THERAPEUTIC ENVIRONMENTS OF DAYROOMS IN ADULT PSYCHIATRIC SETTINGS: AN INTEGRATIVE LITERATURE REVIEW

by

Teresa Whalen Francis

A thesis submitted in partial fulfillment
of the requirements for the degree

of

Master

of

Nursing

MONTANA STATE UNIVERSITY
Bozeman, Montana

May 2015

DEDICATION

I dedicate this project to my husband, David, and our son, Camden. Their unending support through words of encouragement and countless acts of love buoyed my spirit and drove me to the finish line. I thank you with all of my heart.

ACKNOWLEDGEMENTS

I would like to acknowledge my advisor and chair, Susan Luparell, for her astute guidance and encouragement from our first phone call nearly three years ago. It was her suggestion that set me on this path of discovery, and for that I am grateful. I would also like to thank my committee members, Susan Raph and Solé Johnson, for their invaluable contributions, suggestions, and editing expertise. They comprised an excellent committee and I value their support and assistance throughout this process.

TABLE OF CONTENTS

ABSTRACT

Mental illness has plagued mankind since the beginning of time. It was not until the mid-1700s that scientific approaches were considered to ameliorate the suffering of the human psyche. Patients were hospitalized in asylums for the purpose of containment with little hope of recovery from mental illness. During the twentieth century, great advances were made in various therapeutic modalities such as psychoanalysis, psychotherapy, and psychopharmacology to treat mental disorders. Treatment was focused on recovery, and more successes in functionality were seen.

Most psychiatric, inpatient units have a common area known as the dayroom where patients are able to commune with other patients. The purpose of this integrative literature review was to search for literature of best practices regarding the physical structure of therapeutic environments in psychiatric dayrooms.

This integrative literature review was performed by searching four databases for articles on the therapeutic environments of dayrooms in adult inpatient psychiatric settings. A variety of search terms were developed and used in this exploration. The search resulted in zero articles found. This points to a gap in the literature and opens the field for research to be conducted on the environments of this important room in psychiatric inpatient units. A limitation of this literature review was that databases more specific to architecture and design were not searched and those might yield some results in the literature.

CHAPTER ONE

RESEARCH PROBLEM

Introduction

The concept of a therapeutic environment in the dayrooms in psychiatric settings has been on my mind since I began working in an emergency department in a large, metropolitan hospital in the southeastern part of the United States. This emergency department consisted of 88 beds; 10 of them were dedicated to the psychiatric population. Located within the emergency department was a small, locked unit with 10 private rooms. The unit was split into two halls with the nurse's station in the middle. There was a restroom on each hall, a small counselor's office toward the rear, and a supply closet in the corner. With the limitations of space, there was not a designated room where patients could gather to socialize as a group. Although having a dedicated area for psychiatric patients in an emergency department is uncommon, and indeed a luxury, North Carolina law requires that an area be provided where patients can gather together and receive visitors. "Each facility…shall have a reception area for clients and visitors and private space for interviews and conferences with clients" (North Carolina Division of Health Services Regulation, 2014).

Although the intention of this hospital emergency department is to place patients quickly so that psychiatric treatment can begin as soon as possible, often a shortage of beds within the state delays early initiation of treatment. This postponement of care may last for days or sometimes weeks depending on the acuity of the accepting facility and

their bed availability. This can lead up to what is being referred to now as "the boarding of psychiatric patients in emergency rooms." Seventy percent of emergency department administrators report that they hold mentally ill patients for 24 hours or longer, according to a 2010 survey by the Schumacher Group, a Louisiana firm that manages emergency departments across the country (Gold, 2011). "Ten percent said they had boarded some patients for a week or more" (Gold, 2011). This is a growing trend within hospital emergency departments reflective of the economic downturn and budget cuts nationwide. A study by the National Alliance on Mental Illness indicated that 32 states trimmed their mental health services, mostly those that serve outpatient; the services that aim to keep patients well and out of the hospital (Gold, 2011). This can be difficult for patients to be confined in a locked area with no access to the outdoors, and where their only form of exercise is to walk the short halls.

The demands for emergency psychiatric beds placed on this small unit in this particular hospital became so great that the psychiatric emergency department was forced to expand and relocate to another floor. Although not ideal in being a distance from the emergency department and access to immediate treatment in emergency situations, the affiliation as an adjunct to the emergency department continued. The new space was much larger, offering 20 private rooms, three hall restrooms, a shower room, and a much-anticipated dayroom.

One of the first observable problems with the dayroom was its location, which was at the very end of the long unit, around a corner, and adjacent to an exit door. Cameras were placed in all of the rooms to record patient movement and behavior. A hall

monitor was put in place to continuously walk the halls, looking into patient rooms and the dayroom, checking on patient safety. The dayroom was approximately 600 square feet with a ceiling that was 14 feet in height, giving the room a very large and vacuous appearance. It was furnished with four lounge chairs, a banquet table, a card table, and a few desk chairs. There was a small television mounted on the middle of one wall and encased in Plexiglas. The overall appearance of the room was sparse and bleak. It was the consensus of the staff that the ambience was not welcoming, and the dayroom was located so far away from the nurse's station and most patients' rooms that it was rarely frequented. It became apparent early-on that patients were reluctant to visit the dayroom because it was so far away from the heart of the unit: the nurse's station. The patients did not congregate in the dayroom, but rather preferred to be at the nurse's station, which offered a long counter on which they could lean and observe all that was happening. They would strike up conversations with the nurses and each other. This became distracting for the staff and presented a lack of privacy regarding other patients and the information about them that flowed among the nurses and staff. At one point, a small round table was set up temporarily in front of the nurse's station so that patients could socialize there. This was unfortunate since there was already a designated dayroom for patients to come together; but the nurses did not object to having the patients close by for observation.

As the months went by and the staff became more accustomed to their new environment, they noticed that the lounge chairs began to disappear. Gradually, the books scattered on a card table that were shaping a makeshift library also began to thin out. A bookshelf was requested from management, but one was never installed. It was obvious

that something was very wrong with this concept of a dayroom, and that is when thoughts about the qualities that make up a good, user-friendly dayroom began to emerge. What are the special indications for a dayroom? What are the safety concerns? How is comfort provided along with a welcoming atmosphere that invites patients to gather together in this one place? This led to the broader question for investigation: in general, what constitutes a therapeutic environment in a dayroom for the healing of patients afflicted with a mental illness? Therefore, the purpose of this project is to complete an integrative review of the literature to determine what is best practice in terms of physical structure of a dayroom in adult, inpatient psychiatric settings.

Background and Significance of the Study

History of Mental Illness

It is unknown how early in history human beings exhibited symptoms of mental illness, but it is generally thought that psychiatric illness is "as old as the human condition" (Shorter, 1998, p.1). There is physical evidence that mental disorders were treated as far back as 5,000 BC (Foerschner, 2010). Anthropologists have unearthed human skulls with holes in them that have been attributed to the process known as trephining (Foerschner, 2010). Since it was widely believed that supernatural forces caused mental illness, holes were bored into the skull using crude, stone tools. This process, undoubtedly painful and performed without anesthesia, would presumably release the evil spirits that inhabited the psyche and free the patient of their demons, according to the prevailing wisdom of the era (Foerschner, 2010). The study of the

human brain and human behavior dates back to the fifth century, although the formal study of psychiatry and professional medical treatment was not evident until the mid-eighteenth century (Kleban, 2012). It was the pervading belief at that time that supernatural forces caused mental illness and the only treatment was exorcism (Kleban, 2012). Hippocrates formed the opinion that disorders of the mind resulted from physical abnormalities, which often led to treatment that would be considered cruel and inhumane today (Kleban, 2012). Patients were often kept in dark rooms chained to the walls.

The first hospitals to treat the mentally ill opened in Baghdad in 705 AD (Kleban, 2012). Since little was understood about the brain and mental illness at the time, the objective of these institutions was simply to house patients, and no treatments were offered. In the 1750s, a French physician, Phillipe Pinel, developed methods aimed at a more humane treatment of the mentally ill, and was successful in reducing the cruelty of treatment for psychiatric illnesses (Kleban, 2012).

By the twentieth century, the field of psychiatry was developing as a scientific endeavor with Emil Kraepelin's interest in mental disorders and his subsequent classification of various conditions and treatment options (Kleban, 2012). This led to specific treatments for disorders and behaviors including psychoanalysis, which was introduced by Sigmund Freud in the early 1900s. The treatment of mental health patients consisted of either an office visit with a psychiatrist or hospitalization, which could last weeks, months, or possibly years. There was little in the way of medication or treatment modalities at that time, but hospitalization offered respite for those overwhelmed by the stressors in their lives and the incapacitation of the mental illness. Patients in the hospital

were in an environment that offered safety and refuge from their psychic demons and protection from self-harm. It also provided respite for the families of patients.

Treatment of Psychiatric Disorders

In the past three decades, there has been a surge in the development of medications available for the mentally ill, as well as a wide range of therapeutic modalities. Hospitalization can occur in psychiatric units in hospitals or in hospitals dedicated solely to the purpose of psychiatry. There are private, state, and federal (public) hospitals, as well as Veteran's hospitals, which offer full services, including individual counseling, group therapy, medication, and electroconvulsive treatment. Patients requiring less supervision can also seek treatment in partial programs, residential care, or community mental health centers. The focus of this project is aimed at those patients in inpatient, psychiatric hospital settings.

Purpose

The history of the origination of psychiatry and the treatment of psychiatric illness has been explored in an effort to relay how patients came to be housed together and contained in a unit for treatment. The treatment of the mentally ill has grown from a tradition where the mentally ill, largely a shunned population, were misunderstood and often chained to walls for containment to the development of the formal study of the brain and psyche; the field of psychiatry. What remains are the examinations of how psychiatric institutions are constructed and what influences, if any, are considered in creating the environment in which patients receive treatment.

Therefore, the purpose of this professional project is to conduct an integrative literature review of best practices regarding the physical structure of therapeutic environments in dayrooms for adult inpatient psychiatric settings. Patients are hospitalized for treatment of their psychiatric problems when they have become unmanageable on an outpatient basis. Medications and other therapies, such as group therapy, one-on-one therapy, play therapy, and art therapy, are introduced and available while the patients are hospitalized. The purpose of hospitalizing psychiatric patients is to stabilize their condition so they are able to return to their personal lives outside of the hospital and function in society. Patients may spend days, weeks, and even months on psychiatric units as they try to heal their mental illness. Much of their time is spent in communal areas where they may socialize and have meals. The purpose of this project is to explore the environment that the patients share while they are hospitalized and how this environment may play a conjunctive role along with pharmacologic and therapeutic healing modalities.

Definition of Terms

The following terms are defined to provide a consensus of meaning as they are used throughout the paper.

1. Adult: “Fully grown and developed” (Merriam-Webster, 2015). For the purposes of this paper, an adult is any human being who is 18 years of age or older, who would be placed in an adult psychiatric unit.

2. Dayroom: “A room (as in a hospital) equipped for relaxation and recreation”

(Merriam-Webster, 2015). “A room at an institution providing facilities for leisure activities” (dictionary.com 2015).

3. Environment: “The circumstances, objects, or conditions by which one is surrounded. The aggregate of social and cultural conditions that influence the life of an individual or community” (Merriam-Webster, 2015).

4. Heal: “To make sound or whole; to restore to health” (Merriam-Webster, 2015).

5. Healing environment: “Any circumstances that promote recovery from people in the direction of wholeness and healing” (Medical Dictionary, 2015).

6. Inpatient: “A patient who stays for one or more nights in a hospital for treatment. A hospital patient who receives lodging and food as well as treatment” (Merriam-Webster, 2015).

7. Psychiatric: “A branch of medicine that deals with mental, emotional, or behavioral disorders” (Merriam-Webster, 2015).

8. Therapeutic: “Of or relating to the treatment of disease by remedial agents or methods. Providing or assisting in a cure” (Merriam-Webster, 2015).

CHAPTER 2

THEORETICAL FRAMEWORK

The conceptual framework used for this integrative literature review is the updated methodology published by Whittemore and Knafl (2005). “For most integrative literature reviews conceptual structuring of the topic requires the author to adopt a guiding theory, a set of competing models, or a point of view about the topic” (Im & Chang, 2012, p. 632)

Whittemore & Knafl’s

Integrative Review Methodology

In the midst of the proliferation of various types of reviews that have surfaced in response to evidence-based practice initiatives (integrative reviews, systematic reviews, meta-analyses, and qualitative reviews), the integrative literature review emerges as one that “summarizes past empirical or theoretical literature to provide a more comprehensive understanding of a particular phenomenon or healthcare problem” (Broome, 1993, as cited in Whittemore & Knafl, 2005, p. 546). Integrative literature reviews have the advantage of being able to include experimental and non-experimental research in their broad approach to investigating a wide variety of areas. When these diverse methods are combined, there is concern that bias, inaccuracy, and a “lack of rigour” may prevail (Whittemore & Knafl, 2005). The framework offered by these authors is based on the work of H. Cooper done in 1998, which lays the firm groundwork for literature reviews

that tend to address only the systematic review or meta-analysis method. Whittemore & Knafl provide a modified version, which serves to include data collected from diverse sources in an effort to strengthen the rigor when these sources are combined (Whittemore & Knafl, 2005). "The integrated review, when based on the scientific rigor required for other research approaches, represents a resource for building knowledge in nursing and, given its nature, it may contribute to the development and accuracy of clinical practice and consequent interventions that result in patient safety" (Crosetti, 2012, p.13).

Five stages are identified in this methodological update: the problem-identification stage, the literature-search stage, the data-evaluation stage, the data-analysis stage, and the presentation stage. There are three sub-categories to the data-analysis stage: data reduction, data display, and data comparison. These are the modified areas that address the concerns of combining different types of research.

The problem-identification stage lays the foundation for the entire work. It is imperative that the problem is clearly identified and the purpose is well defined. "A well-specified research purpose in an integrative review will facilitate the ability to accurately operationalize variables and thus extract appropriate data from primary sources" (Whittemore & Knafl, 2005, p. 548). The purpose of this literature review is to explore the elements of best practices for therapeutic environments of psychiatric settings and the factors that influence them.

The literature search is the second stage of this methodology. It is essential that "well-defined literature search strategies" are employed to avoid the pitfalls of an incomplete search of databases (Whittemore & Knafl, 2005, p. 548). Initially, data will be

collected from computerized systems, which are excellent sources for information, but "inconsistent search terminology and indexing problems may yield only about 50% of eligible studies" (Whittemore & Knafl, 2005, p. 548). That is when other methods, such as "ancestry searches, journal hand searching, networking, and searching research registries," are helpful in the search for eligible studies that may have been missed during the electronic search of databases (Conn et al., 2003, as cited in Whittemore & Knafl, 2005, p. 548). In this integrative literature review these methods were not used due to their inaccessibility, but it is worth mentioning that they are possible approaches to be considered when conducting a literature review. All aspects of the search are carefully recorded and documented in the Method section of this paper including the search terms that are used, the databases used, and the inclusion and exclusion criteria that are chosen.

Following an exhaustive and all encompassing search of the literature, the third stage of this process begins: the evaluation of the data. At this juncture, the quality of the data collected is examined to determine its value in the study. Quality scores are assigned and, because there is no "gold standard" for calculating quality scores, this can be a complex process (Whittemore & Knafl, 2005). The "Rapid Critical Appraisal Checklists" developed by Melnyck & Fineout-Overholt (2015) will be applied to provide a uniform approach in assessing the quality of each primary study. The credentials of the writers will be determined through this process, verifying if they are experts in the field. For example the "General Appraisal Overview for All Studies" provides a template designed to assist the researcher in maintaining an accurate record of all of the articles found. Using this format, the researcher is able to record the general description of the study

including the purpose of the study, the design of the study, and the research question asked. There are seven "Rapid Critical Appraisal Checklists"; six that will be used for this integrative literature review and can be viewed in the Appendix. The "Rapid Critical Appraisal Checklist for Descriptive Studies" helps the reader screen the article briefly for validity, reliability, and applicability. The "Rapid Critical Appraisal of Evidenced-Based Practice Implementation or Quality Improvement Projects" asks the reader to rate the validity of evidence synthesis on a scale of 1-5 on 21 itemized points. The "Rapid Critical Appraisal Questions for Cohort Studies," the "Rapid Critical Appraisal Checklist for a Randomized Clinical Trial," the "Rapid Critical Appraisal of Systematic Reviews of Clinical Intervention/Treatments," and the "Rapid Critical Appraisal of Qualitative Evidence" all ask the same three questions to varying degrees: What were the results of the study or review? Were the results valid? Will the results help me in caring for my patients? This checklist system offers the reader the opportunity to quickly ascertain, using the checklist unique to the study indicated, whether or not the article or study meets the criteria and whether or not it will be of value to the integrative review.

The fourth stage of the integrative literature review is the analysis stage where the goal is to interpret the primary sources without bias and to synthesize this information as evidence (Whittemore & Knafl, 2005). This will be accomplished as the data is put into cohesive order, "coded, categorized, and summarized into a unified conclusion about the research problem" (Whittemore & Knafl, 2005, p. 550). It is imperative that a systematic analytic method be identified prior to undertaking the review as errors can occur easily in this stage due to the lack of development of systematic strategies for integrative reviews

(Whittemore & Knafl, 2005).

The presentation stage is the final stage of this updated methodology of the integrative literature review where the conclusions are drawn. The results of the examination can be displayed visually in a table or diagram so that the reader can appreciate the detailed evidence that was gathered from the primary sources and the process necessary to reach the logical conclusions provided. Implications for practice, research, and policy are explored in this stage as are the limitations of the methodology.

These five stages of the updated methodology serve to provide a highly systematic approach to the review, and provide a solid framework for the research. It is important that time is spent developing all of the stages of the literature review and that equal time is devoted to each stage. Diligence in this area will "strengthen the process and the outcomes of the integrative review" (Whittemore & Knafl, 2005, p. 552). When allowing for diverse data sources to be used, this systematic and rigorous approach reduces the opportunity for error and bias to obscure the results (Whittemore & Knafl, 2005). The anticipated, successful result is an integrated synthesis of literature that brings a fresh perspective and generates new frameworks for possible future exploration and study on the topic. In this manner, integrative reviews that are completed using these rigorous standards may impact the initiatives brought forward in the nursing aspect of the health care field (Whittemore & Knafl, 2005).

CHAPTER 3

METHODS

Overview

In this section, the literature review process will be clearly documented and include the search terms, the databases used, and inclusion and exclusion criteria that will be used to determine relevancy of sources. Since the literature is the "data" of the integrative literature review, it is imperative that the process for procuring it is described in detail (Toracco, 2005).

The librarian at Montana State University was consulted regarding the proper way to conduct a through literature review using the guidelines provided by the methodology of Whittemore and Knafl for integrative literature reviews. The author carefully reviewed a short tutorial and a conference call with the librarian was made: both parties worked from their respective computers and spoke on the phone in tandem. Search terminology and keywords were discussed and appropriate databases pertinent to the topic were reviewed as well as how to accurately record the findings for future reference. An evidence table revealing this content is available in the Appendix and provides pertinent information regarding search results. The reader will be able to quickly discern at a glance what type of article was reviewed, the source of the article, and how the material was organized.

Search Terms

Search terms related to the topic of therapeutic environments in inpatient dayroom settings included: "therapeutic environments in dayrooms in inpatient psychiatric settings," "dayrooms in psychiatric settings," "healing environments in inpatient psychiatric dayrooms," and "therapeutic environments in inpatient psychiatric dayrooms." These terms served as the basis of the search and were used in a variety of combinations to ensure that the optimum number of articles could be found.

Databases Searched

The four databases searched were the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medical Literature On-line (MEDLINE), PsycInfo, and The Cochrane Library. CINAHL is "the largest and most in-depth nursing research database for fields of nursing and allied health" covering biomedicine, health sciences librarianship, alternative/complementary medicine, consumer health, and 17 allied health disciplines (EBSCOhost, 2015). PsycInfo is a database produced by the American Psychological Association dating from the late 1800s until the present. This database contains literature based in psychology, behavioral sciences, and mental health (Melnyk & Fineout-Overholt, 2015). MEDLINE is the U.S. Library of Medicine's "premier bibliographic database that contains over 21 million references to journal articles in life sciences with a concentration on biomedicine" (NIH U.S. National Library of Medicine, 2015). The Cochrane Library is a collection of databases that contain "high-quality, independent evidence to inform healthcare decision-making and represent the highest

level of evidence on which to base clinical treatment decisions" (Cochrane Library, 2015).

Prior to our phone conference, the librarian suggested a general Google search and provided an example using the term "therapeutic healing environments in psychiatric settings" with a link attached. Specific directions for Google Scholar were given using the MSU library homepage.

Inclusion/Exclusion Criteria

Articles for consideration for this literature review were not limited to research studies, but the articles have been peer reviewed. Articles from all nations were considered and were required to be written in the English language. Only articles written from 2004 AD to the present were considered for inclusion.

The following approach was planned for judging the quality of the work as each article meeting the inclusion criteria is read completely: the study was not limited to reading abstracts only or staged reviews. The "Rapid Critical Appraisal Checklists" developed by Melnyck & Fineout-Overholt (2015) as described in Chapter 3 were applied at this time to provide a uniform approach in assessing the quality of each primary study.

CHAPTER FOUR

RESULTS AND DISCUSSION

Findings

CINAHL

Using the term "therapeutic environments of dayrooms in inpatient psychiatric settings," no results were found. The terms "healing environments in dayrooms in inpatient psychiatric setting," "healing environments in inpatient psychiatric settings," and "healing environments in psychiatric settings" produced no results in the search. The terms "therapeutic environments for psychiatric patients," "healing environments in psychiatric settings," and "healing environments in dayrooms" were searched and there were no results produced. Narrowing the search to the terms "therapeutic environments in psychiatric hospitals," "healing environments in psychiatric hospitals," and "dayrooms" also produced no resulting literature. The search was conducted a second time to check for accuracy using the same search terms and the search, again, yielded no results.

The databases MEDLINE and PsycInfo were then searched using the same procedure and search terms. Again, no results were found. This process was repeated to ensure for accuracy and to allow for any errors, but the report was, once again, "No results were found." The same outcome proved true for entries into the database Cochrane Library with the exception of the phrase "therapeutic environments in psychiatric hospitals." Nine hits resulted, but only one article pertained to the

organization of the environmental setting and did not address dayrooms in particular, thus it was excluded.

Initial Considerations

Following a thorough search in the four identified databases, no results were found meeting the inclusion and exclusion criteria specified. The lack of any information on the topic of therapeutic environments in dayrooms was initially (early in my search with the librarian) a surprise to me. This speaks possibly to my inexperience in the research process. As I investigated further into the field and continued to find no literature, I became concerned that I had made a mistake in choosing this area of research. I knew that to find no results was an acceptable outcome of an integrative literature review, but I began to feel apprehensive that I had chosen an area of study that was possibly too narrow. Could this really be true since dayrooms are such a significant room on the unit, if not a vital one? It is the common room of a unit where patients are allowed to congregate and socialize, if they desire. If centrally located, this room offers the patients a place to be other than their own room where they can observe other patients and the staff as they go about their day. Often patients can engage in games or play cards, which can promote socialization with other patients. Sometimes there will be a television in the dayroom, which may be the only one on the unit. Patients may gather to watch television and, in so doing, may take the opportunity to talk to one another and share common interests and feelings. “Recent research suggests that a wider range of relationships may contribute to fulfilling the need to belong. Indeed, people feel a greater sense of belonging, as well as increased positive affect, after simply having a social

interaction" (Ybarra, Burnstein, Winkieleman, Keller, Manis, Chan, & Rodriguez, 2008). With a room as important as a dayroom for patient interaction, which promotes positive feelings, it seems that the elements of this environment would warrant research. This points to a large gap in the literature, if not a gaping hole. There are articles written on therapeutic environments in hospitals, but none were found that addressed dayrooms in particular in psychiatric settings.

> Health Care Facilities are designed not only to support and facilitate state of-the-art medicine and technology, patient safety, and quality patient care, but to also embrace the patient, family, and caregivers in a psycho-socially supportive therapeutic environment. The characteristics of the physical environment in which a patient receives care affects patient outcomes, patient satisfaction, patient safety, staff efficiency, staff satisfaction, and organizational outcomes (Smith & Watkins, 2011, p.1).

A health-care environment is considered therapeutic when it "supports the clinical excellence in the treatment of the physical body and the psychosocial and spiritual needs of the patient, family, and staff" (Smith & Watkins, 2011, p. 1). Therapeutic environments in hospitals have also been proven to produce measurable positive effects on clinical outcomes and staff effectiveness (Smith & Watkins, 2011). Specifically, four key factors have been identified by healthcare architects, interior designers, and researchers that can measurably improve patient outcomes when they are applied to the healthcare environment:

- Reduce or eliminate environmental stressors
- Provide positive distractions
- Enable social support
- Give a sense of control (Smith & Watkins, 2011).

Based on these findings one could conclude that patients on an inpatient psychiatric unit who are provided with positive distractions and are given the opportunity to engage in social relationships where environmental stressors are eliminated would naturally feel a greater sense of control over their lives while they are confined in a psychiatric facility. This could promote a greater sense of well-being and improve mental health overall.

Recommendations for Research

With this kind of attention and research being afforded to the environments in hospitals, my hope is that new research would extend specifically to the dayroom on psychiatric inpatient units. Much thought and research goes into the safety of a psychiatric unit to keep the patients from harming themselves and each other, which limits how units are structured and the items that can be on a unit. It is understandable that considerations must be made regarding furniture, doorways, and accessory items in order to keep patients and staff safe. But how are the choices of wall color, window coverings, and fabric made? Is there scientific inquiry into how those choices are most beneficial to patients to promote improved mental health? As long ago as 1859 Florence Nightingale took notice of the importance of the environment in her book *Notes on Nursing*. She wrote volumes on the importance of clean air and exposure to sunlight in restoring a patient to health, but she also had keen observations about other aspects of their environment.

> The effect in sickness of beautiful objects, of variety of objects, and especially of brilliance of colour is hardly at all appreciated. People say the effect is only on the mind. It is no such thing. The effect is on the

> body, too. Little as we know about the way in which we are affected by form, by colour, and by light, we do know this, that they have an actual, physical effect. Variety of form and brilliancy of colour in the objects presented to patients are an actual means of recovery. (Nightingale, 1946, p. 59).

Florence Nightingale was formally educated in mathematics and statistics, but, based on these observations, her talents went much deeper. She recognized the importance of exposing patients to light, preferably natural light, for the purposes of hastening their recovery. She always made sure to place the bed in a room near a window. "The cheerfulness of a room, the usefulness of light in treating disease is all-important" (Nightingale, 1946, p. 85). Recent research supports the benefits of light, especially natural light for patients. "Several studies strongly support that bright light—both natural and artificial—can improve health outcomes such as depression, agitation, sleep, circadian rest-activity rhythms, as well as length of stay in demented patients and persons with seasonal affective disorders" (Ulrich, Xiaobo, Zimring, & Joseph, 2004, p. 20).

As stated at the beginning of this paper, my interest in this project began while I was a staff nurse on an emergency psychiatric unit that had a large, sparsely furnished dayroom. After completing this research, I have a heightened awareness of all dayrooms on a psychiatric inpatient unit. It has often felt like psychiatric patients are a forgotten population and are often overlooked by the general public. During my tenure working in hospitals, it was apparent that doctors and nurses not trained or interested in the field of psychiatry preferred to overlook mental health patients and their specific needs. It should then come as no surprise that there is no published

literature on the topic that fits within the parameters of my criteria. This suggests a field that is wide open for many future research projects investigating the environments of dayrooms and the components that may be therapeutic.

During my research on the topic of dayrooms, I discovered several articles written between 1966 and 1990 on the benefits of light and nature on hospitalized patients. My years spent enclosed in a windowless, locked unit often created feelings of claustrophobia, which could be easily mediated by taking a break outdoors if time and staffing allowed. Short of that, I was free to leave at the end of my shift; unlike the patients who were acutely aware that they were confined to the premises. They would often complain about being cooped up inside, especially those patients who stayed longer than a few days. They would begin to pace the halls and their anxiety levels increased. These patients longed to be outside, to see the sky and breathe some fresh air, but the logistics and safety of this notion made it an impossible option.

Role of Advance Practice Nurse

In my role as an advance practice registered nurse (APRN), I would like to explore ways to make it possible for patients to experience some time out in nature. I would aspire to emulate Florence Nightingale, not take "no" for an answer, and look beyond the impediments that keep this from becoming a reality. "I attribute my success to this: I never gave or took an excuse" (Nightingale, as cited on Goodreads.com, 2015). I anticipate resistance to change from management similar to that of a young "pre-doctoral intern" in one of the articles I read on this subject. As she was gradually discovering the limitations of décor on a mental health unit, she

mused, “Perhaps I was naïve to think that healing was the intention; but on the ward, I find only its absence. The hospital functions as a holding cell for people not safe on the streets and not safe in jail” (Borofsky, 2012). She was disappointed to find the limitations of items that are allowed onto a locked psychiatric ward. “Administration looks at everything as a possible weapon of self or mass destruction. No curtains. No jewelry. No art. No glass. And, I learn, no flowers, no plants, no nature” (Borofsky, 2012). She found research on “an intuitive link between nature and mental health” (Borofsy, 2012). In her efforts to make modifications her ideas fell on deaf ears and supervisors who did not want to be bothered by her revolutionary ideas of change. She found a study that she wanted to replicate on her unit, but was met with “smiles and nods” at a team meeting and the study never materialized (Borofsky, 2012). As an APRN I hope that I would fare better than she did and gain permission to conduct research on improving the environments of inpatient psychiatric units. It is difficult to bring about change in an atmosphere of resistance and where there is a solid desire is to keep things as they are. I perceive my role to initially be that of a researcher into the therapeutic environments in dayrooms. This integrative literature review revealed paucity in the research, which strongly suggests a great need for investigation into this area. The key role for an APRN in these circumstances is to research the evidence-based, innovative ideas that bring about better patient outcomes and increase staff morale.

Several hospitals are incorporating ideas of using space in a completely different manner than has been used in the past when constructing new hospital

buildings (Ulrich et al., 2004). These changes incorporate the research that focuses on the positive affects of light and nature on patients and recovery in hospitals. The type of suggested interventions address the construction of new buildings, and require that the stakeholders and designers consider therapeutic influences in the architecture.

Innovative Solutions

Examples of less expensive undertakings and temporary solutions that could be installed instead of rebuilding a hospital are the products of the innovative company Sky Factory. “Sky Factory eScape” is a digital cinema virtual window that brings the beauty of nature to interior environments by way of image, motion, and sound. It is a “wall-mounted commercial-grade LED LCD screen embedded in a full-size casement window to produce a highly technological illusion of nature content” (Sky Factory, 2015). Each eScape features 8 to16 hours of footage with the scenes changing each hour providing hours of uninterrupted scenic views of pristine nature. This is a feature that could be mounted in a dayroom and by which patients could go to meditate and calm themselves simply by looking through this virtual “window.” This produces a setting with the potential for the conduction of research calculating the effects of this addition to a dayroom.

Another offering from Sky Factory is their Luminous SkyCeilings™, which are virtual skylights: “photographic illusions of real sky views that trigger beneficial relaxation responses for mind and body” (Sky Factory, 2015). They are modular and can be designed to any rectangular shape, or arrangement of shapes, defined by the

suspended ceiling grid. Luminous SkyCeilings™ can be scaled from a single 2'x2' square to as large as desired (Sky Factory, 2015).

These are just a couple of examples of innovative solutions that could be added to a dayroom to improve the environment and enhance the setting. Comprehensive remodels or newly constructed hospitals are often too costly for consideration when trying to incorporate the therapeutic elements of nature into the design. Products such as those designed by Sky Factory are not only affordable for most budgets, but they fit within the parameters of safety, which is one of the top priorities considered when addressing the environment of the psychiatric inpatient unit.

Limitations

Since this was my first attempt at conducting a major project of this type, this work is limited by my lack of experience. Being a novice may have impacted the depth and breadth of my intended search for literature. Some limitations of this integrative literature review became evident as solutions to enhancing the environments of dayrooms were realized. The introduction of the products of Sky Factory indicated that there must have been some research conducted to support the initial concepts of this company. Before launching the extensive product line of Sky Factory, multiple studies and research into the need for these items, as well as their positive influences, were most likely piloted. This points to a failure of this review to look beyond the four chosen databases for research that may have been conducted in other fields, such as architecture and design.

These are areas that would possibly yield information regarding dayrooms and perhaps address the content and quality of their environments. Articles addressing the topics of light and design for future construction were revealed in this integrative literature review in the search for therapeutic environments in dayrooms. The subject of design was suggested with the discussion of innovative ideas bringing about better patient outcomes while hospitalized (Ulrich et al., 2004). This information could have led to an investigation of databases featuring design and architecture and possibly led to literature that was valuable to the purpose of this study.

Although the initial search was very focused and yielded no results specific to the topic of dayrooms, it became apparent later on that a broader search and a different approach may have generated a variety of results. Not selecting a specific database and, instead, applying search terms to the "search box" at the MSU online library produced multiple articles on design and architecture. For instance, when the term "healing spaces" was entered into the search box, an article from *The Journal of Science and Healing* emerged.

> The architects, designers, and administrators have systematically studied and implemented the elements of what is evidenced to create such healing space—one that reduces stress and anxiety, promotes health and healing, and, importantly, improves patient and employee safety and contributes to cost savings. (Ananth, 2008, p. 392).

This article clearly illustrates the questions that hospital executives must ask themselves: *How does the built environment impact healing?* and *Why should hospitals and healthcare organizations consider this in designing their facilities?* (Ananth, 2008). These are significant questions to consider when designing space for mental health units

and for dayrooms in particular. If healing is the intention of hospitalization, constructing the environment to promote healing is a vital consideration. Since it has been previously discussed that dayrooms are an important and fundamental area of inpatient psychiatric units, it is reasonable to conclude that their construction and furnishings are critical areas of concern for those mental health patients who are in the recovery process during hospitalization. These considerations would explore the therapeutic elements that factor into the decisions into the design of dayrooms.

This same article on healing spaces further explores the benefits of architecture that extends beyond the safety and comfort of patients.

> It has been found that music, aroma, and access to nature can alleviate stress for patients, families, and staff. Hospitals are increasingly providing access to green spaces or gardens, which have been proven to reduce stress. Even viewing nature and trees has been shown to reduce hospital length of stay and result in fewer medications for patients. (Ananth, 2008, p.393).

These elements are significant to the mental health population, which often experiences stress as a major mitigating factor in their illness. Adapting these principles in the discussions for the design of a dayroom on a psychiatric unit, potentially, would greatly benefit the impact of their therapeutic effects.

Music is another intervention that has been found to alleviate pain, elevate mood, counteract depression, lessen muscle tension, and have a calming and sedating effect, which is found to be beneficial in promoting rest and sleep (Ananth, 2008). Based on this research, it can be deduced that the addition of music to a dayroom environment would add to its therapeutic significance and provide an added healing modality. This is another example of how research into the area of architecture and design can greatly influence the

results that may be obtained during a search for literature on the subject of therapeutic dayrooms.

This expanded search yielded a review of a book about the "science of place and well-being" that examines how space affects both mental and physical health (Sternberg, 2009). The author, a researcher from the National Institute of Health, chronicles research on the neural pathways that connect our sensory perception of our environment with our ability to heal (Sternberg, 2009). She examines from the neuro-scientific perspective why hospital patients whose window opens to a grove of trees require less pain medication than patients without a window. Incorporating light and nature into the design of hospitals and how this promotes health and reduces stress are also examined. These concepts might also be adapted to the environments of dayrooms in inpatient psychiatric settings and provide valuable information for what might make that environment therapeutic.

Another article investigating the impact of environmental design on health recognizes that architecture schools "rarely teach students in elements of design that promote healing" and that the main concern of hospitals is to deliver care in the most efficient way possible (Schweitzer, Gilpin, & Frampton, 2004). In recent years, hospitals have started to consider how an institutionalized environment, which can be noisy and cluttered, may impact the physical or psychological well-being of a patient in detrimental ways. In this article, the authors examine, among many other features, ways that buildings can be designed to "encourage social connectedness," which fittingly applies to the environment of a dayroom. "Furniture arrangements have been shown to have an

effect on social interactions" (Schweitzer et al., 2004). The knowledge that furniture arrangements have an impact on socialization is critical to the elements that may or may not make a dayroom, which is social in nature, a therapeutic environment.

These are just a few examples of research that was discovered when a different strategy was applied to the literature search. Although no articles surfaced that addressed dayrooms in particular, there is a great deal of literature available that reports on the construction and design of hospitals and how that can impact how patients feel and act and, eventually, on their outcome.

Summary

This project was intended to explore the literature on best practices for physical structuring of dayrooms in adult, inpatient psychiatric settings. After a specific and criteria-based search was conducted, no evidence was yielded to describe those practices. Because dayrooms are an integral aspect of adult, inpatient, mental health care in contemporary times, it is noteworthy that no literature was found on the topic. Future recommendations demand that we build a more solid evidence base on what best practices should be because of the implications on fiscal and patient well-being.

REFERENCES

Ananth, S. (2008). Building healing spaces. *The Journal of Science and Healing*. 4(6), pp. 392-393. doi:10.1016/jexplore.2008.09.007

Borofsky, A. (2012). No flowers on the psych ward. The Atlantic. Retrieved from http://www.theatlantic.com/health/archive/2012/11/no-flowers-on-the-psych-ward/264923/

Cochrane Library (2015). Retrieved from cochranelibrary.com

Crosetti, M. (2012). Integrative review of nursing research: Scientific rigor required. *Revista Gaúcha de Enfermagem*. 33(2), pp. 12-13.

D'Antonia, P. (2014). History of psychiatric hospitals. *Penn Nursing Science, University of Pennsylvania School of Nursing*. Retrieved from http://www.nursing.upenn.edu/nhhc/Pages/HistoryofPsychiatricHospitals.aspx

Dictionary.com (2015). Retrieved from http://dictionary.reference.com/browse/dayroom

EBSCOhost (2015). Nursing resources from EBSCO health. *CINAHL Databases.* Retrieved from ebscohost.com

Foerschner, A. (2010). The history of mental illness: From "skull drills" to "happy pills". *Student Pulse: The International Student Journal*. 2(09) pp. 1-4. Retrieved from http://www.studentpulse.com/articles/283/the-history-of-mental-illness-from-skull-drills-to-happy-pills

Gold, J. (2011). Mentally ill languish in hospital emergency rooms. *Kaiser Health News*. Retrieved from http://www.npr.org/2011/04/13/135351760/mentally-ill-languish-in-hospital-emergency-rooms

Goodreads (2015). Florence Nightingale citation. Retrieved from goodreads.com

Im, E., & Chang, S. (2012). A systematic integrated literature review of systematic integrated literature reviews in nursing. *Journal of Nursing Education*. 51(11) pp. 632-640. doi: 10.3928/01484834-20120914-02.

Kleban, G. (2012). History of psychiatry. Retrieved from ezinearticles.com/?History-of-Psychiatry&id=717567

Mahoney, J., Palyo, N., Napier, G., & Giordano, J. (2009). The therapeutic milieu reconceptualized for the 21st century. *Archives of Psychiatric Nursing*, 23(6), 423-429. doi:10.1016/j.apnu.2009.003.00

Medical Dictionary. (2015). Retrieved March 1, 2015 from http://medical-dictionary.thefreedictionary.com/healing+environment

Melnyk, B. M., & Fineout-Overholt, E. (2015). Evidence-based practice in nursing & healthcare: A guide to best practice. Wolters Kluwer (3rd ed.). Philadelphia, PA.

Merriam-Webster Dictionary. (2015). Retrieved March 1, 2015, from http://www.merriam-webster.com/dictionary.

Nightingale, F. (1946). Notes on nursing: What it is and what it is not. New York: D-Appleton Century Company. (Original work published in 1860.)

NIH U.S. National Library of Medicine (2015). MEDLIN/PubMed resources guide. Retrieved from http://www.nlm.nih.gov/bsd/pmresources.html

North Carolina Division of Health Services Regulation (2015). Retrieved from ncdhs.gov

Phoenix, B. J. (2013). Expanding the concept of safety in psychiatric inpatient units to create healing environments. *Journal of The American Psychiatric Nurses Association*, 19(5), 304-305. doi:10.1177/1078390313505203

Schweitzer, M., Gilpin, L., & Frampton, S. (2004). Healing spaces: Elements of environmental design that make an impact on health. *The Journal of Alternative and Complementary Medicine.* 10(1), pp. 71-83.

Shorter, E. (1998). The birth of psychiatry. A History of Psychiatry: From the Era of the Asylum to the Age of Prozac. John Wiley & Sons: New York

Sky Factory. (2015). Retrieved from http://www.skyfactory.com/products/eScape/#es20524

Smith, R., & Watkins, N. (2011). Therapeutic environments. *AIA Academy of Architecture for Health*. Retrieved from wbdg.com.

Sternberg, E. M. (2009). Healing spaces: The science of place and well-being. The Belknap Press of Harvard University Press: Cambridge. ISBN 978-0-674-03336-8

Toracco, R. J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development and Review* 4(3), pp. 356-367. Sage Publications. doi: 10.1177/1534484305278283

Ulrich, R., Xiaobo, Q., Zimring, C., & Joseph, A. (2004). The role of the physical environment in the hospital of the 21st century: A once-in-a-lifetime opportunity. *The Center for Health Design for the Designing the 21st Century Hospital Project*. pp. 1-69. Retrieved from http://www.healthdesign.org

Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing*, 52(5), 546-553.

Witherspoon, B., & Witherspoon, S. (2015). Human spaces: Beyond positive distraction. Retrieved from http://www.skyfactory.com/products/eScape/#es20524

Ybarra, O., Burnstein, E., Winkieleman, P., Keller, M., Manis, M., Chan, E., & Rodriguez, J. (2008). Mental exercising through simple socializing: Social interaction promotes general cognitive functioning. *Personality and Social Psychology Bulletin*. 34(2) pp. 248-259. doi: 10.1177/0146167207310454

APPENDIX A

RAPID CRITICAL APPRAISAL CHECKLISTS

General Appraisal Overview for All Studies

Date: **Reviewer(s) Name(s):**

Article Citation (APA):

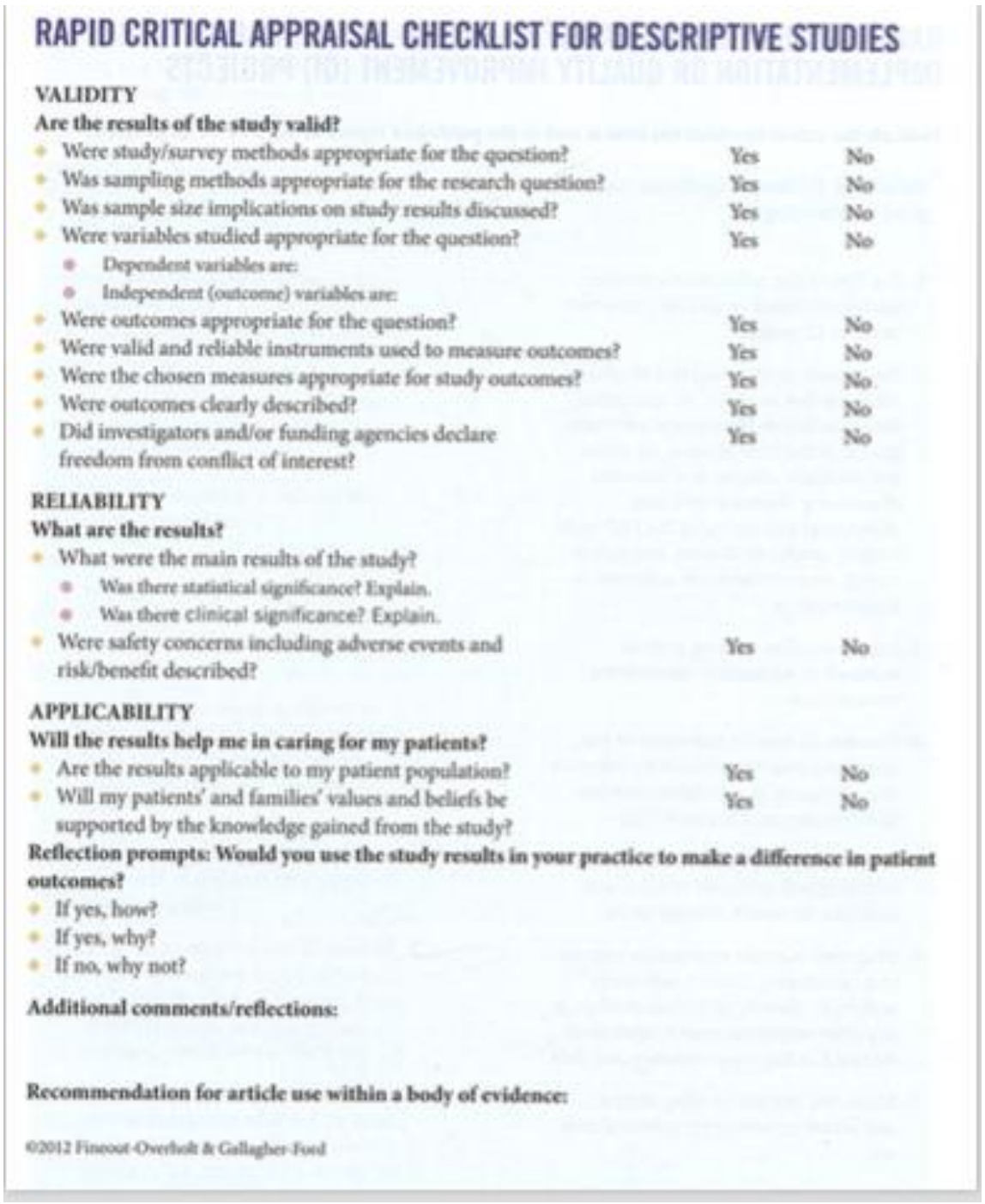
PICOT Question:

General Description of Study

Overview of Study

- **Purpose of study:**
- **Study design:**
- **Research question(s) or hypotheses:**
- **Study aims:**
- **Sampling technique, sample size, and characteristics:**
- **Major variables studies:**
  - **Independent variable:**
  - **Dependent (outcome) variable(s):**
- **Statistical analysis (include whether appropriate to answer research questions/hypothesis):**

All scanned pages in this Appendix are reprinted with permission for educational purposes by Melnyk & Fineout-Overholt.



RAPID CRITICAL APPRAISAL CHECKLIST FOR DESCRIPTIVE STUDIES

VALIDITY

Are the results of the study valid?

- Were study/survey methods appropriate for the question? Yes No
- Was sampling methods appropriate for the research question? Yes No
- Was sample size implications on study results discussed? Yes No
- Were variables studied appropriate for the question? Yes No
  - Dependent variables are:
  - Independent (outcome) variables are:
- Were outcomes appropriate for the question? Yes No
- Were valid and reliable instruments used to measure outcomes? Yes No
- Were the chosen measures appropriate for study outcomes? Yes No
- Were outcomes clearly described? Yes No
- Did investigators and/or funding agencies declare freedom from conflict of interest? Yes No

RELIABILITY

What are the results?

- What were the main results of the study?
  - Was there statistical significance? Explain.
  - Was there clinical significance? Explain.
- Were safety concerns including adverse events and risk/benefit described? Yes No

APPLICABILITY

Will the results help me in caring for my patients?

- Are the results applicable to my patient population? Yes No
- Will my patients' and families' values and beliefs be supported by the knowledge gained from the study? Yes No

Reflection prompts: Would you use the study results in your practice to make a difference in patient outcomes?

- If yes, how?
- If yes, why?
- If no, why not?

Additional comments/reflections:

Recommendation for article use within a body of evidence:

Reprinted with permission for educational purposes by Melnyk & Fineout-Overholt.

RAPID CRITICAL APPRAISAL OF EVIDENCE-BASED PRACTICE (EBP) IMPLEMENTATION OR QUALITY IMPROVEMENT (QI) PROJECTS

Indicate the extent to which the item is met in the published report of the EBP or QI project.

Validity of Evidence Synthesis (i.e., good methodology)	1 No	2 A Little	3 Somewhat	4 Quite a Bit	5 Very Much
1. The title of the publication identifies the report/project as an EBP implementation or QI project					
2. The project report provides a structured summary that includes, as applicable: data to establish the existent and background of the clinical issue, inclusion and exclusion criteria, and source(s) of evidence, evidence synthesis, objective(s) and setting of the EBP or QI project, project limitations, results/outcomes, recommendations and implications for policy					
3. Report includes existing internal evidence to adequately describe the clinical issue					
4. Provides an explicit statement of the question being addressed with reference to participants or population/intervention/comparison/outcome (PICO)					
5. Explicitly describes the search method, inclusion and exclusion criteria, and rationale for search strategy limits					
6. Describes multiple information sources (e.g., databases, contact with study authors to identify additional studies, or any other additional search strategies) included in the search strategy and date					
7. States the process for title, abstract, and article screening for selecting studies					
8. Describes the method of data extraction (e.g., independently or process for validating data from multiple reviewers)					
9. Includes conceptual and operational definitions for all variables for which data were abstracted (e.g., define blood pressure as systolic blood pressure, diastolic blood pressure, ambulatory blood pressure, automatic cuff blood pressure, or arterial blood pressure)					

10. Describes methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level)					
11. States the principal summary measures (e.g., risk ratio, difference in means)					
12. Describes the method of combining results of studies including quality, quantity, and consistency of evidence					
13. Specifies assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies)					
14. Describes appraisal procedure and conflict resolution					
15. Provides number of studies screened, assessed for eligibility, and included in the review, with reasons for exclusion at each stage, ideally with a flow diagram					
16. For each study, presents characteristics for which data were extracted (e.g., study size, design, method, follow-up period) and provides citations					
17. Presents data on risk of bias of each study and, if available, any outcome-level assessment					
18. For all outcomes considered (benefit or harms), includes a table with summary data for each intervention group, effect estimates, and confidence intervals, ideally with a forest plot					
19. Summarizes the main findings including the strength of evidence for each main outcome; considering their relevance to key groups (i.e., healthcare providers, users, and policy makers)					
20. Discusses limitations at study and outcome levels (e.g., risk of bias) and at review level (e.g., incomplete retrieval of identified research, reporting bias)					
21. Provides a general interpretation of the results in the context of other evidence and implications for further research, practice, or policy changes					

RAPID CRITICAL APPRAISAL QUESTIONS FOR COHORT STUDIES

1. Are the results of the study valid?			
a. Was there a representative and well-defined sample of patients at a similar point in the course of the disease?	Yes	No	Unknown
b. Was follow-up sufficiently long and complete?	Yes	No	Unknown
c. Were objective and unbiased outcome criteria used?	Yes	No	Unknown
d. Did the analysis adjust for important prognostic risk factors and confounding variables?	Yes	No	Unknown
2. What are the results?			
a. What is the magnitude of the relationship between predictors (i.e., prognostic indicators) and targeted outcome?	_____		
b. How likely is the outcome event(s) in a specified period of time?	_____		
c. How precise are the study estimates?	_____		
3. Will the results help me in caring for my patients?			
a. Were the study patients similar to my own?	Yes	No	Unknown
b. Will the results lead directly to selecting or avoiding therapy?	Yes	No	Unknown
c. Are the results useful for reassuring or counseling patients?	Yes	No	Unknown

Validity of Implementation (i.e., well-done project)					
1. Purpose of project flows from evidence synthesis					
2. Stakeholders (active and passive) are identified and communication with them is described					
3. Implementation protocol is congruent with evidence synthesis (fidelity of the intervention)					
4. Implementation protocol is sufficiently detailed to provide for replication among project participants					
5. Education of project participants and other stakeholders is clearly described					
6. Outcomes are measured with measures supported in the evidence synthesis					
Reliability of Implementation Project (i.e., I can learn from or implement project results)					
1. Data are collected with sufficient rigor to be reliable for like groups to those participants of the project					
2. Results of evidence implementation are clinically meaningful (statistics are interpreted as such)					
Application of Implementation (i.e., this project is useful for my patients)					
1. How feasible is the project protocol?					
2. Have the project managers considered/ included all outcomes that are important to my work?					
3. Is implementing the project safe (i.e., low risk of harm)?					
Summary Score					

Recommendations with consideration of this type of level IV intervention evidence:
32–64: consider evidence with extreme caution
65–128: consider evidence with caution
128–160: consider evidence with confidence

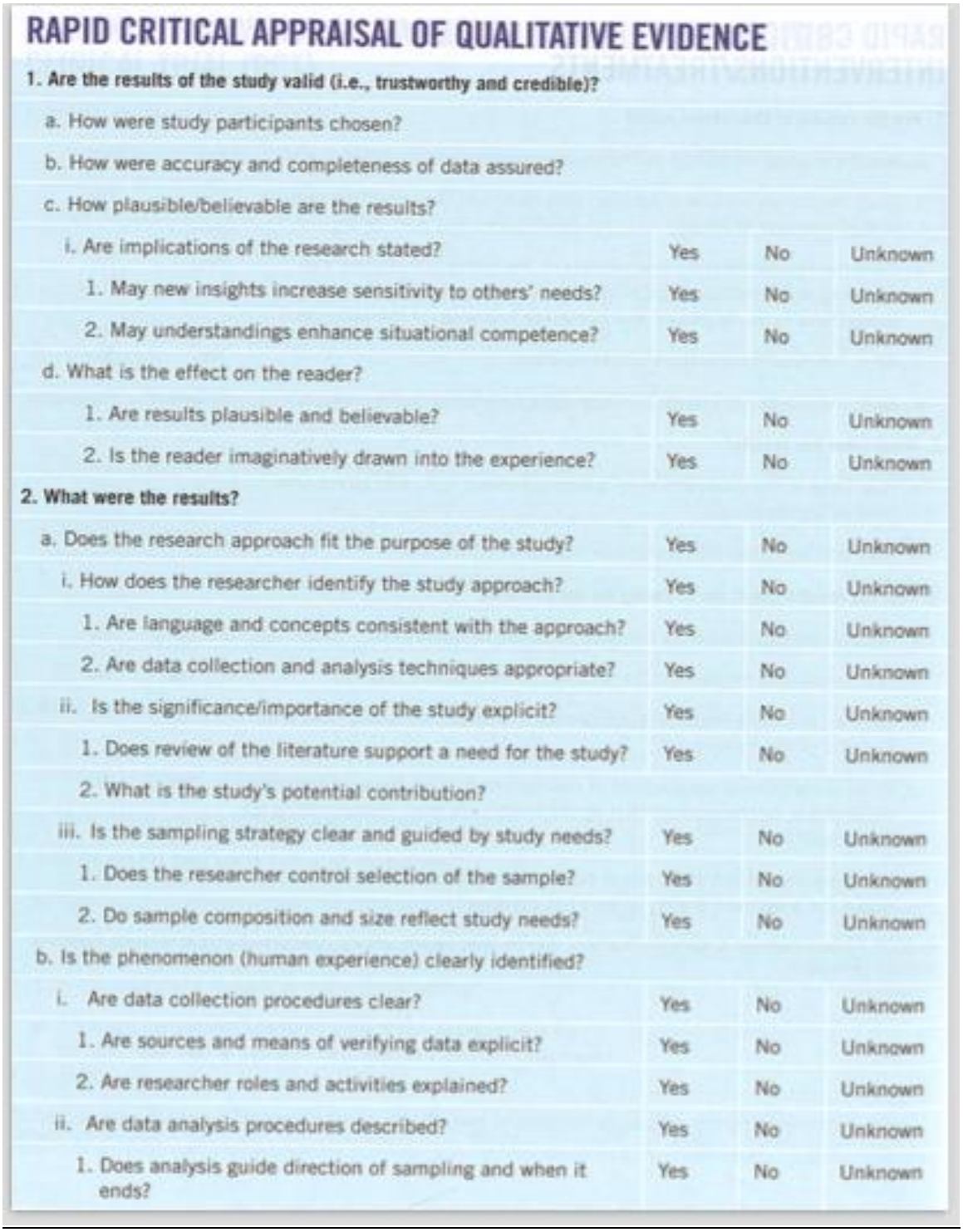
RAPID CRITICAL APPRAISAL CHECKLIST FOR A RANDOMIZED CLINICAL TRIAL (RCT)

1. Are the results of the study valid?			
a. Were the subjects randomly assigned to the experimental and control groups?	Yes	No	Unknown
b. Was random assignment concealed from the individuals who were first enrolling subjects into the study?	Yes	No	Unknown
c. Were the subjects and providers blind to the study group?	Yes	No	Unknown
d. Were reasons given to explain why subjects did not complete the study?	Yes	No	Unknown
e. Were the follow-up assessments conducted long enough to fully study the effects of the intervention?	Yes	No	Unknown
f. Were the subjects analyzed in the group to which they were randomly assigned?	Yes	No	Unknown
g. Was the control group appropriate?	Yes	No	Unknown
h. Were the instruments used to measure the outcomes valid and reliable?	Yes	No	Unknown
i. Were the subjects in each of the groups similar on demographic and baseline clinical variables?	Yes	No	Unknown
2. What are the results?			
a. How large is the intervention or treatment effect (NNT, NNH, effect size, level of significance)?	_____		
b. How precise is the intervention or treatment (CI)?	_____		
3. Will the results help me in caring for my patients?			
a. Were all clinically important outcomes measured?	Yes	No	Unknown
b. What are the risks and benefits of the treatment?	_____		
c. Is the treatment feasible in my clinical setting?	Yes	No	Unknown
d. What are my patient's/family's values and expectations for the outcome that is trying to be prevented and the treatment itself?	_____		

Reprinted with permission for educational purposes by Melnyk & Fineout-Overholt.

RAPID CRITICAL APPRAISAL OF SYSTEMATIC REVIEWS OF CLINICAL INTERVENTIONS/TREATMENTS

1. Are the results of the review valid?		
a. Are the studies contained in the review randomized controlled trials?	Yes	No
b. Does the review include a detailed description of the search strategy to find all relevant studies?	Yes	No
c. Does the review describe how validity of the individual studies was assessed (e.g., methodological quality, including the use of random assignment to study groups and complete follow-up of the subjects)?	Yes	No
d. Were the results consistent across studies?	Yes	No
e. Were individual patient data or aggregate data used in the analysis?	Individual	Aggregate
2. What were the results?		
a. How large is the intervention or treatment effect (OR, RR, effect size, level of significance)?	_____	
b. How precise is the intervention or treatment (CI)?	_____	
3. Will the results assist me in caring for my patients?		
a. Are my patients similar to the ones included in the review?	Yes	No
b. Is it feasible to implement the findings in my practice setting?	Yes	No
c. Were all clinically important outcomes considered, including risks and benefits of the treatment?	Yes	No
d. What is my clinical assessment of the patient and are there any contraindications or circumstances that would inhibit me from implementing the treatment?	Yes	No
e. What are my patient's and his or her family's preferences and values about the treatment that is under consideration?	Yes	No



RAPID CRITICAL APPRAISAL OF QUALITATIVE EVIDENCE

1. Are the results of the study valid (i.e., trustworthy and credible)?			
a. How were study participants chosen?			
b. How were accuracy and completeness of data assured?			
c. How plausible/believable are the results?			
i. Are implications of the research stated?	Yes	No	Unknown
1. May new insights increase sensitivity to others' needs?	Yes	No	Unknown
2. May understandings enhance situational competence?	Yes	No	Unknown
d. What is the effect on the reader?			
1. Are results plausible and believable?	Yes	No	Unknown
2. Is the reader imaginatively drawn into the experience?	Yes	No	Unknown
2. What were the results?			
a. Does the research approach fit the purpose of the study?	Yes	No	Unknown
i. How does the researcher identify the study approach?	Yes	No	Unknown
1. Are language and concepts consistent with the approach?	Yes	No	Unknown
2. Are data collection and analysis techniques appropriate?	Yes	No	Unknown
ii. Is the significance/importance of the study explicit?	Yes	No	Unknown
1. Does review of the literature support a need for the study?	Yes	No	Unknown
2. What is the study's potential contribution?			
iii. Is the sampling strategy clear and guided by study needs?	Yes	No	Unknown
1. Does the researcher control selection of the sample?	Yes	No	Unknown
2. Do sample composition and size reflect study needs?	Yes	No	Unknown
b. Is the phenomenon (human experience) clearly identified?			
i. Are data collection procedures clear?	Yes	No	Unknown
1. Are sources and means of verifying data explicit?	Yes	No	Unknown
2. Are researcher roles and activities explained?	Yes	No	Unknown
ii. Are data analysis procedures described?	Yes	No	Unknown
1. Does analysis guide direction of sampling and when it ends?	Yes	No	Unknown

Reprinted with permission for educational purposes by Melnyk & Fineout-Overholt.

2. Are data management processes described?	Yes	No	Unknown
c. What are the reported results (description or interpretation)?			
i. How are specific findings presented?			
1. Is presentation logical, consistent, and easy to follow?	Yes	No	Unknown
2. Do quotes fit the findings they are intended to illustrate?	Yes	No	Unknown
ii. How are overall results presented?			
1. Are meanings derived from data described in context?	Yes	No	Unknown
2. Does the writing effectively promote understanding?	Yes	No	Unknown
3. Will the results help me in caring for my patients?			
a. Are the results relevant to persons in similar situations?	Yes	No	Unknown
b. Are the results relevant to patient values and/or circumstances?	Yes	No	Unknown
c. How may the results be applied in clinical practice?			