2021

A Clinical Practice Guideline for Measuring Quality of Life in Patients with Depression and Anxiety

Mary Fowaah Boateng
Walden University

Walden University

College of Nursing

This is to certify that the doctoral study by

Mary Fowaah Boateng

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Patricia Senk, Committee Chairperson, Nursing Faculty
Dr. Andrea Tatkon-Coker, Committee Member, Nursing Faculty
Dr. Mary Catherine Garner, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

A Clinical Practice Guideline for Measuring Quality of Life in Patients with Depression and Anxiety

by

Mary Fowaah Boateng, CRNP, FNP-BC

MSN, Chamberlain University, 2017

BSN, Indiana State University, 2014

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

February 2021

Abstract

Mental health conditions affect various aspects of an individual's quality of life (QOL). Patients with anxiety and depression have a greater risk of having a negative perception of QOL. The gap in practice was the lack of an assessment tool to measure QOL in patients with mental health disorders. The purpose of this Doctor of Nursing Practice project was to develop a clinical practice guideline (CPG) recommending the best evidence-based measurement tool for QOL in patients with anxiety and/or depression. The question that guided the CPG was: How should QOL be measured in patients with anxiety and/or depression in the outpatient setting? The CPG could help clinicians ask precise questions regarding the impact of anxiety and/or depression on patients' QOL and adjust the treatment plan to improve patient outcomes. The literature used to support the CPG was graded, synthesized into recommendations, and evaluated by an expert panel using the Appraisal of Guidelines Research and Evaluation (AGREE) II tool. The World Health Organization Quality of Life Instrument-Short Form (WHOQOL-BREF) questionnaire was recommended in the CPG as a reliable measurement tool to evaluate QOL in patients with anxiety and/or depression. Peplau's interpersonal relations theory was applied to emphasize the proper way for clinicians to interact with patients when administering the WHOQOL-BREF questionnaire. The anticipated outcome of adoption of the CPG is the efficient use of resources to improve patients' QOL. The CPG is intended to assist clinicians to evaluate and understand QOL perceptions to achieve the social change of enhancing patient outcomes by improving treatment plans.

A Clinical Practice Guideline for Measuring Quality of Life in Patients with Depression and Anxiety

by

Mary Fowaah Boateng, CRNP, FNP-BC

MSN, Chamberlain University, 2017

BSN, Indiana State University, 2014

Project Submitted in Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

February 2021

Dedication

I humbly dedicate this doctoral project to my loving family. First, to my sweet, loving, supportive husband, who stayed up with me through the long nights and always encouraging me to never give up. Thank you for helping me with our children over the years and making this process so seamless with your calm, affectionate attitude. Thank you for always reminding me that “there are greater tragedies in this world” bigger than my worries when I felt like throwing down the towel. Secondly, to my beautiful three children, I am so thankful to be your mother and the joy of spending more time with you served as my motivation to keep going. Lastly, to my close family and friends for their continued love, support, encouragement, and motivation which greatly contributed to my ability to complete this project.

Acknowledgments

I am grateful for the continued support and guidance from Dr. Patti Senk whose effective feedback made this doctoral project a success. Thank you Dr. Senk for your constant follow ups and constructive analysis of each step of my project. You contributed such wealth of knowledge and your dedicated support throughout the project made it a success.

Table of Contents

List of Tables iii

Section 1: Nature of the Project 1

Introduction 1

Problem Statement 2

Purpose Statement 4

Nature of the Doctoral Project 5

Significance 5

Summary 6

Section 2: Background and Context 8

Introduction 8

Theory 8

Relevance to Nursing Practice 12

Local Background and Context 12

Role of the Doctor of Nursing Practice Student 14

Role of the Project Team 16

Summary 16

Section 3: Collection and Analysis of Evidence 18

Introduction 18

Practice-Focused Question 18

Sources of Evidence 20

Analysis and Synthesis 22

Summary 25
Section 4: Findings and Recommendations 26
Introduction 26
Findings and Implications 27
Recommendations 37
World Health Organization Quality of Life Instrument-Short Form Tool 38
Contribution of the Doctoral Project Team 43
Strengths and Limitations of the Project 44
Summary 47
Section 5: Dissemination Plan 48
Introduction 48
Analysis to Self 49
Summary 51
References 53
Appendix A: Evidence Matrix 59
Appendix B: Clinical Practice Guideline 67
Conflict of Interest 78
Appendix C: The WHOQOL-BREF Questionnaire 79
Appendix D: The WHOQOL-BREF Questionnaire: Response Options 81
Appendix E: World Health Organization Copyright Authorization for WHOQOL-BREF 85

List of Tables

Table 1. AGREE II Experts Overall Guideline Assessment Scores.....36

Table 2. AGREE II Experts Overall Guideline Assessment Scores.....37

Section 1: Nature of the Project

Introduction

In 2017, there were approximately 46.6 million adults aged 18 or older in the United States with mental illness, this number signified 18.9% of all U.S. adults (National Institute of Mental Health, 2019). According to Huo, Guo, Shenkman and Muller (2018), as many as 25% of adults in the United States has some form of mental health problem. Patients diagnosed with mental health disorders are known to have an increased rate of chronic diseases including but not limited to cardiovascular diseases, diabetes, obesity, asthma, epilepsy, and cancer (Huo et al., 2018). Mental health disorders affect various aspects of the individual's quality of life (QOL), such as their personal and social relationships, employment, schooling, and physical abilities. It has been shown that patients with other medical illnesses in addition to mental health disorders have considerably greater impairment of their QOL (Huo et al., 2018).

Specifically, depression is a prevalent cause of disability worldwide (Choo, Chew, Ho, & Ho, 2019). The World Health Organization (WHO) has projected that by the year 2020, depression will be deemed the third leading cause of disability globally (Sivertsen, Bjorklof, Engedal, Selbaek, & Helvik, 2015). Compared with other mental disorders, depressed patients have reported lower QOL (Choo et al., 2019). Prior studies observed that domestic life, work, and interpersonal activities were believed to be the most altered functional domains in depression (Choo et al., 2019). People with depression are more susceptible to having adverse outcomes such as low education level, marital

disturbances, erratic employment, risk of developing secondary disorders, and premature mortality because of suicide (Choo et al., 2019).

Similarly, anxiety disorders represent the most predominant classification of mental health disorders (Muntingh, van der Feltz-Cornelis, van Marwijk, Spinhoven, & van Balkom, 2016). Anxiety disorders can also have a negative effect on a person's QOL and are related to significant healthcare and productivity financial burden (Muntingh et al., 2016). Anxiety and depression are among the most common mental health problems across various ages of the lifespan (Hohls, König, Quirke & Hajek, 2019). Both disorders have been linked to a substantial economic burden and adverse consequences including increased risk for physical comorbidities (Hohls et al., 2019). For reasons previously stated, it is vital to address these chronic mental health conditions to not only reduce healthcare cost but to improve overall patient care and outcomes.

Problem Statement

QOL is defined as a person's perception of their personal situation with regards to their own physical, social, mental, and spiritual dimensions (Pinto, Fumincelli, Mazzoc, Caldeira and Martins, 2017). QOL also refers to an individual's well-being, satisfaction in life, physical health, perceptions of social relationships, economic status, and operational in activities of daily living and work. (Hofmann, Curtiss, Carpenter & Kind, 2017). This is normally evaluated through the subjective views of the person's life situations, perceptions of their mental and physical health, social and family relationships, and functional ability at home and work (Hofmann et al., 2017).

Effective treatments of mental health disorders such as depression can result in a decline in depressive symptoms, improvement of psychosocial functioning, and increased QOL (Hofmann et al., 2017). Nevertheless, the treatment effects on QOL have not obtained as much attention as clinical measures of mental health disorders such as depression or anxiety (Hofmann et al., 2017). It is likely due to regulatory agencies not putting much value on QOL measures because they are not considered a primary outcome measure during clinical trials (Hofmann et al., 2017). However, QOL measures can affect treatments of mental health disorders by helping clinicians to carefully plan and adjust treatments accordingly.

Connell, O'Cathain and Brazier (2014) mentioned that there have been changes in the way mental health services are provided, changing from emphasis on treatment and decreasing symptoms to a holistic approach taking into consideration of well-being, recovery, social functioning, and QOL. For more people receiving mental health services to recover and have a good QOL, there is a need for appropriate outcome measures to be implemented (Connell et al., 2014). However, limited measures have been standardized and regularly gathered across mental health services (Connell et al., 2014). QOL is affected by the individual's beliefs, values, well-being, and life experiences. Because patients with mental health disorders have a greater risk of having a negative perception of QOL, it is essential to identify the best approach to measure QOL in patients with mental health disorders, specifically anxiety and/or depression. Clinicians can adopt this approach to measure QOL in patients with anxiety and/or depression to better plan and manage their treatments.

Purpose Statement

The purpose of this Doctor of Nursing Practice (DNP) project was to develop a clinical practice guideline (CPG) that provides recommendation on how to measure QOL in patients with anxiety and/or depression. After review of the literature, I developed a CPG identifying the most appropriate way to measure QOL and recommended it for use in clinical practice, specifically with patients diagnosed with anxiety and/or depression in the outpatient setting. Clinicians working with patients suffering from anxiety and/or depression can use this CPG to evaluate a patient's QOL. Currently, there is no gold standard for measuring QOL, especially in mental health patients (Katschnig, 2006). Therefore, it was necessary to develop a CPG that can guide clinicians on how to evaluate patients' perceptions of QOL as it relates to their disease process to appropriately manage their treatments. Upon further review of the literature, the most recent sources of evidence that discussed a gold standard for measuring QOL in mental health patients could not be located; hence, I used of the article by Katschnig (2006).

In developing the CPG, Peplau's interpersonal relationship middle-range descriptive theory was used to emphasize the significance of interpersonal relationships. Peplau's work on interpersonal relations has had a significant impact on the development of contemporary nursing and psychiatric nursing (Adams, 2017). Before QOL can be properly evaluated, it is imperative that interpersonal relations are established to effectively understand patients' perceptions while being cognizant of the evaluator's own behavior. Peplau's theory was used to guide clinicians on the best approach to interact with patients when evaluating their QOL.

Nature of the Doctoral Project

The doctoral project necessitated an extensive and vigorous literature review to identify the best tool to measure QOL in patients with anxiety and/or depression. I analyzed and synthesized the evidence retrieved from the literature review for relevance, high quality, reliability, and validity. Each item of evidence was translated and scrutinized to identify the best method to measure QOL in patients with anxiety and/or depression. Based on the findings from the literature review process, I developed a CPG recommending the best approach to measure QOL in patients with anxiety and/or depression. After a robust literature review, I identified the World Health Organization Quality of Life Instrument-Short Form (WHOQOL-BREF) questionnaire as the best tool for clinicians to use to measure QOL in patients with anxiety and/or depression seeking care in the outpatient setting. Clinicians working in outpatient setting (i.e., primary care) can use the guideline as a framework to measure QOL in the target population by asking specific questions outlined in each domain of the WHOQOL-BREF questionnaire.

Significance

Because mental health illnesses account for many disabilities in the United States and worldwide, it was imperative to address this issue using an evidence-based CPG for proper management. Developing a CPG that identifies the best QOL measurement tool to utilize in clinical practice was necessary. The guideline would show the best way to use the identified tool to evaluate QOL in a specified population for a social impact in healthcare. A CPG on the QOL measurement tool was necessary to help clinicians evaluate and understand QOL perceptions among individuals with anxiety and/or

depression disorders. This CPG could enhance patient outcomes and impact treatment plans to decrease disability rates nationally and globally.

Prasad, Angothu, Mathews and Chaturvedi (2016) mentioned that depression is one of the most common mental health disorders and is estimated to be the fourth leading cause of disability worldwide. Depression is estimated to become the second leading cause of disability worldwide by 2020 according to the WHO (World Federation for Mental Health, 2012). It is therefore important to develop a CPG to address such disorders. Effective use of this CPG in the outpatient setting could promote its adoption in other clinical areas to enhance quality of care and reduce healthcare costs related to anxiety and/or depression disorders. This project can promote positive social change according to Walden University's mission by improving mental health and encouraging people, organizations, and society to adopt a new best practice for a positive future.

Summary

Pinto et al. (2017) explained QOL as an individual's perception of their personal situation regarding their own physical, social, mental, and spiritual dimensions. Anxiety and/or depression can have a negative impact on the QOL of individuals. Therefore, incorporating this CPG into clinical practice can result in changes in care delivery as well as making this CPG the gold standard for measuring QOL in patients with anxiety and/or depression, especially because there is currently none available to clinicians. Effective use of this CPG can enhance clinicians' overall understanding about the impact of anxiety and/or depression on patients' QOL. Knowledge regarding this impact can help

clinicians to either amend or enhance treatment plans to meet patient needs and improve their overall QOL.

Section 2: Background and Context

Introduction

In the CPG development, it was important to add concepts, models, and theories to support the information presented in the guideline. Doing so adds quality and strength to the information suggested in the CPG and promotes its use in practice. This section focuses on the theory that clinicians can use when interacting with patients. The theory can be applied when clinicians are asking questions and implementing the interventions outlined in the CPG. The theory also explains specific behaviors that must be illustrated when clinicians interact with patients. In this section, I also provide a brief overview regarding the background information on the context and the theory applied in the CPG. Additionally, the relevance of the CPG to nursing practice demonstrated in this section, highlighting the necessity for the CPG development.

Theory

I used Peplau's theory to guide the development of this CPG. Peplau's theory focused on psychodynamic nursing to help nurses understand their own and others' behaviors while applying principles of human relations to the problems that arise at various experience levels (Adams, 2017). Peplau defined nursing "as an interpersonal, therapeutic process that takes place when professionals, specifically educated to be nurses, engage in therapeutic relationships with people who are in need of health services" (Hagerty, Samuels, Norcini-Pala & Gigliotti, 2017, p. 162-163). Forming an effective interpersonal relationship with patients is vital to positive health outcomes. According to Peplau's theory, the nurse-patient relationship must undergo three various

phases for it to be successful. These phases are (a) orientation, (b) working, and (c) termination (Hagerty et al., 2017).

Though there are three phases in Peplau's theory, I used only the orientation and working phases in this CPG. In the orientation phase of the theory, the nurse meets and greets the patient who is seeking assistance with a perceived health problem (Adams, 2017). This phase permits nurses to meet patients to attain valuable information about them as individuals (Hagerty et al., 2017). In the orientation phase, nurses must adopt the role of a stranger but show respect and courtesy when interacting with the patient (Hagerty et al., 2017). The working phase requires nurses to spend significant amount of time interacting with the patient, conducting assessments to use in the patient education and interdisciplinary meetings on patients' care plans (Hagerty et al., 2017). During the working phase, the roles of nurses are more recognizable to patients and they begin to acknowledge nurses as health educators, resource personnel, counselors, and care providers (Hagerty et al., 2017).

This CPG recommended that clinicians apply the two phases of Peplau's theory as guidance when asking patients questions outlined in the WHOQOL-BREF questionnaire. For instance, in the orientation phase of Peplau's theory, nurses are urged to show respect and courtesy when interacting with patients (Hagerty et al., 2017). Likewise, when clinicians are asking questions pertaining to the various domains on the WHOQOL-BREF questionnaire, they are advised to do so in a respectful and courteous manner to acquire helpful information. The working phase of Peplau's theory is where time is spent to conduct assessments to influence patients' care (Hagerty et al., 2017). Clinicians are

encouraged to apply the working phase of Peplau's theory when conducting QOL assessment of patients with anxiety and/or depression using the WHOQOL-BREF questionnaire. Because the working phase demands extensive time to perform various tasks , the CPG recommends clinicians to allocate sufficient time with patients when eliciting the WHOQOL-BREF questionnaire to avoid rushing the assessment phase because this can lead to skewed or unreliable responses. Employing the working phase of Peplau's theory can provide an opportunity to strengthen the clinician-patient interpersonal relationship as well as obtain valuable responses to better understand the impact of depression and/or anxiety on patients' QOL.

Peplau's theory contributed substantially to the formation of psychiatric/mental health nursing as a clinical specialty (Adams, 2017). Psychiatric nursing has had an important role the field of nursing and has served as the model for the whole advancement of clinical nursing in the United States (Adams, 2017). Because the CPG focused on psychiatric nursing, Peplau's theory was quite applicable to help clinicians understand their own as well as their patients' behavior and apply principles of human relations for a successful clinician-patient relationship.

Clinicians must incorporate strong interpersonal relations skills when interacting with patients with depression and/or anxiety because ineffective coping mechanisms by patients tend to result in negative feelings of self. However, with therapeutic interpersonal skills, relationships between health care professionals and patients lead to improved patient satisfaction, treatment adherence, improved QOL, and reduced levels of anxiety and depression (Kornhaber, Walsh, Duff & Walker, 2016). Using interpersonal

relations skills as illustrated in the orientation and working phases of Peplau's theory can help clinicians develop effective approaches for asking the questions on the WHOQOL-BREF questionnaires, which may yield valuable responses to influence care.

Peplau's theory was clearly demonstrated in a study conducted by Evans, Deutsch, Drake, and Bullock (2017), which examined the nurse-patient relationship settings through telephone encounters with underserved women at high risk for depression residing in rural settings. From this study, researchers discovered that the phases of Peplau's theory were evident in their interactions and offered a robust platform from which to validate and develop nursing interventions designed to improve mental health (Evans et al., 2017).

For instance, during the orientation phase of Peplau's theory in the study, the nurse's initial contact with the patient consisted of the nurse asking about the woman's smoking behaviors, and the nurse was able to align her own goals with that of the patients (Evans et al., 2017). Additionally, the nurse evaluated the patients' risks, resources, challenges, and the related factors that could disturb the interaction (Evans et al., 2017). The participants responded positively, which reflected their wish to participate in the study as well as to share details about their lives (Evans et al., 2017). Likewise, in the CPG, if clinicians apply the specified domains of Peplau's theory such as the orientation and the working phases, they will be able to seamlessly apply principles of human relations to strengthen the clinician-patient relationship. Doing so can allow clinicians to effectively deliver the WHOQOL-BREF assessment and gain valuable responses from patients to better understand their QOL and modify treatment plans accordingly.

Relevance to Nursing Practice

The aim of the CPG was to provide a method to translate evidence into nursing practice to improve patient outcomes. Because anxiety and depression have such a significant impact on the lives of affected individuals, it is imperative to address this public health problem to increase patients' QOL and decrease the financial healthcare burden. Nursing professionals caring for individuals with anxiety and/or depression can use this CPG as a method to evaluate the impact of patients' conditions on their QOL. Based on the information gathered from the CPG, nurses can collaborate with providers to either initiate or amend specific treatments to address patients' needs.

Advanced practice nurses can use this CPG to assess the targeted populations' QOL to generate effective treatments to meet patients' needs. For instance, if a nurse practitioner (NP) use this CPG to assess that anxiety or depression has negatively affected a patient's social relationships, the NP can refer the patient to the Anxiety and Depression Association of America website to search for a support group near the patient, in addition to prescribing either an antidepressant or cognitive behavioral therapy to improve the patient's QOL. However, if the NP does not specifically inquire about the patient's social relationships based on the recommendations of this CPG, the nurse may not know the impact of the patient's anxiety or depression on the patient's social life in order to provide additional resources to enhance the patient's mental health.

Local Background and Context

To inquire of patients, a series of questionnaires focusing on each domain of the WHOQOL-BREF can be used to gather information about how anxiety and/or depression

have affected the patient's QOL, which will aid clinicians in making effective clinical decisions. For instance, in the WHOQOL-BREF domain on physical health, questions pertaining to the following areas of the patient's physical health will be asked: activities of daily living, dependence on medicinal substances and medical aids, energy and fatigue, mobility, pain and discomfort, sleep and rest, and work capacity (WHO, 1996). In the psychosocial domain, questions regarding the following are asked: bodily image and appearance, negative feelings, positive feelings, self-esteem, spirituality/religion/personal beliefs, thinking, learning, memory, and concentration (WHO, 1996).

Questions pertaining to social relationships focus on areas such as personal relationships, social support, and sexual activity (WHO, 1996). Lastly, questions centered on the patient's environment are concentrated on financial resources, freedom, physical safety and security, health and social care such as accessibility and quality, home environment, opportunities for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environment (pollution/noise/traffic/climate), and transport (WHO, 1996). The guideline was intended to equip healthcare providers with accurate evidence and knowledge required to make informed clinical decisions and deliver safe, effective care to patients suffering from anxiety and/or depression. Each piece of evidence used to guide the development of this CPG was evaluated based on the Appraisal of Guidelines Research and Evaluation (AGREE) II criteria checklist to add quality and strength.

In a local context, there was a gap in practice observed in a primary care setting of a community medical center that treated patients with anxiety and/or depression. The standard practice of this local organization was for nurses to conduct monthly phone calls to patients with mental health disorders such as depression and/or anxiety and administer the Generalized Anxiety Disorder seven-item (GAD-7) and Patient Health Questionnaire nine depression scale (PHQ-9) assessment to evaluate treatment response in relation to antidepressants. The gap in practice was that QOL was not measured, and as a result, clinicians often encountered cases in which patients would have low scores on their GAD-7 and/or PHQ-9 but verbalized disturbances in various aspects of their life affecting their QOL. This gap was the reason for the development of the CPG: to help clinicians measure QOL and understand the impact of depression and/or anxiety on patients' QOL to enhance or change treatment plans.

Role of the Doctor of Nursing Practice Student

As a DNP student, it was imperative to be able to translate the findings of literature into clinical practice to improve patient outcomes. In developing the CPG to measure QOL of patients battling anxiety and/or depression in the outpatient setting, a series of steps were followed to reach success. First, it was important to ensure that there was a need for development of this CPG. Based on evidence, there was not a gold standard for measuring QOL in mental health patients (Katschnig, 2006). Therefore, the role of the DNP student was to create a CPG recommending the best way to measure QOL in patients with anxiety and/or depression, and perhaps, make the CPG a gold standard.

Since the CPG focused on patients with anxiety and/or depression, future developments of CPG can target other common mental health disorders such as schizophrenia, bipolar disorder, post-traumatic stress disorder or substance use disorders seen in the outpatient setting. Due to lack of adequate assessment of QOL of mental health patients, it was prudent to address this gap to ensure clinicians treating patients with anxiety and/or depression have a reliable resource to utilize as guidance in their clinical decision making.

Second, to enhance usability and applicability in practice, evidence used to support the CPG was analyzed for accuracy, current and of highest level. Each piece of evidence used in the CPG was evaluated for quality and strength. For instance, a literature appraisal tool such as Grading of Recommendations, Assessment, Development and Evaluations (GRADE) methodology was used to appraise each article.

Last, to ensure a high-quality CPG was developed, the AGREE II tool checklist was used as a guide in the guideline development to ensure transparency and completeness of the CPG. The AGREE II checklist has a structure of six quality areas and its 23 key items that provides a systematic and reasonable method for reporting critical information (AGREE, n.d.). The AGREE II criteria checklist is reliable and valid, therefore using this tool as a framework and guidance in developing this CPG will add quality in the hopes of making it the gold standard for measuring QOL in mental health patients.

Role of the Project Team

In completion of this doctoral project, I worked with individuals from various healthcare backgrounds who served as my project team. Walden University assigned faculty members which included one committee chair and a committee member who served as mentors and reviewers of my project. Additionally, four external experts (one Internal Medicine Physician, a Primary Care Clinical Psychologist, a Doctor of Public Health who oversees social workers and programs for the aging adults with disabilities, with larger population suffering from anxiety and/or depression, and a DNP who is an educator as well as a floor nurse) with experience in anxiety and/or depression were considered to assess the developed guideline for relevance using the AGREE II checklist.

The team members had opportunities to share their knowledge and contextual insight relative to the doctoral project. The team members received information regarding the project purpose, goals as well as the timeline to review and provide feedback. Prior to the final approval of the project, my project team had several opportunities to review the information and evidence presented in the CPG and offered substantial feedback. Revisions were made based on the feedback received from the project team. My project team were also informed on the status of the project when submissions were made to the Walden University's doctoral research site.

Summary

The development of a CPG starts with first identifying reasons for why the guideline is needed to address a gap in practice. Identifying a specific theory to guide the development of the guideline adds quality and promotes the likelihood of its application

in clinical practice. The guideline has relevance to nursing practice since it offered recommendations for nursing profession as well as other discipline to use to enhance patient outcomes. It is vital to apply quality evidence when developing a CPG to enhance usability and applicability in practice. The incorporation of a team approach in developing this guideline added rigor which can promote clinical application to enhance outcomes in patients suffering from anxiety and/or depression.

Section 3: Collection and Analysis of Evidence

Introduction

High-quality, evidence-informed CPG provide a way to bridge the gap between policy, best practice, local contexts, and the choices of patients (Kredo et al., 2016). For decades, clinical guidelines have been supported as vital components of quality medical practice (Kredo et al., 2016). The Institute of Medicine (IOM) defined clinical guidelines as statements that consist of recommendations aimed to enhance patient care that are informed by systematic review of research as well as assessment of both the benefits and risks of alternative care (Kredo et al., 2016). The IOM statements regarding CPG align with the objectives of the CPG in this project. The purpose of the CPG was to help clinicians make informed clinical decisions regarding the proper care of patients with anxiety and/or depression to enhance patient care using evidence-based recommendations. To accomplish this, the strength of the evidence supporting the recommendations of the CPG underwent critical appraisal to ensure relevance and transparency.

Practice-Focused Question

The question used to guide the development of the CPG was:

PFQ: How should QOL be measured in patients with anxiety and/or depression in the outpatient setting?

The population was patients diagnosed with anxiety and/or depression who sought care in the outpatient setting, such as primary care. The intervention was a development of a CPG to assist clinicians in asking specific questions pertinent to the mental health

disorder (i.e., anxiety and/or depression) and its impact on various domains (physical health, social relationships, psychosocial situation, and environment) of patients' QOL. The expected outcome was the promotion of efficient use of resources such as the CPG to improve outcomes and QOL. The aim of the DNP project was to develop a CPG recommending a QOL measurement tool to evaluate QOL of patients with anxiety and/or depression in the outpatient setting. The recommendations made in the guideline are intended to enhance patient care that are influenced by systematic review of evidence translated into practice to improve outcomes.

According to Kilbourne et al. (2018) "while adequate structure measures create the necessary infrastructure for reporting on processes and outcomes and conducting improvement activities, they do not provide sufficient detail as to whether quality services are actually being delivered as intended nor if the outcomes obtained are acceptable" (p. 31). Preferably, process measures can fill this gap by assessing whether evidence-based practices are in fact being employed to yield the necessary outcome (Kilbourne et al., 2018). These measures usually entail operationalizing clinical guidelines into explicitly well-defined denominators and numerators and applying information that can be dependably acquired from credible sources (Kilbourne et al., 2018). Application of a CPG recommending the best way to measure QOL such as focusing on what, why, who and how to measure QOL in the target population can help clinicians make informed decisions regarding treatment plans to enhance outcomes.

Sources of Evidence

There has been an increasing need for economic evaluation of mental health services requiring healthcare professionals to assess how a specific intervention or outcome measure impacts various domains of QOL important to mental health patients (Connell et al., 2014). Therefore, the development of a CPG on the best way to measure QOL can help clinicians to evaluate QOL perceptions in patients with anxiety and/or depression. The CPG can be recommended as a standardized outcome measure of QOL in patients with anxiety and/or depression. The sources of evidence used to support the CPG were graded, synthesized, and structurally evaluated for usability and applicability in practice.

To obtain data and resources required to complete this DNP project, Walden University's online library served as a platform to access various scholarly databases. Through the Walden online library, I conducted a computerized search of the MEDLINE, PubMed, and CINAHL databases to identify the most appropriate peer review literatures. Additionally, I conducted a review of journals, research articles, books and prior dissertations or theses that discussed the research question.

I performed an advanced search using keywords such as *quality of life, mental health disorders, psychiatric disorders, measuring quality of life, quality of life measurement tools, perception of quality of life, depression,* and *anxiety*. I used Boolean phrase words such as AND OR to narrow the search. Additionally, each article relevant to the research question was appraised, graded, and rated based on the level of evidence.

The goal was to select research articles with the highest level of evidence to add quality to the CPG. Each selected article was graded using the GRADE methodology.

I completed literature searches using MEDLINE, PubMed and CINAHL with the most recent search. Articles were included for review if they met the following criteria: (a) published not prior to 2006, (b) related to anxiety and/or depression, (c) related to QOL, (d) discussed QOL measurement tools, and (e) published in English. Articles were excluded for review if they offered subjective data (such as opinions) and were published in a language other than English. The following were the keyword combinations performed with each of the databases: (a) *quality of life measurement tools* AND *mental health disorders* OR *mental health illness* OR *psychiatric disorders*, (b) *measuring quality of life* AND *mental health* or *mental illness* or *mental disorders* AND *depression and anxiety,* and (c) *WHOQOL-BREF* AND *mental disorders* AND *primary care or primary health care* or *primary healthcare*.

The intended population was adult patients, all genders, ages 18 years and older, seeking care in the outpatient setting. Inclusive criteria included patients diagnosed with either anxiety and/or depression or both and taking either an antidepressant or prescribed psychotherapy as first line treatments. The severity of patients' condition must have been mild to severe (such as GAD7 and/or PHQ9 scores greater than four) and able to be cared for in an outpatient setting such as primary care. Patients with other medical conditions in addition to their diagnoses of anxiety, depression, or both who were competent to make decisions for their own healthcare were part of the inclusion criteria.

Analysis and Synthesis

The aim for the DNP project was to develop a CPG recommending the best way to measure QOL in patients diagnosed with anxiety and/or depression for application in practice. I conducted a systematic review of the literature to examine various mental health QOL measurement tools used previously for their relevance in clinical practice. From this analysis of the literature, I developed a CPG recommending the best measurement tool to utilize in assessing QOL in patients with anxiety and/or depression.

I critically appraised and rated each piece of evidence selected from the literature search using the GRADE method. GRADE methodology applies a cohesive and organized approach to determine the strength and direction of recommendations (Cabrera & Pardo, 2019). GRADE is presently deemed as the best approach to create valid and transparent recommendations due to its rigorous appraisal of (a) bias in the available evidence, (b) the extent and solidity of the effects, (c) the presence of baffling factors, and (d) discrepancies or other quality issues (Cabrera & Pardo, 2019). The GRADE system helps to evaluate and rate the quality of a body of evidence as high, moderate, low, or very low, and then categorizes the strength of recommendations as either strong or weak (Kong et al., 2015). Rating each piece of evidence using the GRADE system helped me to organize the quality of evidence at one of four levels (high, moderate, low, and very low) based on five downgrade factors including limitations, inconsistency, indirectness, imprecision, and publication bias (Kong et al., 2015).

Using the GRADE system, evidence graded as ‘‘High’’ meant there was strong confidence that the genuine result lies closely to that of the projected outcome (Kong et

al., 2015). Evidence that rated as ‘‘Moderate’’ implied that there was moderate confidence in the projected outcome and the actual outcome is possibly close to the estimated effect, but there was a likelihood that it was considerably different (Kong et al., 2015). Evidence rated as ‘‘Low’’ indicated that there was limited confidence in the estimated effect and that the true outcome might be significantly different from the estimated effect (Kong et al., 2015). Last, evidence rated as ‘‘Very low’’ suggested that there was very little confidence in the predicted outcome and that the real outcome possibly would be noticeably different from the predicted outcome (Kong et al., 2015).

I used the GRADE methodology to rate each piece of evidence and assigned the level of strength for each. Once each piece of evidence was graded, I synthesized it into an evidence table for the purpose of managing the evidence (see Appendix A). From there, I developed the guideline. Once the recommendations were written with the supporting evidence, they were reviewed by an expert panel who used the AGREE II checklist to evaluate the recommendations.

The AGREE II is a valuable tool that provides a framework for DNP to utilize as a guide for developing CPGs. The AGREE II was published in 2003 by a group of guideline developers to provide framework on evaluating the quality of guidelines (AGREE, 2017). I chose this tool to guide the development of this CPG. Once the CPG was developed, the AGREE II was used to assess the quality of the guideline. The AGREE II is not only valid but is a reliable tool comprising 23 key items that are arranged in six domains (AGREE, 2017). These six domains consist of scope and purpose (Domain 1); stakeholder involvement (Domain 2); rigor of development

(Domain 3); clarity of presentation (Domain 4); applicability (Domain 5); and editorial independence (Domain 6; AGREE, 2017).

The steps involved in developing the CPG consisted of first evaluating and grading each piece of literature. After each piece of literature was graded, I developed the CPG focusing on six areas: (a) the scope and purpose section (which conveyed the guideline objectives, the clinical question, and the patient population to whom the guideline was meant to apply); (b) stakeholder involvement (which depicted the views of intended users); (c) rigor of development (which described the approach used to gather and synthesize evidence); (d) clarity of presentation (which dealt with format, structure, and language of the guideline); (e) applicability (which explained facilitators and barriers of implementation and cost of implementation); and (f) editorial dependence (which defined the development of recommendations not being overly biased with opposing interests).

The written recommendations were reviewed and graded by a local expert panel who used the AGREE II instrument to validate its contents. After the expert panel scored the guideline based on the AGREE II instrument, I revised the guideline based on the feedback received from them. I disseminated the revised guideline to the same local experts to validate content and appropriateness using the AGREE II instrument until a higher score was attained without further revisions. After the development of the CPG, the expert panel reviewed the content, methodology, and evidence used to support the CPG using the AGREE II checklist.

Because the DNP project was to develop a CPG, there were no human study participants in the guideline development. As part of an ethical consideration, I obtained Institutional Review Board (IRB) approval prior to the development of the CPG (approval # 04-24-20-0980598). Prior to receipt of the IRB approval, I completed a specified form that was accepted by the IRB before I developed the guideline. This specified form consisted of information regarding the DNP project details, method of data collection, partner roles, and partner organization. A local primary care organization was selected as the partner site that can use the recommendations made in the guideline.

Summary

Developing a CPG that enhances care delivery and patient outcomes must be strategically formulated with good context based on the highest level of evidence to support it. To ensure the CPG was supported with the highest level of evidence, each piece of literature was retrieved from a scholarly database and critically appraised using programs such as the GRADE methodology to ensure relevance, reliability, and validity. Subsequently, the final CPG underwent review using the AGREE II instrument to evaluate whether it met the criteria outlined under each domain of the AGREE II checklist to ensure completeness and transparency. After appraising the CPG using the AGREE II, revisions were made accordingly.

Section 4: Findings and Recommendations

Introduction

Anxiety and depression have a significant impact on patients' QOL, contributing to higher morbidity rates. In clinical practice, guidelines are formulated to offer clinicians the evidence and knowledge required to provide efficient, high-quality, and safe care to populations with certain clinical conditions. This section addresses the evidence used to support the recommendations of the guideline focusing on the strengths and limitations of each piece of literature. It also provides an overall discussion on how the guideline was developed using the GRADE methodology to analyze the evidence supporting the recommendations and the AGREE II instrument used to evaluate the guideline once it was developed. In addition, this section includes an in-depth discussion of the WHOQOL-BREF questionnaire as the recommended tool to measure QOL in individuals with anxiety and/or depression.

In this DNP project I aimed to answer the following practice focused question:

PFQ: How should QOL be measured in patients with anxiety and/or depression in the outpatient setting?

The purpose of the CPG was to help clinicians measure QOL in patients suffering from anxiety and/or depression disorders to make informed decisions regarding their care and enhance outcomes using evidence-based recommendations. The CPG can offer guidance on how to evaluate patients' perceptions of QOL based on various domains such as physical health, social relationships, psychological health, and environment in order to make necessary adjustments in their care to improve outcomes as well as their QOL.

Findings and Implications

The gap in practice was that there was no guideline focused on a standardized tool to measure QOL for individuals with anxiety and/or depression. Therefore, I conducted a literature review to develop a guideline identifying the best tool to measure QOL in patients diagnosed with anxiety and/or depression. To create the CPG, I reviewed and analyzed various literature for relevance to the health question.

Upon review of the literature, I determined there was no standardized QOL measurement tool for clinicians to use to assess QOL in patients with anxiety and/or depression. Current assessment of the impact of anxiety and/or depression on the patients' health is based on the evaluation of PHQ-9 and 7-item GAD-7. These two assessments tools are among the best validated and most frequently used depression and anxiety measures, respectively (Kroenke et al., 2016). They have been applied in hundreds of research studies, integrated into various CPGs, and implemented by a range of medical and mental health care practice settings (Kroenke et al., 2016). Despite the validity of the PHQ9 and GAD7 assessment tool, they do not directly evaluate domains of QOL as illustrated on the WHOQOL-BREF questionnaire. The use of the PHQ9 and GAD7 in patients with anxiety and/or depression in the outpatient setting would continue to remain as options for assessing the impact of the disease on the individual's health. However, to obtain detailed understanding on patients' QOL, the PHQ9 and GAD7 may not offer clinicians adequate insights on patients' QOL due to their specificity on measuring depression and anxiety.

Evaluating the quality of evidence is a relatively new practice that is aimed at determining the credibility and trustworthiness of the evidence across studies as it relates to a research question (Movsisyan, Dennis, Rehfuess, Grant & Montgomery, 2018). The body of evidence supporting the recommendations in the CPG were assessed for strengths and limitations. Kilbourne et al. (2018) presented a framework that supports quality measurement as a tool for enhancing quality of mental health care. Kilbourne et al. explained key barriers to this effort such as absence of standardized information technology-based data sources, inadequate scientific evidence for mental health quality measures, absence of provider training and support, as well as cultural barriers to integrate mental health care in general health situations. Kilbourne et al. also highlighted several improvements that are in progress globally to relieve these barriers.

Slade et al. (2006) conducted a randomized control study to assess the efficacy of standardized outcome assessment in 160 adult mental health patients and paired staff. The intervention group (n = 101) completed a monthly postal questionnaire to evaluate their needs, QOL, severity of their mental health problems and therapeutic alliance and received three monthly feedbacks. The control group (n = 59) received usual treatment (Slade et al., 2006).

Results showed that intervention failed to enhance primary outcomes of patient-rated unmet needs and of QOL (Slade et al., 2006). Other subjective secondary outcome measures were also not enhanced, but the intervention decreased psychiatric inpatient days, showing a net benefit analysis of the intervention as cost-effective (Slade et al., 2006). Despite the interventions not enhancing primary and subjective secondary

outcomes, it was cost-effective and showed that it is feasible to apply a meticulously developed method to regular outcome assessment in mental health services (Slade et al., 2006).

The study's limitations consisted of the service use data acquired by patients' self-report which could have been unreliable (Slade et al., 2006). Another limitation of the study was that neither patients nor staff were disguised to allocation status (Slade et al., 2006). Researchers who conducted the follow-up interviews were partially masked and conjectured allocation status accurately for 38% of staff and for 68% of patients (Slade et al., 2006). Furthermore, within the control group, 46 (78%) of the 59 patients had a member of their staff who also received an intervention-group patient, suggesting that contamination was likely among the two groups (Slade et al., 2006). Lastly, the follow-up period of 7 months may have been inadequate because more time was needed to capture all the possible changes the interventions generated (Slade et al., 2006). When considering the evidence by Slade et al. (2006), reviewers should be advised that the focus was not on a specific tool to measure mental health outcomes but stressed the feasibility of the implementation of a carefully developed technique to routinely evaluate outcomes in mental health services.

Kilbourne et al. (2018) offered numerous recommendations for enhancing the quality of mental health care. As part of their recommendations, Kilbourne et al. suggested the routine measurement of mental health outcomes and incorporating this evaluation within the whole culture of the treatment setting and health care system. Primary care setting is considered one of the environments that adoption of mental health

outcome measures can be used routinely to improve the quality of mental health services. The evidence by Kilbourne et al. added quality to the CPG because they highlighted a recommendation on the frequency of mental health outcome measurements. The limitation on using this evidence was that the authors discussed the use of the recommendations for the general mental health care sectors and not specifically patients with anxiety and/or depression in the primary care setting.

Oliveira, Carvalho, and Esteves (2016) examined the psychometric properties of the WHOQOL-BREF by analyzing its construct validity, predictive validity, and reliability in a psychiatric sample. The results of the study added to a growing body of research findings and provided support for the use of the WHOQOL-BREF for patients with mental health conditions in both the inpatient and outpatient settings (Oliveira et al., 2016). The broad body of research methodically developed with the WHOQOL-BREF, reinforces the use of this questionnaire as a reliable and valid instrument to address QOL (Oliveira et al., 2016). This study provided a confirmatory evidence of the appropriateness of the WHOQOL-BREF with psychiatric inpatients and outpatients (Oliveira et al., 2016).

Despite the strengths, there were limitations in this study. Some of the study participants were inpatients in both short-term and long-term residential programs having more limited daily activities, which may have affected the results, specifically, regarding the environment domain of the WHOQOL-BREF (Oliveira et al., 2016). Additionally, because the study used a cross-sectional approach, findings should be required to be repeated applying a longitudinal research design to strengthen understanding the

dimensionality of the WHOQOL-BREF in psychiatric samples as well as the analytical capacity of its domains (Oliveira et al., 2016). The results of the study provided implications and guidance for future research and clinical practice (Oliveira et al., 2016). The results offered evidence to thoroughly examine the dimensional structure of the WHOQOL-BREF across various subgroups, requiring more transparency on the WHOQOL-BREF performance in psychiatric samples (Oliveira et al., 2016).

This study had importance because it was not restricted to participants with a specific psychiatric diagnosis or partaking in a particular treatment milieu, emphasizing that evaluating the QOL of individuals with mental health disorders receiving care for different settings such as inpatient and outpatient facilities must be the core of research and treatment goal (Oliveira et al., 2016). Furthermore, because enhancing these individuals' QOL has become a vital outcome measure concerning mental health services evaluation, this may add to more understanding that the QOL of those attending various psychiatric treatment modalities (such as hospital-based inpatient long-term and short-term care, ambulatory services, or community-based facilities) could monitor possible changes on the individuals' QOL (Oliveira et al., 2016).

Tüzün, Aycan, and İlhan (2015) examined the effect of chronic disease on the QOL and how QOL changed with comorbidity and socioeconomic status in individuals who received care in the primary health care centers using the WHOQOL-BREF. The results revealed that people with mental health disorders and diabetes-hypertension comorbidity had the most negative impact on their QOL (Tüzün et al., 2015). Mental disorders had the worst impact on the psychological and social relationships domains of

the WHOQOL-BREF; depression and anxiety were recorded as the diseases with the highest negative effect on QOL (Tüzün et al., 2015). The results suggested that providing mental health services for primary health care patients with a mental disorders and patients with physical chronic diseases is vital to increase their QOL (Tüzün et al., 2015).

Additionally, findings from this study illustrated that efforts to improve the QOL of people with chronic disease cannot be successful without considering the social factors of health (Tüzün et al., 2015). These findings support the use of WHOQO-BREF to determine QOL in patients suffering from depression and/or anxiety in the primary care setting. The self-report of the participants on the presence of chronic disease may have been a limitation of this study (Tüzün et al., 2015). Nevertheless, it was essential to apply an alternative source because the records of chronic diseases that was registered at primary health centers were inadequate (Tüzün et al., 2015). The diseases reported were categorized according to the International Classification of Diseases codes for evaluations (Tüzün et al., 2015). Even though they may be of the similar group, various diseases can impact QOL in different ways (Tüzün et al., 2015). Consequently, a comparison based on the diagnoses would have been more illuminating for the researchers (Tüzün et al., 2015).

Dzevlan et al. (2019) investigated possible improvement of QOL in patients with depression and/or anxiety disorder who utilized antidepressants in the study, and the tolerability of the treatment administered as well as patients' compliance during the study. This was a clinical, multicenter, prospective, cohort study with 682 adult patients with depression and/or anxiety disorder (Dzevlan et al., 2019). The Sleep Scale from the Medical Outcomes Study (MOS Sleep Scale) was used to evaluate sleep quality and

Quality of Life and Satisfaction Questionnaire (Q-LES-Q-SF) were used to assess life enjoyment and satisfaction (Dzevlan et al., 2019).

The results indicated an increase in sleep quality with antidepressant therapy and substantial enhancement in enjoyment and life satisfaction in all the three groups of patients considered in the study (Dzevlan et al., 2019). These findings indicated that improvement in QOL can be seen with antidepressant therapy (Dzevlan et al., 2019). The results of the study may be limited because of the type of questionnaire utilized as a QOL measurement (Dzevlan et al., 2019). Dzevlan et al. (2019) mentioned that all the questionnaires were self-disclosures with a possible risk of misrepresentation or bias in the responses (Dzevlan et al., 2019). The clinician-reported outcome assessments could provide a better understanding into patients' antidepressant therapy related QOL (Dzevlan et al., 2019).

Another limitation was that researchers did not examine how engaged patients were in treatment decisions or in the patient–physician relationship, that could further clarify the results of patients' compliance to therapy or treatment satisfaction (Dzevlan et al., 2019). A limitation to bear in mind when considering this evidence is that a different QOL measurement besides the WHOQOL-BREF was used to assess QOL perceptions. Additionally, this evidence was used to provide an overview of specific timeframes of when QOL measurements can be done in the clinical setting after starting antidepressant therapy for depression and/or anxiety disorders.

Deane and Fain (2016) examined Peplau's interpersonal relations theory as a framework to help nursing students to comprehend holistic communication skills during

their interactions with older adults. Application of Peplau's theory could be utilized as a framework in nursing education to structure classrooms, post-conferences, and skills laboratory presentations on components of delivering holistic care and communication (Deane & Fain, 2016). Though this evidence was geared towards nursing education, it provided valuable information on ways to promote therapeutic nurse-patient relationship using Peplau's theory.

This evidence supported the interventions (i.e., behaviors and attitudes) that clinicians need to demonstrate when asking patients questions on the WHOQOL-BREF questionnaire to build effective clinician-patient relationship. When considering the CPG, be advised that though Peplau's interpersonal relations theory has been widely used in patients with mental health disorders, a recent evidence discussing the application of the three phases of the theory (orientation, working and termination) in patients with depression and/or anxiety in the primary care setting, specifically, could not be found.

The literatures with applicability were graded using the GRADE methodology to evaluate its strength and quality to support the recommendations within the guideline. The GRADE methodology applies a cohesive and organized approach to determine the strength and direction of recommendations (Cabrera & Pardo, 2019). The strength of each piece of evidence was assigned a grading level of very low, low, moderate, and high. Each piece of evidence was synthesized into an evidence table to manage the evidence (Appendix A). The guideline was created using the graded evidence to support the recommendations. Recommendations made under each heading of the CPG has its corresponding evidence to support them.

Once the evidences were graded and analyzed, the guideline was developed. Recommendations were written with support from the evidence to illustrate relevance and transparency. I used the AGREE II instrument to assess quality and ensured all domains of the tool were addressed in the guideline. Afterwards, four experts who consisted of an Internal Medicine Primary Care Physician, a Primary Care Clinical Psychologist, a Doctor of Public Health and a DNP who still works as a part-time floor nurse and a fulltime educator reviewed and evaluated the completed guideline using the AGREE II instrument. The guideline and the AGREE II instrument were provided in an electronic form to each of the four experts. The AGREE II instrument consist of a 23-section appraisal evaluating six key aspects of a CPG development (AGREE, 2017). The six domains of the tool focused on scope, stakeholder involvement, consistency, clarity, applicability, and editorial independence (AGREE, 2017). Experts could rate each domain with a score of one to seven with a seven being the maximum attainable score.

The experts scored each recommendation using the AGREE II tool. In the first evaluation of the CPG by the expert panel there was not 100% agreement in terms of the scores. The Doctor of Public Health and the DNP gave the guideline a score of seven out of seven and graded “yes” for the overall guideline recommendation for use in practice. The Primary Care Clinical Psychologist and the Primary Care Physician graded the guideline six out of seven and marked it as “yes with modifications” for the overall guideline recommendation for use in practice. The results of the first expert review are presented in Table 1.

Table 1

AGREE II Experts Overall Guideline Assessment Scores

Question 1: Rate the overall quality of this guideline. Question 2: I will recommend this guideline for use (Yes/No).	Rate	Yes/No	Total	Score
Appraiser 1	7	Yes	7	100%
Appraiser 2	7	Yes	7	100%
Appraiser 3	6	Yes, with Modifications	6	85%
Appraiser 4	6	Yes, with Modifications	6	85%
Total	26		26	92%

Note. Scoring the AGREE II ranges from 1 (lowest possible quality) through 7 (highest possible quality). Since there were four appraisers, the maximum total score achievable was 28 and the minimum total score possible was four. The total score percentage was achieved by combining each appraiser's score and dividing by the total possible points. Such as 26/28=.92; .92 x 100 = 92%

The revisions required as suggested by the two experts (primary care clinical psychologist and the primary care physician) were to clarify the views and preferences of target population; the health benefits, side effects, risks for formulating the recommendations; and making the recommendations more specific. Once feedback was received from the expert panel, I revised the guideline focusing on the areas suggested by the two experts (primary care clinical psychologist and the primary care physician). After the revisions were made, I sent it back in an electronic form to the two experts for a second evaluation which resulted in a maximum score of seven without the need for

additional revisions. The results of the second expert review are presented in Table 2. Once there was no revision required from the experts, the CPG was completed (Appendix B).

Table 2

AGREE II Experts Overall Guideline Assessment Scores

Question 1: Rate the overall quality of this guideline. Question 2: I will recommend this guideline for use (Yes/No).	Rate	Yes/No	Total	Score
Appraiser 3	7	Yes	7	100%
Appraiser 4	7	Yes	7	100%
Total	14		14	100%

Note. Scoring the AGREE II ranges from 1 (lowest possible quality) through 7 (highest possible quality). Since there were two appraisers, the maximum total score achievable was 14 and the minimum total score possible was two. The total score percentage was achieved by combining each appraiser's score and dividing by the total possible points. Such as 14/14=1; 1 x 100 = 100%

Recommendations

The IOM defined clinical guidelines as statements that consist of recommendations aimed to enhance patient care and informed by systematic review of research as well as assessment of both the benefits and risks of other alternative care (Kredo et al., 2016). The IOM statements regarding CPG aligns with the objectives of this CPG. This section describes the recommendations on the best way to measure QOL in patients with anxiety and/or depression. Various aspects of the recommendations such as a discussion of the WHOQOL-BREF tool, domains of the WHOQOL-BREF,

reliability of the WHOQOL-BREF, scoring the WHOQOL-BREF and application of Peplau's theory when using the WHOQOL-BREF tool are considered in this section.

The importance of using the guideline is to help clinicians evaluate QOL in individuals with anxiety and/or depression to adjust or enhance their treatment plans for better outcomes. After review of the literature, the best tool recommended to use in the guideline was the WHOQOL-BREF questionnaire to measure QOL. With the developed CPG, a vital aspect is understanding what, when, how to use the WHOQOL-BREF tool along with interventions guided by Peplau's theory to measure QOL. These important aspects of the WHOQOL-BREF questionnaire are presented in this section.

World Health Organization Quality of Life Instrument-Short Form Tool

The CPG outlines step by step process for measuring QOL in patients with anxiety and/or depression disorders. To elicit this measurement, clinicians can follow the CPG and inquire from patients the impact of their anxiety and/or depression on their QOL in various domains of life. Patients' QOL can then be evaluated using the WHOQOL-BREF questionnaire which consists of different domains such as physical health, psychological health, social relationships, and environment. The WHOQOL-BREF is available in 19 various language versions (WHO, 1996). The WHOQOL-BREF questionnaire contains questions relating to each domain of QOL (Feder et al., 2015). The domains identified in the WHOQOL-BREF will be the areas of QOL that clinicians can use to gather information from patients to appropriately plan their care. The WHOQOL-BREF questionnaire was derived from the WHOQOL-100 which was also developed by

the WHO. The expected outcome of the CPG is the promotion of efficient use of the CPG to improve patient care.

Each domain on the WHOQOL-BREF has specific targeted questions that clinicians would ask patients to obtain responses regarding their QOL. The application of WHOQOL-BREF questionnaire added quality and strength to the CPG because it is a reliable tool and has been used previously in several research to measure QOL. Oliveira, Carvalho and Esteves (2016) mentioned that the WHOQOL-BREF was considered a valid and reliable instrument for academic research, clinical evaluations, and cross-cultural comparisons.

The WHOQOL-BREF has been extensively field-tested in numerous countries and its psychometric properties have proven to be sufficient for its utilization in various cultures and with a range of population groups such as young people, adults and the elderly (Oliveira, Carvalho & Esteves, 2016). It has also been utilized in groups with certain medical problems including patients with cancer, epilepsy, and mental disorders such as depression, bipolar disorders, psychosis, schizophrenia, and alcohol abuse (Oliveira et al., 2016). In a study conducted by González-Blanch et al. (2018), the WHOQOL-BREF was used to assess four different QOL domains (physical health, psychological health, social relationships, and environment) in primary care patients with emotional disorders such as depression, anxiety and somatization. The use of the WHOQOL-BREF in this study proved to be valid, reliable, and helped researchers understand the relationships between common emotional disorders (such as anxiety and/or depression) and the impact on their QOL.

The CPG recommended that clinicians administer the WHOQOL-BREF questionnaire with each adult patient (ages 18years and older) diagnosed with anxiety and/or depression to obtain a baseline assessment score. Thereafter, periodic assessment measurement using the WHOQOL-BREF is recommended to evaluate changes in their QOL and to modify treatment plans accordingly. Patients who are competent are appropriate to self-administer the WHOQOL-BREF after clinicians gives them instructions (WHO, 1996). However, an interviewer-assisted or interview-administered forms should be read out to patients in cases where the assessment is interviewer-administered (WHO, 1996).

Domains of WHOQOL-BREF. When determining the influence of anxiety and/or depression on patient's QOL, series of questionnaires focusing on each domain of the WHOQOL-BREF are elicited to gather information for clinicians to make effective clinical decisions. The WHOQOL-BREF questionnaire starts with two questions to evaluate the patients' overall QOL and their general health. The questions must appear in the order in which they occur as illustrated below under "The WHOQOL-BREF Questionnaire" (Appendix C and D).

The domain on *physical health* contains questions pertaining to the following areas of the patient's physical health; activities of daily living, dependence on medicinal substances and medical aids, energy and fatigue, mobility, pain and discomfort, sleep and rest, and work capacity (WHO, 1996). Subsequently, in the *psychosocial* domain, questions regarding the following are asked; bodily image and appearance, negative feelings, positive feelings, self-esteem, spirituality/religion/personal beliefs, thinking,

learning, memory, and concentration (WHO, 1996). Questions pertaining to *social relationships* are focused on areas such as personal relationships, social support, and sexual activity (WHO, 1996). Lastly, questions centered on the person's *environment* explores financial resources, freedom, physical safety and security, health and social care such as accessibility and quality, home environment, opportunities for acquiring new information and skills, participation in and opportunities for recreation/leisure activities, physical environment (pollution/noise/traffic/climate), and transport (WHO, 1996).

Reliability of WHOQOL-BREF tool. The WHOQOL-BREF assessment tool was published in 1996 by the WHO with the identified instructions as previously stated and has been used in its original form without changes since then. It has been widely used in numerous research and has been found to be a valid and reliable tool to measure QOL. The four QOL domain scores indicate an individual's perception of QOL in each domain (WHO, 1996). QOL domain scores are scaled in a positive direction, for instance, a higher score represents a higher QOL (WHO, 1996). The WHOQOL-BREF assessment can help clinicians to make judgments regarding the domains in which a patient is mostly affected by their disease to make treatment decisions (WHO, 1996). Along with other clinical measures, the WHOQOL-BREF will assist clinicians to assess changes in QOL over the course of patients' treatments (WHO, 1996).

The reliability of WHOQOL-BREF was examined in a literature review of a study that observed its psychometric properties by also exploring its construct validity, as well as predictive validity in a psychiatric study sample such as those with anxiety and/or depression (Oliveira et al., 2016). Findings from this review supported the

multidimensionality of the WHOQOL-BREF and demonstrated it to be suitable for assessing QOL in psychiatric inpatients and outpatients (Oliveira et al., 2016). Additionally, the WHOQOL-BREF showed that it was a valuable instrument to be incorporated as part of the routine clinical evaluation, monitoring and an important indicator of treatment outcome as well as research (Oliveira et al., 2016).

When clinicians are administering the WHOQOL-BREF questionnaire, they would ask patients about their QOL by asking specific questions under each domain of the WHOQOL-BREF questionnaire. For interview-assisted assessment, clinicians can read out each question to patients, alongside the response options (WHO, 1996). Clinicians would ask patients to choose the most appropriate answer after reading the responses (WHO, 1996). Clinicians should inform patients that if they are unsure about which response to provide for a specific question, the first response they think of is frequently the best one (WHO, 1996). Clinicians should also remind patients of their standards, hopes, pleasures and concerns and ask them to think about their life in the past four weeks (WHO, 1996).

Scoring the WHOQOL-BREF. The WHOQOL-BREF questionnaire generates a QOL profile of the individual taking the assessment (WHO, 1996). It is likely to obtain four domain scores (WHO, 1996). Question one and two are examined separately since question one asks about the person's overall QOL and question two asks about overall perception of their health (WHO, 1996). The four domain scores represent the person's perception of QOL in each domain (WHO, 1996). Domain scores are scaled in a positive direction such as a higher score indicates greater sense of QOL (WHO, 1996). The mean

score of items in each domain is utilized to determine the domain score which is then multiplied by four to be comparable to the scores obtained on the WHOQOL-100 (WHO, 1996). Manual calculation of the scores are presented at the end of the questionnaire for the interviewee to calculate the raw domain scores which is then transformed to a 4-20 score (WHO, 1996).

Application of Peplau's Theory and the WHOQOL-BREF Tool. An essential aspect of the CPG is the ability for clinicians to incorporate significant phases of Peplau's interpersonal relations theory to establish effective relationships with patients. By incorporating Peplau's theory, clinicians can engage in therapeutic relationships with patients diagnosed with anxiety and/or depressive disorders, which can assist them to holistically care for patients as individuals in need of mental health services. Additionally, as clinicians go through various phases of Peplau's theory to build rapport with patients, they can use effective communication skills to collect valuable information from patients to understand their needs and the effects of their mental health disorders on their QOL. Using such approach can reduce their anxiety and provide a conducive environment during the clinician-patient interaction to attain a more reliable, unbiased responses from patients to better measure their QOL. Application of Peplau's theory can help to establish interpersonal relations skills that clinicians need to effectively interact with patients.

Contribution of the Doctoral Project Team

The doctoral project team who contributed their expertise to the project included an internal medicine physician who works in a primary care clinic and as a hospitalist in a

local hospital, a clinical psychologist who works in outpatient primary care setting, a doctor of public health who oversees social workers and programs for the aging adults with disabilities, with larger population suffering from anxiety and/or depression, and a DNP who is an educator as well as a floor nurse in the emergency department. Each of the team members had expertise working with patients diagnosed with anxiety and/or depression.

Team members shared their knowledge regarding the health question considered for the guideline and provided helpful feedback on various scholarly references with relevance to the guideline development. After the completion of the guideline development, each team member graded the guideline for its contents, relevance and appropriateness using the AGREE II checklist. Though the CPG was not implemented at a specific organization to assess its validity, the evaluation process it underwent using the AGREE II instrument by the project team added strength and quality to the guideline. The overall aim for the doctoral project was to develop a CPG recommending the best way to measure QOL in patients with anxiety and/or depression, no actual implementation was intended for the guideline.

Strengths and Limitations of the Project

When considering the CPG in clinical practice, there are few facilitators and barriers that must be addressed. The main strength of the CPG is the use of the WHOQOL-BREF questionnaire to measure QOL in patients diagnosed with anxiety and/or depression. Prior to developing the CPG, permission was granted from the WHO to utilize the WHOQOL-BREF questionnaire. The WHOQOL-BREF questionnaire is

evidence-based and has been supported in prior studies to be of a valid and reliable tool to measure QOL in various settings, hence, its use in the CPG. Limitations of the CPG was centered on the body of evidence used to support the recommendations.

First, in the study by Oliveira et al. (2016), some of the study participants were inpatients in both short-term and long-term residential programs having more limited daily activities which may affected the results, specifically, regarding the environment domain of the WHOQOL-BREF (Oliveira et al., 2016). Additionally, since the study used a cross-sectional approach, findings should be required to be repeated applying a longitudinal research design to strengthen understanding the dimensionality of the WHOQOL-BREF in psychiatric samples as well as the analytical capacity of its domains (Oliveira et al., 2016). Though this evidence supported the effective use of the WHOQOL-BREF questionnaire, it did not focus specifically on anxiety and/or depression disorders in outpatient setting but variety of psychiatric samples in both inpatient and outpatient settings. The broad sample size could be a limitation in this literature review.

Second, in the study by Tüzün et al. (2015) researchers focused on other chronic diseases in addition to mental health disorders to assessed QOL using the WHOQOL-BREF. Depression and anxiety were not particularly the only mental health disorders considered in the study. This is a limitation because the results of the QOL assessment could have been influenced by other chronic illnesses of the participants.

Third, in the study by Dzevlan et al. (2016), researchers used the Quality of Life and Satisfaction Questionnaire (Q-LES-Q-SF) to assess life enjoyment and satisfaction in

patients taking antidepressant therapy (Dzevlan et al., 2019). The use of the Q-LES-QL-SF could be considered a limitation when considering this evidence to support the CPG because a different QOL measurement besides the WHOQOL-BREF was used to assess QOL perceptions. However, bear in mind that this evidence was used to provide an overview of specific timeframes of when QOL measurements can be done in the clinical setting after starting antidepressant therapy for depression and/or anxiety disorders.

Last, in the evidence by Deane and Fain (2016), it was generally geared toward nursing education but offered valuable information to promote therapeutic nurse-patient relationship using Peplau's theory. When considering the CPG, be advised that though Peplau's interpersonal relations theory has been widely used in patients with mental health disorders, a recent evidence discussing the application of the three phases of the theory (orientation, working and termination) in patients with depression and anxiety in the primary care setting, specifically, could not be found. The application of the evidence by Deane and Fain (2016) in the CPG provided a framework to support the interventions outlined in the CPG that clinicians can employ when delivering the WHOQOL-BREF questionnaire to measure QOL in the target population.

The CPG recommended a specific tool that can be used to measure QOL in patients diagnosed with anxiety and/or depression in the primary care setting. It also offered recommendations on how and when to utilize the tool (WHOQOL-BREF questionnaire) in clinical practice to improve patient outcomes. Implications for applying the recommendations have been considered such as providing clinicians with a better understanding of patients' perceptions of QOL in relation to their anxiety and/or

depression, and ability for clinicians to measure QOL in order to better manage their treatment plans. An expert review of the CPG has been performed to add quality to its application in clinical practice to influence care delivery.

Summary

High-quality, evidence-informed CPG provides a way to bridge the gap between policy, best practice, local contexts, and the choices of patients (Kredo et al., 2016). For decades, clinical guidelines have been supported as a vital component of quality medical practice (Kredo et al., 2016). The objective of the CPG was to help clinicians make informed clinical decisions regarding the proper care of patients with anxiety and/or depression to enhance patient care using evidence-based recommendations. Health benefits, side effects, and risks were considered in the formulation of the recommendations outlined in the CPG. To accomplish this, the body of evidence supporting the recommendations of the CPG underwent critical appraisal to ensure relevance, transparency, enhanced health benefits and examination of any potential side effects or risks. Upon review of the body of evidence supporting this CPG, no side effects, or risks were found. The project team served as a n integral part of the guideline by offering their expertise and evaluating the completed guideline using the AGREE II instrument. Application of the recommendations made in the guideline can positively influence care delivery and promote overall optimal mental health outcome in the targeted population.

Section 5: Dissemination Plan

Introduction

After observing that a local primary care clinic lacked QOL measurement for patients with anxiety and/or depression, poor outcomes in various domains of their QOL became evident that affected their overall health. Based on this observation, it was necessary to develop a CPG with recommendations on the best way to measure QOL to holistically care for the patients. I conducted a literature review to evaluate the impact of anxiety and/or depression on patients' QOL, which revealed that depression and anxiety negatively impact an individual's QOL.

Evidence gathered from the literature to support the CPG illustrated that the WHOQOL-BREF questionnaire was a reliable and valid tool to evaluate QOL in patients. Previous research analyzed for relevance to the CPG found that the use of WHOQOL-BREF questionnaire in patients with psychiatric disorders such as anxiety and/or depression helped to assess their QOL. Upon review of the literature and analyzing the results, I developed a CPG recommending the application of the WHOQOL-BREF tool as the best method to measure QOL in the target population.

The target users for the CPG would be suitable in disseminating the project in a larger aspect of the nursing profession and healthcare. The target users for the CPG are healthcare clinicians working with patients with anxiety and/or depression in the outpatient setting (i.e., primary care). These clinicians can use the CPG to assess the target populations' QOL to generate effective treatments ideal to addressing patients' mental health needs. Other intended users such as registered nurses, licensed practical

nurses, and nursing assistants caring for individuals with anxiety and/or depression can also apply the CPG as part of the data collection process during patient encounters to evaluate the impact of their conditions on their QOL. Based on the information gathered from the CPG, nurses can collaborate with advanced practice nurses or physicians to either initiate or amend specific treatments to address patients' needs. After the publication of the CPG, its dissemination would target healthcare providers including advanced practice nurses, nurses, primary care physicians, psychologists, psychiatrists, and other mental health personnel caring for patients diagnosed with anxiety and/or depression.

Because the problem was initially identified at a local primary care clinic, once the guideline is available for use, healthcare organizations can first introduce it to either their medical officer or hierarchy of the organization for review and then disseminate it equally to their clinicians to use to guide their clinical practices. There was no implementation for the CPG at a specific organization; however, recommendations on the best approach to measure QOL in the target population were outlined step-by-step in the guideline. Because there was no implementation of the CPG at a selected institution, target users can employ the recommendations in their individual practices, settings, or organizations to enhance care delivery and attain optimal mental health outcomes.

Analysis to Self

The development of the CPG and my overall project compelled me to consider my role as a practitioner, scholar, and project manager. My expertise in working with patients with anxiety and/or depression revealed the importance of QOL in these patients.

My observation of the lack of proper assessment of patients' QOL in the primary care setting inspired me to take a deeper look into the correlation between anxiety and/or depression and QOL. Additionally, as a practitioner, I considered how I could evaluate this important concept to holistically care for my patients suffering from anxiety and/or depression.

In my role as a practitioner working with patients diagnosed with anxiety and/or depression in the primary care setting, I have had ample opportunities to assess the impact of these two mental health disorders on patients' QOL. I have treated patients with anxiety and/or depression using either psychotherapy or pharmacological approach and assessed the impact of these treatments using the standardized PHQ9 and GAD7 without evaluating in depth their QOL due to lack of a standardized measurement tool. However, the completion of the DNP project helped me to identify a reliable tool as the best approach to assess QOL.

The development of the CPG helped me to act and grow as a scholar. The findings noted through the literature search process for the project provided in-depth insights regarding the health question considered for the project. I was able to apply knowledge gained through my education to search and obtain reliable resources to influence the development of the guideline.

Leadership skills gained throughout my nursing career helped me to act as a project manager in developing the CPG. I was able to effectively collaborate with my project team who helped to review the project and to solicit feedback regarding the recommendations made in the CPG. As a project manager, I took a leadership role in

ensuring that the objectives of my project were met. I also guided my expert panel by explaining how to use the AGREE II instrument to review the guideline. This project experience significantly enhanced my leadership skills as a practitioner and provided me experience as a scholar and project manager. These essential skills will assist me as a clinician and help me to meet my professional goals in the future.

Successful completion of this project was possible due to the support obtained from the project team, family, and close friends. Considering that this was my biggest educational achievement, I was anxious about potential setbacks that could have impacted the overall project. Because the expert panel had various backgrounds, I was concerned about how to collaborate with them to solicit feedback on the CPG. Additionally, the waiting period to receive feedback from the project team was a challenge. However, providing constant communication such as sending periodic reminders through e-mails, text messages and phone calls was helpful to bridge the gap between the expert panel and myself. Additionally, I explained the intent of the guideline to give the expert panel an overview of the overall project. Completing this project has enhanced my confidence as scholar practitioner and a leader. The skills obtained through this project will guide me to meet my professional goals as I embark on becoming a change agent in my community and the nursing profession.

Summary

The aim of this project was to develop a CPG recommending the best way to measure QOL in patients with anxiety and/or depression in the outpatient setting. The developed guideline illuminates a step by step approach to measure QOL life using the

WHOQOL-BREF tool. As previously stated, the CPG offers healthcare clinicians comprehensive information on measuring QOL, which can influence treatment plans to improve the lives of patients suffering from anxiety and/or depression in the outpatient setting.

References

Adams, L. Y. (2017). Peplau's contributions to psychiatric and nursing knowledge. *Journal of Mental Health and Addiction Nursing, 1*(1), e10-e18. https://doi.org/10.22374/jmhan.v1i1.3

AGREE Next Steps Consortium. (2017). *The AGREE II instrument* [electronic version]. Retrieved from https://www.agreetrust.org

Cabrera, P. A., & Pardo, R. (2019). Review of evidence based clinical practice guidelines developed in Latin America and Caribbean during the last decade: An analysis of the methods for grading quality of evidence and topic prioritization. *Globalization & Health, 1*, 1. https://doi.org/10.1186/s12992-019-0455-0

Choo, C. C., Chew, P. K. H., Ho, C. S., & Ho, R. C. (2019). Quality of life in patients with a major mental disorder in Singapore. *Frontiers in Psychiatry*. https://doi.org/10.3389/fpsyt.2018.00727

Connell, J., O'Cathain, A., & Brazier, J. (2014). Measuring quality of life in mental health: Are we asking the right questions? *Social Science & Medicine, 120*(1982), 12–20. https://doi.org/10.1016/j.socscimed.2014.08.026

Deane, W. H., & Fain, J. A. (2016). Incorporating Peplau's theory of interpersonal relations to promote holistic communication between older adults and nursing students. *Journal of Holistic Nursing, 34*(1), 35–41. https://doi.org/10.1177/0898010115577975

Dzevlan, A., Redzepagic, R., Hadzisalihovic, M., Curevac, A., Masic, E., Alisahovic-Gelo, E., Merdzanovic, E., & Hadzimuratovic, A. (2019). Quality of life

assessment in antidepressant treatment of patients with depression and/or anxiety disorder. *Materia Socio-Medica, 31*(1), 14–18. https://doi.org/10.5455/msm.2019.31.14-18

Evans, E. C., Deutsch, N. L., Drake, E., & Bullock, L. (2017). Nurse–patient interaction as a treatment for antepartum depression: A mixed-methods analysis. *Journal of the American Psychiatric Nurses Association, 23*(5), 347-359. https://doi.org/10.1177/1078390317705449

Feder, K., Michaud, D. S., Keith, S. E., Voicescu, S. A., Marro, L., Than, J., . . . van den Berg, F. (2015). An assessment of quality of life using the WHOQOL-BREF among participants living in the vicinity of wind turbines. *Environmental Research, 142*(2015), 227-238. https://doi.org/10.1016/j.envres.2015.06.043

González-Blanch, C., Hernández-de-Hita, F., Muñoz-Navarro, R., Ruíz-Rodríguez, P., Medrano, L. A., & Cano-Vindel, A. (2018). The association between different domains of quality of life and symptoms in primary care patients with emotional disorders. *Scientific Reports,* (1), 1. https://doi.org/10.1038/s41598-018-28995-6

Hagerty, T. A., Samuels, W., Norcini-Pala, A., & Gigliotti, E. (2017). Peplau's theory of interpersonal relations: An alternate factor structure for patient experience data? *Nursing Science Quarterly, 30*(2), 160-167. https://doi.org/10.1177/0894318417693286

Hofmann, S. G., Curtiss, J., Carpenter, J. K., & Kind, S. (2017). Effect of treatments for depression on quality of life: A meta-analysis. *Cognitive Behavior Therapy*, *46*(4), 265–286. https://doi.org/10.1080/16506073.2017.1304445

Hohls, J. K., König, H.-H., Quirke, E., & Hajek, A. (2019). Association between anxiety, depression, and quality of life: Study protocol for a systematic review of evidence from longitudinal studies. *British Medical Journal*, *9*(3), e027218. https://doi.org/10.1136/bmjopen-2018-027218

Huo, T., Guo, Y., Shenkman, E., & Muller, K. (2018). Assessing the reliability of the short form 12 (SF-12) health survey in adults with mental health conditions: A report from the wellness incentive and navigation (WIN) study. *Health and Quality of Life Outcomes, 16*(1), 34. https://doi.org/10.1186/s12955-018-0858-2

Katschnig, H. (2006). Quality of life in mental disorders: Challenges for research and clinical practice. *World Psychiatry: Official Journal of the World Psychiatric Association*, *5*(3), 139–145.

Kilbourne, A. M., Beck, K., Spaeth-Rublee, B., Ramanuj, P., O'Brien, R. W., Tomoyasu, N., & Pincus, H. A. (2018). Measuring and improving the quality of mental health care: A global perspective. *World Psychiatry, 17*(1), 30–38. https://doi.org/10.1002/wps.20482

Kong, Y., Wei, X., Duan, L., Wang, W., Zhong, Z., Ming, Z., & Zeng, R. (2015). Rating the quality of evidence: The GRADE system in systematic reviews/meta-analyses of AKI. *Renal Failure, 37*(7), 1089–1093. https://doi.org/10.3109/0886022X.2015.1056065

Kornhaber, R., Walsh, K., Duff, J., & Walker, K. (2016). Enhancing adult therapeutic interpersonal relationships in the acute health care setting: An integrative review.

Journal of Multidisciplinary Healthcare, 9, 537–546. https://doi.org/10.2147/jmdh.s116957

Kredo, K., Bernhardsson, S., Machingaidze, S., Young, T., Louw, Q., Ochodo, E., Grimmer, K. (2016). Guide to clinical practice guidelines: The current state of play. *International Journal for Quality in Health Care, 28*(1), 122–128. https://doi.org/10.1093/intqhc/mzv115

Kroenke, K., Wu, J., Yu, Z., Bair, M. J., Kean, J., Stump, T., & Monathan, P. O. (2016). Patient health questionnaire anxiety and depression scale: Initial validation in three clinical trials. *Psychosomatic Medicine 78*(6), 716–727. https://doi.org/10.1097/psy.0000000000000322

Movsisyan, A., Dennis, J., Rehfuess, E., Grant, S., Montgomery, P. (2018). Rating the quality of a body of evidence on the effectiveness of health and social interventions: A systematic review and mapping of evidence domain. *Research Synthesis Methods, 9,* 224-242. https://doi.org/10.1002/jrsm.1290

Muntingh, A. D., van der Feltz-Cornelis, C. M., van Marwijk, H. W., Spinhoven, P., & van Balkom, A. J. (2016). Collaborative care for anxiety disorders in primary care: A systematic review and meta-analysis. *BMC Family Practice*, *17*, 62. https://doi.org/10.1186/s12875-016-0466-3

National Institute of Mental Health (2019). Mental illness. Retrieved from https://www.nimh.nih.gov/health/statistics/mental-illness.shtml#part_154785

Oliveira, S. E. H., Carvalho, H., & Esteves, F. (2016). Toward an understanding of the quality of life construct: Validity and reliability of the WHOQOL-BREF in a

psychiatric sample. *Psychiatry Research*, *244*, 37–44. https://doi.org/10.1016/j.psychres.2016.07.007

Pinto, S., Fumincelli, L., Mazzoc, A., Caldeira, S., & Martins, J. C. (2017). Comfort, well-being and quality of life: Discussion of the differences and similarities among the concepts. *Porto Biomedical Journal, 2*(1), 6-12. https://doi.org/10.1016/j.pbj.2016.11.003

Prasad, K. M., Angothu, H., Mathews, M. M., & Chaturvedi, S. K. (2016). How are social changes in the twenty first century relevant to mental health*? Indian Journal of Social Psychiatry,* (3), 227. https://doi.org/10.4103/0971-9962.193195

Sivertsen, H., Bjorklof, G. H., Engedal, K., Selbaek, G., & Helvik, A.-S. (2015). Depression and quality of life in older persons: A review. *Dementia and Geriatric Cognitive Disorders*, *40*(5–6), 311–339. https://doi.org/10.1159/000437299

Slade, M., McCrone, P., Kuipers, E., Leese, M., Cahill, S., Parabiaghi, A., . . . Thornicroft, G. (2006). Use of standardised outcome measures in adult mental health services: Randomised controlled trial. *British Journal of Psychiatry, 189*(4), 330–336. https://doi.org/10.1192/bjp.bp.105.015412

Tüzün, H., Aycan, S., & İlhan, M. N. (2015). Impact of comorbidity and socioeconomic status on quality of life in patients with chronic diseases who attend primary health care centres. *Central European Journal of Public Health, 23*(3), 188–194.

World Federation for Mental Health (2012). Depression: A global crisis. Retrieved from https://www.who.int/mental_health/management/depression/wfmh_paper_depression_wmhd_2012.pdf

World Health Organization. (1996). WHOQOL-BREF: Introduction, administration, scoring and generic version of the assessment. Retrieved from https://www.who.int/mental_health/media/en/76.pdf

Appendix A: Evidence Matrix

Reference	Purpose/ Question	Design	Sample	Intervention	Results
Adams, L. Y. (2017)	How Peplau's theory of interpersonal relations contributed to clinical, conceptual, and empirical Knowledge in psychiatric nursing and the nursing profession	Academic paper GRADE score: Very low	None	Utilization of Peplau's interpersonal theory in nursing practice	Peplau's theory contributes to nursing knowledge and the discipline of nursing specifically psychiatric/ mental health nursing
AGREE (2017)	AGREE II Manual	Manual GRADE score: Very low	None	Manual on using the AGREE II	User's manual on how to use the AGREEE II
Cabrera et al. (2019)	Building an evidence map to show the regional GRADE impact in developing clinical practice guidelines and differentiate the results with current needs.	A systematic literature search GRADE score: moderate	Nine thousand seven hundred seventy-six documents were retrieved. 98 guidelines that mentioned the use of GRADE methodology was discovered.	Literature search in databases such as developer's websites, health ministries, repositories and grey literature. Region focused was Latin America and the Caribbean	Findings indicate a slow and increasing integration of the GRADE methodology in the region. GRADE methods could help to enhance the quality and validity of recommendations
Choo et al. (2019)	Study was intended to investigate the prediction of Quality of Life (QOL) in Asian patients with a major mental disorder such as depression or schizophrenia in Singapore	Use of self-reported surveys GRADE score: Very low	Convenience sampling of 43 patients with depression and 43 patients with schizophrenia recruited from an outpatient clinic and psychiatric ward	Patients' psychiatric symptoms, subjective QOL, self-efficacy, perceived social support, and coping style were explored with the use a 4-page self-report surveys	Results indicated that psychosocial variables, such as social support and self-efficacy, need to be measured in their impact on QOL for patients with depression and schizophrenia
Connell et al. (2014)	Identify the domains of QOL that are important to people with mental health problems to evaluate the content validity of these generic measures (i.e. EQ-	Qualitative study of face-to-face semi-structured interviews with existing users of mental health services	12 men and 7 women with range of mental health problems and levels of severity such as schizophrenia, schizo-affective	Participants were interviewed with the use of topic guided questions from Sept–Nov 2010	Findings indicated that generic preference-based measures (EQ-5D and SF-6D) do not consist of many aspects of QOL valued by those with mental health problems

	5DSF-6D)	GRADE score: Very low	disorder, personality disorder, post-traumatic stress disorder (PTSD), mild to severe depression, anxiety, agoraphobia, eating disorder, and anger		
Deane & Fain (2016)	Examined Peplau's interpersonal relations theory as a framework to help nursing students to comprehend holistic communication skills in their encounters with older adults	Research article GRADE score: Very low	Not Applicable	Application of Peplau's theory to enhance holistic communication among nursing students and older adults	Utilized as a framework in nursing education to structure classrooms, post-conferences, and skills laboratory presentations on components of delivering holistic care and communication
Dzevlan et al. (2019)	Evaluate improvement of QOL, tolerability of therapy and patients diagnosed with anxiety and/or depression adherence with antidepressants.	A clinical, multicenter, prospective, cohort study GRADE score: Low	682 patients of both sexes observed over 9 months period	Patients were divided into 3 groups, MOS (Medical Outcomes Study) sleep scale and Q-LES-Q-SF (Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form) scale were utilized to evaluate QOL	Sleep quality was significantly improved in all patients regardless of the antidepressants used. The overall pleasure and satisfaction with life also improved.
Evans et al. (2017)	Examined a novel, nontraditional counselling treatment model for pregnant women at risk for Antepartum depression (APD)	Complementary mixed-methods design. Peplau's theory of interpersonal relations was used as a framework to guide the study GRADE score: Very low	sample size of 24 nurse–women dyads (458 interactions, generating 293 pages of phone log data)	Nurses provided consistent, therapeutic interactions during pregnancy and addressed many of the barriers to adequate care when women are depressed. Researchers examined the interactions that occurred between nurses and the participants using Peplau's Interpersonal Relations theory	The phases of Peplau's theory of interpersonal relations were evident in the interactions

Feder et al. (2015)	Assessed self-reported QOL among individuals residing in areas with varying levels of wind turbine noise exposure	Questionnaire GRADE score: Very low	Randomly selected participants aged 18–79 (606 males, 632 females) living between 0.25 and 11.22 km from wind turbines	Use of World Health Organization QOL-BREF (WHOQOL-BREF) questionnaire to evaluate of participants QOL	Participants who were exposed to increased WTN levels did not rate their QOL or Satisfaction with Health considerably worse than those who were exposed to decreased WTN levels, nor did they report having substantially worse outcomes in terms of factors that comprise the 4 domains of the WHOQOL-BREF
González-Blanch et al. (2018)	Examine the relationships between four various QOL domains and the most prevalent clinical symptoms (i.e., depression, anxiety, and somatization), while regulating for sociodemographic variables	Randomized controlled trial GRADE score: High	1241 participants from 28 primary care centers in Spain	Participants were evaluated using the Patient Health Questionnaire (PHQ)-9 to evaluate depression; Generalized Anxiety Disorder Scale (GAD)-7 for anxiety; PHQ-15 for somatization; and WHOQOL-BREF to evaluate four QOL domains (i.e. physical health, psychological health, social relationships, and environment)	Depression was the strongest predictor for all domains of QOL. Clinical symptoms described more of the difference in QOL than sociodemographic factors such as age, sex, level of education, marital status, work status, and income
Hagerty et al. (2017)	To report the results of a confirmatory factor analysis performed to compare the factor structure of Consumer Assessment of Healthcare Providers and Systems–Hospital (HCAHPS) data using both the Institute of Medicine conceptual model and Peplau's middle-range theory of interpersonal relations in nursing	The study was a secondary data analysis of one hospital system's HCAHPS survey results using confirmatory factor analyses (CFAs) GRADE score: Very low	The sample consisted of 15,814 patients, ≥18 years of age, who had at least one overnight hospital stay and received an HCAHPS survey in 2013	HCAHPS surveys were administered in 48 hours to 6 weeks after hospital discharge to a random sample of adult patients with a range of health conditions	A two-factor model based on Peplau's theory performed sufficiently well, whereas a three-factor model also based on Peplau's theory fit them excellently and provided an appropriate alternative factor structure for the data. Results support the use of Peplau's theory to show nursing's vast contribution to the experiences of hospitalized patients

Hofmann et al. (2017)	Examine the impact of Cognitive-behavioral therapy (CBT) and selective serotonin reuptake inhibitors (SSRIs) for depression on QOL	A search of PubMed and PsycINFO databases for articles published from 1994 to present was conducted on 20 June 2014 and updated 17 October 2016. GRADE score: Very low	CBT (24 studies examining 1969 patients) or SSRI treatment (13 studies examining 4286 patients)	Meta-analysis of prior studies	CBT and SSRIs for depression were both related to moderate improvements in QOL, but are probably caused by various mechanisms
Hohls et al. (2019)	Synthesize evidence from longitudinal studies on the relationship between anxiety, depression and QOL in a systematic review.	Systematic review protocol of evidence from longitudinal studies GRADE score: Very low	Projected to review sample of 100 titles/abstracts	Search on electronic databases from relevant fields of research (PubMed, PsycINFO, PSYNDEX, EconLit, NHS EED)	No information provided
Huo et al. (2018)	Assessed the reliability of SF-12 among individuals with behavioral or serious mental health conditions enrolled in the Texas STAR+PLUS Medicaid Managed Care program who also participated in the Wellness Incentive and Navigation (WIN) project.	Three-year longitudinal randomized pragmatic clinical trial funded by the Center for Medicare & Medicaid Services' Medicaid Incentives for the Prevention of Chronic Conditions portfolio GRADE score: High	Sample of 1587 participants with either a combination of physical and behavioral conditions or serious mental illness	Researchers administered the SF-12 (a health-related quality-of-life (HRQOL) questionnaire consisting of twelve questions that measure eight health domains to assess physical and mental health) annually for three years	Study results demonstrated good reliability of SF-12 to evaluate HRQOL in individuals with behavioral conditions or serious mental illness that may qualify for supplemental security income
Katschnig (2006)	Explored the tension among the common sense meaning of QOL and the efforts to pin it down as a measurable concept	Article GRADE score: Very low	Not applicable	Not applicable	Increasing awareness to measure QOL in individuals with mental disorders
Kilbourne et al. (2018)	Presented a framework for encouraging quality measurement to improve quality of mental health care	Article GRADE score: Very low	Not Applicable	Discussed how the Donabedian framework can promote quality of mental health care	Offered several recommendations for implementing quality measurement as an ultimate tool for enhancing quality of mental health care

Kong et al. (2015)	Study aimed to assess the quality of evidence of systematic reviews/meta-analyses (SRs/Mas) for acute kidney injury (AKI) using the GRADE system	Systematic search in the electronic databases for SRs/Mas GRADE score: Low	Not applicable	Use of GRADE system to rate the quality of evidence	GRADE was revealed as a scientific and effective method to evaluate the quality of evidence
Kornhaber et al. (2016)	Identified strategies that improve therapeutic interpersonal relationships in the acute care setting	Integrative review GRADE score: Very low	10 studies included in the integrative review	Systematic search was conducted of PubMed, Cumulative Index to Nursing and Allied Health Literature, and PsycINFO	It was discovered that "therapeutic listening," "responding to patient emotions and unmet needs", and "patient centeredness" were the main characteristics of strategies for improving therapeutic interpersonal relationships
Kredo et al. (2016)	Aimed to provide a guide illustrating common standards, methods and systems utilized in current international CPG activities and the many activities to generate and communicate them	Article GRADE score: Very low	Not applicable	No specific intervention applied	Concluded that CPG methods in the next decade will be in updating, adopting, contextualizing, and/or adapting, and implementing
Kroenke et al. (2016)	Examined the reliability and validity of the Patient Health Questionnaire Anxiety-Depression Scale (PHQ-ADS) – which merged the PHQ-9 and GAD-7 scales – as a composite measure of depression and anxiety	Clinical Trial GRADE score: Low	Data from 896 patients enrolled in 2 primary care-based trials of chronic pain and oncology practice	Based trial of depression and pain were examined	PHQ-ADS showed high internal reliability
Movsisyan et al. (2018).	Identified and examined existing systems for rating the quality of a body of evidence on the effectiveness of health and social interventions.	Research article GRADE score: Very low	Identified 17 systems for evaluating the quality of a body of evidence on intervention effectiveness across health and social policy	Used a multicomponent search strategy to search for full-length reports of systems for rating the quality of a body of evidence from 1995 onward	Researchers found little reporting of rigorous procedures in the development and dissemination of evidence rating systems

Muntingh et al. (2016)	Examined the efficacy of collaborative care for anxiety disorders in primary care adult patients compared to care as usual	Systematic review and meta-analysis to summarize results from randomized controlled trials GRADE score: Moderate	3073 studies found; seven studies were included with a total of 2105 participants.	Systematic search for studies with collaborative care interventions	All studies except study four reported a substantially greater impact of the collaborative care intervention compared to care as usual
National Institute of Mental Health (2019)	Prevalence of mental illness in the United States	Statistic data Grade: Very low	Not applicable	Not applicable	Statistical data on mental illnesses in United States
Oliveira et al. (2016)	Examined the psychometric properties of the WHOQOL-BREF by means of testing its dimensionality, construct validity, predictive validity, and reliability in a Portuguese psychiatric sample of inpatients and outpatients	Cross-sectional GRADE score: Low	Sample comprised of 403 participants	Researchers administered the WHOQOL-BREF questionnaire focusing on four domains measuring: psychological health, physical health, social relationships, and environment, plus two items representing the general QOL	Support for the multidimensionality of the WHOQOL-BREF which showed it to be appropriate for the evaluation of QOL in psychiatric inpatients and outpatients. WHOQOL-BREF revealed as a valuable tool to be integrated as part of the routine clinical evaluation, monitoring and an essential indicator of treatment outcome as well as research
Pinto et al. (2017)	Analyzed the differences and similarities of the concepts of comfort, well-being, and quality of life (QOL)	Concept analysis method GRADE score: Very low	98 results were identified but only 18 studies were included in this review. Three studies related to the concept of comfort, three studies the concept of well-being, and 12 studies the concept of QOL	Evaluation of concept analysis research on PubMed, Cinahl (*full text*) and Scielo	Comfort appears to be more associated with symptom relief and/or decreased imbalances or discomfort, inner peace, security, and efficient communication. The concept of well-being is reliant on psycho-spiritual basis, related to happiness and an "internal energy." QOL seems to be a broader concept, linked with life improvement, dignity and attaining independence and personal goals
Prasad et al. (2016)	Focused on the social changes in the 21st century and the effect this has had and will have on mental health, particularly in India.	Article GRADE score: Very low	Not applicable	Not applicable	Concluded that advancement in technology as part of social change can improve awareness, help-seeking behaviors, and access to mental

					health care
Sivertsen et al. (2015)	Reviewed the literature on the relationship between depression and QOL in older persons	Systematic review GRADE score: Moderate	953 studies were revealed; 74 studies were included in the review; of these, 52 were cross-sectional studies and 22 were longitudinal studies	A systematic, computerized search in the MEDLINE, PubMed, PsychINFO, EMBASE and CINAHL databases	Found a substantial connection between severity of depression and poorer QOL in older persons, and the relationship was found to be steady over time, regardless of which assessment instruments for QOL were applied.
Slade et al. (2006)	To assess the efficacy of standardized outcome assessment	Randomized Control Trial GRADE score: High	160 adult mental health patients and paired staff	Intervention group (n-101) (a) received a completed monthly questionnaire to evaluate their needs, QOL, severity of their mental health problems and their therapeutic alliance; (b) received 3 monthly feedback. The control group (n=59) received usual treatment	Routine use of outcome measures did not enhance subjective outcomes, but study showed reduced psychiatric inpatient admissions.
Tüzün et al. (2015)	Analyzed the effect of chronic disease on the quality of life (QOL) and how QOL alters with comorbidity and socioeconomic status in people who attend primary health care centers.	Face-to-face questionnaire with people greater than or equal to 18 years. GRADE score: Very low	2560 participants comprised who contacted six primary health care centers	Use of the World Health Organization Quality of Life Questionnaire Abbreviated Version (WHOQOL-BREF) questionnaire	Mental disorders among the disorders with the most negative effect on the QOL.
WHO (1996)	WHOQOL-BREF manual	Manual/Questionnaire GRADE score: High	Not applicable	Self-administered or interviewer-assisted instrument	QOL is scored based on scores from each domain

World Federation for Mental Health (2012)	Depression being a global public health concern	Article GRADE score: Very low	Not applicable	Not applicable	Concludes with educating ourselves regarding depression and support those who are suffering from this mental disorder

Appendix B: Clinical Practice Guideline

Clinical Practice Guideline Manual for Measuring Quality of Life

Measuring Quality of Life in Patients with Anxiety and/or Depression in the Outpatient Setting

Table of Contents

Purpose....68
Objective....69
Health Question....69
Target Population....69
Stakeholder Involvement....70
Target Users....70
Recommendations....70
What to Use to Measure QOL....71
When to Measure QOL....72
How to the Use the WHOQOL-BREF Questionnaire....74
How to Apply Peplau's Theory with the WHOQOL-BREF Tool....76
Procedure Guideline Update....77
Conflict of Interest....78

Purpose

The incidence of mental health conditions has resulted in high rates of disabilities nationally and globally. Approximately 25% of adults living in the United States has some degree of mental health disorder (Huo et al., 2018). Patients suffering from mental health problems are known to have higher prevalence of other chronic conditions such as heart diseases, diabetes, obesity, asthma, epilepsy, as well as cancer (Huo et al., 2018). Precisely, anxiety and depression are among the most prevalent types of mental health disorders across different ages of the lifespan (Hohls et al., 2019). Research has showed that individuals diagnosed with other medical conditions concurrently with a mental health disorder have a significantly higher impairment in their QOL (Huo et al., 2018).

Quality of life refers to the person's welfare, contentment in life, physical health, perceptions of social relationships, financial status, and functioning in their activities of daily living and work (Hofmann et al., 2017). QOL is influenced by the person's beliefs, morals, health, and experiences gained in life. Based on the literature review conducted to identify the best QOL measurement tool, a standardized QOL measurement tool could not be found. From a local context, a gap in practice was observed at a primary care organization. Clinicians who worked in this local primary care setting lacked appropriate measurement tool to evaluate QOL in patients diagnosed with anxiety and/or depression. As a result of this, poor outcomes in various domains of patients' QOL became evident within the patient population.

In comparison to other mental disorders, patients with depression have reported reduced QOL (Choo et al., 2019). Anxiety disorders can also have a negative effect on an

individual's QOL and are associated with major healthcare productivity and financial burden (Muntingh et al., 2016). Given that patients with anxiety and depression have a higher risk of negative quality of life, it was vital to find out the best approach to measure QOL in patients with anxiety and/or depression.

Objective

In practice, guidelines are formulated to offer clinicians the evidence and knowledge required to provide efficient, high-quality, and safe care to populations with certain clinical situations. The objective of this clinical practice guideline was to help clinicians measure QOL in patients suffering from anxiety and/or depression to make informed decisions regarding their care and enhance outcomes based on evidence-based recommendations. The CPG can serve as a guide for clinicians to evaluate patients' perceptions of quality of life based on various domains such as physical health, social relationships, psychological health, and environment in order to make necessary adjustments in their care to improve outcomes as well as their quality of life. The intended health benefit for applying the CPG is improved perception of quality of life in patients with anxiety and/or depression seeking care in the outpatient setting.

Health Question

The health question that guided the development of the CPG was:

PFQ: How should QOL be measured in patients with anxiety and/or depression in the outpatient setting?

Target Population

The intended population that the recommendations can be applied are adult patients, all genders, ages 18 years and older with anxiety and/or depression seeking care in an outpatient setting.

Stakeholder Involvement

The clinical practice guideline development incorporated the works of high-quality evidence and various reliable tools from other professional groups. These tools consisted of the WHOQOL-BREF questionnaire, GRADE methodology and the AGREE II instrument. Since the CPG aimed at recommending the best way to measure QOL in patients with anxiety and/or depression, there were no direct subjective views or preferences obtained from the target population.

Target Users

The target users for the CPG are healthcare clinicians working in the outpatient setting such as primary care. Healthcare clinicians include but not limited to advanced practice nurses, nurse practitioners, nurses, physicians, psychologists, psychiatrists, and other mental health professionals. These clinicians can utilize the CPG to assess the target populations' QOL to generate effective treatments ideal to addressing patients' mental health needs.

Recommendations

The following recommendations have been reviewed by an expert panel and graded utilizing the GRADE methodology. The level of evidence used to support each recommendation was graded and assigned a rating of very low, low, moderate, or high as

indicated on the GRADE methodology. The guideline recommended the application of the WHOQOL-BREF tool to answer the health question:

> PFQ: How should QOL be measured in patients with anxiety and/or depression in the outpatient setting?

The domains of the recommendations addressed the following (1) what to use to measure QOL (2) when to measure QOL (3) how to use the WHOQOL-BREF questionnaire and (4) how to apply Peplau's theory with the WHOQOL-BREF tool. The evidence supporting each recommendation was illustrated at the end of each section of the recommendations. The guideline and recommendations were reviewed by an external expert panel against the AGREE II instrument for its contents.

What to Use to Measure QOL. Though numerous studies on QOL have resulted in various tools that clinicians can use in practice, the most suitable approach to measure QOL is based on individualized care and the patient's overall condition as well as the intended use of the assessment.

Use the WHOQOL-BREF questionnaire to measure QOL in patients with anxiety and/or depression receiving care in the outpatient setting (GRADE score: Low). The WHOQOL-BREF questionnaire is a tool used to assess QOL perceptions and must be used without modifications. It has been widely used in numerous researches in its original form and has been found to be a valid and reliable tool to measure QOL. With the WHOQOL-BREF questionnaire, clinicians can obtain baseline scores in an array of areas, as well as observing patterns or changes in QOL over the course of interventions (WHO, 1996).

Evidence supporting recommendation. Based on a literature review of a study that tested the psychometric properties of the WHOQOL-BREF by investigating its construct validity, predictive validity as well as reliability in a psychiatric study sample, findings supported the multidimensionality of the WHOQOL-BREF which showed suitable properties for assessing Qol in psychiatric inpatients and outpatients (Oliveira et al., 2016). The WHOQOL-BREF showed that it was a valuable instrument to be integrated as part of the regular clinical evaluation, monitoring and an essential indicator of treatment outcome as well as research (Oliveira et al., 2016).

When to Measure QOL. The actual time that clinicians would need to evaluate QOL depends on other elements such as the time of initial diagnosis, pharmacotherapy initiation, and/or referral to psychotherapy as well as during the titration of medication.

1. Measure QOL routinely (GRADE score: High)
    a. Measure baseline QOL at the following times (GRADE score: Low)
        i. At the time of initial diagnosis (such as Generalized Anxiety Disorder Assessment (GAD7) score of four and above or Patient Health Questionnaire (PHQ9) score of four and above)
        ii. Initial prescription of pharmacotherapy
        iii. Referral to psychotherapy
2. Obtain subsequent QOL assessments during follow up appointments to evaluate patients' symptoms and response to treatments (GRADE score: Low). The WHOQOL-BREF tool guidelines do not suggest specific time to repeat QOL assessment, however, it mentions that various time frames can be

used and suggests changing the time scale as appropriate (WHO, 1996). Timeframes for follow up QOL assessments is based on current evidence supporting when clinicians should follow up with patients after the diagnoses of anxiety and/or depression and started pharmacotherapy treatment.

3. Re-evaluate QOL scores routinely such as at the three weeks follow up visit after starting new treatments (i.e., antidepressants and/or psychotherapy) and respectively while receiving treatment at seven weeks follow up appointment, eleven weeks, 24 weeks, and 36 weeks after baseline (GRADE score: High).

Evidence supporting recommendation. Upon review of the literature, a study by Slade, McCrone, Kuipers, Leese, Cahill, Parabiaghi, Priebe, and Thornicroft (2006) conducted a randomized control study to assess the efficacy of standardized outcome assessment in 160 adult mental health patients and paired staff. The researchers stressed the feasibility of the implementation of a carefully developed technique to routinely evaluate outcomes in mental health services (Slade et al., 2006). The study demonstrated that a meticulously developed and implemented method to regularly collect and use outcome information has been shown to decrease admissions and save money in mental health patients (Slade et al., 2006).

Kilbourne et al. (2018) suggested mental health outcomes ought to be evaluated more routinely and must become an aspect of the whole culture of the treatment setting as well as the health care system. Routine outcome measurements have been associated with enhancements in service delivery and low hospital re-admission rates, but intermittent outcome measurement lacked to enhance quality (Kilbourne et al., 2018). Furthermore,

regular outcome measurement provided back to the clinician and utilized to influence treatment decisions with the patient, led to better QOL (Kilbourne et al., 2018).

Dzevlan et al. (2019) assessed patients' QOL after starting antidepressants during a nine-month period. QOL measurements were assessed at baseline and five additional times. The first QOL assessment was performed three weeks after the baseline, the second assessment was completed seven weeks after the baseline, the third assessment was performed at 11 weeks after the baseline, the fourth assessment was completed at 24 weeks after the baseline and the fifth assessment was performed at 36 weeks after the baseline (Dzevlan et al., 2019). Clinicians using this CPG can mirror these timeframes for follow up visits after the initiation of antidepressants to assess QOL by administering the WHOQOL-BREF questionnaire.

How to Use the WHOQOL-BREF Questionnaire. Proper administration of the WHOQOL-BREF questionnaire is key to retrieving relevant responses from patients (Appendix D).

1. Provide the self-administered WHOQOL-BREF questionnaire to competent patients to complete the assessment (WHO, 1996) (GRADE score: Very low).
2. Offer an interviewer-assisted format of the WHOQOL-BREF questionnaire to patients who are unable to complete the self-administered questionnaire (WHO, 1996) (GRADE score: Very low).
3. Provide clear instructions to patients on the proper way to complete the self-administered WHOQOL-BREF questionnaire (WHO, 1996) (GRADE score: Very low).

4. Read the interviewer-assisted questionnaire out aloud to patients (WHO, 1996) (GRADE score: Very low).
5. Review responses under each QOL domain with the patient as indicated on the WHOQOL-BREF and clarify any misunderstanding or add further details accordingly (WHO, 1996) (GRADE score: Very low).
6. Discard the assessment if greater than 20% of information is lacking from the WHOQOL-BREF questionnaire (WHO, 1996) (GRADE score: Very low).
7. Calculate the mean score of items in each domain, which is utilized to establish the domain score and then multiply by four to be comparable to the scores obtained on the WHOQOL-100 (WHO, 1996) (GRADE score: Very low).

Evidence supporting recommendations. Tüzün et al. (2015) evaluated the effect of chronic disease on QOL and how QOL alters with comorbidity and socioeconomic status in individuals seeking care at primary health care centers. The level of QOL was established by using the WHOQOL-BREF. The scale was converted to Turkish, and the study of reliability and validity were completed (Tüzün et al., 2015). In harmony with the directions prepared for the users of WHOQOL-BREF, the researchers calculated raw scores for each domain (Tüzün et al., 2015). Results showed that mental disorders (such as depression, anxiety, and somatization) were part of the chronic diseases with the most negative impact on the QOL. Mental disorders were the only diseases with a huge effect across all domains on the WHOQOL-BREF in the linear regression models (Tüzün et al.,

2015). Specifically, the results also indicated that depression could lead to a decline in several QOL scale domains such as the physical domains (Tüzün et al., 2015).

How to Apply Peplau's Theory with the WHOQOL-BREF tool. Applying Peplau's theory of Interpersonal Relations in every patient encounter promotes and helps to maintain an effective relationship with patients. Clinicians can apply the interventions below during their interactions with patients such as when administering the WHOQOL-BREF questionnaire.

1. Address patients by their names and maintain privacy and safety during the meet and greet phase (GRADE score: Very low).
2. Show respect and courtesy towards patients to achieve useful information about them as individuals (GRADE score: Very low).
    a. Apply this when asking questions on the WHOQOL-BREF and providing instructions on the self-administered questionnaire
3. Establish rapport with patients to enhance the clinician-patient relationship (GRADE score: Very low).
4. Use professional knowledge and holistic attitude to help the patient with their health concerns by asking questions and allow sufficient time for responses (GRADE score: Very low). This can be accomplished by performing an assessment (i.e., WHOQOL-BREF questionnaire) which can be used to educate and influence the patient's treatment plan.
5. Interact with patients kindly and be mindful of the use of body language and gestures (GRADE score: Very low).

Evidence supporting interventions. Peplau's interpersonal relations theory was used to support nursing students to comprehend holistic communication skills in their encounters with older adults (Deane & Fain, 2016). Peplau's theory offers nursing a valuable set of three interconnecting and oftentimes intersecting working phases for nurses' interaction with patients during the nurse–patient relationship (Deane & Fain, 2016). In the orientation phase, the nurse greets the patient by addressing them by their name and with professional title (Deane & Fain, 2016). As the orientation phase continues, the patient persists to inquire and respond to questions with the nurse, hoping to feel secure during their interactions (Deane & Fain, 2016).

The nurse utilizes professional knowledge and skills alongside a holistic attitude to assist the patient solve his or her health concerns (Deane & Fain, 2016). Nurses must be mindful of their body language and the gestures they demonstrate during nurse–patient interaction and strive from maximum verbal and minimal nonverbal communication during patient interactions (Deane & Fain, 2016). In the working phase, which is known as the assessment period, nurses need to show respect and maintain privacy to promote trust, depict a professional and respectful rapport with the patient (Deane & Fain, 2016).

Procedure Guideline Update

The clinical practice guideline should be evaluated and revised yearly by an organizational review panel utilizing existing high-quality research, and recommendations that are evidence-based. Since the WHOQOL-BREF questionnaire was the main component of this CPG and has been in its originality since its publication in 1996, updates to the guideline may not affect the tool. Any future changes that may occur

with the WHOQOL-BREF questionnaire would necessitate an update to the clinical practice guideline. In cases whereby updates are needed, partial updates could be made and the National Institute for Health and Care Excellence (NICE) recommendations on partial updates of guidelines can be used as guidance to make the necessary changes.

Conflict of Interest

There were no funding body that could have influenced the content of this guideline. There was no related conflict of interest to report for the clinical practice guideline. Permission to use the WHOQOL-BREF was obtained from the WHO (Appendix E).

Appendix C: The WHOQOL-BREF Questionnaire

Questions Under Each Domain

Overall quality of life and general health

How would you rate your quality of life?

How satisfied are you with your health?

Domain 1: Physical health

To what extent do you feel that physical pain prevents you from doing what you need to do?

How much do you need any medical treatment to function in your daily life?

Do you have enough energy for everyday life?

How well are you able to get around?

How satisfied are you with your sleep?

How satisfied are you with your ability to perform your daily living activities?

How satisfied are you with your capacity for work?

Domain 2: Psychological

How much do you enjoy life?

To what extent do you feel your life to be meaningful?

How well are you able to concentrate?

Are you able to accept your bodily appearance?

How satisfied are you with yourself?

How often do you have negative feelings such as blue mood, despair, anxiety, depression?

Domain 3: Social relationships

How satisfied are you with your personal relationships?

How satisfied are you with your sex life?

How satisfied are with the support you get from your friends?

Domain 4: Environment

How safe do you feel in your daily life?

How healthy is your physical environment?

Have you enough money to meet your needs?

How available to you is the information that you need in your daily-to-day life?

To what extent do you have the opportunity for leisure activities?

How satisfied are you with the condition of your living place?

How satisfied are you with your access to health services?

How satisfied are you with your transport?

(WHO, 1996)

Appendix D: The WHOQOL-BREF Questionnaire: Response Options

1. How would you rate your quality of life?

   1 Very poor 2 Poor 3 Neither poor nor good 4 Good 5 Very good

2. How satisfied are you with your health?

   1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

The following questions ask about how much you have experienced certain things in the last

four weeks:

3. To what extent do you feel that physical pain prevents you from doing what you need to do?

   5 Not at all , 4 A little, 3 A moderate amount, 2 Very much, 1 An extreme amount

4. How much do you need any medical treatment to function in your daily life?

   5 Not at all , 4 A little, 3 A moderate amount, 2 Very much, 1 An extreme amount

5. How much do you enjoy life?

   1 Not at all , 2 A little, 3 A moderate amount, 4 Very much, 5 An extreme amount

6. To what extent do you feel your life to be meaningful?

   1 Not at all , 2 A little, 3 A moderate amount, 4 Very much , 5 Extremely

7. How well are you able to concentrate?

1 Not at all , 2 A little, 3 A moderate amount, 4 Very much , 5 Extremely

8. How safe do you feel in your daily life?

1 Not at all, 2 A little, 3 A moderate amount, 4 Very much , 5 Extremely

9. How healthy is your physical environment?

1 Not at all, 2 A little, 3 A moderate amount, 4 Very much , 5 Extremely

The following questions ask about how completely you experience or were able to do certain

things in the last four weeks:

10. Do you have enough energy for everyday life?

1 Not at all, 2 A little, 3 Moderately, 4 Mostly, 5 Completely

11. Are you able to accept your bodily appearance?

1 Not at all, 2 A little, 3 Moderately, 4 Mostly, 5 Completely

12. Have you enough money to meet your needs?

1 Not at all, 2 A little, 3 Moderately, 4 Mostly, 5 Completely

13. How available to you is the information that you need in your day-to-day life?

1 Not at all, 2 A little, 3 Moderately, 4 Mostly, 5 Completely

14. To what extent do you have the opportunity for leisure activities?

1 Not at all, 2 A little, 3 Moderately, 4 Mostly, 5 Completely

15. How well are you able to get around?

1 Very poor, 2 Poor, 3 Neither poor nor good, 4 Good, 5 Very good

16. How satisfied are you with your sleep?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

17. How satisfied are you with your ability to perform your daily living activities?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

18. How satisfied are you with your capacity for work?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

19. How satisfied are you with yourself?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

20. How satisfied are you with your personal relationships?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

21. How satisfied are you with your sex life?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

22. How satisfied are you with the support you get from your friends?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

23. How satisfied are you with the conditions of your living place?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

24. How satisfied are you with your access to health services?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

25. How satisfied are you with your transport?

1 Very dissatisfied, 2 Dissatisfied, 3 Neither satisfied nor dissatisfied, 4 Satisfied, 5 Very satisfied

The following question refers to how often you have felt or experienced certain things in the
last four weeks.

26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?

5 Never, 4 Seldom, 3 Quite often, 2 Very often, 1 Always

(WHO, 1996)

Appendix E: World Health Organization Copyright Authorization for WHOQOL-BREF

(Permission #: 311574)

Dear Mary,

Thank you for submitting the online form and for your interest in World Health Organization (WHO) Quality of Life materials. On behalf of WHO, we are pleased to authorize your request to reproduce, reprint and/or translate WHOQOL tools and instruments as detailed in the form below, subject to the terms and conditions of the non-exclusive license below. WHOQOL-100 and WHOQOL-BREF available language versions and the translation guidelines are available for download at*:*

http://terrance.who.int/mediacentre/data/WHOQOL/

For more information and other WHOQOL materials, visit WHOQOL website. We thank you for your interest in WHO published materials.

Kind regards,

Dolores Campanario

WHO Permissions Team

WORLD HEALTH ORGANIZATION

Non-exclusive licence to use selected WHO published materials

You submitted a request, through WHO's online platform, for permission to reprint and reproduce certain WHO copyrighted material (the "Licensed Materials"). This is a legal agreement (the "Agreement") between you and WHO, granting you a license to use the Licensed Materials subject to the terms and conditions herein.

Read this Agreement in its entirety before using the Licensed Materials.

By using the Licensed Materials, you enter into, and agree to be bound by, this Agreement. This license is granted only for original materials belonging to WHO. If any part of the WHO published materials you wish to reproduce are credited by WHO to a source other than WHO, those materials are not covered by this Agreement and are not part of the Licensed Materials. You are responsible for determining if this is the case, and if so, you are responsible for obtaining any necessary permission from the source of those third-party materials prior to their use.

If you enter into this Agreement on behalf of an organization, by using the Licensed Materials you confirm (represent and warrant) that you are authorized by your organization to enter into this Agreement on the organization's behalf. In such a case, the terms "you" and "your" in this Agreement refer to, and this Agreement applies to, the organization.

WHO grants this license to you based on the representations and warranties you made in the license request you submitted through WHO's online platform. If any of those representations and/or warranties are or become false or inaccurate, this license agreement shall automatically terminate with immediate effect, without prejudice to any other remedies which WHO may have.

If you have questions regarding this Agreement, please contact permissions@who.int

1. License. Subject to the terms and Conditions of this Agreement, WHO grants to you a worldwide, royalty free, non-transferable, non-sublicensable, non-exclusive licence to use, reproduce, publish, and display the Licensed Materials in the

manner and using the media indicated in the Permissions Request Form you submitted to WHO (the "Licensed Use"). This licence is limited to the current edition of your work. Future editions or a different use of the Licensed Materials will require additional permission from WHO. If your request includes translation into different languages, then non-exclusive permission is hereby granted to translate the Licensed Materials into the languages indicated in accordance to article 4 of this Agreement.

2. Licensed Use. The Licensed Material shall be used in the manner and using the media indicated in the Permissions Request Form you submitted to WHO (the "Licensed Use"). The Licensed Materials are intended for use in clinical research, drug trials, conducting assessments and studies, for use by clinicians in clinical contexts and for any academic and educational use. The Licensed Materials should not be sold individually or incorporated into products for sale, without written authorization from WHO.
3. Retained Rights. Copyright in the Licensed Materials remains vested in WHO, and WHO retains all rights not specifically granted under this Agreement.
4. Translation of the Licensed Materials. The Translation shall be faithful to the original English text and rendered into good literary and scientific language. The Translation should be done in accordance with the translation guidance methodology provided by WHO and available for download at http://terrance.who.int/mediacentre/data/WHOQOL/WHOQOL-100/Guidelines/. The PDF of the translation should be provided to WHO with

permission 1) to make the PDF available on WHO web site and institutional repository and 2) to use, amend, adapt, reproduce, publish and distribute the PDF or its part(s) for any purpose whatsoever.

5. Mandatory Acknowledgement. In every instance of the Licensed Use, you must make suitable acknowledgement of WHO as follows, either as a footnote or in a reference, as follows. In addition, If the Licensed Materials originate from the WHO web site, you must also include the URL reference and the date accessed.

"Reproduced with permission from (TITLE), Geneva, World Health Organization (WHO), (Year of publication), (URL, accessed (insert date). WHO does not endorse any specific companies, products or services."

Translations and adaptations of the Licensed Materials should be attributed as follows:

"Translated into (insert language) from (TITLE), Geneva, World Health Organization (WHO), (Year of publication), (URL, accessed (insert date). WHO is not responsible for the content or accuracy of this translation/adaptation. In the event of any inconsistency between the English and the insert language translation, the original English version shall be the binding and authentic version."

6. Product Delivery: The Licensed Materials can be downloaded online at http://terrance.who.int/mediacentre/data/WHOQOL/
7. Altering or Modifying the Licensed Materials. As part of the Licensed Use, you may minimally alter the Licensed Materials to match the format or style of your publication. Any other alteration or modification of the Licensed Materials

(including abbreviations, additions, or deletions) may be made only with the prior written authorization of WHO. You may not add company or product branding to the Licensed Materials.

8. Appropriate and Prohibited Uses. You must use the Licensed Materials in a factual and appropriate context. You may not use the Licensed Materials in association with any product marketing, promotional, or commercial activities, including, without limitation, in advertisements, product brochures, company-sponsored web sites, annual reports, or other non-educational publications or distributions. Any additional use requires written permission from WHO.
9. No WHO endorsement. You shall not state or imply that WHO endorses or is affiliated with your publication or the Licensed Use, or that WHO endorses any entity, organization, company, or product.
10. No use of the WHO logo. In no case shall you use the WHO name or emblem, or any abbreviation thereof.
11. No Warranties by WHO. All reasonable precautions have been taken by WHO to verify the information contained in the Licensed Materials. However, WHO provides the Licensed Materials to you without warranty of any kind, either expressed or implied, and you are entirely responsible for your use of the Licensed Materials. In no event shall WHO be liable for damages arising from your use of the Licensed Materials.
12. Your Indemnification of WHO. You agree to indemnify WHO for, and hold WHO harmless against, any claim for damages, losses, and/or any costs,

including attorneys' fees, arising in any manner whatsoever from your use of the Licensed Materials or for your breach of any of the terms of this Agreement.

13. Termination. The license and the rights granted under this Agreement shall terminate automatically upon any breach by you of the terms of this Agreement. Further, WHO may terminate this license at any time with immediate effect for any reason by written notice to you.
14. Entire Agreement, Amendment. This Agreement is the entire agreement between you and WHO with respect to its subject matter. WHO is not bound by any additional terms that may appear in any communication from you. This Agreement may only be amended by mutual written agreement of you and WHO.
15. Headings. Paragraph headings in this Agreement are for reference only.
16. Dispute resolution. Any dispute relating to the interpretation or application of this Agreement shall, unless amicably settled, be subject to conciliation. In the event of failure of the latter, the dispute shall be settled by arbitration. The arbitration shall be conducted in accordance with the modalities to be agreed upon by the parties or, in the absence of agreement, with the rules of arbitration of the International Chamber of Commerce. The parties shall accept the arbitral award as final.
17. Privileges and immunities. Nothing in or relating to this Agreement shall be deemed a waiver of any of the privileges and immunities enjoyed by WHO under national or international law and/or as submitting WHO to any national court jurisdiction.

***

WHOQOL-100 and WHOQOL-BREF language versions and translation guidelines are available at*:* http://terrance.who.int/mediacentre/data/WHOQOL/

For more information and other WHOQOL materials, visit WHOQOL website

World Health Organization Press - (*Permissions Management)*

WHO Press Permission Team: permissions@who.int

To request for permission to reprint, to translate, to reproduce partial or complete WHO copyrighted material -

PERMISSION REQUESTS:

http://www.who.int/about/licensing/copyright_form/en/index.html

Web: www.who.int

Follow WHO on Facebook; Twitter; YouTube; Instagram