THE EFFECTIVENESS OF MENTAL HEALTH DISORDER STIGMA-REDUCING INTERVENTIONS IN THE HEALTHCARE SETTING:
AN INTEGRATIVE REVIEW

A Scholarly Project
Submitted to the
Faculty of Liberty University
In partial fulfillment of
The requirements for the degree of
Doctor of Nursing Practice

By

Catherine Raj, MSN, RN, CRRN

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ABSTRACT

Healthcare facilities are one of the key environments in which individuals with mental health disorders present for medical treatment. However, the stigmatization of individuals with mental health disorders is prevalent in the healthcare setting across the globe. Stigmatizing attitudes remain widespread among healthcare professionals who are responsible for delivering patient-centered, quality care. Stigma in the healthcare setting can undermine effective diagnosis, therapy, and optimum health outcomes. Addressing stigma is critical to delivering quality health care in both developed and developing countries. Therefore, it is important to deliver successful anti-stigma education, along with practical strategies, to reduce the stigma of mental health disorders among healthcare professionals. An integrative review was conducted to identify the effectiveness of various interventions used globally to reduce the stigma of mental health disorders in the healthcare setting.

Keywords: Mental illness, mental health disorders, stigmatizing attitude, anti-stigma education, reducing stigma, healthcare professionals.
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List of Abbreviations

Evidence-Based Practice (EBP)
Healthcare Professionals (HCPs)
Level of Evidence (LOE)
Mental Health Disorders (MHDs)
Mental Illness (MI)
United States of America (U.S.)
SECTION ONE: INTRODUCTION

Mental health disorder (MHD) is a widespread epidemic affecting millions of individuals in the United States (NIMH, 2019). Multiple studies have shown that people with MHDs have increased morbidity and mortality compared to the general population (Nordentoft et al., 2013; Wahlbeck, Westman, Nordentoft, Gissler, & Laursen, 2011). The World Health Organization estimates for the year 2020, about 1.53 million individuals will die from suicide, which is one death every 20 seconds (WHO, 2020). A substantial percentage of these individuals suffer from chronic MHDs (Bachmann, 2018; WHO, 2020). This unabated epidemic, which continues to increase, is hitting the healthcare organizations exceptionally hard. For the purpose of this integrative review, the phrase ‘healthcare professionals’ refers to those with existing healthcare degrees and those pursuing a career in health care.

Background

The prevalence of MHDs is increasing rapidly in the U.S. One in 25 Americans live with a MHD, such as schizophrenia, bipolar disorder, or major depression disorder (CDC, 2018; NAMI, 2019). In 2018, one in five Americans aged 18 or older, or an estimated 47.6 million adults, were diagnosed with a MHD (NAMI, 2019; SANHSA, 2016). It is predicted that more than 50% of peoples in the United States will be diagnosed with a MHD at some point of their lives (CDC, 2018). Recent data indicates a substantial spike of patients presenting to healthcare settings for the chief complain of MHDs (Tucci, Siever, Matorin, & Moukaddam, 2015; Zun, 2017), and the healthcare setting is often the initial point of contact for individuals suffering from MHDs (Khenti, Bobbili, & Sapag, 2019). In addition, uninsured individuals with MHDs choose the emergency departments for treatment knowing that, by law, they cannot be rejected based on their insurance status (Joint Commission, 2015). However, despite this increase and a need for
treatment, stigmatization of MHD patients by healthcare professionals (HCPs) have become a public health issue (Knaak, Mantler, & Szeto, 2017).

A recent study by Del Olmo-Romero et al. (2019) reports individuals who use mental-health services expressed feeling demeaned and discriminated by HCPs. Stigma towards patients with MHDs emasculates the quality of patient-centered care (Schmitt, Branscombe, Postmes & Garcia, 2014) and adds to a disparity in life expectancy (Henderson et al., 2014). Stigmatization experienced by individuals also causes concealment of symptoms, which can lead to further rage, anxiety, verbal outbursts, and increased suicidal ideation. This, in turn, can decrease the likelihood that the stigmatized patient would ever seek social and/or medical support (Chaudoir & Fisher, 2010; Major & Gramzow, 1999). In response to these issues, measures are being taken locally and internationally to decrease stigma and prejudice faced by individuals who are diagnosed with a MHD.

**Problem Statement**

Mental health disorders have become a leading global disease and one of the five most expensive health-care costs, which substantially impacts the global economy (Prochaska et al. 2014). For centuries, the argument whether the aberrant behavior of individuals is related to evil spirits, a lack of discipline, a decline in moral character, or the symptoms of an underlining mental disorder have become a topic of interest (Hinshaw & Stier, 2008; Khan, Tahir, & Khan, 2011). Stigma influences every facet of mental disorders and it is a significant risk factor for mental health advocacy (Taghva et al., 2017). The term stigma is derived from the ancient Greece and signifies a label used on societal outcast to suggest a socially debauched and decadent status (Goffman 1963). Stigma involves stereotypes, prejudice, and discrimination. It is characterized as “an embarrassing sign, a mark of disgrace associated with a particular person”
(Ozer, Varlik, Ceri, Ince, & Arslan Delice, 2017, p. 225). Stigmatization reduces an individual’s reputation because that person “strays away from the general norms of the society” (Ozer et al., 2017, p. 225).

The healthcare settings have become the primary portal for patients experiencing acute MHDs. However, data suggests stigmatization of individuals with MHDs by HCPs is prevalent and impedes holistic patient-centered care delivery (Henderson, Evans-Lacko, & Thornicroft, 2013; Henderson et al., 2014), resulting in sub-optimal standard of care, physical or verbal abuse, to making individuals wait longer to be seen, or passing the medical care to a less experienced colleague (Hamann et al., 2014; Ross & Goldner, 2009). Stigma in the healthcare settings can negatively affect individuals from seeking medical services at a time when they are most susceptible (Nyblade et al., 2019). Stigmatization is frequently driven by individual bias, lack of knowledge, and/or inaccurate information, so in order to serve this patient population without bias or discrimination, HCPs need to be trained and skilled in understanding the nature of MHDs. Ungar et al. (2016) and Taghva et al. (2017) suggest that education is the key factor in enhancing the knowledge of MHDs and to change the culture and mindset of HCPs toward patients suffering from MHDs. In addition, bolstering community perceptions and combating the stigma attached to MHDs will help individuals seek appropriate medical treatment and help prevent suicide (WHO, 2020).

**Purpose of the Project**

Mental health disorder is an ailment that is particularly and overwhelmingly affected by disease-associated stigma. Studies have suggested that the effects of mental-health-related stigma are so harmful that they overshadow the deleterious effects of the illness itself (Hinshaw & Stier, 2008). Furthermore, HCPs have been noted to harbor stigmatizing attitudes towards
patients with MHDs generating negative reactions in the healthcare setting. Therefore, the purpose of this integrative review project is to determine if various interventions initiated can decrease stigmatization among HCPs in the healthcare setting.

**Significance of the Project**

Universally, MHDs present enormous challenges to the quality of health care. This issue demands the attention of HCPs working in healthcare settings. The label attached to MHDs fosters denunciation and condemnation, which leads to suboptimal social interactions (Hinshaw & Stier, 2008). Stigmatizing attitudes towards individuals with MHDs are displayed not only by the public, but also among HCPs (Henderson et al., 2014). The stigmatization by HCPs can cause patients to feel intimidated and ridiculed, and hinder individuals from seeking appropriate medical assistance. In addition, the lack of knowledge on MHDs may cause HCPs to feel unprepared, inadequate, and hesitant to care for patients with MHDs (Paton, et al., 2016; Poremski et al., 2016); therefore, the quality of care becomes substandard and patients suffer the consequences of inappropriate care. As such, it is vital for HCPs to comprehend how their attitudes and actions can influence their clinical practice. To improve the patient-centered care, the HCPs must work together to create a safe culture to deliver effective and efficient medical care for patients with MHDs.

**Clinical Question**

Specifically, this integrative review aims to answer the research question: “Does education intervention and/or other initiated strategies reduce stigmatizing attitudes of healthcare professionals toward patients presented in the healthcare setting with the chief complaint of mental health disorder?”
Project Goals

The aim of this project is to establish the following:

1) To determine the efficacy of anti-stigma intervention in decreasing stigmatization of MHD patients in the healthcare setting.

2) To establish the effectiveness of strategies initiated to positively transform HCPs attitudes towards individuals with MHDs.

3) To present evidence-based recommendations for updating policies and practices pertaining to MHDs for HCPs in the healthcare setting.

SECTION TWO: LITERATURE REVIEW

Search Strategy

An integrative literature review, which included experimental research, non-experimental research, and theoretical and empirical literature was conducted to fully comprehend the phenomenon of this research topic (Hopia, Latvala, & Liimatainen, 2016; Souza et al., 2010; Whittemore & Knafl, 2005). An electronic database search and a thorough literature review of the medical literature were conducted to obtain eligible sources for this scholarly project. Searches were conducted on several databases, including EBSCOhost, CINAHL, MEDLINE, PubMed, ProQuest, Google Scholar, PsychINFO databases and Cochrane Library from 2010 to 2020. All searches were limited to full online text, scholarly and peer-review journals, English-language sources, adults, and human studies. Relevant articles from the bibliographies of the pertinent research and articles were identified for review. The articles were systematically searched using the following key words and phrases: [“mental illness” OR “mental health illness” OR “mental health disorders” OR “psychiatric illnesses” OR “psychiatric disorder”] AND [“stigmatizing attitude” OR “stigma” OR “stigmatization” OR “anti-stigma education” OR
“combating stigma”] AND [health care professionals” OR “health care workers” OR “clinician”]. The search using the various key phrases generated a total of 764 articles (Appendix F). The articles were further streamlined based on the title and abstract relevant to the project, which yielded a sample size of 35 potential articles (Appendix F). The literature was narrowed down based on the problem, intervention, outcomes, and study design. A total of 20 articles were identified for critical review and are included in this literature review (Appendix A).

Critical Appraisal

A single reviewer, who is also the project leader, used a systematic and analytic method to critically appraise the quality of each publication. The project leader completed the necessary Collaborative Institutional Training Initiative (CITI) modules to meet the institutional requirement for education (Appendix B and C). A librarian was consulted with the selection of appropriate databases and choice of keywords for the topic-based search. The literature was narrowed down using specific inclusion criteria, including the accessibility of full-text articles written in the English language and articles that were written in the last 10 years. Since MHDs have been an ongoing area of research, it was necessary to incorporate research articles published in the last 10 years which are pertinent to the topic of interest. The 20 studies selected for review were published between 2015 to 2019. The Melnyk Pyramid, a hierarchy of evidence rating system, was used to support the leveling of the evidence for the review (Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, 2012). This hierarchy of evidence is supported by the National Council of State Boards of Nursing and their Transition to Practice Nursing Toolkit, making it valid and appropriate for this scholarly project (Melynk et al., 2012).
Synthesis

For patients experiencing acute MHD crises, the only medical services available 24 hours a day, 7 days a week, for every day of the year, are emergency departments. Consequently, the acute HCP team is tasked with assessing, evaluating, and treating patients with acute MHDs that are in behavioral crises. A stigmatized attitude exhibited by the HCPs presents a challenge for patients, and this dangerous attitude has a significant potential for improvement. Results from literature reviews of evidence-based strategies and professional associations indicate that anti-stigma training, workshops, and other strategies can reduce stigmatizing attitudes by HCPs. These interventions can be disseminated and adopted in various healthcare settings. As a result, based on the integrative review, recommendations will be made using various evidence-based practice (EBP) strategies to decrease stigmatization among HCPs in the healthcare setting.

Evidence based on the literature suggests that participating in MHD training and anti-stigma education will increase the quality of patient-centered care and decrease stigmatizing attitudes of HCPs, and, consequently, help ensure health-care equity for all.

Conceptual Framework

To sustain the comprehensive framework, the scholarly project will use an integrative review supported by the Preferred Reporting Items for Systematic Reviews and Meta (PRISMA). The synthesized data derived from the primary research is used to provide an understanding of the accuracy of various tests to identify source variability (Welch et al., 2016). The PRISMA consist of a 27-item, diagnostic-test checklist, which is a four-phase flow diagram used to guide comprehensive and transparent reporting of systematic reviews (Liberati et al., 2009; Moher et al., 2009; Welch et al., 2016). The four-phase flow diagram identifies the data obtained, the inclusive criteria, and the criteria for exclusion (Appendix F). The data was further acquired
using the 27-item checklist to identify crucial items to be reported in the systemic reviews (Liberati et al., 2009).

SECTION THREE: METHODOLOGY

Method

An integrative review is the broadest type of research, which warrants a blend of various methodologies, such as experimental and non-experimental research, as well as merged data from theoretical and empirical research, to understand a phenomenon of interest (Hopia et al., 2016; Souza et al., 2010; Whittemore & Knafl, 2005). This method of review can accurately identify evidence-based practice, research, and policy initiatives for healthcare practice (Hopia et al., 2016; Souza et al., 2010; Whittemore & Knafl, 2005). The reference criterion for integrating evidence in health care is based on methodological rigor used to sustain the standards of clinical decision-making and practices (Hopia et al., 2016; Souza et al., 2010; Whittemore & Knafl, 2005). In addition, the preparation of a protocol is vital in the review process to promote the integrity, credibility, and accountability of the research results and summary (Hopia et al., 2016; Whittemore & Knafl, 2005). The wide range of selected research and the variant purposes involved in the integrative review can result in complex concepts to initiate policy changes for healthcare practice (Whittemore & Knafl, 2005).

Eligible Criteria

This study followed PRISMA guidelines (Moher, 2009). Appendix F illustrates the flow of eligible articles and the retention of articles that met the stipulated criteria. The focus of the research was on HCPs. The research investigated the attitudes of HCPs towards patients with MHDs in the healthcare setting. Studies included were both survey studies and intervention studies that were conducted globally. The contents of abstracts and full-text manuscripts were
identified through a database literature search by one primary investigator. Duplicate articles were eliminated.

**Evidence Pyramid**

This research used the Level of Evidence (LOE) Pyramid (Appendix G) to discuss the significance of the research, methods, and results of the research pertaining to strategies used to combat mental-health-related stigma. In each LOE, the relevant studies are discussed. The LOE pyramid offers a pathway to envision the quality and amount of evidence in a selected study (Melnyk et al., 2012). For instance, the first LOE, in the systematic review which is placed at the pinnacle of the pyramid, is the supreme level and is deemed the least common. As the levels go down the pyramid, the quality of the evidence declines.

**Synthesis Results**

According to Whittemore and Knafı (2005), there are four methods to outline the evidence found in an integrative review. These methods consist of data reduction, data display, data comparison, and the drawing of conclusions (Whittemore & Knafı, 2005).

**Data Reduction**

The data reduction consists of two phases. The first phase entails the initial collection of articles based on the project topic, the setting, the subject matter, and the subcategories. In this case, the topic of the project is to evaluate the effectiveness of various interventions to reduce stigmatization of MHD patients by HCPs in the healthcare setting. The subcategories are further streamlined into a more organized method based on the LOE, research method, study purpose, and the inclusion and exclusion criteria. Using this method, the project leader can determine the applicability and significance of the article to maintain the objectivity of the study (Whittemore & Knafı, 2005). The second phase involves article extraction based on abstracts and project
focus so data can be organized into a methodological framework (Whittemore & Knafl, 2005). This approach will ensure the organization and display of data is methodically assessed and compared according to the study’s variables (Whittemore & Knafl, 2005).

**Data Display**

Once the articles are systematically collected, the data is displayed vertically in the literature review table (Appendix A). This table was created so the project leader can visualize the data to compare the sample size, the method, study results, LOE, study limitations, and recommendation for interpretation.

**Data Comparison**

In this step, the collected data will be scrutinized and examined for trends, themes, and relationships (Whittemore & Knafl, 2005). In this review, a concept map (Figure 1) was created to capture and cluster the parallel study methods, themes, and concepts. According to Whittemore & Knafl (2005), the use of a conceptual map is a convenient method to visualize, compare, and interpret the data effectively and efficiently. Ingenuity and display of the extracted data are essential elements to critically appraise and accurately identify patterns for study evaluation (Whittemore & Knafl, 2005).

**Conclusion Drawing and Verification**

The drawing conclusion based on multiple studies have demonstrated the positive effects of anti-stigma interventions resulting in enhanced awareness, positive mindset, and behaviors in
the healthcare setting. Diminishing stigma towards patients with MHDs should be the goal of healthcare policy to guarantee that the rights of patients are protected and maintained. The results of this study could aid future research and help encourage the incorporation of anti-stigma interventions in the healthcare settings to improve healthcare equity and quality of patient-care delivery.

**Ethical Considerations**

Since the scholarly project is an integrative review of data from completed qualitative and quantitative research studies, it is not required to obtain approval from Institutional Review Board (IRB) of Liberty University (Appendix D).

**SECTION FOUR: STUDY RESULTS**

**Global Mental Health Disorder Stigma**

Stigma is a relentless force. Mental illness stigma is well documented in different parts of the world. It is a global issue that transcends cultural heritage and raises major concern for individuals with MHDs (Dalky, 2012; Hinshaw & Stier, 2008). Globally, the perception of MHDs are shaped by an individual’s culture, folklore, upbringing, practices, and mental health literacy (Cheon & Chiao, 2012). Multiple studies have suggested that stigma and prejudicial views are more prevalent in underdeveloped countries than in developed countries (Ciftci, Jones, & Corrigan, 2013; Saravanan et al., 2007). In underdeveloped countries, MHDs are attributed to supernatural elements, black magic, evil spirits, moral flaw, reincarnation, and penalty for ones sins and/or those of their forefathers (Ciftci et al., 2013; Saravanan et al., 2007).

**Stigma in Germany**

In Germany, data collected from two surveys conducted in the ‘old’ States of Germany in 1990 and 2011 found that despite improvement in mental health services and treatment, the
public’s acceptance towards individuals with MHDs have either remained unchanged or worsened (Angermeyer, Matschinger & Schomerus, 2013). Changes in mental health services did benefit the image of psychiatry but did not decrease the ongoing stigma faced by individuals with MHDs (Angermeyer et al., 2013).

**Stigma in Sweden**

In Sweden, a survey on the stigma of MHDs was conducted in a single community in 1976 and then in 2014 (Mirnezami et al., 2015). The results indicated that a quarter of the 500 participants believed that individuals with MHDs commit more violent crimes than others, indicating that stigma is prevalent in Sweden (Mirnezami et al., 2015).

**Stigma in Latin America**

Results of other studies have observed that in countries with diverse cultural backgrounds, such as Latin America, people with MHDs have a higher prevalence of other chronic illnesses compared to the public (Carliner et al., 2014). Evidence shows disparities in healthcare services experienced primarily by individuals with MHDs in comparison to the general population (Mitchell, Malone & Doebbeling, 2009). Disparity in health care is attributed to manifold causes, but the most disconcerting reason is the stigmatizing attitudes directed toward people with MHDs (Minas, Zamzam, Midin & Cohen, 2011). Thus, to address this gap, it is important to combat the stigma of MHDs by HCPs to ensure equity in health care for all, regardless of diagnosis.

**Stigma in China**

Seeman, Tang, Brown and Ing (2015; 2016) conducted a random global web research asking users brief questions about their daily interactions with individuals with MHDs, whether MHDs are associated with violence, if MHDs are parallel to physical illness, and if individuals
could combat mental disorders. Participants from 229 countries responded to the random global research (Seeman et al., 2015; 2016). The results of the study indicated that China has the greatest proportion of respondents who claim to interact daily with individuals with MHDs (Seeman et al., 2015; 2016). Yet, individuals with MHDs in China are believed to have disrupted the social order and harmony of Confucianism, so they are abhorred and socially isolated (Yang, 2007). Buddhists, who believe in reincarnation, propose that individuals suffering from MHDs are reaping penalties for transgressions committed in past lives (Larson et al., 2010), and are, therefore, kept out of public view to conceal family humiliation (Seeman et al., 2015; 2016).

**Stigma in India**

In India, a random global web research was conducted each month for 21 consecutive months, asking the same questions each time (Seeman et al., 2015; 2016). India was specifically targeted for this reproducibility study due to their relatively young generation that could complete the questionnaires in English (Seeman et al, 2015; 2016). The respondents from India endorsed their belief that individuals with MHDs are more violent than others (Seeman et al., 2015; 2016).

**Stigma in England**

In England, 90% of individuals seeking medical treatment are seen in the primary care settings, where one in four patients will need treatment for MHDs (JCPMH, 2012). According to Hardy and Kingsnorth (2015), individuals with MHDs in England are often cared for by HCPs in the primary care who may have minimum to no training in mental illness, and HCPs do not view MHDs as a priority care. Therefore, it is imperative to use appropriate interventions to educate HCPs about the mechanism of the disease so they can positively serve this population. In 2012, education on patient care quality were enforced and promoted as one of the
competencies by National Health Service England (NHS, 2012). The following year, Evans-Lacko et al., (2013) conducted a study in England to assess the effectiveness of the Time to Change (TTC) program launched in 2009. They assessed the knowledge, attitudes, and intended behaviors regarding individuals with MHDs from 2009 to 2012 (Evans-Lacko et al., 2013). The results suggested that although there was no substantial upturn in knowledge, there were considerable effects on the intended behaviors and in the expression of more positive attitudes ($P = 0.08$) displayed towards individuals with MHDs. (Evan-Lacko, Henderson & Thornicroft 2013).

**Selected Studies**

Evidence suggests that stigma leads to guilt, humiliation, low self-esteem, and anxiety resulting in social-isolation and increased reluctance toward medical care (Cheon & Chiao, 2012; Rüsch et al., 2014). The 20 studies selected in this integrative review examines the effectiveness of anti-stigma reduction interventions implemented in 10 countries around the world (Appendix H). All 20 studies examined, showed the anti-stigma interventions caused a reduction in the stigmatizing attitude of HCPs towards individuals with MHDs (Table 2).

**Validated Tools**

Research conducted to assess the mindset of HCPs toward MHD patients has frequently demonstrated that stigmatizing attitudes are prevalent in the healthcare culture (Kassam, Papish, Modgill & Patten, 2012; Modgill, Patten, Knaak, Kassam & Szeto, 2014). Priority to reduce stigmatization has become an important factor for healthcare settings, research, and policies. However, to do this successfully requires accurate measurements quantifying stigmatizing attitudes, interventions, and the effectiveness of the interventions. Below is a summary of five validated tools for the assessment of mental health stigma.
Internalized Stigma of Mental Illness Scale (ISMI)

There are several tools used to assess the attitudes toward and social isolation of individuals with MHDs. For instance, the study conducted in Chile used the Spanish version of the Internalized Stigma of Mental Illness (ISMI) Scale (Ritsher et al., 2003), which measures five factors: alienation, stereotyping, social isolation, perceived discrimination, and stigma resistance (González-Domínguez, González-Sanguino & Muñoz, 2019). The Likert-type has 29 items rated from 1 to 4 (strongly agree to totally disagree). The ISMI scale has been proven to be a consistent and reliable tool (Ritsher et al., 2003). The 2019 study by González-Domínguez et al., confirmed the reliability of the scale with an internal consistency of $\alpha = 0.94$.

Opinions about Mental Illness (OMI)

Another popular tool is the Opinions about Mental Illness (OMI) (Cohen & Struening, 1962). The 51-item OMI has an extensive history of usage in different groups. The OMI assesses five domains which are: authoritarianism, social restrictiveness, benevolence, mental hygiene ideology, and interpersonal etiology (Cohen & Struening, 1962). Participants will rate the 6-point Likert scale ranging from strongly agree to strongly disagree.

Community Attitudes towards Mental Illness (CAMI)

A revised version of the OMI scale called the Community Attitudes towards Mental Illness (CAMI) scale has three of the OMI scale which are: authoritarianism, benevolence, and social restrictiveness (Corrigan & Shapiro, 2010). CAMI is used to evaluate respondents’ attitudes about accepting patients with MHDs into a community. A high score indicates positive attitudes toward MHDs.
The Social Distance Scale (SDS)

The Social Distance Scale (SDS) is a validated and reliable tool used to measure social distance and the degree of preferred contact with individuals with MHDs (Link, Cullen, Frank & Wozniak, 1987). The SDS contains seven items using a 4-point Likert scale (1 = Definitely Unwilling to 4 = Definitely Willing) (Link et al., 1987). The potential scores range from seven to 28. The higher scores signify social distancing from individuals with a MHD (Link et al., 1987).

Opening Minds Scale for Healthcare Providers (OMS-HC)

In Canada, stigma toward people with MHDs has resulted in increased social seclusion and segregation. To evaluate the success of an intervention, a pre-post follow-up design and the 15-item Opening Minds Scale for Health Care Providers (OMS-HC) (Appendix E) was used. The OMS-HC was created to measure stigma by HCPs and evaluate the effectiveness of the anti-stigma educational intervention (Beaulieu et al., 2017; Bingham & O'Brien, 2018; Kassam et al., 2012; Modgill et al., 2014). The OMS-HC is a dependable tool that is widely used to accurately determine the effectiveness of intervention programs (Beaulieu et al., 2017; Bingham & O'Brien, 2018; Kassam et al., 2012; Modgill et al., 2014). This validated and reliable tool is used globally to measure the success of various anti-stigma interventions. The goal of OMS-HC is to duplicate successful interventions and perform a gap analysis to narrow disparities in existing programs (Beaulieu et al., 2017; Bingham & O'Brien, 2018; Kassam et al., 2012; Modgill et al., 2014). In the study, Modgill et al. (2014) conducted an exploratory factor analysis (EFA) using pre- and post-tests to evaluate the receptiveness of HCPs (n = 1,523) toward change. This program has educational components intended to enhance mental health knowledge and awareness to encourage behavioral transformation and social contact. Results demonstrated a significant pre-
post improvement in all three elements of the OMS-HC, with changes continuing at the three- and six-month follow-up with an additional booster session (Modgill et al., 2014). Studies suggested that educational interventions and training of HCPs are effective methods to decrease stigmatizing attitudes in the healthcare setting (Anderson & Austin, 2012; Morris, Inglis, Friedman & Austin, 2013; Modgill et al., 2014).

**Anti-Stigma Interventions**

The intervention studies in this integrative review will consist of various elements used to address stigma in the healthcare setting. The specific interventions listed have all been proven to be effective in reducing the stigma related to MHDs, including direct contact-based, short video, workshop-based interventions, presentations, discussion and active-learning exercises, training modules, guided clinical practice, discussions, lectures, videos, the ‘Train the Trainer’ model, recovery camps outside clinical settings, and Bloom’s affective domain (Table 2). Most of the studies utilized numerous interventions and some used multiple methods to convey the approaches. Comprehending the various methods and the effectiveness within the healthcare setting is crucial to detect and address gaps and areas for improvement. Therefore, this integrative review will examine four interventions and the effectiveness implemented globally across healthcare settings.

**Contact-Based Intervention**

A key strategy to reducing stigma in the healthcare setting is the direct contact-based anti-stigma intervention, which involve firsthand testimonies from credible individuals who lived through the experience of a MHD. Direct contact-based interventions challenge the stereotypes by allowing high-functioning individuals with MHDs to share their experiences using a first-person perspective. These individuals are trained educators, willing to express their experiences
living with MHD, their recovery, and their encounters with HCPs within the healthcare setting (Flanagan et al., 2016; Knaak, Modgill, & Patten, 2014). Contact-based approach should target HCPs and take the form of a presentation, either in person or through videos, by individuals who are successfully living life with MHDs and are willing to inform and educate others about their personal experiences.

Several studies have explored the effectiveness of the direct contact-based interventions and reported a reduction in stigmatizing attitudes among HCPs (Flanagan et al., 2016; Khenti et al., 2017, Knaak et al., 2014; Martínez-Martínez et al., 2019, Mittal, Corrigan, Drummond, Porchia & Sullivan, 2016). For instance, a study by Kohrt et al. (2018), used the REducing Stigma among HealthcAre Providers to ImprovE mental health services (RESHAPE) in which social contact with individuals with MHDs were used to train non-specialist HCPs to incorporate mental health services into the primary healthcare setting. RESHAPE is focused on the evidence that contact-based interventions can decrease stigmatizing attitudes (Kohrt et al., 2018).

Video-Based Intervention

Mental health advocates have noted the positive effects of digital and visual interventions in reducing MHD stigma (Griffiths, Carron-Arthur, Parsons & Reid, 2014), particularly documentary videos covering the lives of individuals with MHDs, the public shame they face, and how they overcome challenges and remain resilient in the midst of stigmatization (Sitter, 2012). In a recent study conducted by Whitley, Sitter, Adamson & Carmichael (2020), a group of individuals in Canada who had been marginalized were brought together to screenplay and film a Participatory Video (PV), or an educational video about their experiences. They then established community screenings to educate participants and examine the viability and effect of the video program for people with MHDs (Whitley et al., 2020). Study results suggested that
utilizing PV is an effective method in decreasing viewer stigma and could be a promising method in the continuing effort to decrease the stigma of MHDs (Whitley et al., 2020). Another area of interest for anti-stigma interventions involves the long-term effects. Winkler et al. (2017) studied the long-term effectiveness of short video interventions using a three-month follow-up. The study concluded that anti-stigma video interventions were useful in combating the MHD-related stigma among student nurses, and the effects were substantial and sustained at the three-month follow-up. (Bamgbade et al., 2017; Fernandez, Tan, Knaak, Chew & Ghazali, 2016; Winkler et al., 2017).

Since video dissemination is convenient in today’s digital world, these findings are significant in demonstrating the usefulness of this educational tool, which could easily be distributed locally. Additionally, short video intervention is a cost-effective approach for combating mental-health-related stigma (Bamgbade et al., 2017; Fernandez et al., 2016; Ng et al., 2017; Winkler et al, 2017). Online videos are also effective in supporting visual and auditory learning, making them more accessible to a wider audience (Bamgbade et al., 2017; Coyne, et al., 2018; Fernandez et al., 2016; Ng, Rashid & O’Brien, 2017). Nevertheless, when using the video-based intervention, it is imperative to ensure that the video materials have the correct information for accurate learning to transpire.

**Educational Workshop**

Several studies have been conducted to demonstrate the effectiveness of workshop programs, which showed a promising anti-stigma intervention. One such study performed a three-hour workshop and another study, a two-day workshop over a six-month period aimed at increasing the knowledge and awareness of MHDs (Clarke et al., 2015; Knaak & Patten, 2016;
Świtaj et al., 2019). Both study results showed significant pre-post improvement in the OMS-HC-15.

A study by Knaak, Ungar and Pattern (2015), demonstrated positive results using a two-hour face-to-face workshop entitled Understanding Stigma, which was developed by the Ontario Central Local Health Integration Network. This intervention contained educational components intended to enhance understanding, proficiencies, and knowledge of MHD, aimed toward behavioral modification within the healthcare setting. The program has been appraised in several healthcare settings and tested using the OMS-HC-15 items scale. The study demonstrated significant pre- and post-improvements in all three factors of the OMS-HC-15. In addition, positive changes were noted at 3- and 6-month follow-ups with a booster session (Knaak et al., 2015). Other educational workshops that yielded positive results include the web-based on-line continuing education program titled “Combating Stigma” and “De-Stigmatizing Practices and Mental Illness” (Knaak et al., 2015; Knaak, Mantler & Szeto, 2017). These workshops aimed toward HCPs have proven to be effective in reducing stigmatization within the healthcare settings.

**Psychiatric Clerkship**

In several studies, medical students in their final year were given the opportunity to participate in a psychiatric clerkship using a joint classroom and clinical rotation (Economou et al., 2017; Lyon & Janca, 2015). The students delved into the distinctions, commonalities, and the science behind MHDs. Experts in the field also shared their own knowledge and experiences and taught about the function of the brain to better equip the medical students in understanding MHDs and, in turn, reduce the stigma associated with these diseases. Psychiatric clerkship has
been shown to enhance students’ perspective towards MHDs (Economou et al., 2017; Lyons & Janca, 2015).

**Additional Analysis**

Twenty manuscripts detailing a variety of distinct interventions were analyzed as part of this integrative review (Table 2). All interventions concentrated primarily on stigma related to MHDs and were implemented in 10 countries worldwide (Appendix H). Nine studies targeted HCPs and eleven studies targeted healthcare students. The largest number of sample (n = 678) was studied in Greece on final-year medical students, seven in the U.S., two in the U.K, three in Canada, two in Malaysia, and one in Australia, Czech Republic, Nepal, New Zealand and Spain. Most of the studies and interventions were implemented in high-income countries (n = 18), and low-income countries (n = 2) such as in Malaysia and Nepal. Interventions were evaluated using randomized control trial (RCT) (n=8), quasi-experimental design (n = 9), cohort study (n = 2), and qualitative study (n = 1) (Appendix A).

A study by Hanisch et al. (2016) suggested that anti-stigma interventions in the workplace are based on two major strategies: an educational approach and a contact-based approach. Education approach aimed at understanding MHDs reduces stigmatization and discrimination toward this population (Corrigan, Morris, Michaels, Rafacz & Rüsch, 2012). In another study, after analyzing 42 articles, the researchers concluded that educational interventions are successful in producing short-term improvement in the anti-stigma campaign (Clarke, Usick, Sanderson, Giles-Smith, & Baker, 2014). According to Clarke et al., 2014, the HCPs who had the most negative attitudes displayed significant progress in anti-stigma reduction. Clarke et al. (2014) also found that some studies utilized unvalidated tools, while others suggested that changes in attitude were noted based on self-reports and observation.
The other major approach utilizes contact-based intervention with affected individuals who share their experiences, either in-person or through audiovisual media (Pinto-Foltz & Logsdon, 2009); this approach has been proven to be particularly effective. A meta-analytic study (n = 515), suggested that contact-based approach is the best intervention to decrease MHD stigma (Pettigrew & Tropp, 2006). Contact-based interventions have resulted in a substantial reduction in stigmatizing attitudes (Corringan et al., 2012), especially when including individuals’ testimonies, knowledge to dismiss myths, and highlights of recovery (Knaak & Patten, 2016). According to Kohrt et al. (2018), contact-based interventions cause a change in attitude, as well as behavioral intentions, and perform better than education or video interventions alone.

Evaluation Methods

The integrative review project was evaluated by the project leader and chair to ensure that the information and studies selected maintain accuracy, consistency, and meet the requirements for the Doctor of Nursing Practice (DNP) program at Liberty University. To maintain the integrity of the integrative review, the project leader constantly referred to the articles and references. The literature review matrix and two tables with the Melynk level of evidence were utilized to aptly identify the anti-stigma interventions with evidence.

Discussion

The findings offer support for global anti-stigma programs and interventions to reduce stigmatizing attitudes in the healthcare setting. Globally, stigma-related outcomes vary according to the contextual characteristics of the country. Therefore, when planning for global anti-stigma interventions, it is imperative to consider the culture, beliefs, traditions, and sociodemographic of the specific country and tailor interventions accordingly. It is also
important to constantly assess, plan, evaluate, and adjust interventions and campaign messages according to the needs of the target group and the environment.

**Summary of Evidence**

Research suggests that anti-stigma intervention is an influencing component in the care of patients with MHDs presenting to the healthcare settings. The intent of this integrative review was to study various implemented EBP strategies and their effects on reducing the stigma related to MHDs. The effective interventions detected in this study can be disseminated by publishing the research in a journal, submitting an abstract for posted presentation, or conducting a podium presentation at a regional, state, or national conference.

**Implementations for Practice and Research**

Decreasing mental health stigma should be a top priority of healthcare policies in order to uphold the rights of individuals with MHDs and ensure healthcare equity. A stigma reduction program should be an ongoing process in healthcare settings, and the approaches must be continually analyzed to ensure its viability. Applying anti-stigma interventions related to MHDs along with recommended strategies, should be included as part of continuing education for all HCPs, and added as an essential criterion for orientation of all new healthcare employees. Incorporating MHD awareness into the healthcare setting will help to positively impact clinical practice and improve patient-centered care (Modgill et al., 2014), which would consequently improve the quality of life for individuals with MHDs and their families. Future research on the effectiveness of long-term anti-stigma implementation could help justify the pledge toward global stigma-reducing interventions related to MHDs. Additional studies are required to better comprehend the comparative impacts of various types of anti-stigma interventions delivered locally versus globally and methods to deliver the interventions per EBP, policy, and processes.
To inform further research and effective translation of EBP into the clinical setting, it is essential that proven, standardized anti-stigma interventions be adopted in healthcare settings. Interventions should also consider including not only HCPs, but individuals suffering from MHDs and their families (Johnston et al., 2019). This will ensure that the care delivery is holistic and focuses on both the patient and their families.

This integrative review provides a framework categorizing and identifying effective interventions, with the expectation that future studies will be consistent with the outcome measurements. This integrative review also pinpoints the effective interventions that can be used to combat MHDs in healthcare settings.

**Limitations**

Although the integrative review is the broadest type of review used in nursing research, there are some limitations to this methodology. For example, the intricacy of using varied studies has the potential to cause bias and a lack of rigor. Additionally, many of the studies have not been analyzed for the long-term effectiveness of anti-stigma interventions; therefore, the efficacy of the interventions only demonstrates short-term benefits. Additional studies are needed to evaluate if the benefits of short-term interventions are retained over the long-term, and whether booster interventions are required to increase sustainability. From a global standpoint, further studies will determine if the interventions used internationally are effective long-term in reducing MHD stigma in the healthcare setting.

Lastly, the selected literature used different methods and scales, which could cause trivial and incoherent data analysis and lead to flawed interpretations of the collective evidence. Nevertheless, integrative review studies are considered vital for EBP initiatives in nursing (Hopia et al., 2016).
Conclusion

Despite much effort, combating the stigma of MHDs in the healthcare setting can be a daunting task involving multidimensional and multilevel methods. HCPs often have overscheduled working hours, compulsory contact-based education, and resource constraints that hinder them from following through with anti-stigma initiatives. Understanding MHDs and participating in the anti-stigma campaigns are essential steps towards eliminating stigmatizing attitudes and improving mental health services (Mascayano, Armijo & Yang, 2015; Modgill et al., 2014). The global survey method conducted in this literature review indicates that there are disparities among different geographic and cultural groups (Abdullah & Brown, 2011) and various anti-stigma interventions can help decrease stigmatizing attitudes among HCPs. In conclusion, people with MHDs should be given equivalent importance as those with physical health conditions (NHS, 2016). Leaders across the world must take pivotal measures to break down obstacles of MHD related stigmatization and restructure the way care is delivered to individuals with MHDs in healthcare settings.
References


trial of self-management versus skills training. *Behavioural and Cognitive Psychotherapy, 43*(6), 692-704. doi:10.1017/S1352465814000320


Del Olmo-Romero, F., Gonzalez-Blanco, M., Sarro, S., Gracio, J., Martin-Carrasco, M., Martinez-Cabezon, A. C., . . . The INTER NOS group. (2019). Mental health professionals' attitudes towards mental illness: Professional and cultural factors in the
STIGMA-REDUCING INTERVENTIONS


PRISMA flow diagram. Presentation of the procedure of literature searching and selection with numbers of articles at each stage. doi:10.1371/journal.pone.0074916.g001

Psychiatric and Mental Health Nursing, 16(6), 558-567. doi:10.1111/j.1365-2850.2009.01399.x

Rüsch, N., Corrigan, P. W., Heekeren, K., Theodoridou, A., Dvorsky, D., Metzler, S., . . .

doi:10.1176/appi.ps.201300169


Table 1

*Inclusion and Exclusion Criteria*

<table>
<thead>
<tr>
<th>Inclusive</th>
<th>Exclusive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication from 2010 - 2020</td>
<td>Publication prior to 2010</td>
</tr>
<tr>
<td>Adult population &gt; 18 yrs.</td>
<td>Pediatric population &lt; 18 yrs.</td>
</tr>
<tr>
<td>Peer-reviewed journals</td>
<td>Non-research articles</td>
</tr>
<tr>
<td>English language publications</td>
<td>Foreign language publications</td>
</tr>
<tr>
<td>Full online text</td>
<td>Abstract only articles</td>
</tr>
<tr>
<td>Health care setting</td>
<td>Non health care settings</td>
</tr>
</tbody>
</table>
### TABLE 2

**Global Studies and the Effectiveness of the Interventions**

<table>
<thead>
<tr>
<th>First Author/ Publication/ Country</th>
<th>Sample Size Population</th>
<th>Intervention</th>
<th>Duration</th>
<th>Effects on Stigma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bamgbade et al., 2017 U.S.</td>
<td>n = 88 pharmacy students</td>
<td>Presentations, videos, discussion and active-learning exercises</td>
<td>2.5 hours over 2 class periods</td>
<td>Reduced</td>
</tr>
<tr>
<td>Beaulieu et al., 2017 Canada</td>
<td>n = 111 PCPs</td>
<td>Training modules</td>
<td>15 weeks</td>
<td>Reduced</td>
</tr>
<tr>
<td>Bingham et al., 2018 New Zealand</td>
<td>n = 45 nursing students</td>
<td>Guided clinical practice and discussion focused on attitudes and beliefs</td>
<td>12 hours over 3 weeks</td>
<td>Reduced</td>
</tr>
<tr>
<td>Clarke et al., 2015 U.K.</td>
<td>n = 100 front-line staff</td>
<td>Workshop</td>
<td>2-day over 6 months</td>
<td>Reduced</td>
</tr>
<tr>
<td>Economou et al., 2017 Greece</td>
<td>n = 678 medical students</td>
<td>Psychiatric clerkship using joint classroom and clinical rotation</td>
<td>120 hours over 4-weeks</td>
<td>Reduced</td>
</tr>
<tr>
<td>Fernandez et al., 2016 Malaysia</td>
<td>n = 102 pre-med students</td>
<td>Lecture, video or face-to-face presentation, discussion</td>
<td>3-hour early clinical</td>
<td>Reduced</td>
</tr>
<tr>
<td>Flanagan et al., 2016 U.S.</td>
<td>n = 27 PCPs</td>
<td>“Recovery Speaks” is a photovoice multimedia in-person performance by people living with a mental disorder</td>
<td>10-week 1-hour performance followed by discussion</td>
<td>Reduced</td>
</tr>
<tr>
<td>Hardy et al., 2015 England</td>
<td>n = 438 practice nurses</td>
<td>The ‘Train the Trainer’ model</td>
<td>10 modules - 5 three-hour face to face education and 5 e-learning</td>
<td>Reduced</td>
</tr>
<tr>
<td>Knaak et al., 2016 Canada</td>
<td>n = 230 HCPs</td>
<td>Workshop with lectures, skills training and testimonials</td>
<td>3-hour</td>
<td>Reduced</td>
</tr>
<tr>
<td>Study Authors, Year</td>
<td>Location</td>
<td>Sample Size</td>
<td>Intervention Details</td>
<td>Duration</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------</td>
<td>-------------</td>
<td>----------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Khenti et al., 2017</td>
<td>Canada</td>
<td>n = 490 HCPs</td>
<td>Contact-based</td>
<td>2-year</td>
</tr>
<tr>
<td>Kohrt et al., 2018</td>
<td>Nepal</td>
<td>n = 75 HCPs</td>
<td>RESHAPE contact-based workshop</td>
<td>5-day</td>
</tr>
<tr>
<td>Lyons et al., 2015</td>
<td>Australia</td>
<td>n = 151 baseline n = 161 follow-up medical students</td>
<td>Psychiatric clerkship using joint classroom and clinical rotation</td>
<td>8 weeks</td>
</tr>
<tr>
<td>Martínez-Martínez et al., 2019</td>
<td>Spain</td>
<td>n = 185 nursing students</td>
<td>Contact-based</td>
<td>90-minute intervention; then, a 30-minute discussion</td>
</tr>
<tr>
<td>Mittal et al., 2016</td>
<td>U.S.</td>
<td>n = 83 HCPs</td>
<td>Contact-based</td>
<td>5 months with 7 focus groups</td>
</tr>
<tr>
<td>Moxham et al., 2016</td>
<td>U.S.</td>
<td>n = 79 nursing students</td>
<td>Recovery Camp outside clinical setting</td>
<td>5 days</td>
</tr>
<tr>
<td>Muzyk et al., 2017</td>
<td>U.S.</td>
<td>n = 27 3rd year pharmacy students</td>
<td>Bloom’s affective domain</td>
<td>6 class sessions for two-week period</td>
</tr>
<tr>
<td>Ng et al., 2017</td>
<td>Malaysia</td>
<td>n = 242 nurses</td>
<td>Video-based contact</td>
<td>4 minute-30</td>
</tr>
<tr>
<td>Ozer et al., 2017</td>
<td>U.S.</td>
<td>n = 95 MH clinicians</td>
<td>Questionnaires</td>
<td>One time</td>
</tr>
<tr>
<td>Russell et al., 2017</td>
<td>U.S.</td>
<td>n = 57 nurses</td>
<td>Interactive educational intervention</td>
<td>2-hours</td>
</tr>
<tr>
<td>Winkler et al., 2017</td>
<td>Czech Republic</td>
<td>n = 20 nursing students</td>
<td>Short video</td>
<td>7 min video; 3-month follow-up to examine the long-term effect</td>
</tr>
</tbody>
</table>

HCPs = Health Care Providers; MH = Mental Health; PCP = Primary Care Physicians; PS = Pharmacy Students; RESHAPE = REDucing Stigma among HealthcAre Providers to improvE mental health services.
## Appendix A – Literature Review

<table>
<thead>
<tr>
<th>Article</th>
<th>Country</th>
<th>Study Purpose</th>
<th>Sample</th>
<th>Methods</th>
<th>Results</th>
<th>LOE</th>
<th>Limitations</th>
<th>Support change?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bamgbade, B. A., Barner, J. C., &amp; Ford, K. H. (2017). Evaluating the impact of an anti-stigma intervention on pharmacy students' willingness to counsel people living with mental illness. <em>Community Mental Health Journal, 53</em>(5), 525-533. doi:10.1007/s10597-016-0075-6</td>
<td>U.S.</td>
<td>To understand pharmacy students’ attitudes towards mental illness counseling.</td>
<td>n = 88 third-year pharmacy students</td>
<td>Quasi-experimental design</td>
<td>Results from this study suggest that enhancing attitudes toward MHDs through intervention s is possible</td>
<td>Level 3</td>
<td>Study conducted using third year pharmacy students at one college of pharmacy and may lack generalizability to students.</td>
<td>Yes</td>
</tr>
<tr>
<td>Beaulieu, T., Patten, S., Knaak, S., Weinerman, R., Campbell, H., &amp; Lauria-Horner, B. (2017). Impact of skill-based approaches in reducing stigma in primary care physicians: Results from a double-blind, parallel-cluster, randomized controlled trial. <em>The Canadian Journal of Psychiatry, 62</em>(5), 327-335. doi:10.1177/0706743716686919</td>
<td>Canada</td>
<td>To reduce stigma in PCPs emphasizing education and social contact-based strategies.</td>
<td>n = 111 PCPs</td>
<td>RCT</td>
<td>A positive correlation was found between increased levels of confidence/comfort and improvements in overall stigma, especially in men.</td>
<td>Level 2</td>
<td>Lower than expected survey completion rates led to the insufficient power of primary analysis to detect significant effects in total OMS-HC scores with a possible Type II error.</td>
<td>Yes</td>
</tr>
<tr>
<td>Bingham, H., &amp; O'Brien, A. J. (2018). Educational intervention to decrease</td>
<td>New Zealand</td>
<td>To establish whether educational</td>
<td>n = 45 nursing students</td>
<td>Quasi-experimental</td>
<td>Results showed that using</td>
<td>Level 3</td>
<td>Study was limited to a small sample size of</td>
<td>Yes</td>
</tr>
<tr>
<td>Clarke, S., Taylor, G., Bolderston, H., Lancaster, J., &amp; Remington, B. (2015). Ameliorating patient stigma amongst staff working with personality disorder: Randomized controlled trial of self-management versus skills training. <em>Behavioural and Cognitive Psychotherapy, 43</em>(6), 692-704. Doi:10.1017/S1352465814000320</td>
<td>U.K.</td>
<td>To compare the impact of a self-management ACTr with a knowledge- and skills-based DBTr on front-line staff.</td>
<td>n = 100 front-line staff</td>
<td>RCT</td>
<td>Front-line staff attitudes, therapeutic relationship, and social distancing all improved pre- to post-intervention, and these changes were maintained at 6-month follow-up</td>
<td>Level 2</td>
<td>The absence of a control condition for non-specific effects limits our confidence regarding how useful either training condition was compared to none.</td>
<td>Yes</td>
</tr>
<tr>
<td>Economou, M., Kontoangelos, K., Peppou, L. E., Arvaniti, A., Samakouri, M., Douzenis, A., &amp; Papadimitriou, G. N. (2017). Medical students’ attitudes to</td>
<td>Greece</td>
<td>To explore the impact of the psychiatric clerkship in</td>
<td>n = 678 final year medical students</td>
<td>Quasi-experimental design</td>
<td>The results showed that combining education and contact may obtain</td>
<td>Level 3</td>
<td>The effect of psychiatric training was assessed upon completion of the rotation;</td>
<td>Yes</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Objective</th>
<th>Sample Size</th>
<th>Study Design</th>
<th>Findings</th>
<th>Limitations</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fernandez, A., Tan, K. A., Knaak, S., Chew, B. H., &amp; Ghazali, S. S. (2016).</td>
<td>Malaysia</td>
<td>To examine the effects of a brief psychoeducational program on reducing stigma in pre-clinical medical students.</td>
<td>n = 102 pre-medical students</td>
<td>RCT</td>
<td>Findings provide evidence that educational lecture on MHDs with direct contact or VBC is predictive of positive outcomes in anti-stigma programs targeting future HCPs.</td>
<td>Level 2</td>
<td>Seven limitation noted for this study. See article.</td>
</tr>
<tr>
<td>Flanagan, E. H., Buck, T., Gamble, A., Hunter, C., Sewell, I., &amp; Davidson, L. (2016).</td>
<td>U.S.</td>
<td>To study the effects of “Recovery Speaks,” a photovoice in decreasing</td>
<td>n = 27 PCPs</td>
<td>RCT</td>
<td>Providers who attended Recovery Speaks significantly decreased</td>
<td>Level 2</td>
<td>The sample size is small, which limits the validity of the statistical analyses.</td>
</tr>
</tbody>
</table>

<p>| Hardy, S. A., &amp; Kingsnorth, R. (2015). Mental health nurses can increase capability and capacity in primary care by educating practice nurses: An evaluation of an education programme in England: Mental health nurses can educate practice nurses. <em>Journal of Psychiatric and Mental Health Nursing</em>, 22(4), 270-277. doi:10.1111/jpm.12208 | England | To develop an education program for the learning needs of the practice nurse workforce. | n = 438 practice nurses | Cohort Study | 24 mental health nurses and one psychologist were trained to deliver the’ Train the trainer’ module | Level 4 | The study was unable to evaluate the direct impact on patient care. | Yes |
| Knaak, S., &amp; Patten, S. (2016). A grounded theory model for reducing stigma in health professionals in Canada. <em>Acta Psychiatrica Scandinavica</em>, 134(S446), 53-62. doi:10.1111/acps.12612 | Canada | To measure the impact of the intervention on attitudes and behavioral intentions of HCPs toward patients with MHDs | n = 230 HCPs | Quasi-experimental design | Results suggest that the targeted intervention was positive at improving HCPs attitudes towards people with MHDs. | Level 3 | Did not include a control group to measure for non-specific effects on the scales. | Yes |</p>
<table>
<thead>
<tr>
<th>Country</th>
<th>Objective</th>
<th>Sample Size</th>
<th>Study Design</th>
<th>Level</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>To measure staff and clients’ ideas and beliefs about people with MHDs and substance abuse.</td>
<td>n = 490</td>
<td>RCT</td>
<td>Level 2</td>
<td>This study was conducted in Toronto, Canada; therefore, there are variables specific to this population and region.</td>
</tr>
<tr>
<td>Nepal</td>
<td>To assess the viability of the RESHAPE intervention in which social contact with MH service users is added to the training program</td>
<td>n = 75 HCPs</td>
<td>RCT</td>
<td>Level 2</td>
<td>The incomplete uptake from training into service provision, as well as a lack of fidelity to EBP among non-specialists</td>
</tr>
<tr>
<td>Authors</td>
<td>Country</td>
<td>Objective</td>
<td>Sample Size</td>
<td>Design</td>
<td>Level</td>
</tr>
<tr>
<td>---------</td>
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<td>-----------</td>
<td>-------------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>Lyons, Z., &amp; Janca, A. (2015).</td>
<td>Australia</td>
<td>To explore the impact of an 8-week psychiatry clerkship on medical students’ attitudes toward patients with MHDs</td>
<td>n = 151 baseline; n = 161 4th year medical students follow-up</td>
<td>Quasi-experimental design</td>
<td>Level 3</td>
</tr>
<tr>
<td>Martínez-Martínez, C., Sánchez-Martínez, V., Sales-Orts, R., Dinca, A., Richart-Martínez, M., &amp; Ramos-Pichardo, J. D. (2019).</td>
<td>Spain</td>
<td>To measure if direct-contact intervention with individuals with MHD improved students’ attitudes toward this population</td>
<td>n = 185 nursing students</td>
<td>Quasi-experimental design</td>
<td>Level 3</td>
</tr>
<tr>
<td>Mittal, D., Corrigan, P., Drummond, K. L., Porchia, S., &amp; Sullivan, G. (2016).</td>
<td>U.S.</td>
<td>To inform the design of a contact</td>
<td>n = 83 HCPs</td>
<td>Qualitative study</td>
<td>Level 6</td>
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</table>
Provider opinions regarding the development of a stigma-reduction intervention tailored for providers. *Health Education & Behavior, 43*(5), 577-583. doi:10.1177/1090198115614316


<table>
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<tr>
<th>Study</th>
<th>Country</th>
<th>Intervention Aim</th>
<th>Sample Size</th>
<th>Study Design</th>
<th>Level</th>
<th>Notes</th>
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<tr>
<td>Provider opinions</td>
<td>U.S.</td>
<td>Intervention to reduce HCPs stigma toward people with MHDs</td>
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<tr>
<td>Moxham et al. (2016)</td>
<td>U.S.</td>
<td>To determine if Recovery Camps reduce nursing students' stigma toward people with MHDs</td>
<td>n = 79 nursing students</td>
<td>Quasi-experimental design</td>
<td>Level 3</td>
<td>Participants were not randomly allocated, which calls into question the internal validity of the research. The sample size is also small and only from one university, making the findings not generalizable.</td>
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<tr>
<td>Muzyk et al. (2017)</td>
<td>U.S.</td>
<td>To create a learning environment using Bloom's affective domain</td>
<td>n = 27 3rd year pharmacy students</td>
<td>A cohort study</td>
<td>Level 4</td>
<td>The study was conducted at a single site and for students in a single class year.</td>
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<td>Study</td>
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<td>Objective</td>
<td>Sample Size</td>
<td>Study Design</td>
<td>Effectiveness</td>
<td>Level</td>
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<td>Ng, Y. P., Rashid, A., &amp; O’Brien, F. (2017). Determining the effectiveness of a video-based contact intervention in improving attitudes of penang primary care nurses towards people with mental illness. <em>PloS One</em>, 2(11), e0187861. doi: 10.1371/journal.pone.0187861</td>
<td>Malaysia</td>
<td>To assess the attitudes of government-employed primary care nurses towards people with MHDs using an inexpensive video-based contact intervention (VBCI).</td>
<td>n = 242 nurses</td>
<td>Quasi-experimental design</td>
<td>This study demonstrated that the VBCI is effective in improving attitudes of primary care nurses toward people with MHDs.</td>
<td>Level 3</td>
</tr>
<tr>
<td>Ozer, U., Varlik, C., Ceri, V., Ince, B., &amp; Arslan Delice, M. (2017). Change starts with us: Stigmatizing attitudes towards mental illnesses and the use of stigmatizing language among mental health professionals. <em>Dusunen Adam: The Journal of Psychiatry and Neurological Sciences</em>, 224-232.</td>
<td>U.S.</td>
<td>To examine the prejudices and stigmatization by society.</td>
<td>n = 95</td>
<td>RCT</td>
<td>Psychiatrists had fewer stigmatizing beliefs than other MH clinicians. As for stigmatizing language, there was no difference.</td>
<td>Level 2</td>
</tr>
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</table>

To determine the effects of an educational intervention of nurses caring for patients with MHDs. n = 57 nurses Quasi-experimental design The largest impact of the educational intervention was noted in the post class rating with n=56 agree/strongly agree to the intervention.s. Level 5 The sample size was small and there no identifiable demographics to study the associations between demographic variables and pre-test and post-test survey scores


To assess if short-video intervention could reduce stigma among nursing students. n = 20 nursing students RCT Seminar had a strong and stable effect on students’ attitudes; short VBC intervention was also significant and stable over time. Level 2 The participants were almost exclusively females who are nursing students in their late teens; therefore, it is unclear if the results could be generalized to other young people. Yes

**ACTr**: Acceptance and Commitment Therapy-based training; **DBtr**: Dialectical Behavior Training intervention; **HCPs**: Health Care Providers; **MH**: Mental Health; **MHDs**: Mental Health Disorders; **PCPs**: Primary Care Physicians; **RCT**: Randomized Control Trial; **SMI**: Severe Mental Illness; **VBC**: Video-based contact
Appendix B – CITI Certificate

This is to certify that:

Catherine Raj

Has completed the following CITI Program courses:

- Biomedical Research - Basic/Refresher (Curriculum Group)
- Biomedical & Health Science Researchers 1 - Basic Course (Course Learner Group)

Under requirements set by:

Liberty University

Verify at: www.citiprogram.org/verify/7c790bdf12-922b-488c-b1da-c7f1e9f5af5b-31744917
Appendix C – CITI Completion Report

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)**

**COMPLETION REPORT - PART 1 OF 2**

**COURSEWORK REQUIREMENTS**

*NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.*

- **Name:** Catherine Rail
- **Institution Affiliation:** Liberty University (ID: 2446)
- **Institution Email:**
- **Institution Unit:** Nursing
- **Phone:**
- **Curriculum Group:** Biomedical Research - Basic/Refresher
- **Course Learner Group:** Biomedical & Health Science Researchers
- **Stage:** Stage 1 - Basic Course
- **Description:** Choose this group to satisfy CITI training requirements for investigators and staff involved primarily in biomedical research with human subjects.

<table>
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<th>Record ID</th>
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<th>Expiration Date</th>
<th>Minimum Passing</th>
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<td>25-May-2019</td>
<td>24-May-2022</td>
<td>80</td>
<td>100</td>
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**REQUIRED AND ELECTIVE MODULES ONLY**

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<td>Recognizing and Reporting Unanticipated Problems Involving Risks to Subjects or Others in Biomedical Research (ID: 14777)</td>
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<tr>
<td>Liberty University (ID: 15111)</td>
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<tr>
<td>Populations in Research Requiring Additional Considerations and/or Protections (ID: 16680)</td>
<td>25-May-2019</td>
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<tr>
<td>History and Ethics of Human Subjects Research (ID: 498)</td>
<td>25-May-2019</td>
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<tr>
<td>Basic Institutional Review board (BIRB) regulations and Review Process (ID: 2)</td>
<td>25-May-2019</td>
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<tr>
<td>Informed Consent (ID: 3)</td>
<td>25-May-2019</td>
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<tr>
<td>Social and Behavioral Research (SBR) for Biomedical Researchers (ID: 4)</td>
<td>25-May-2019</td>
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<tr>
<td>Records-Based Research (ID: 5)</td>
<td>25-May-2019</td>
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<td>Genetic Research in Human Populations (ID: 6)</td>
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<tr>
<td>Research and HIPAA Privacy Protections (ID: 14)</td>
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<td>Conflicts of Interest in Human Subjects Research (ID: 17464)</td>
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For this report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Appendix D – Liberty University, IRB Approval

From: IRB, IRB <IRB@liberty.edu>
Sent: Wednesday, April 8, 2020 1:05 PM
To: Raj, Catherine
Cc: Goodrich, Cindy (Nursing)

Good Afternoon Catherine,

If by integrative review you are referring to a review of data from completed qualitative and quantitative research studies, IRB review and approval are not needed. If I have misunderstood your question or research plan, please provide clarification. If a non-human subjects research letter is needed, please submit a new IRB application.

Best,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

From: Raj, Catherine
Sent: Wednesday, April 8, 2020 12:15 PM
To: IRB, IRB
Cc: Goodrich, Cindy (Nursing)

Good Afternoon, Ms. Baker!

With regards to the email below, I received approval from Liberty University IRB- FY19-20-216 to proceed with my DNP Scholarly Project. However, due to the recent global pandemic, my DNP project has been changed to an Integrative Review with a different topic. As such, kindly let me know the steps to obtaining LU- IRB approval for the new project.

Thank you.

Respectfully,

Catherine Raj, MSN, RN, CRRN
Liberty University
DNP Student
Appendix E – OMS-HC-15

*Modgill G, Fatten SB, Knaak S, Kassam A, Szeto AC. Opening minds stigma scale for healthcare providers (OMS-HC): Examination of psychometric properties and responsiveness. *BMC Psychiatry* 2014; 14(1):120. [http://www.biomedcentral.com/1471-244X/14/120](http://www.biomedcentral.com/1471-244X/14/120)

Appendix F - PRISMA 2009 Flow Diagram

Records identified through database searches (n = 764)

Records identified through other sources (n = 4)

Records after duplicates removed (n = 553)

Records screened (n = 553)

Records excluded (n = 188)

Full-text articles assessed for eligibility (n = 35)

Full-text articles excluded
- Pediatric population (n = 12)
- Articles not in English language (n = 6)
- Studies not conducted in health care setting (n = 17)

Studies included in this review (n = 20)
Appendix G: Evidence Pyramid
Appendix H: Anti-Stigma Interventions in Ten Countries