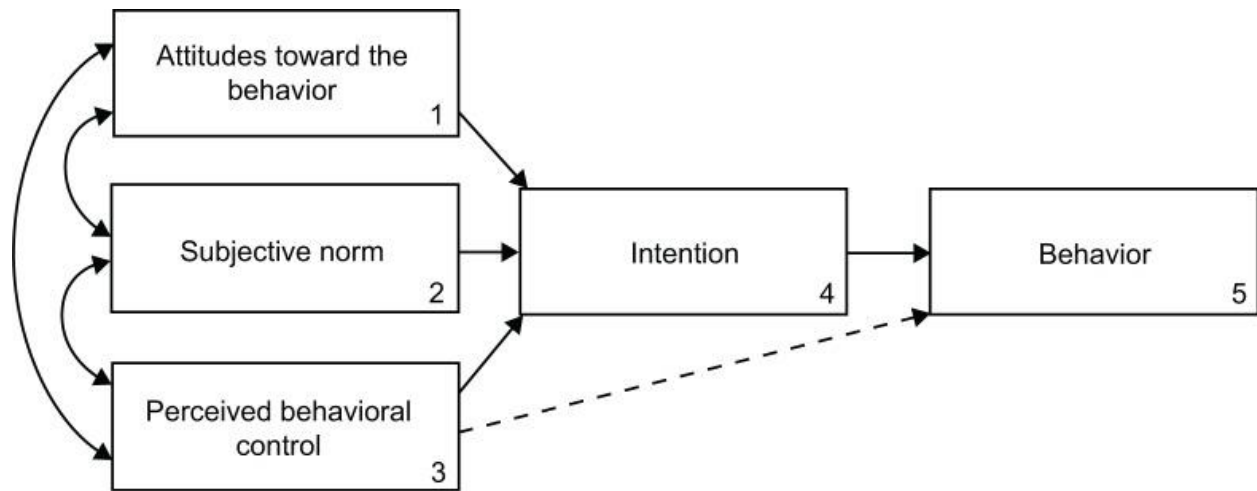
# Change Framework



Ferlie, E.B. and Shortell, S.M. (2001) Improving the Quality of Health Care in the United Kingdom and the United States: A Framework for Change. *Milbank Quarterly*, 79, 281-315. <https://doi.org/10.1111/1468-0009.00206>

**Figure E**

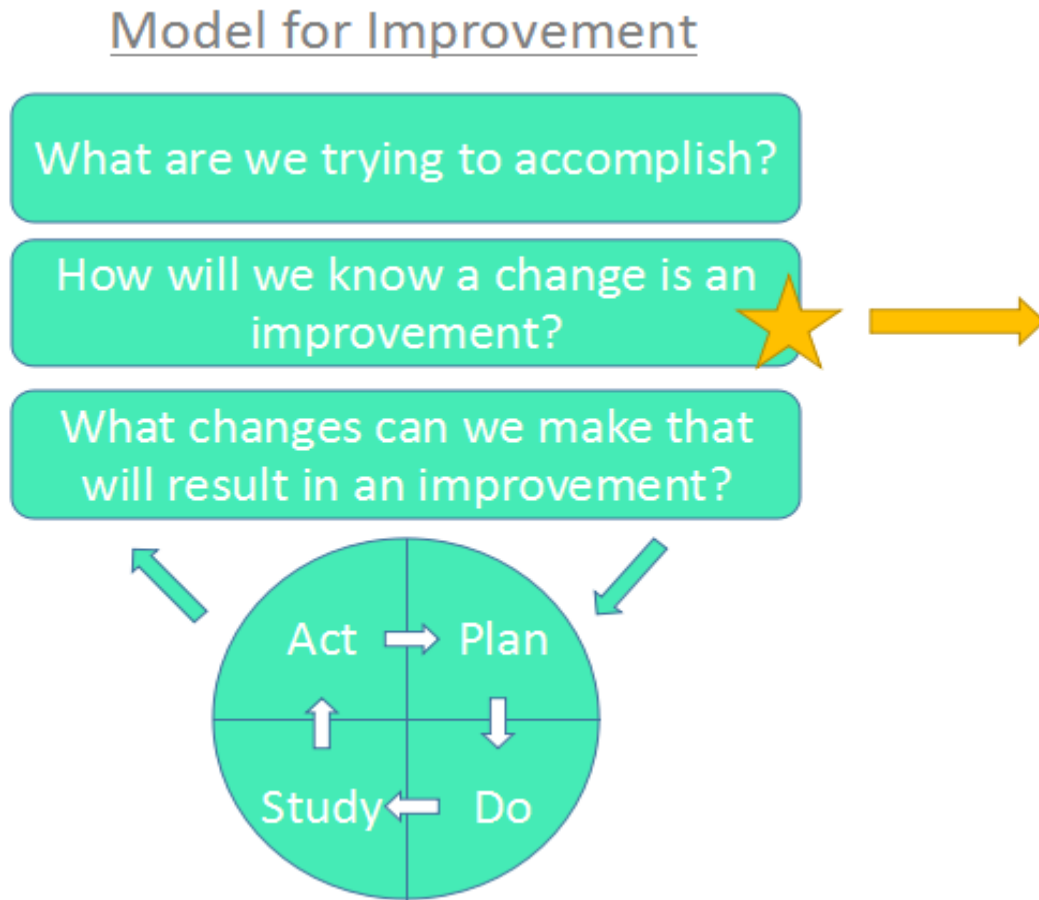
Theoretical Framework- Theory of Planned Behavior



Boslaugh, S. E., PhD. (2022). Theory of planned behavior. *Salem Press Encyclopedia*.

**Figure F**

Implementation Framework- PDSA Cycle



**Appendix A****RESEARCH AND TECHNOLOGY TRANSFER**

P.O. Box 2760, State University, AR 72467 | o: 870-972-2694 | f: 870-972-2336  
June 1, 2023  
Principal Investigator: Jasmine Smith  
Board: IRB (Institutional Review Board)  
Study: FY22-23-412 IRB Application Assignment  
Submission Type: Initial  
Board Decision: No Engagement in Research  
Approval Date: June 1, 2023

Thank you for your submission of New Project materials for this research study. The Arkansas State University Institutional Review Board has determined the proposed activity does not meet the definition of "research" involving "human subjects" as defined by the U.S. Department of Health and Human Services Office for Human Research Protections regulations, codified at 45 CFR 46.102. Review and approval by the A-State IRB is not required. This determination applies only to the activities described in the submission noted above and does not apply to any changes to this project. You may proceed with your project. Please submit a new request to the IRB for a determination if any changes are made which lead to any questions about whether the activities are research involving human subjects.

Please retain a copy of this correspondence for your records. If you have any questions, please contact the Director of Research Compliance at (870) 972-2694 or [IRB@astate.edu](mailto:IRB@astate.edu). Please include your study title and study label.

Sincerely,  
**Amy R. Pearce, Ph.D.**  
Chair, Institutional Review Board

**Appendix B**

## Site Approval Form



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**Shaw Family Medical Center**  
**112 Peeler Avenue**  
**Shaw, MS 38773**

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TO: Arkansas State University  
FROM: Dr. Nora Gough-Davis, DNP  
DATE: May 23, 2023  
RE: Site Permission Approval

I hereby grant permission to Jasmine Smith, a Doctor of Nursing Practice student at Arkansas State University to the Shaw Family Medical Center site for the duration of her scholarly project. I, Dr. Davis, will serve as her doctoral prepared nurse mentor during the duration of the project. If further questions are needed, I may be reached at (662)- 402-1138.

Permission granted by: Nora Gough-Davis, DNP, MBA, MSN, APRN, FNP-BC

Signature: 

Date: 05/23/2023



### Appendix C

#### Preceptor Verification Form



#### Arkansas State University School of Nursing Clinical Preceptor Verification Form

**Directions:** Identify a nurse that has a minimum of a doctoral degree who is willing to coach/mentor you in your efforts to complete your project. Ask them to complete this form. Once completed, electronically submit this form saved as Lastname.FirstName.FacForm.doc. Sally Ride's form would look like Ride.Sally.FacForm.doc . Email this document to the Clinical Coordinator, Dr. Savannah Coin, at scoin@astate.edu

Note: Illegible forms will be returned to the student.

Clinical Preceptor's Name & Credentials: Nora Gough-Davis, DNP, MBA, MSNS, APRN, FNP-BC

Clinical Preceptor's Title/position: Family Nurse Practitioner/Executive Director

Clinical Preceptor's Employer: MMIC Shaw Family Medical Clinic

Clinical Preceptor Employer's Address: 112 Peeler Ave, Shaw MS 38773

Brief Summary of Clinical Facilitator's positions held as a MSN level RN (or higher):

Family Nurse Practitioner 2009 - Present

Assistant Professor of Nursing 2020-Present

Clinical Preceptor's Contact information:

Email: ndavis@deltastate.edu

Telephone number: 6624021138

Mailing Address: 1148 Old Highway 61, Cleveland, MS 38732

RN license number (including state): MS 872155

This information is required by the Arkansas State Board of Nursing.

**Appendix D**

SCARED Survey (Screen for Child Anxiety Related Emotional Disorder)

Directions: Please circle the answer choice that best represents your response.

Clinician Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. I **UNDERSTAND** the educational SCARED Tool handout provided me with education of the information discussed. (1)- Agree (2) Neutral (3) Disagree
2. I **UNDERSTAND** the SCARED handout example interview presented helped me to understand the process of gathering SCARED content (1)- Agree (2) Neutral (3) Disagree
3. I **UNDERSTAND** the educational SCARED Tool handout provided me with better understanding of the clinical content. (1)- Agree (2) Neutral (3) Disagree
4. I **UNDERSTAND** the information expressed in the educational handout provided better understanding to adequately perform my job to utilize the SCARED Tool to youth ages 8-18 years of age. (1)- Agree (2) Neutral (3) Disagree
5. I **UNDERSTAND** that the SCARED Tool has been implemented into policy at the Shaw Clinic, and I am required to administer the tool accordingly based on the guidelines of behavioral referrals or anxiety complaints. (1)- Agree (2) Neutral (3) Disagree
6. I **UNDERSTAND** that for children ages 8 to 11, it is recommended that the clinician explain all questions, or have the child answer the questionnaire sitting with an adult in case they have any questions. (1)- Agree (2) Neutral (3) Disagree
7. I **UNDERSTAND** the details surrounding each scoring option, or I will reach out to a fellow clinician for further assistance if needed. (1)- Agree (2) Neutral (3) Disagree
8. I **UNDERSTAND** the importance of early detection of anxiety in youth and with the best of my abilities provide awareness through screening. (1)- Agree (2) Neutral (3) Disagree
9. I **UNDERSTAND** that I must explain to the parent/child that each sentence should reflect a response that describes the child over the last 3 months. I must express the importance of answering each question. (1)- Agree (2) Neutral (3) Disagree
10. I **UNDERSTAND** that there will be an audit once weekly on Fridays for two weeks to ensure proper utilization of the SCARED Tool and evaluate the usage. Afterwards, the chart audit will take place once per month by Dr. Davis or the office manager where data will be collected based on a chart review using the Excel data tool collection sheet. (1)- Agree (2) Neutral (3) Disagree

Comments/Concerns: \_\_\_\_\_

Clinician Signature: \_\_\_\_\_ Date: \_\_\_\_\_

\*\* By signing this survey, I agree that all information presented above was properly explained with adequate feedback or questions answered accordingly. Furthermore, I understand that this survey will be placed in my employee file and serves as understanding and agreement for proper utilization of the SCARED tool.

## Appendix E

Mock Interview (Parent/Child Version)

The mock interview is utilized as an example interview using the validated SCARED Tool

**Investigator-** Hi, Mr. or Mrs. \_\_\_\_\_ (Parent Name) AND Hello \_\_\_\_\_ (child's name)

I am \_\_\_\_\_ (Clinician Name and title) NP, and I am one of the clinicians at the Shaw Family Medical Clinic. Based on your check-in form, the chief complaint, or problem is listed as concerns of anxiety, anxiety like symptoms, or behavioral referral.

**DNP Mentor/Owner-** (Acting as the parent AND child) Yes, that is correct (Parent) Yes ma'am (child)

**Investigator**

**[Talking to Parent]** Alright, before we begin with an in-depth assessment, I will give you a parent version with observation questions of the Screen for Child and Adolescent Related Emotional Disorder questionnaire to complete to the best of your ability in relation to your child's experiences over the last 3 months. (Hands SCARED Tool to parent)

**[Talking to Child]** Alright, (boy or girl name) \_\_\_\_\_ I will give you a child version with questions of the Screen for Child and Adolescent Related Emotional Disorder questionnaire to complete to the best of your ability in relation to how you have felt over the last 3 months. (Hands SCARED Tool to child)

**DNP Mentor/Owner-** (Receives the SCARED Tool) on behalf of the parent and child.

**Investigator:** I will be back in approximately 10 minutes to collect the tools and tally the results and then we will begin the assessment process.

**Investigator:** Returns to collect the SCARED Tool's in 10 minutes, tally results based on question responses and proceeds with the in-depth assessment.

### Appendix F

#### Excel Data Collection Chart Audit

