Nurses’ Attitudes Toward Mental Illness

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Abstract
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This dissertation consists of three studies to assess nurses’ attitudes toward persons with mental illness. The first study was an integrative review of literature which revealed that surveyed nurses across 20 countries and three continents had mixed attitudes toward people with mental illness. While those attitudes mirrored attitudes of the general public and health providers in the United States, none of the identified studies explored nurses’ attitudes toward people with mental illness in the United States and none included a theoretical framework, showing several gaps in knowledge. Therefore, in the second paper of this dissertation two leading theories regarding stigma were analyzed and compared in order to select the best theoretical framework to guide a survey of psychiatric nurses’ attitudes toward the mentally ill, which comprises the third study of this dissertation. The Modified Labeling Theory (MLT) and the Cognitive Behavioral Models (CBM) were analyzed and evaluated. Since the MLT had strong empirical evidence, it was selected to guide the quantitative study that explored nurses’ attitudes toward people with mental illness. This exploration of 146 mental health workers and registered nurses’ attitudes in a 270-bed psychiatric hospital in New York examined three areas: it assessed respondents’ beliefs about devaluation and discrimination of people with mental illness and factors related to these beliefs; compared respondents’ expressed stigmatizing actions toward patients with schizophrenia or depression versus those with diabetes but no mental illness; and it assessed the extent to which study results were consistent with the theoretical
underpinnings of the MLT. In general, respondents expressed the belief that people with mental illness would be devaluated and discriminated and expressed stronger desire for social distance from a person with schizophrenia than depression. Even though the respondents did not express a desire for social distance from a person with depression, they indicated their preference to be closer to a person with diabetes. Finally, the results of the study were consistent with the theoretical underpinnings of the MLT, confirming that the MLT is appropriate for use as a guiding theoretical framework for future research in nursing. Implications for future research, nursing education and practice are discussed.
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CHAPTER I

Introduction

This chapter presents the background and aims of this dissertation. It starts with a discussion of the definition of stigma, followed by information regarding the prevalence of mental illness and its impact on health. Also reviewed is a summary of the attitudes toward mental illness of the general population, health providers, and nurses. Finally, the context and aims for this dissertation study are described.

Stigma

Goffman’s (1963) seminal text, *Stigma: Notes on the Management of Spoiled Identity*, has become a classic in sociological and psychological research when studying the impact that stigma has on people with mental illness. Since its publication, Goffman’s work has been cited in more than 27,000 books and articles. In *Stigma*, Goffman focused on a wide range of conditions that trigger negative stereotypes and prejudice and he provided a definition of stigma that is now widely used in research (Pescosolido, 2013). He defined stigma as a symbol that distinguishes a person from others: this stigmatized person becomes less human, tarnished by stigma. Goffman (1963) considered that some stigma identities mark that person as “discredited” because the difference from the social norm cannot be concealed, such as a physical disability, or race. In contrast, some stigma identities are potentially “discreditable”, because they can be concealed, such as criminal background, mental illness, or addiction. When this discreditable identity is known, the individual’s status in society may be relegated to a less desirable position, and the individual can be viewed by other society members as defective and therefore might be discriminated against. The resulting discriminating actions might reduce the stigmatized individual’s personal, social, and professional opportunities (Goffman, 1963).
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Stigma associated with various conditions including mental illness, can be a source of stress for stigmatized people and can have negative effects on their health (Major & O'Brien, 2004). Hatzenbuehler, Phelan and Link (2013) considered stigma as a fundamental cause of health inequalities. Stigma has an influence on physical and mental health, it might prevent people’s access to resources that could avert or minimize poor health, and it facilitates the formation of new processes that perpetuate health inequalities (Hatzenbuehler, Phelan, & Link, 2013). Stigma related to mental illness has negative effects on multiple aspects of the lives of people with a mental illness. It has been associated with lower treatment utilization (Clement et al., 2015), higher social isolation (Link, Wells, Phelan, & Yang, 2015), difficulty in finding or keeping a job (Webber et al., 2014), poorer academic achievement (Kendler, Ohlsson, Mezuk, Sundquist, & Sundquist, 2016), and poorer physical health (Nash, 2013).

Prevalence of Mental Illness

The American Psychiatric Association has described mental illness as a health condition that leads to changes in thinking, emotions and/or behavior that result in distress and/or impaired functioning in social, work and/or family settings (American Psychiatric Association, 2015). This definition excludes substance use disorders. At any given time, one in five Americans suffers from mental illness (National Institute of Mental Health, 2014). In 2014, about 18.1% or approximately 43 million adults in the United States (U.S.) suffered from a mental illness (Substance Abuse and Mental Health Services Administration, 2012).

An estimated 16.1 million (6.7%) U.S. adults experienced at least one major depressive episode during 2015. Women suffer from depression at higher rates than men (8.5% versus 4.7%) (U. S. Department of Health and Human Services, 2016b). An estimated 18% of U.S. adults suffer from any anxiety disorder, including post-traumatic stress disorder, obsessive-
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compulsive disorder, and specific phobias. Women are 60% more likely to suffer from an anxiety disorder than men (U. S. Department of Health and Human Services, 2016a).

**Mental Health and Chronic Diseases**

People with mental illness are more likely to suffer from physical ill health than people without any mental disorder (Substance Abuse and Mental Health Services Administration, [SAMHSA], 2012). Chronic health conditions such as high blood pressure, asthma, diabetes, heart disease and stroke are more prevalent among those with mental illness than people without a mental disorder. Similarly, hospitalizations and emergency room visits for physical illnesses are more common among those with mental illness (SAMHSA, 2012). Furthermore, people with mental illness make less use of medical care and are less adherent to treatment for chronic diseases and higher risk of adverse health outcomes (Center for Disease Control and Prevention, 2011).

**Mental Health and the General Population Attitudes**

Parcesepe and Cabassa (2013) performed a literature review to explore attitudes of the general U.S. population toward people with mental illness. The authors included 36 articles in their review, 34 of which were published between 2000 and 2010. The first section of their review focused on stigmatizing attitudes toward mental illness, the second section focused on stigmatizing actions and the third section focused on attitudes toward help-seeking for mental health problems. The authors reported attitudes toward mental illness in adults and children, but given that this research concentrates on the adult population, only the articles that pertain to adults will be discussed. Furthermore, this dissertation focuses on attitudes toward mental illness and stigmatizing actions of providers, thus the attitudes toward help seeking for mental illness will be summarized very briefly.
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Stigmatizing Attitudes.

Twelve articles reported stigmatizing attitudes toward people with mental illness (Anglin, Link, & Phelan, 2006; Boyd, Katz, Link, & Phelan, 2010; Corrigan, Kuwabara, & O'Shaughnessy, 2009; Corrigan & Watson, 2007; Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Martin, Pescosolido, & Tuch, 2000; Perry, Lamont, Brunero, Gallagher, & Duffield, 2015; Pescosolido et al., 2010; Pescosolido, Monahan, Link, Stueve, & Kikuzawa, 1999; Phelan, 2000; Whaley, 1997; Wirth & Bodenhausen, 2009). Four articles included in the review found that the belief that people with mental illness were dangerous to themselves and others was very common among respondents (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999; Martin et al., 2000; Perry, Pescosolido, Martin, McLeod, & Jensen, 2007; Pescosolido et al., 1999). The perception of dangerousness varied depending on the mental illness: people with schizophrenia were perceived as more dangerous and prone to violence than those with depression (Anglin et al., 2006; Link et al., 1999; Martin et al., 2000) while people who suffered from depression were mostly perceived as dangerous to themselves (Pescosolido et al., 1999). The perception of dangerousness was different among race: white respondents were less likely to believe that individuals with mental illness were dangerous as compared to African Americans, Asians, or Hispanics (Anglin et al., 2006; Corrigan & Watson, 2007; Whaley, 1997). Two articles reported that higher levels of education were associated with lower perception of dangerousness of mentally ill people (Corrigan & Watson, 2007; Pescosolido et al., 1999). One article examined the impact of contact with mentally ill people and the perception of dangerousness (Whaley, 1997). The author reported that respondents who had contacts with mentally ill people had a lower perception of the danger posed by those individuals. Only one study included in the review reported public beliefs about blaming and punishment toward
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people with mental illness. The authors reported that respondents considered that people with schizophrenia should be punished for violent behavior, but were more forgiving toward people with depression (Anglin et al., 2006). Anglin et al. (2006) also reported that older people and less conservative people were less likely to consider that people with mental illness should be punished for their violent behavior, compared to younger people and more conservative people. Pescosolido et al. (1999) reported that people with schizophrenia were perceived as less financially competent and less capable of making treatment-related decisions than people with depression.

Since the publication of the papers cited in the Parcesepe and Cabassa (2013) review, five other studies that focused on stigmatizing attitudes were published. Stickney, Yanosky, Black and Stickney (2012) examined factors related to attitudes toward mental illness in a convenience sample of 466 participants from a state-funded university. The authors reported that respondents evidenced more stigmatizing attitudes toward men than toward women with mental illness. African American and Hispanic respondents reported significantly lower stigmatizing attitudes toward people with mental illness than White and Asian American respondents (Stickney, Yanosky, Black, & Stickney, 2012). Corrigan, Kosyluk, Fokuo, and Park, (2014) compared the impact of psychiatric medication advertising on attitudes toward mental illness between people with mental illness and those without. The authors recruited participants through an on-line site (Craigslist) and 107 people with no self-identified mental illness and 74 people with self-identified mental illness completed pre-exposure measurements. All the participants watched three TV advertisements, one of which included an advertisement for an antidepressant (Cymbalta). The other two advertisements were for Adidas sports shoes and Heineken light beer. The participants who represented the general population showed more stigmatizing attitudes
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toward people with mental illness after watching the antidepressant advertisement than before. They were less likely to offer help to people with mental illness, more likely to consider them as dangerous, and less likely to consider that people with mental illness may recover (Corrigan, Kosyluk, Fokuo, & Park, 2014). Richards, Hori, Sartorius, and Kunugi (2014) conducted a study exploring attitudes toward schizophrenia with an internet-based survey in Japan and in the U.S. that compared respondents’ attitudes toward schizophrenia between two groups in both countries: general population and physicians. U.S. respondents (n=172) who represented the general public held mostly positive attitudes toward people with schizophrenia. Thirty percent of respondents believed that patients with schizophrenia were not trustworthy, while fewer than half of the respondents (46.5%) would oppose the marriage of a family member with a person with schizophrenia, and fewer than half of the respondents (44.2%) considered people with schizophrenia to be dangerous (Richards, Hori, Sartorius, & Kunugi, 2014).

DeLuca and Yanos (2016) examined attitudes toward mental illness and treatment for mental illness among New York State (NYS) residents. The researchers enrolled 505 NYS residents to take part in an online survey that included measures of attitudes toward people with mental illness, as correlated with political orientation, and also social desirability bias. DeLuca and Yanos (2016) reported that social desirability had no impact on the outcome variables. The authors found that self-described political conservatism was positively correlated with the endorsement of negative stereotypes toward people with mental illness, and high endorsement of intended discriminating behaviors toward people with mental illness. Consistent with previous studies, across all political orientations, personal contact with people with mental illness was associated with lower stigma endorsement (DeLuca & Yanos, 2016).

Stigmatizing Actions.
Six articles included in Parcesepe & Cabassa (2013) focused on stigmatizing actions toward people with mental illness (Boyd et al., 2010; Corrigan et al., 2009; Corrigan & Watson, 2007; Link et al., 1999; Martin et al., 2000; Pescosolido et al., 2010). Stigmatizing actions, expressed as a desire for social distance from people with mental illness, varied by type of mental illness. Link et al. (1999) and Martin et al. (2000) found that respondents preferred to maintain higher distance from people with schizophrenia than those with depression. They also reported that more than a third of their respondents (38 – 47%) wanted to maintain social distance from people with depression. Pescosolido et al. (2010) reported that 62% of their respondents would be unwilling to work with a person with schizophrenia, and 52% responded that they would not socialize with a person with schizophrenia. Consistent with findings reported in the previous paragraph, perception of dangerousness was found to be associated with higher probability of stigmatizing actions (Martin et al., 2000). Boyd et al. (2010) reported that higher levels of contact with people with mental illness were associated with lower levels of stigmatizing actions. On average, women reported a lower desire for social distance from people with mental illness than did men (Martin, Pescosolido, Olafsdottir, & McLeod, 2007). Unlike in stigmatizing attitudes, race was not a predictor of stigmatizing actions (Boyd et al., 2010).

Two additional studies focused on stigmatizing actions. Smith, Reddy, Foster, Asbury and Brooks (2011) examined knowledge of and stigma toward people with schizophrenia among college students. The majority of their study sample (n=330) was female (63%) and all participants were undergraduate students from a U.S. southwestern university. The authors assessed the stigma toward schizophrenia using a social distance scale. Smith et al. (2011) reported that participants who expressed more knowledge of schizophrenia had less desire for a social distance toward people with schizophrenia. Among the respondents, personal knowledge
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of people with any mental illness was also associated with a lower desire for social distance from people with schizophrenia. Male respondents exhibited higher desire for social distance (Smith, Reddy, Foster, Asbury, & Brooks, 2011).

Anderson, Jeon, Blenner, Wiener, and Hope, (2015) examined stigmatizing actions of college students of a Midwestern university toward people with “general” mental illness versus depression or social anxiety. The authors measured stigmatizing actions with a desire for social distance questionnaire among 244 participants who received partial credit in psychology course for their participation. There was no significant difference between men and women in regard to the desire for social distance from people with any mental illness. The respondents expressed a higher desire for social distance from people with depression as compared to a desire for social distance from people with other mental illness or social anxiety. The researchers found that the desire for social distance increased as the perception of the Dangerousness of the mentally ill person increased (Anderson, Jeon, Blenner, Wiener, & Hope, 2015).

Attitudes Toward Help Seeking for Mental Illness.

Parcesepe and Cabassa (2013) included attitudes toward help-seeking for mental illness in their review, but a more recent literature review including 144 studies on this topic was published (Clement et al., 2015). Clement et al. (2015) reported that stigma was ranked as the fourth barrier toward help-seeking for mental illness, reported by 25 to 33% of respondents. The most important barriers to help-seeking were: the low perceived need for help among those who were aware that they had a mental health problem; the preference to handle the problem on one’s own prevented people from seeking help. The third barrier, called structural barrier, was the lack of health insurance or difficulty finding a provider. The authors concluded that mental health-related stigma had a low to moderate association with help seeking for mental health. They also
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found that participants in three studies included in the review had negative experiences with health professionals including facing condescending attitudes from the providers, feeling blamed for their illness, deserving their illness as a punishment for their deeds, considered to be attention seeking, hearing sarcastic comments, being disrespected, and being ignored (Barney, Griffiths, Christensen, & Jorm, 2009; Mishra, Lucksted, Gioia, Barnet, & Baquet, 2008; Strike, Rhodes, Bergmans, & Links, 2006).

Mental Health and Healthcare Provider Attitudes

Researchers examined diverse specialty providers in regards to their attitudes toward mental illness. This section summarizes research pertaining to mental health and primary care providers’ attitudes toward mental illness. Next, a comparison between mental health and primary care providers’ attitudes is discussed, followed by a review of other providers’ (emergency department staff and pharmacists) attitudes toward mental illness.

Mental Health Provider Attitudes.

Brener, Rose, von Hippel, and Wilson, (2013) explored implicit and explicit attitudes toward people with mental illness among 74 mental health workers from a non-governmental organization in two states in Australia, reporting that they displayed mostly positive explicit attitudes toward people with mental illness. However, the implicit attitudes revealed unconscious negativity toward people with mental illness. The participants who had more negative implicit attitudes toward people with mental illness also showed more negative emotions and were less likely to exhibit helping behavior toward their clients (Brener, Rose, von Hippel, & Wilson, 2013).

Stull, McGrew, Salyers, and Ashburn-Nardo, (2013) explored implicit and explicit attitudes toward people with mental illness among Assertive Community Treatment (ACT) team
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members. A total of 154 participants from 55 ACT teams from eight states, accepted to participate in this internet-based study. In this study, the participants expressed their implicit and explicit attitudes toward people with mental and physical illness. Contrary to authors’ expectations, the participants reported implicit preferences for people with mental illness. Respondents viewed people with mental illness as relatively good, competent, and innocent when compared to respondents’ attitudes toward people with physical illness. Another interesting finding of this study is that higher levels of contact with people with mental illness was correlated with more positive attitudes toward those people: staff members, who spent more time with their clients than staff leaders or program directors, held more positive attitudes toward people with mental illness than they held toward people with physical illness (Stull, McGrew, Salyers, & Ashburn-Nardo, 2013).

Dabby, Tranulis, and Kirmayer (2015) conducted an internet-based survey with Canadian psychiatry residents and psychiatrists (35 and 68, respectively). The authors explored respondents’ implicit and explicit attitudes toward a person with schizophrenia compared to a person with diabetes mellitus and reported that the respondents had positive implicit attitudes toward people with schizophrenia compared to a person with diabetes. However, the explicit attitudes as measured with a social distance scale were mostly negative, i.e., the respondents expressed a higher desire for social distance from a person with schizophrenia than from a person with diabetes. The authors did not find any correlation between implicit and explicit attitudes that may imply the lack of social desirability bias in the respondents. Another finding from this study confirmed previous research results: higher contact with people with mental illness was correlated with more positive implicit attitudes about those people (Dabby, Tranulis, & Kirmayer, 2015).
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Hansson, Jormfeldt, Svedberg, and Svensson, (2013) conducted a cross-sectional study in southwestern Sweden in 14 mental health services which included 140 members and 141 patient participants. The authors reported that staff and patients’ attitudes toward people with mental illness were generally negative. The most negative attitudes held by staff members was as regards employment prospects for their patients, with 75.6% agreeing with the statement that employers would pass over a candidate with mental illness. Two-thirds of respondents (67.4%) believed that a man with mental illness would not find a woman to date him, and 66.7% reported that people would not hire a woman with mental illness to take care of their children, even if she recovered from her illness. Hansson et al. (2013) also reported differences between inpatient and outpatient staff members in their attitudes toward people with mental illness. Staff members who worked in inpatient settings displayed more negative attitudes toward people with mental illness than did those who worked in outpatient services (Hansson, Jormfeldt, Svedberg, & Svensson, 2013).

Stuber, Rocha, Christian, and Link (2014) conducted an online survey of 731 mental health professionals (response rate 49%). Consistent with other studies, the authors found that respondents held more positive attitudes toward people with depression than towards those with schizophrenia. Respondents assumed that people with schizophrenia were more violent toward others than people with depression (30% versus 4%); respondents were more strongly opposed to a family member marrying a person with schizophrenia than one with depression (45% versus 22%); and believed that people with schizophrenia were less capable of making decisions concerning their treatment than were people with depression (25% versus 5%). Another finding pertained to personal knowledge of mental illness: respondents who had personal contact with people with mental illness (i.e., a friend or a family member) held more positive attitudes toward
people with mental illness and exhibited less desire for social distance from them. Furthermore, 32% of respondents identified themselves as having a mental illness (higher than the national average), thus probably leading to more positive attitudes toward their patients (Stuber, Rocha, Christian, & Link, 2014).

Chen and Chang (2016) conducted a cross-sectional study in a psychiatric hospital in Taiwan with 311 participants and reported that respondents held mostly positive attitudes concerning rehabilitation of people with mental illness, but mostly negative attitudes toward acceptance of people with mental illness as close friends or family members. The respondents also endorsed mixed attitudes concerning the integration of people with mental illness into the community. The hospital staff members displayed positive attitudes toward people with mental illness but indicated they would not engage in intimate relationships with them (Chen & Chang, 2016).

**Primary Care Providers’ Attitudes.**

Corrigan et al. (2014) examined primary care providers’ decisions in pain management of a patient with schizophrenia. One hundred sixty-six respondents from primary care and mental health services read a vignette that presented a patient who had multiple medical problems, schizophrenia, and chronic back pain. After reading the vignette participants responded to questions assessing their personal attitudes toward mental illness and their comfort in seeking professional mental health services. Respondents who held higher stigmatizing attitudes were less likely to seek professional help for their own mental health problems. In turn, more stigmatizing attitudes were associated with lower confidence in patient’s medication adherence. Low confidence in treatment adherence resulted in fewer pain medication refills and referrals to a specialist. Interestingly, there was no statistically significant difference between specialty,
suggesting that professional training in mental health had no positive influence on providers’
confidence in patient’s adherence to treatment (Corrigan et al., 2014).

Noblett, Lawrence, and Smith (2015) conducted a study in three general hospitals in
south west London. Fifty-two residents participated (a low participation rate, 10%). Respondents
read vignettes that represented people who came to the hospital complaining of chest pain with
various comorbid mental and physical disorders. They reported that participants held more
negative attitudes toward hypothetical patients with comorbid schizophrenia and the most
positive attitudes toward a person with comorbid diabetes. Female respondents held more
positive attitudes toward all patients, regardless of their comorbid diagnoses, but those sex
variations were not statistically significant for most disorders, with the exception of depression
conducted a mixed-methods study with 256 primary care physicians in Massachusetts. The
participants viewed video vignettes that represented patients with poorly managed diabetes and
four comorbidities: eczema, depression, schizophrenia with bizarre affect, or schizophrenia with
no bizarre affect. Respondents’ attitudes toward patients varied depending on the comorbidity.
After viewing the vignette, the participants were asked to chart as if they just saw this patient and
then responded to interview questions. The patient from the vignette who had comorbid
schizophrenia with bizarre affect was viewed as unpredictable, dangerous, and possibly violent
to self or others. About two-thirds of (63%) of respondents considered that a patient with
comorbid schizophrenia with bizarre affect could self-manage medications, as compared to 85%
of patients with depression. The respondents also considered that the patient with schizophrenia
with bizarre affect as lacking competence and not intelligent, as compared to the patient with
eczema. However, those attitudes did not have any significant impact on clinical management of
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the patient’s diabetes or scheduled follow-up. The information gathered from the charts
confirmed that the participants’ attitudes had no impact on clinical management of various
patients (Welch, Litman, Borba, Vincenzi, & Henderson, 2015).

Saridi, et al. (2017) conducted a cross-sectional study that explored the attitudes of health
professionals toward a person with depression and the treatment options. The study took place in
a large general hospital in Corinth province, Greece and 609 health professionals (including 9
psychologists, but no other mental health professional) agreed to participate (76% response rate).
The participants read a vignette describing a hypothetical person, Maria, who displayed
depressive symptoms. Most respondents (58.2%) considered that the person’s depression was a
result of her weak character, and less than a half (41.8%) considered that she could recover
without treatment if she wanted to. However, the respondents exhibited mostly positive attitudes
toward Maria: they considered her likable (85.6%), would hire her (70.9%), and did not consider
her to be dangerous (65.1%). The preferred treatment option for depression was to talk with a
familiar person (74.4%), and more than a half of the respondents (60.6%) recommended
psychoanalysis (more than one treatment option). Half of the respondents considered psychiatric
medications as addictive (50.3) but more effective than natural or homeopathic products (45.8%)
(Saridi et al., 2017).

Comparison of Mental Health and Primary Care Provider Attitudes.

Mittal et al. (2014) studied mental health and primary care staff attitudes toward people
with and without schizophrenia. The 351 participants included nurses (67 in mental health, and
91 in primary care), psychiatrists (62), psychologists (76), and primary care physicians (55)
employed by five Veterans Health Administration hospitals in the southeast and south central
area of the U.S. They found that primary care providers held more stereotyping attitudes toward
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people with schizophrenia than those without, while the mental health providers did not. However, both mental health and primary care providers expressed a greater desire for social distance from people with schizophrenia than from people without schizophrenia. Mittal et al. (2016) conducted a cross-sectional study with 192 providers from the Veteran Health Administration hospitals in the south-east and central areas of the U.S. Their participants were nurses and physicians who worked in primary care (36%), and nurses, psychologists, and psychiatrists who worked in mental health (64%). The authors hypothesized that personal and professional exposure to mental illness would be associated with more positive attitudes toward a person with schizophrenia, which in turn would result in more positive clinical expectations. Their hypotheses were supported by the data. Participants from the primary care settings who held stigmatizing stereotypes of the patient were less likely to expect that the patient would adhere to treatment, so they were less likely to make referrals to specialists or to write refill prescriptions. Among all participants, personal and professional exposure to mental illness was associated with less stigmatizing attitudes toward the patient with schizophrenia. However, personal exposure to mental illness had no significant association with clinical expectations, while professional association with mental illness was associated with more negative clinical expectations (Mittal et al., 2016).

Gras et al. (2015) conducted a pilot study to examine primary care, mental health, and forensic providers’ attitudes toward psychiatry and people with mental illness. They enrolled 55 primary care, 67 mental health, and 53 forensic professionals and reported that all groups reported mostly positive attitudes toward people with mental illness. However, primary care practitioners held the most stigmatizing attitudes, followed by forensic professionals, while mental health professionals hold the least stigmatizing attitudes. All three groups of
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professionals believed that the public should be protected from people with severe mental illness, and would not disclose to a colleague if they themselves had a mental illness. The latter finding is surprising because almost one-third (31%) of respondents reported having mental health problems. Primary care professionals reported stigmatizing attitudes toward psychiatry in general, considering working in the mental health field was less respectable than other medical fields (Gras et al., 2015).

Other Providers’ Attitudes.

O’Reilly, Bell, Kelly, and Chen (2015) examined stigmatizing actions toward people with mental illness and the willingness to provide services to clients with schizophrenia among 188 pharmacists from South Wales, UK. The authors reported that respondents endorsed more stigmatizing actions in regard to close relationships, such as having a person with schizophrenia as a babysitter, than for more distant relationships such as having the same person as a neighbor. The respondents who held higher stigmatizing attitudes were less willing to offer pharmacy services such as medication counseling or to explain medication interactions and side effects. Consistent with previous studies, respondents who disclosed having mental illness were also more willing to provide pharmacy services to people with schizophrenia. Contrary to other studies that reported that females had more positive attitudes toward people with mental illness, female pharmacists were less willing than their male counterparts to provide clients with schizophrenia with information pertaining to drug-drug interaction and medication side effects (O’Reilly, Bell, Kelly, & Chen, 2015).

Shefer, Henderson, Howard, Murray, and Thornicroft (2014) conducted a qualitative study to explore the phenomenon of “diagnostic overshadowing” that refers to the provider’s over-attributing patient’s symptoms to some underlying physical condition, which results in
under-treatment or lack of treatment for the physical co-morbidity. Twenty-one nurses and 18 physicians from four emergency departments in London hospitals were interviewed by the researchers. The majority of respondents (77%) reported incidents where the mental health diagnosis led to either delayed physical examination or misdiagnosis. The most serious consequence of diagnostic overshadowing was patients’ death: two patients died in the hospital, two others died days after discharge, and in five cases delayed diagnosis led to long term negative consequences to the patients. The authors reported that there were two main factors that could lead to misdiagnosis or delayed treatment: first, the direct cause, i.e., the nature of a patient’s presentation with medically unexplained symptoms; second, background factors, such as a crowded nature of the emergency department environment and the pressures put on staff. However, because the authors focused on diagnostic overshadowing, they did not report the frequencies of those events relative to diagnosis and care of physical symptoms (Shefer, Henderson, Howard, Murray, & Thornicroft, 2014).

**Nurses’ Attitudes Toward Mental Illness**

Nursing is the largest healthcare workforce profession in the U.S. and nurses currently spend more time with patients than do other health care professionals. Since nurses’ attitudes toward mentally ill patients may contribute to or hinder patient recovery, gaining a better understanding of nurses’ attitudes toward those patients is of high importance. Given the importance of nurses’ attitudes toward mental illness, an integrative literature review was conducted as Aim 1 of this dissertation. This section introduces a literature review on nurses’ attitudes toward mental illness (details in Chapter II), followed by a presentation of recent research.
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Nurses’ attitudes toward patients with mental illness were examined in the integrative literature review which was part of this dissertation (de Jacq, Norful, & Larson, 2016). See Chapter II for the full manuscript. This review included studies published between 1995 and 2015. Since then, Ihalainen-Tamlander, Vahaniemi, Loyttyniemi, Suominen, and Valimaki, (2016) conducted a cross-sectional study to examine nurses’ attitudes toward mental illness. The researchers enrolled 218 (response rate 84%) nurses who worked in 15 primary care centers in Finland. The participants read a vignette that described a hypothetical person with a diagnosis of schizophrenia and responded to a questionnaire survey statements pertaining to the person from the vignette. The authors reported that respondents held mostly positive attitudes toward the person in the vignette. The respondents exhibited high willingness to help the patient and did not consider him to be dangerous. They also reported feeling pity for that person and almost no anger. The only mildly negative attitudes that the nurses-respondents reported was an agreement with coercive attitudes: most respondents agreed that the patient should be forced to take the medication, even against his will (Ihalainen-Tamlander, Vahaniemi, Loyttyniemi, Suominen, & Valimaki, 2016).

Alexander, Ellis, and Barrett (2016) conducted a literature review that focused on medical-surgical nurses’ attitudes toward caring for patients with mental illness. The authors included nine studies in their review (Alexander, Ellis, & Barrett, 2016). Among them was one literature review (van der Kluit & Goossens, 2011), one case study (Zolnierek & Clingerman, 2012), one cross-sectional study (McDonald et al., 2003), and six qualitative studies (Arnold & Mitchell, 2008; Atkin, Holmes, & Martin, 2005; Lethoba, Netswera, & Rankhumise, 2006; MacNeela, Scott, Treacy, Hyde, & O'Mahony, 2012; Mavundla, 2000; Reed & Fitzgerald, 2005). Nurses identified various problems encountered with mentally ill patients: they did not know
how to care for those patients (Arnold & Mitchell, 2008; Mavundla, 2000), did not consider that those patients should be cared for on a medical-surgical unit (Reed & Fitzgerald, 2005), patients with mental illness were perceived as dangerous and disruptive (Atkin et al., 2005; Zolnierek & Clingerman, 2012), stigma (Arnold & Mitchell, 2008), and nurses reported lack of adequate training to care for patients with mental illness (Arnold & Mitchell, 2008; Atkin et al., 2005; Mavundla, 2000; Reed & Fitzgerald, 2005; van der Kluit & Goossens, 2011). However, nurses from one study (n=124) reported that they felt comfortable to care for patients with mental illness (Lethoba et al., 2006). Authors of five studies reported that medical-surgical nurses considered that the psychiatric diagnosis overshadowed medical needs of those patients (Lethoba et al., 2006; MacNeela et al., 2012; Mavundla, 2000; McIntyre & McDonald, 2013; Zolnierek & Clingerman, 2012).

**Context for the Dissertation Research**

Current research reveals that health care providers’ attitudes toward people with mental illness parallel those of the general public. There appears to be consistency in attitudes toward mental illness among all providers: physicians, psychiatrists, pharmacists, emergency department staff and nurses. Even though it is important to understand attitudes toward mental illness and factors related to them among all providers, this dissertation focuses on the nurses, as they are the largest healthcare profession.

While the literature review examining nurses’ attitudes toward mental illness provided important information, it also identified some limitations in the existing research. First, none of the studies described above used a theoretical framework to guide the research. Second, only one of the described studies was conducted in the U.S (Zolnierek & Clingerman, 2012), and it focused on one nurse perception of care for one patient with mental illness, not on attitudes of
nurses in general. Therefore, in order to properly evaluate the attitudes of nurses toward patients with mental illness disorders in the U.S., there is a need to select a theoretical framework to guide this study that focuses on nurses’ attitudes toward mental illness.

The selection of a theoretical framework is described in Chapter III of this dissertation proposal. Briefly, the attitudes towards mentally ill patients are driven/affected by beliefs and stereotypes that people hold toward the mentally ill. Stigmatization of a mentally ill person may occur on three levels: social, interpersonal and individual. This dissertation focuses on interpersonal stigma because of the importance of exploring providers’, specifically nurses’, possible stigmatizing attitudes.

As discussed by Rusch et al. there are currently two leading theories of mental health stigma: the Cognitive and Behavioral Model of Corrigan and his colleagues and the Modified Labelling Theory of Link and his colleagues (Rüsch, Angermeyer, & Corrigan, 2005). Other theories exist, but they have not been used by researchers other than the authors of those theories. Therefore, they are not adequately supported by evidence. These two theories are summarized, compared, and assessed in Chapter III.

The background and methods of dissertation study that examined nurses’ attitudes toward mental illness is presented in Chapter IV. Briefly, the proposed study had two primary objectives. First, to examine psychiatric nurses’ beliefs about devaluation and discrimination of people with mental illness and factors related to these beliefs. Second, to examine psychiatric nurses’ stigmatizing actions toward people with schizophrenia or depression versus patients with no mental illness. Psychiatric nurses’ attitudes toward devaluation and discrimination of people with mental illness was measured with the Devaluation – Discrimination Scale (Link, Cullen,
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Frank, & Wozniak, 1987). Stigmatizing actions were measured with the help of the Social Distance Scale (Link, 1987).

Dissertation Aims

In summary, the three major aims of this dissertation were as follows:

1) To conduct an integrative review of the literature to examine nurses’ attitudes toward patients with mental illness (Chapter II). This review was published in the December 2016 issue of the *Archives of Psychiatric Nursing*.

2) To analyze and evaluate two leading theories of mental health stigma (Chapter III).

3) To examine psychiatric nurses’ beliefs about devaluation and discrimination of people with mental illness and factors related to these beliefs; to examine psychiatric nurses’ and mental health workers’ desire for social distance from people with schizophrenia or depression versus patients with no mental illness; and to assess the extent to which study results were consistent with the theoretical underpinnings of the MLT (Chapter IV).
CHAPTER II

The Variability of Nursing Attitudes Toward Mental Illness:

An Integrative Review (Aim I)

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Abstract

Mental illnesses are common worldwide, and nurses' attitudes toward mental illness have an impact on the care they deliver. This integrative literature review focused on nurses' attitudes toward mental illness. Four databases were searched between January 1, 1995 to October 31, 2015 selecting studies, which met the following inclusion criteria: 1) English language; and 2) Research in which the measured outcome was nurses' attitudes toward mental illness. Fourteen studies conducted across 20 countries that 4282 participants met the inclusion criteria. No study was conducted in the United States (U.S.). Studies reported that nurses had mixed attitudes toward mental illness, which were comparable to those of the general public. More negative attitudes were directed toward persons with schizophrenia. Results indicate the need for further research to determine whether attitudes among nurses in the U.S. differ from those reported from other countries and to examine potential gaps in nursing curriculum regarding mental illness.

Introduction

Mental illnesses are common worldwide and represent the fifth leading disorder globally (Whiteford et al., 2013). About 450 million people suffer from mental illnesses worldwide (World Health Organization, 2001). In the United States (U.S.) alone, over 43.7 million of adults, 18.6% of all the population, have a mental illness diagnosis (National Alliance for the Mentally Ill, 2013). Effective treatments exist, but only 39% of people with diagnosed mental
illness receive treatment and among those who receive treatment, one in five terminate treatment prematurely (National Institute of Mental Health, 2011; Olfson et al., 2009).

Various factors play a role in decision-making as it pertains to seeking help for mental illness. Those factors include financial concerns, poor self-perception, limited access and stigma (Mojtabai et al., 2011). Goffman (1963) defines social stigma as an attribute that is discredited by society. Hatzenbuehler, Phelan, & Link (2013), suggested in a recent review that stigma related to mental illness causes health inequalities by preventing people from seeking help that they need. People with depression are more likely to suffer from physical health comorbidities and are reported to be twice as likely as non-depressed patients to have two or more physical illnesses (Smith et al., 2014). According to the Anxiety and Depression Association of America (ADAA), anxiety disorders cost the U.S. more than $42 billion per year, representing almost a third of total mental health spending (Anxiety and Depression Association of America, 2010). People who suffer from anxiety disorders are three to five times more likely to visit primary care and gastroenterology than people without the disorder, resulting in increased health care costs (Hoffman, Dukes, & Wittchen, 2008).

Delaying treatment for mental illness may result in negative consequences. The longer the duration of untreated illness, the worse the outcomes in psychosis, mood disorders and anxiety disorders (Dell'osso, Glick, Baldwin, & Altamura, 2012). Furthermore, after initiation of treatment, non-adherence and dropout rates may result in unfavorable outcomes (Barrett et al., 2008).

A negative patient-provider relationship, or personal and professional characteristics of the providers, may compel the patient to leave treatment (Reneses, Munoz, & Lopez-Ibor, 2009). Hoge et al. (2014) performed a study at a U.S. Veterans Administration Hospital and reported
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that dissatisfaction with the provider was one of the reasons for patients to drop out of treatment (Hoge et al., 2014). Furthermore, in a recent integrative review, Newman, O'Reilly, Lee, and Kennedy, (2015) underlined the importance of relationships between the providers, such as nurses, and the patients who were seeking help for mental health problems. In addition to the patient-provider relationship, the impact of provider stigma is emerging in the literature, and has been identified as the strongest barrier toward help seeking behavior of individuals with mental illness (Corrigan, 2004; Evans-Lacko, Brohan, Mojtabai, & Thornicroft, 2012; Hinshaw & Stier, 2008; Kim, Britt, Klocko, Riviere, & Adler, 2011). Newman, O'Reilly, Lee, and Kennedy, (2015) re-iterated the importance of stigma, affirming that negative nursing attitudes toward mental illness have a profound impact on the delivery of care. Similarly, McDonald et al. (2003) confirm that the nurses’ care of patients is negatively impacted if the patient has a mental illness. The investigators presented vignettes that represented three patients admitted to the emergency room with a possible myocardial infarction. 1) The patient was taking an antipsychotic medication; 2) The patient was taking alprazolam (Xanax), a medication used to treat anxiety disorder; and 3) The patient had no history of psychiatric treatment (control). A significant difference in symptom recognition was found. Only 31% of nurses who read the first vignette identified a possibility of myocardial infarction in a patient taking antipsychotic medications compared to 51% of nurses in the control group. Additionally, when patients were experiencing increased anxiety, 78.9% of nurses in the control group stated that they could be having a heart attack versus 45.5% only in the psychotic patient group. This study highlights a general tendency of nurses to stereotype patients with mental illness thereby responding differently to them (McDonald et al., 2003). Corrigan et al., (2014) found that providers’ attitudes were different toward patients with a diagnosis of mental illness than toward those without.
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Although the factors that influence attitudes regarding mental illness have been studied for many years (Ajzen, 2005; Ajzen & Fishbein, 1980; Fishbein, 2010; Fishbein & Ajzen, 1975; Fishbein, Ajzen, Albarracin, & Hornik, 2007), to our knowledge, there has been no integrative literature review exploring nursing attitudes toward patients with mental illness. Obtaining a clear understanding of nursing attitudes may inform policy and be used to implement change to ensure optimal patient care.

Aim

The aim of this integrative review was to conduct an integrative literature review to explore nurses’ attitudes toward patients with mental illness.

Methodology

Defining Mental Illness

The Centers for Disease Control and Prevention (2013) defines mental illness as “disorders generally characterized by dysregulation of mood, thought, and/or behavior, as recognized by the Diagnostic and Statistical Manual, 4th edition, of the American Psychiatric Association.” People with mental illness have impaired thinking, and their feelings may affect their ability to function on a daily basis. For the purpose of this review, we used the terms mental illness, mental disorders, and psychological problems interchangeably, which included, but not limited to, mood and psychotic disorders, as well as anxiety. Given the change in mental illness criteria introduced by DSM IV in 1994, only studies that used DSM IV and DSM V were included (American Psychiatric Association, 1994, 2013).

Literature Search

The conduct of this integrative review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) statement (Liberati, Altman, Tetzlaff, &
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Mulrow, 2009). We searched the following databases: Ovid MEDLINE, PsycINFO, CINAHL, and PubMed in September, 2015. The following Medical Subject Heading (MeSH) terms were searched: (‘mental illness’ OR ‘mental health’) AND (‘nurses’ OR ‘nurs*’) AND (‘stereotyp*’ OR ‘stigma’ OR ‘prejudice’ OR ‘discrimination’ OR ‘attitudes’ OR ‘beliefs’).

Data were initially extracted from the four databases by the first author who screened all articles’ titles and abstracts. Two authors independently assessed selected full text articles for eligibility, and the discrepancies were resolved by discussion. The inclusion criteria were studies published between January 1, 1995 and October 31, 2015 in English and included nurses as participants in which the measured outcome was nursing attitudes toward mental health and/or illness in patients. Personal accounts, editorials, and/or single case studies, studies not written in English, and studies that explored attitudes of other professionals were excluded.

Quality Appraisal

The methodological quality of the studies was assessed using Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (QATOCCS) from the National Institute of Health, National Heart, Lung, and Blood Institute. The QATOCCS was modified to fit the needs of cross-sectional studies, as many questions were relevant to cohort studies only. Two researchers appraised the quality of the studies and 100% consensus of each study’s quality was achieved. Studies were rated in tertiles: low quality (0 – 33%), moderate quality (34 – 66%), and high quality (67 – 100%).

Results

The initial database search yielded 2,615 articles, and 2,343 remained after duplicates were removed. Following title screening, 770 papers were identified as potentially eligible and 701 articles were excluded after title and abstract review, leaving 69 articles for full text
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screening. Fourteen articles met the inclusion criteria. A search of the reference lists of the 14 final articles yielded an additional five articles eligible for inclusion in the study. A full text review by two researchers was performed again and one of the five articles was included in the final review yielding 15 studies that met initial eligibility criteria.

Quality Appraisal

Two researchers reached consensus on the quality of each study. Twelve studies were determined to be of high quality (Arvaniti et al., 2009; Chambers et al., 2010; Foster, Usher, Baker, Gadai, & Ali, 2008; Hamdan-Mansour & Wardam, 2009; Hsiao, Lu, & Tsai, 2015; Linden & Kavanagh, 2011; Magliano et al., 2004; Munro & Baker, 2007; Nordt, Rössler, & Lauber, 2006; Scheerder et al., 2011; Serafini et al., 2011; Sevigny et al., 1999). One study score within the moderate quality range (Kukulu & Ergun, 2007). Two studies received lower quality scores because some key methodological elements were not reported, including sampling, sample recruitment and size, and lack of information about study measures. One of these lacked sufficient methodological rigors to be included, leaving 14 studies remaining in the final synthesis of the review. A PRISMA flow diagram is presented in Figure 2.1.

The studies were conducted across 20 countries. None of the studies were performed in the U.S. Eight of the studies were conducted in Europe (two of which included more than one country), four in Asia, and three in the Middle East. Of the 14 studies, six focused on attitudes toward schizophrenia and/or depression, while the remaining nine concentrated on mental illness in general. All of the studies had a cross-sectional design. Twelve studies included mental health nurses who worked with mentally ill inpatients or outpatients. Aydin, Yigit, Inandi, & Kirpinar (2003) conducted a study in an outpatient, non-psychiatric setting. Arvaniti et al. (2009) and
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Serafini et al. (2011) performed their studies on medical rather than psychiatric units. Study characteristics and key findings are presented in Table 2.1.

**Study Measures**

Numerous measures were utilized across studies. Three studies used the Attitudes Toward Acute Mental Illness Scale (ATAMH33) (Baker, Richards, & Campbell, 2005) and four studies used Community Attitudes towards Mental Illness (CAMI) (Taylor & Dear, 1981). The following measures were in at least one study: The Level of Contact Report (Holmes, Corrigan, Williams, & Canar, 1999), the Opinion about Mental Illness (Madianos, Madianou, Vlachonikolis, & Stefanis, 1987), the Authoritarianism Scale (Adorno, 1950), Social Distance (Arkar, 1991), Burden of Illness (Eker & Arkan, 1991), Jefferson Scale of Empathy-Health Profession version (Hojat, Gonnella, Nasca, Mangione, & et al., 2002), Attitudes of Mental Illness Questionnaire (Luty, Fekadu, Umoh, & Gallagher, 2006), Social Interaction Scale (Kelly, St Lawrence, Smith, & Hood, 1987), Social Acceptance Scale (Angermeyer & Matschinger, 1997), and Standardized Stigma Questionnaire (Haghighat, 2005). Kukulu and Ergun, (2007) utilized an adaptation of multiple instruments, but the researchers were unable to assess its validity because the instruments’ descriptions and psychometric testing were only being available in studies published in the Turkish language.

**Findings**

In these studies, attitudes toward mental illness were compared between psychiatric nurses and nurses working in non-psychiatric settings as well as between nurses and the general public. Finally, as discussed below, four common themes emerged: 1) etiology of mental illness; 2) social restrictiveness and distance; 3) perceived dangerousness; 4) attitudes specific to schizophrenia and depression.
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Attitudes of psychiatric nurses compared to nurses working in other settings

Nursing attitudes were examined first by comparing nurses that were working on psychiatric wards compared to non-psychiatric nurses working on a medical ward or outpatient clinics. However, no study compared directly psychiatric versus non-psychiatric nurses. Authors of three studies reported the attitudes of non-psychiatric nurses (Arvaniti et al., 2009; Aydin et al., 2003; Scheerder et al., 2011). Arvaniti et al., (2009) reported both positive and negative nursing attitudes toward mental illness. For example, 60.7% of nurses in this study agreed that mentally ill patients should be separated from patients without mental illness. On the contrary, 76% of psychiatric and non-psychiatric nurses in this study viewed mentally ill patients as not being dangerous. Aydin et al., (2003) reported that nurses endorsed social discrimination more than the doctors and showed low support for social integration. They also endorsed social restriction more than other professionals, such as doctors and medical students. However, nurses endorsed social care questions at a higher level than other groups. Negative nursing attitudes toward patients with schizophrenia and depression were also reported. This finding was consistent among studies that examined both psychiatric and non-psychiatric nurses.

Scheerder et al. (2010) found that non-psychiatric nurses held mostly positive attitudes toward people with depression. Sixty percent of nurses considered depression as an illness and 81.9% of respondents agreed (n=1533) that depression was treatable. However, nurses’ attitudes were less positive compared to other mental health professionals, such as clinical social workers, psychologists, and counselors, which can be explained by lack of specialty training among nurses as compared to professionals in mental health.

There was a variability of psychiatric nurses’ attitudes across studies. Three studies reported positive attitudes (Chambers et al., 2010; Linden & Kavanagh, 2011; Munro & Baker,
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2007) and four studies exemplified negative attitudes (Hamdan-Mansour & Wardam, 2009; Hsiao et al., 2015; Magliano et al., 2004; Sevigny et al., 1999). The remaining studies were a combination of both positive and negative (Foster et al., 2008; Kukulu & Ergun, 2007; Nordt et al., 2006; Serafini et al., 2011).

In a large European study, Chambers et al. (2010) assessed attitudes of 810 mental health nurses and reported that respondents rejected authoritarian attitudes as well as the desire for social distance toward people with mental illness and not only displayed benevolent attitudes, but also endorsed community integration. Linden and Kavanagh (2011) reported similar results. Munro and Baker (2007) reported that their respondents mostly agreed with positive statements, such as “psychiatric illness deserves at least as much attention as physical illness” (95.7% agreement) and disagreed with negative statements, such as “depression occurs in people with weak personality” (90% disagreed). It is important to mention, that even in studies that reported mostly positive attitudes, there were some negative attitudes, such as consideration that psychiatric drugs were used to control disruptive behavior (61.7% agreement), and that nurses perceived mentally ill patients with pessimism (semantic differential: pessimism – optimism).

Authors of four studies reported that psychiatric nurses had mostly negative attitudes (Hamdan-Mansour & Wardam, 2009; Hsiao et al., 2015; Magliano et al., 2004; Sevigny et al., 1999). Majority of nurse respondents considered that psychiatric illness did not deserve as much attention as physical illness (94.6%, 87/92), 84.8% (78/92), considered that a person with mental illness had no control over her or his emotions, and 68.5% (63/92) agreed that depression was occurring in people with weak personality (Hamdan-Mansour & Wardam, 2009). Hsiao et al. (2015) found that psychiatric nurses had significantly more negative attitudes toward patients with schizophrenia than nurses who worked in community-based clinics, and that nurses had
more negative attitudes toward people with schizophrenia than those with depression. Magliano et al. (2004) reported that 86% (163/190) of nurses considered people with schizophrenia as unpredictable and 87% (165/190) considered that people were keeping away from patients with schizophrenia. Nurses also agreed that patients with schizophrenia should not have children (72%, 137/190), and that they should not get married (63%, 119/190), (Magliano et al., 2004). Even though most responses were negative, nurses also agreed with positive statements and considered that patients with schizophrenia should be allowed to vote (63%, 119/190), and that they were as able to work as other people (79%, 150/190), (Magliano et al., 2004). Sevigny et al., (1999) reported that nurses mostly held negative attitudes toward mentally ill people and generally more negative than physicians. Thirty eight percent of nurses considered a mental illness as any other illness (n=74) and 63% displayed authoritarian attitudes toward mentally ill patients. Nurses in Sevigny et al., (1999) also reported positive attitudes. Almost 60% of respondents disagreed that lack of discipline and will power was causing mental illness.

Four studies reported mixed attitudes (Foster et al., 2008; Kukulu et al., 2007; Serafini et al., 2011; Nordt et al., 2006). The authors of all four studies reported results that showed negative and positive attitudes toward mental illness. Nordt et al., (2006) reported that nurses endorsed negative stereotypes of mentally ill people, but opposed restriction of civil rights of the mentally ill. Serafini et al., (2011) reported that while 75% of nurses believed that people with schizophrenia were unpredictable and 80% expressed a desire for social distance, 60% did not believe that people with schizophrenia were dangerous (n=50). Kukulu and Ergun, (2007) also confirmed the desire for social distance: while 56.7% of nurses said that they could work with a person with schizophrenia, 91.7% would not marry a person with that disorder (n=543). Foster et al., (2008) also reported mixed attitudes among their respondents: while 91.3% of nurses
considered that people with a psychiatric history should be given jobs with responsibilities,
91.3% said that psychiatric medications were used to control disruptive behavior instead of being
used to control the symptoms (n=23).

**Attitudes of nurses compared to the general public**

Three studies compared nurses’ attitudes toward mental illness with non-healthcare
professionals such as family members and the general public, with mixed results (Magliano et al., 2004; Scheerder et al., 2011). Magliano et al. (2004) reported that nurses (n=190) had more
negative attitudes than the relatives (n= 709) of patients with mental illness. For example, 86%
of nurses believed that patients with schizophrenia were unpredictable compared with only 65%
of relatives having the same attitude. In addition, 72% of nurses compared to 32% of relatives
considered that mentally ill patients should be punished for wrong behavior in the same manner
as other people. In regards to personal civil rights, nurses and relatives had similar attitudes
about whether those with schizophrenia should have children (29%) or have the right to vote
(66%). Finally, while almost half of the relatives (44%) considered that mentally ill people
could work in jobs similar to others, 79% of nurses disagreed.

In a second study, Nordt et al., (2006) compared five groups, including nurses and 253
members of the general population. The nurses and the general population agreed with negative
stereotypes of the mentally ill at a similar level. However, while 54% of nurses opposed
revocation of the Driver’s License, 65.7% of the general public endorsed that restriction. More
members of the general public than nurses considered that the mentally ill people should not vote
(19.6% vs. 2.8%), and while almost all nurses agreed to compulsory admission (98.2%), 67.5%
of general public respondents endorsed this option.
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In the third study (Scheerder et al., 2010), community facilitators (clergy, police, youth workers, pharmacists, social workers and volunteers) were asked their opinions about depression and were compared with mental health professionals and nurses. While 77% of community facilitators considered that depression is a real disease, 60% of nurses endorsed that opinion. Both groups agreed that depression could be treated (83.4% of community facilitators vs. 81.9% of nurses).

Specific themes

Etiology of mental illness

Seven studies reported nurses’ beliefs about the etiology of mental illness (Foster et al., 2008; Kukulu & Ergun, 2007; Magliano et al., 2004; Munro & Baker, 2007; Scheerder et al., 2011; Serafini et al., 2011; Sevigny et al., 1999). Nurses predominantly have the attitude that mental illness is a disease of a hereditary nature (range: 65%-93%). Additional attitudes about the etiology of mental illness included personal weakness, result of alcohol and/or drug use, and stress and family conflict. Most nurse respondents (59-90%) did not consider mental illness as emanating from a lack of will power (Munro & Baker, 2007; Sevigny et al., 1999).

Social restrictiveness and distance

Social restrictiveness in mental illness stigma literature measured the desire to restrict people with mental illness from roles in society. Social distance refers to the proximity that one desires between self and a mentally ill person in a social situation. Nine studies reported nurses’ attitudes toward social restrictions that should be imposed on the mentally ill as well as the social distance that the respondents preferred to maintain from this population (Arvaniti et al., 2009; Aydin et al., 2003; Chambers et al., 2010; Kukulu et al., 2007; Linden & Kavanagh, 2012; Magliano et al., 2004; Munro & Baker, 2007; Nordt et al., 2006; Sevigny et al., 2011). Attitudes
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toward social restrictions and distance were measured through questions that examined attitudes toward right to vote, revocation of one’s driver’s license, isolation of the mentally ill from the residential neighborhoods, mandatory abortion for women with diagnosed schizophrenia, and opposition to marrying people with mental disorders. Almost half of the nurses (46%, 311/676) in one study agreed that people who suffered from any mental health issues should have their driver’s license revoked (Nordt et al., 2006). The majority of respondents would oppose a marriage of a family member to a person with mental illness. Almost two-thirds (63%) of nurses in one study agreed that patients with schizophrenia should not marry at all (Magliano et al., 2004). Similarly, in another study, 100% of respondents agreed that they would not want their sister to marry someone with a mental disorder (Aydin et al., 2003). The majority of these respondents (76.2%, 32/42), also agreed that they would not rent their apartments to mentally ill people (Aydin et al., 2003).

Perceived dangerousness

Studies presented mixed attitudes and beliefs regarding the level of dangerousness, unpredictability, and emotional instability of mentally ill (Serafini et al., 2011) reported that 16 of 40 nurses (40%) considered patients with schizophrenia to be dangerous, while Munro and Baker (2007) reported that 85% of respondents did not. Kukulu and Ergun (2007) reported that over half of nurses (53%) agree they would be frightened if people with mental illness lived close by.

Severely mentally ill people were perceived as unpredictable (from 75% to 86% agreement). Questions concerning the lack of control over emotions showed mixed opinions. Hamdan-Mansour and Wardam, (2009) reported that 84.8% of the 92 nurses agreed with the statement that: “mentally ill have no control over their emotions”, while Foster et al., (2008)
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reported the opposite with almost 70% of nurses disagreeing with the following statement:
“mentally ill patients have no control over the emotions”.

Schizophrenia and depression

Three studies compared specific attitudes toward schizophrenia and depression (Aydin et al., 2003; Hsiao et al., 2015; Nordt et al., 2006). Attitudes were generally more positive toward patients with depression. The comparisons included discrimination toward housing, use of services, work and proximity in social settings, such as their comfort level working with someone who has a mental illness. Aydin et al., (2003) reported that more nurses would be disturbed if they had to shop at a market run by a person with schizophrenia (33.3%) rather than the depression (11.1%). While 38.1% of nurses would be disturbed to work with a person with schizophrenia, only 5.9% would feel that way working with a person with depression. However, in some social situation, discrimination toward people with depression or schizophrenia were at the same level: 100% of respondents would not want their sisters to marry either one, 76% would not go to a hairdresser with either disorder and 76% would not rent a house to any of them. Hsiao et al., (2015) and Nordt et al., (2006) findings supported that nurses had more negative attitudes toward patients with schizophrenia rather than major depression.

Discussion

The studies included in this review examined nurse attitudes toward mental illness across 20 countries. Globally, nurses tended to have mixed attitudes toward different aspects of mental illness. Evidence about the difference in attitudes of psychiatric nurses and non-psychiatric nurses was contradictory. However, one study determined that the higher the education level of the nurse, the more likely that the nurse would have a more positive attitude about mental illness. This suggests that education regarding mental illness could potentially alleviate negative attitudes associated with mental illness among nurses. Furthermore, the mixed attitudes found in
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this review may be partially explained by different cultural beliefs. Among the eight studies conducted in one or more European countries, both positive and negative nursing attitudes were reported, both within and across countries (Arvaniti et al., 2009; Chambers et al., 2010; Linden & Kavanagh, 2011; Magliano et al., 2004; Munro & Baker, 2007; Nordt et al., 2006; Scheerder et al., 2011; Serafini et al., 2011). In contrast, the majority of studies conducted in Middle Eastern or Asian countries, reported more negative than positive nursing attitudes, suggesting that culture may play an influential role in nursing perception of mental illness.

Another factor that might have contributed to the finding that nurses’ attitudes toward the mentally ill were quite mixed was the fact that various measurement tools were used. More than half of the studies (8/14) used different tools. Three tools alone were questionnaires adapted by researchers. This makes the comparisons of results across studies difficult.

Finally, the results of this study were surprising in that professional nurses’ attitudes toward mental illness were comparable to attitudes among the general public rather than reflective of professional expertise (Al-Krenawi, Graham, Dean, & Eltaiba, 2004; Angermeyer & Dietrich, 2006; Ozmen et al., 2004; Schomerus et al., 2012; Tsang, Tam, Chan, & Cheung, 2003). One would anticipate that professional training would have an impact on attitudes toward these patients. The fact that nurses who worked on psychiatric units did not express more positive attitudes toward their patients as compared to nurses who worked in general medicine might be due to perception bias. These nurses often see patients readmitted for care with multiple psychiatric hospitalizations, which may influence their attitude toward the capacity and prognosis of individuals with mental illness. Linden and Kavanagh (2011) support this explanation, in that nurses from mental health community settings who worked with more stable patients endorsed more positive attitudes than those who worked on acute inpatient wards. If
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nurses have clear guidelines regarding how to approach patients with various mental illnesses, how to address their symptoms, and what therapeutic interventions are most effective, they may feel more empowered in their nursing roles, thus promoting a more positive outlook on mental illness. Further, management can be influential by providing explicit and overt support for culture change toward more supportive attitudes of patients diagnosed with mental illness.

Limitations

This review has some limitations. The English language limitation as well as the limited number of databases searched might have led to omission of relevant studies. Furthermore, we did not include the grey literature in this review.

Conclusions and Future Research

In summary, this review found that nursing attitudes toward people with mental illness varied, both within and across countries and mimicked attitudes similar to the general public. Since no studies were conducted in the U.S., there is a need to examine the attitudes of nurses toward those with mental illness and compare the U.S. to other countries. It is crucial to assess nurses’ attitudes toward mental illness and explore the factors associated with positive beliefs. A better understanding of mental illness and related nursing attitudes will help to inform delivery of care to those patients who suffer from mental illness.

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CHAPTER III

Analysis and Evaluation of Two Stigma Theories (Aim 2)

Introduction

The concept of stigma, meaning a point or a mark, dates to the ancient Greeks. Even though Ancient Greeks burned or cut marks into the skin of criminals, slaves, and traitors, thus stigmatizing them, originally the term “stigma” did not have a negative connotation. Stigma in ancient Greece also referred to wounds sustained during military service as being a badge of honor (Simon, 1992). Goffman (1963) in his seminal work described stigma as an attribute, behavior or status that may result in social discrimination, causing the person to be rejected by others.

Stigmatization may occur at different levels: social, interpersonal and individual (Cook, Purdie-Vaughns, Meyer, & Busch, 2014). Cook et al. (2014) defined social stigmatization as discriminatory social structures, legislation and policy. In the field of mental health, social stigmatization may lead to disparities between physical and mental health insurance coverage that result in poorer care or no coverage at all for mental health. Interpersonal stigma refers to stereotypes that result from lack of knowledge about mental illness on the part of the general population and health care providers that may lead to prejudice and discriminatory behaviors toward people with mental illness. Individual stigma has also been called “self-stigma” or “internalized stigma”, and pertains to negative beliefs that a person with mental illness can have about self, including lack of self-esteem, social withdrawal and feelings of oppression (Henderson et al., 2014).
An individual with mental illness may experience all three types of stigmatization. At the individual level, a person who has mental illness may fear rejection which may prevent him or her from seeking help (Clement et al., 2015). At the interpersonal level, particularly when coming from the providers, stigma may result in prejudice and discrimination that can have a negative impact on patients’ care (Corrigan et al., 2014; Henderson et al., 2014; McDonald et al., 2003). Furthermore, if the provider stigmatizes the patient, the patient may prematurely drop out of treatment (Olfson et al., 2009). Research in sociology and social psychology has shown that interpersonal stigma related to mental illness endures and affects people with mental illness (Martin, Lang, & Olafsdottir, 2008).

This dissertation focuses on interpersonal stigma, particularly stigma from mental health care providers. Since nurses are one of the primary frontline providers of inpatient and outpatient health services, they are an important group within which to assess interpersonal stigma. A well-developed theoretical framework may provide insights into processes that lead to stigmatization of people with mental illness and provide insights into effective interventions that could prevent the stigmatizing process and ultimately improve patient care and outcomes. Hence, the goal of this project is to identify a theoretical framework that could inform which component(s) of the stigmatizing process can be addressed in nursing education and training.

As discussed by Rusch et al. (2005) there are currently two leading theories of mental health stigma: the Cognitive and Behavioral Model (CBM) of Corrigan and his colleagues and the Modified Labeling Theory (MLT) of Link and his colleagues (Rüscher et al., 2005). Other theories exist, but they have not been used by researchers other than the authors of those theories. Therefore, they cannot be considered to be adequately supported with generalizable evidence.
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Aim

The aim of this project was to: 1) conduct an analysis and evaluation of two leading theories of stigma - the Cognitive Behavioral Model (CBM) and the Modified Labeling Theory (MLT) - using the framework of Fawcett and DeSanto-Madeya (2013) and 2) provide recommendations about the possible use of these theories in future nursing research.

Method

The analysis and evaluation of the theories of stigma follows Fawcett and DeSanto-Madeya (2013) framework (see Table 3.1), selected for its simplicity and clarity. According to Fawcett and DeSanto-Madeya (2013), the analysis of a theory requires a non-judgmental and detailed examination of the theory and includes three steps: examining the scope, context, and content of a theory. The scope of a theory is concerned with its level of abstraction. The context of a theory refers to the place of the theory in relation to the meta-paradigm of nursing, nursing model, and the contributions of nursing knowledge and adjunctive disciplines to the theory development. The content of a theory is the subject of the theory that is described in the concepts and propositions (Fawcett & Desanto-Madeya, 2013).

Evaluation of a theory requires judgmental examination of the theory based on the results of the analysis and previously published research. Throughout the evaluation process, the reviewer assesses whether the theory meets the following criteria: significance, internal consistency, parsimony, testability, empirical adequacy and pragmatic adequacy (Fawcett & Desanto-Madeya, 2013).
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According to Fawcett and Desanto-Madeya (2013), evaluating the significance of a theory requires assessment of its importance to nursing. Internal consistency pertains to the structural and semantic congruence of the theory and assesses whether there are contradictions between theory propositions. Parsimony requires that the theory be explained in the simplest possible way without diminishing its scope. Testability is assessed by examination of the study protocols that allows testing the theory concepts with proper empirical indicators and statistical techniques. The empirical adequacy criterion entails congruence between theoretical propositions and the empirical data and it requires a systematic review of studies that were guided by the theory. The pragmatic adequacy criterion refers to applications of the theory to nursing practice. Each analysis and evaluation criterion of Fawcett and DeSanto-Madeya framework is applied to examine the two theories of stigma, the MLT and the CBM.

Modified Labeling Theory (MLT)

Analysis

Step 1: Theory scope. According to Fawcett and DeSanto-Madeya (2013) grand theories are more abstract and general. The MLT can be categorized as a middle-range theory because it is specific, includes concrete propositions and concepts, and explains how the components of stigma operate. MLT can be further classified as relational because the theory describes a concept of stigma that is composed of four steps, each of which derives from the other in a logical progression.

Step 2: Theory Context. According to Fawcett and Desanto-Madeya, (2013), the context of a theory refers to its place in regard to the nursing metaparadigm or conceptual model. The
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MLT is concerned with human beings, environment and health. Human beings may be those who suffer from mental illness or those with good mental health, all of whom interact in a common economic, social, and political environment.

The MLT was not derived from any nursing conceptual model and no knowledge from nursing was used in its development. However, the MLT originated in sociology, one of the sciences adjunctive to nursing. Sociology has its place in nursing because it helps explain the nature of health and illness, and emphasizes the social causes of disease (Morrall, 2001).

**Step 3: Theory Content.** As described by Fawcett and DeSanto-Madeya (2013), the content of a theory refers to its concepts and prepositions. The MLT is composed of four steps that describe stigmatizing process: first, the stereotyping; second, the official labeling; third, the individual response; fourth, the negative consequences of the stereotyping (see Figure 3.1).

The first step refers to the beliefs or stereotypes that individuals in a given society hold about people with mental illness. The MLT focuses on three main aspects of those beliefs: the devaluation of people with mental illness, the discrimination that follows and/or accompanies the devaluation, and the perceived dangerousness of people with mental illness. While Link et al. (1989) developed their model to explain the process that an individual patient may follow, they also validated their model with the public’s perception of the mentally ill. Individuals who grow up in a given society internalize the stereotypes prevalent in that society and their responses to people with mental illness might follow the paths of the model as described by Link et al. (1989).

Step 2 of the MLT focuses on the “labeling”, i.e., when a person enters treatment for a mental illness, that person becomes officially “labeled” as mentally ill. Labeling theory has its
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origins in the work of Emile Durkheim, the first to introduce the labeling process (Durkheim, 1951). Then Goffman (1963) and Scheff, (1966) extended the labeling theory to the mentally ill. Link, Cullen, Struening, Shrout, and Dohrenwend (1989) clearly specified that that the MLT was built on Scheff’s work. The beliefs that individuals hold about the mentally ill are applied to the person “labeled” by the treatment, resulting in possible demoralization and low self-esteem (Link & Phelan, 2001). From the providers’ perspective, the “label” is attached to a particular patient and the providers’ beliefs about devaluation, discrimination, and dangerousness of people with mental illness may apply to this patient.

The third step, individual response to the label, describes the reactions to the label that people with mental illness may have. According to the MLT, they may respond to their “labeled” status in one of three ways: secrecy, withdrawal, and/or education. When individuals choose secrecy, they do not reveal their condition to friends, employers or relatives. They may avoid possible discrimination but also can miss available resources had they disclosed their status. The second type of response, according to the MLT, is withdrawal. People labeled as mentally ill may limit contact with other people or with society at large in order to avoid possible rejection. Alternatively, a patient might try to educate others, talking about mental illness in general, and if necessary, change others’ opinions, although there is a risk of revealing one’s condition as a mentally ill person. The MLT does not address in this step the fact that people with mental illness can also educate themselves, because it focuses on the reactions of people with mental illness to the “label.”

In the fourth step of the MLT, consequences of coping strategies chosen in step 3, mentally ill patients face the aftermath of their decision. If they tried to educate others around
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them, they might have disclosed their status and then face possible rejection. Withdrawal, if chosen in step 3, may limit their relationships and may restrict life opportunities. Secrecy may impose a psychological burden on them while preventing possible rejection. Depending upon the individual’s choices at each step, consequences such as lack of self-esteem, diminished social networks, and loss of employment may ensue. From the perspective of the general public, in the fourth step, people might respond by avoiding and/or discriminating people with mental illness.

Evaluation

Step 1: Significance. In accordance with Fawcett and DeSanto-Madeya (2013) the first step of the evaluation requires examination of the importance of the theory to society and nursing (Fawcett & Desanto-Madeya, 2013). The MLT is significant to nursing because nurses have contacts with mentally ill patients in various medical and psychiatric settings, and knowledge of MLT can improve nurses’ relationships with mentally ill patients. When nurses understand the components of the theory, they can intervene in a therapeutic manner and prevent patients with mental illness from withdrawing from friends or society by using cognitive therapy and challenging patient’s beliefs that it is better to avoid people rather than be rejected by them. Nursing intervention can improve patients’ lives by suggesting other responses to their status of people with mental illness. The MLT is significant to society because it provides a theoretical framework of stigma toward mental illness and can therefore be used in education and clinical practice. Therefore, MLT meets the criterion of significance partially.

Step 2: Internal Consistency. When evaluating the internal consistency of a theory, the researcher must focus on the structural and semantic congruence of the theoretical concepts and prepositions (Fawcett & Desanto-Madeya, 2013). The semantic consistency criterion is met
because Link et al., (1989, 2001) uses specific and clear definitions for each step, provides clear definitions of each step, and clear explanations of the rationale for any modification of the theory.

The structural consistency criterion is met because there is no contradiction between the original and latest versions the theory. Fawcett and Desanto-Madeya (2013) explained that each theory can evolve and stay consistent as long as the author(s) explain the rationale for the modifications and the concepts and prepositions of the theory remain congruent.

**Step 3: Parsimony.** The criterion of parsimony requires that the theory be explained clearly and concisely (Fawcett & Desanto-Madeya, 2013). The MLT is composed of one concept, stigma, and four steps of the labeling process. The concepts and the prepositions of the theory are stated clearly and concisely. Thus, the MLT meets the criterion of parsimoney.

**Step 4: Testability.** As specified by Fawcett and DeSanto-Madeya (2013), a middle-range theory meets the testability criterion when the authors specify empirical indicators that can measure the concepts, be used to design a study that allows data gathering to support clear hypotheses and the use of data analysis techniques to measure the theory propositions (Fawcett & Desanto-Madeya, 2013).

In their first study, Link et al. (1987) tested if a stereotype such as the dangerousness of people with mental illness (step 1) was activated by the “label” of mental illness (step 2), leading to stigmatizing actions (step 4). The researchers operationalized the concepts with empirical indicators that they clearly described, and assessed their reliability. The Perceived Dangerousness (PD) Scale was developed and used to assess the stereotype about the
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dangerousness of people with mental illness. The “labeling” was done using six vignettes that
described a hypothetical person, Jim Johnson, with four different “labels” of mental illness.
Vignettes which described non-labeled individuals served as control conditions. Stigmatizing
actions were operationalized with the Social Distance Scale (SDS), (see Table 3.2). Study
participants, 152 Ohio residents, read one vignette each, and responded to questions from the PD
and SDS. Results from the multiple regression analysis confirmed the authors’ hypothesis, that
the “label” was activating the dangerousness stereotype, resulting in stereotyping action,
measured with the SDS.

In a second study, Link (1987) hypothesized that: 1) stereotyping beliefs about
deviation and discrimination (step 1) of people with mental illness would be different for
people with mental illness than for people without mental illness (step 2); and 2) stronger beliefs
in devaluation and discrimination of “labeled” people, would result in higher demoralization, less
income, and lower probability of employment (step 4). Link operationalized his concepts with
clearly defined empirical indicators: beliefs about devaluation and discrimination were measured
with the Devaluation – Discrimination Scale (DD Scale), demoralization was assessed with a 27-
item Demoralization Scale (see Table 3.2). The income was assessed with information about
year’s earnings of the respondents (n=429 people without mental illness, and 164 people with
mental illness). The employment was measured with respondents’ number of weeks without
work. The results of multiple regression analysis confirmed both hypotheses.

The third study was conducted by Link et al. (1989) among community residents which
included people with and without mental illness. The researchers operationalized stereotypes
(step 1) with the DD Scale, assessed secrecy, withdrawal, and education (step 3) with a
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questionnaire developed for the study, and measured the size of the respondent’s social network (step 4) with a set of questions adopted from Fisher’s (1982) Social Network Questionnaire (Fischer, 1982) (see Table 3.2). The authors first hypothesized that: 1) people with mental illness would have higher endorsement of devaluation and discrimination beliefs; 2) people with mental illness would endorse the three strategies of secrecy, withdrawal and education; and 3) the social networks of people with mental illness would be significantly smaller than those of people without mental illness. The authors tested their hypotheses with multivariate analyses and the data supported the hypotheses.

Link and colleagues tested the theory in three studies, they used appropriate empirical indicators, and statistical analyses. Thus, the MLT meets the criterion of testability.

**Step 5: Empirical Adequacy.** The criterion of empirical adequacy is determined by a review of the findings from studies that used and/or tested the theory (Fawcett & Desanto-Madeya, 2013). The propositions of the MLT were tested in various populations by several researchers, other than the authors: college students, patients with schizophrenia, children and adolescents with mental health, inpatient and outpatients with psychotic disorders, participants in self-help groups, physicians and psychiatrists (see Table 2.3). The findings from the studies that tested the MLT supported the theory’s prepositions and concepts, so the MLT meets the criterion of empirical adequacy.

**Step 6: Pragmatic Adequacy.** Consistent with recommendations of Fawcett and DeSanto-Madeya (2013), the review of all the applications of the theory to nursing practice determines its pragmatic adequacy. The MLT has not been used in nursing so it has not yet been tested for this criterion. At this point, the MLT needs additional study to evaluate its application.
NURSES’ ATTITUDES to nursing. The proposed study in this dissertation (see Chapter 4) would explore if there is a correlation between nurses’ beliefs about the devaluation and discrimination of people with mental illness (a stereotype assessment with Discrimination-Devaluation Scale), and stigmatizing actions (measured with the Social Distance Scale) toward people labeled as having or not having a mental illness.

Social Cognitive Model

Analysis

Step 1: Theory Scope. Fawcett and Desanto-Madeya (2013) described middle range theory as specific, presented with concrete concepts and propositions, and testable with empirical indicators. In contrast, grand theories are broad in scope and relatively abstract (Fawcett, & Desanto-Madeya, 2013). The purpose of the Social Cognitive Model (SCM) is to describe the formation of stigmatizing processes and explain how stigma is maintained. Since the SCM is very specific and concrete, comprised of two concepts, public and self-stigma, and prepositions that explain the relationships between the stigma components, it can be classified as a relational middle range theory. The SCM also describes the formation and conservation of stigma, thus it can be further classified as an explanatory middle range theory.

Step 2: Theory Context. Theory context pertains to its place relative to the nursing metaparadigm, a conceptual nursing model from which the theory originated, and the knowledge used to develop the theory (Fawcett, & Desanto-Madeya, 2013). The SCM originated in social psychology (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003) rather than nursing so it
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does not deal with nursing processes or goals directly, but it addresses three of the four major concepts of nursing metaparadigm: human beings, environment and health (mental health).

Step 3: Theory Content. The third analytic step involves the examination of the content of the theory, its concepts and prepositions (Fawcett and Desanto-Madeya, 2013). Corrigan, Kerr and Knudsen (2005) described the stigma of mental illness from two perspectives: people without mental illness (public stigma) and people with mental illness (self-stigma). Each viewpoint is composed of three components: stereotypes, prejudice, and discrimination. Stereotypes are social constructs that are formed from a given society’s values and meanings. Individuals may share beliefs about people with mental illness, such as considering them responsible for their mental illness, or believing that they are dangerous. However, people who are familiar with the common stereotypes may share or agree with them. A stereotype becomes a prejudice when the person endorses the negative stereotype. So, the next phase in the concept of stigma requires prejudice that involves the endorsement of the stereotype(s), including emotional reactions to those stereotypes. Acting on the prejudice and emotions leads to discriminating actions. The resulting discrimination may be subtle, such as withholding opportunities, avoiding people with mental illness, or overt, such as harmful behavior or segregation.

The process of self-stigma of a person with mental illness follows a parallel path to that of public stigma. A person with mental illness is familiar with stereotypes toward people with mental illness that exist in the society in which she or he lives. If that person agrees with those stereotypes, she or he might become prejudiced toward self, resulting in low self-esteem and self-efficacy. That inwardly directed prejudice might result in discriminating behavioral
responses toward self, such as hesitation to seek better employment, pursue an academic degree, or social withdrawal (see Table 2.4) (Corrigan, Kerr, & Knudsen, 2005).

Evaluation

**Step 1: Significance.** In accordance with Fawcett and DeSanto-Madeya (2013) the significance of the theory pertains to the relationship of the theory to the society and nursing (Fawcett and DeSanto-Madeya, 2013). The SCM is significant to society as it has been used in stigma reduction campaigns but it has not been specifically applied to nursing. The SCM, however, is applicable to nursing and could be used to inform nurses’ education and training as pertains to mentally ill patients. Thus, the SCM meets the criterion of significance partially.

**Step 2: Internal consistency.** The criterion of internal consistency requires that the concepts and the prepositions of the theory be congruent (Fawcett and DeSanto-Madeya, 2013). The concepts of public stigma and self-stigma are congruent in each description and the same definitions are used, so the theory meets semantic internal consistency criterion. The propositions of the theory have remained consistent, so the theory meets the criterion of the structural consistency. The two concepts have undergone modifications throughout the years, but without introducing contradictory definitions of the concepts or changing the prepositions. Therefore, the SCM meets the structural and semantic internal consistency criterion.

**Step 3: Parsimony.** Fawcett and DeSanto-Madeya’s (2013) definition of parsimony requires that the theory be described in the simplest possible way without diminishing the scope of the theory. The content of the theory is stated clearly, but not parsimoniously. There are long
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explanations that add information but do not assist the user to better understanding of the theory. Therefore, the SCM does not meet the criterion of parsimony.

**Step 4: Testability.** The criterion of testability requires that the theory be tested with specific instruments that operationalize the concepts of the theory, represented as empirical indicators, and that appropriate statistical techniques be used to test the hypotheses (Fawcett and Desanto-Madeya, 2013). Corrigan used the Attribution Theory (Weiner, 1995) to test the SCM. The attribution theory describes the processes that people use to make sense of the world that surrounds them, and attribute causes of human behavior. Attribution theory became a common paradigm in social psychology research.

Corrigan et al., (2001) tested the relationship between prejudice, assessed by the Opinions on Mental Illness Scale (Cohen & Struening, 1962), and discrimination, assessed by the Social Distance Scale (see Table 3.5 for measures used in Corrigan studies) with 151 college students who had no diagnosis of mental illness (see Figure 3.2). The authors also examined the influence of two personal factors that have been found to influence people’s prejudice—familiarity with the mental illness, assessed by the Level of Contact Scale (Holmes et al., 1999) and ethnicity. In this study, Corrigan et al., (2001) did not examine the first component of the stigma model, i.e., stereotypes. The authors hypothesized that: 1) personal variables such as knowledge of mental illness and being part of an ethnic minority would be negatively correlated with prejudice; and 2) prejudice would be positively correlated with discrimination. The authors used, path analysis and their hypotheses were supported by the data (see Figure 3.2).

Corrigan et al. (2002) tested the relationship between two stereotypes of mental illness, personal responsibility and dangerousness, their impact on prejudice (anger and pity, and fear), and discrimination (avoidance, lack of helping behavior) with 213 community college students
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(Corrigan et al., 2002). The authors operationalized personal responsibility for one’s mental illness, controllability, dangerousness, pity, anger, fear, helping behavior, and avoidance with the Attribution Questionnaire (see Table 3.5) that they adapted from Reisenzein (1986). Corrigan et al. (2002) hypothesized that: 1) beliefs in personal responsibility for mental illness (stereotype) would lead to emotional response of anger or pity (prejudice) that would impact helping behavior (discrimination), and 2) belief in dangerousness of people with mental illness (stereotype) would lead to fear (prejudice) that would ultimately result in avoidance (discrimination). The authors analyzed their model with path analysis, and the hypotheses were partially supported. The path analysis of the first model demonstrated a significant negative relationship between anger and helping behavior, while the relationship between personal responsibility beliefs and anger and pity were not significant. The path analysis of the second model showed significant relationship between the beliefs in dangerousness of people with mental illness, that led to fear and resulted in avoidance. Thus, the hypotheses were partially supported by data (see Figure 3.3).

Corrigan et al. (2003) tested a more complex model: the relationship between stereotypes (controllability and dangerousness), personal beliefs, prejudice (emotional response) and discrimination (discriminatory or helping behaviors) (see Figure 3.4). The authors used the Attribution Questionnaire (see Table 3.5). The empirical indicators chosen for the studies were appropriate to test the hypotheses (adequate reliability and validity), the authors used appropriate data analysis techniques (path analysis), and the data supported the theoretical assumptions of the model. The results of Corrigan and colleagues’ studies showed partial support for their theory (Corrigan et al., 2003).
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Corrigan and colleagues tested the theory with appropriate empirical indicators and statistical analyses. Thus, the theory meets the criterion of testability.

**Step 5: Empirical Adequacy.** Fawcett and DeSanto-Madeya (2013) requires that a literature review of studies that used SCM be conducted to assess the empirical adequacy of the theory. Currently, there are no studies, other than those described above, that tested the empirical adequacy of the SCM. The studies that tested the SCM were not done independently by someone else than the author. Therefore, the SCM does not meet the criterion of empirical adequacy.

**Step 6: Pragmatic Adequacy.** According to Fawcett and Desanto-Madeya criterion, a theory meets this requirement when it has been applied to nursing. Given that the SCM has not been used in nursing, the theory does not currently meet the criterion of pragmatic adequacy. However, as with the MLT, an exploratory study could assess how nurses perceive people with mental illness, their beliefs about dangerousness and possible controllability of mental illness, emotional responses and consequent helping or discriminating behavior. The study could use the Attribution Questionnaire that would allow exploring correlations for all the variables included in the study.

**Discussion**

The analysis and evaluations of the MLT and SCM show similarities and differences between them. They are similar in scope, since both theories are concrete, middle range, relational theories that can be tested with appropriate empirical indicators. They were both developed in sciences relevant to nursing: sociology for MLT and social psychology for the SCM. Both theories partially met the criterion of significance, and fully met the criteria of
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internal consistency, parsimony, and testability. Neither theory met the pragmatic adequacy criterion since neither has been applied in nursing research. The major difference between the two theories was that the MLT fully met the empirical adequacy criterion, given that it was tested by many researchers and used with diverse populations, while the SCM was only tested with college students and only used by its original authors.

Given the results of the evaluation, the MLT was chosen as the guiding theoretical framework for the study. The MLT, as applied to this study, is described in Chapter IV.

Implications for Nursing

The MLT and SCM can contribute to nursing knowledge, education, training, and practice by offering new insights into the experiences of people with mental illness (Fawcett & DeSanto-Madeya, 2013). However, preliminary studies are needed to test both theories in nursing. Both theories can inform nursing education and training and guide nursing practice. Having insight into processes that might lead to stigmatizing attitudes toward people with mental illness can help nurses provide appropriate interventions to their patients.
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CHAPTER IV

Nurses’ Attitudes and Stigmatizing Actions Toward People with Mental Illness (Aim 3)

In 2014, 18.1% of the population of the United States (U.S.), which represents 43.6 million people, were identified as having some form of mental illness (National Institute of Mental Health, 2014). The majority of people with mental illnesses do not seek care and among those who start treatment, one in five terminate treatment prematurely (Olfson et al., 2009). People with mental illness when compared with those without are more likely to suffer from other health condition, use less medical care, less likely to adhere to treatment for chronic diseases, and have higher risks of adverse health outcomes (Substance Abuse and Mental Health Services Administration [SAMHSA], 2012). Given that a large percent of individuals with mental illness also have other significant comorbid health conditions, health providers in all specialties are likely to engage with individuals with mental illness, even if they are not mental health specialists. Thus, it is important to assess providers’ attitudes toward people with a mental health condition.

Studies of the attitudes of mental health professionals toward mental illness have reported that personal knowledge of mental illness is associated with more positive attitudes toward people who have mental health conditions (Dabby et al., 2015; Stuber et al., 2014; Stull et al., 2013). Researchers who compared the attitudes toward mental illness among mental health professionals to those of primary care providers consistently have reported that mental health providers had less stigmatizing attitudes toward those patients as compared to primary care providers (Gras et al., 2015; Mittal et al., 2014). Mental health professionals and primary care providers, however, reported more positive attitudes toward a person with depression or diabetes.
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than toward a person with schizophrenia (Corrigan et al., 2014; Dabby et al., 2015; Mittal et al., 2016; Noblett et al., 2015; Stuber et al., 2014).

Nurses’ attitudes toward mental illness have been examined in three literature reviews (Alexander et al., 2016; de Jacq et al., 2016; van der Kluit & Goossens, 2011). The review by Van der Kluit and Goossens (2011) focused on factors that were related to the attitudes of non-specialized nurses toward mental illness, Alexander et al. (2016) concentrated on medical-surgical nurses’ perceptions of care for patients with comorbid severe mental illness, and de Jacq et al. (2016) reviewed studies of psychiatric and non-psychiatric nurses’ attitudes toward mental illness. van der Kluit and Goossens (2011) included 15 studies in their final publication and reported that factors such as educational level, professional experience, age and gender, ethnicity, religion, and marital status were not significantly correlated with nurses’ attitudes toward mental illness. In contrast, personal experience with mental illness was associated with more positive attitudes toward people with comorbid mental condition (Arvaniti et al., 2009; Björkman, Angelman, & Jönsson, 2008; Mavundla, 2000; Reed & Fitzgerald, 2005).

Alexander et al. (2016) included nine studies in their review. Participants considered patients with mental illness to be dangerous and disruptive (Atkin et al., 2005; Zolnierek & Clingerman, 2012), and stigmatized them (Arnold & Mitchell, 2008). The recurring theme in studies included in both reviews was that nurses lacked skills and knowledge to work with patients with comorbid mental health condition (Atkin et al., 2005; Bhugra et al., 2016; Clark, Parker, & Gould, 2005; Haddad et al., 2005; Harrison & Zohhadi, 2005; Mavundla, 2000; Reed & Fitzgerald, 2005; Sun, Long, & Boore, 2007).

de Jacq, Norful, and Larson (2016) summarized research that focused on nurses’ attitudes toward mental illness and mentally ill patients. The authors included 14 papers in their review,
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eleven of which focused on psychiatric nurses’ attitudes toward mental illness and three
examined non-psychiatric nurses’ attitudes toward mental illness. The authors reported that
nurses had mixed attitudes toward mental illness; six studies reported mostly mixed attitudes
(Arvaniti et al., 2009; Aydin et al., 2003; Foster et al., 2008; Kukulu & Ergun, 2007; Nordt et al.,
2006; Serafini et al., 2011), four mostly positive (Chambers et al., 2010; Linden & Kavanagh,
2011; Munro & Baker, 2007; Scheerder et al., 2011), and four negative (Hamdan-Mansour &
Wardam, 2009; Hsiao et al., 2015; Magliano et al., 2004; Sevigny et al., 1999).

The reviews described above had some limitations. First, the de Jacq et al. (2016) review
did not focus on potentially modifiable factors that might be associated with nurses’ attitudes
toward mental illness such as nurses’ personal experiences with people with mental illness.
Secondly, van der Kluit and Goossens (2011) did not include studies with psychiatric nurses.
Finally, none of the studies included in the reviews used a theoretical framework to guide the
research.

Given these limitations, the present study examined registered nurses’ (RN) and mental
health workers’ (MHW) attitudes toward mental illnesses and related factors and assessed RNs
and MHWs reported propensity for discriminating actions toward mentally ill people. High
school diploma or its equivalent is the minimum educational requirement for a MHW position
and the responsibilities of the MHWs and RNs differ. MHWs spent most of their worktime
responsibilities such as distributing patient meals, sitting on constant observation with patients
who need to be observed 24/7 and making rounds to assess the general safety of the unit. RNs
are primarily responsible for pharmaceutical management, nursing interventions, emergency
clinical needs of the patients, and contacts with the physicians.
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Given that general attitudes toward mental illness encompass a wide range of beliefs, this study specifically focused on the beliefs that the RNs and MHWs may hold which lead to devaluation and discrimination of patients with mental illness since such attitudes are likely to affect their professional practice and behavior toward these patients. Given that “mental illness” is a general term that includes a broad spectrum of mental disorders, from schizophrenia to nicotine dependence, this study focused specifically on RNs and MHWs discriminating actions toward people with schizophrenia and depression. Schizophrenia was chosen because it is one of the most severe, chronic and disabling mental disorders that affects 1.1% of the population (U. S. Department of Health and Human Services, 2016b). In spite of its low prevalence, the economic burden of schizophrenia is very high and it impacts not only the patients but their families, caregivers, and society at large. In 2013, the economic burden of schizophrenia in the U.S was estimated at $155 billion (Cloutier et al., 2016).

Depression was chosen because it is one of the most common and most studied mental illnesses; in the U.S., an estimated 16.1 million adults experienced at least one major depressive episode during 2015 (U. S. Department of Health and Human Services, 2016a). The direct and indirect costs of depression were estimated at $210 billion in 2010 (Greenberg, Fournier, Sisitsky, & Pike, 2015). Both conditions, schizophrenia and depression, are likely to be encountered frequently by RNs and MHWs in the acute care setting.

Theoretical Framework

The study was guided by a theoretical framework, the Modified Labeling Theory (MLT) (Link et al., 1989), adapted for the purpose of this study (Figure 4.1). The MLT describes the possible impact of a diagnosis of mental illness on a patient. According to the MLT, a person
diagnosed with mental illness responds to this condition in four overlapping steps: stereotyping; official labeling; individual response; and consequences of the label.

The first step consists of stereotyping. Each society has particular stereotypes of the mentally ill and these stereotypes are pervasive in that society, including people with and without mental illness. Link et al. (1989) described the second step as “labeling”, i.e. a person who becomes mentally ill becomes “labeled” as “schizophrenic” or “manic depressive” when entering treatment. Step three of the MLT focuses on the labeled person’s reaction to the label. He or she can withdraw, keep the illness secret, or try to educate others. Step four assesses the consequences of this labeling: a mentally ill person may lose status, employment, or friends (for a detailed description of the MTL please see Chapter III). From the providers’ perspective, this “label” might result in different treatment of the “labeled” person, and lead to discriminating actions toward her or him.

**Aims**

This study had three aims: to 1) assess registered nurses’ and mental health workers’ beliefs about devaluation and discrimination of people with mental illness and factors related to these beliefs; 2) compare registered nurses and mental health workers expressed stigmatizing actions toward patients with schizophrenia or depression versus those with diabetes but no mental illness; and 3) assess the extent to which study results were consistent with the theoretical underpinnings of the MLT.

**Method**

This was a cross-sectional survey of psychiatric nurses and mental health workers in one psychiatric facility.
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Participants

Convenience sampling was used to recruit nursing staff from a 270-bed psychiatric hospital located north of New York City which provides a wide range of specialized services to children, adolescents, adults, and the elderly, including partial hospitalization, outpatient and day treatment programs. The hospital is part of a large academic health center and provides several specialized programs: geriatric psychiatry, eating disorders, child and adolescent services, adolescent partial hospitalization, a center for autism and the developing brain, acute and chronic schizophrenia unit and affective disorders unit. In 2015, the most recent year for which there are available data, 5,020 patients were admitted to the hospital, and the average daily census was 220 patients. The average length of stay ranged from seven to ten days.

All hospital nursing staff was eligible to participate in the study, including nurse practitioners and other registered nurses (RNs), and mental health workers (MHWs).

Study Measures

Respondents’ beliefs about people with mental illness were assessed in the study with the Devaluation – Discrimination (DD) questionnaire. Stigmatizing actions were assessed with three versions of the Social Distance Scale. Personal knowledge of mental illness was assessed with the modified Level of Contact Report. All of these are described below.

Assessing Discrimination Using the Devaluation-Discrimination Scale (DD). Link et al. (1987) developed the DD questionnaire to measure respondents’ endorsement of items that reflect discriminatory behaviors toward individuals with mental illness. The DD is a 12-items instrument with a 4-point Likert-type scale ranging from 1 = Strongly Agree to 4 = Strongly Disagree. The responses are scored by adding responses of individual items (half of them are reversed scored) and dividing by 12. The midpoint of the scale is 2.5 and mean scores above
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indicate devaluative beliefs and a likelihood of discriminatory behavior. Link et al. (1987) reported an overall Cronbach alpha = .76 in their original study.

The DD has been widely used since its development; in 2016, it was used in at least nine studies and the authors reported Cronbach alphas between .83 and .92 (Chen et al., 2016; Hing, Russell, & Gainsbury, 2016; Johnson & McDonough-Caplan, 2016; Reynders, Kerkhof, Molenberghs, & Van Audenhove, 2016; Sánchez, Rosenthal, Tansey, & Frain, 2016; Shimotsu & Horikawa, 2016; Smith, Parrott, & Wienke, 2016; Wiesjahn et al., 2016; Xu et al., 2016).

Assessment of Discriminating Actions Using Social Distance Scale (SDS). Link et al. (1987) developed the SDS to measure respondents’ endorsement of items that reflect the desire for social distance from a mentally ill person. Potential participants were selected among Ohio residents and 152/240 (63.3%) returned completed questionnaires. The authors reported that their sample was representative of the country as a whole in terms of gender and age, but had higher than average educational level. The internal consistency reliability of this measure was Cronbach alpha = .92.

The SDS is a 7-item instrument that uses a 4-point Likert-type scale ranging from 1 = Definitely Willing to 4 = Definitely Unwilling. The responses are summed and then divided by seven to obtain a composite mean score of desire for social distance. The midpoint of the scale is 2.5 and scores above indicate a desire for social distance. The SDS has been used in >50 published studies since its development to assess the expressed desires for social distance from people various mental illnesses including schizophrenia, depression, and mental illness in general. In 2016 alone it was used in at least in 14 studies, and the authors reported Cronbach alphas between .75 and .92 (Arora, Metz, & Carlson, 2016; Bamgbade, Ford, & Barner, 2016; Boyle, 2016; Boyle, Dioguardi, & Pate, 2016; De Ruddere, Bosmans, Crombez, & Goubert,
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2016; Flanagan et al., 2016; Knesebeck, Kofahl, & Makowski, 2016; Kosyluk et al., 2016; Makowski et al., 2016; Matsunaga & Kitamura, 2016; Moxham et al., 2016; Thompson & Lefler, 2016; Thonon, Pletinx, Grandjean, Billieux, & Larøi, 2016; Vinson, Abdullah, & Brown, 2016; Wiesjahn, Jung, Kremser, Rief, & Lincoln, 2016).

The SDS was modified for the purpose of this study. In the original SDS, Link et al. (1987) presented to their participants short stories that described a hypothetical person, Jim Johnson, who had a history of mental illness. For the purpose of this current study, however, the questionnaire was modified and presented to the participants in three different versions. All the questions remained the same, but for one variation: instead of a hypothetical “Jim Johnson” there was a “person with schizophrenia” (SSDS), or “a person with depression” (DSDS), or a “person with diabetes” (MSDS). This modification made it possible to assess the “labeling” of a hypothetical person, consistent with step 2 of the MLT. Also, we used the desire for social distance measure to assess discriminating actions toward the person presented in each questionnaire, allowing the assessment of step 4 of the MLT. To assess for order effect, (Holbrook, A., 2008), the questionnaires were presented to each respondent in one of three orders.

Assessing Level of Contact (LOC). The LOC Report is a 12-item instrument that measures prior exposure to and contact with mentally ill people. Holmes et al. (1999) developed the LOC Report from other scales previously used in mental health stigma research. The LOC Report lists 12 situations that describe 12 levels of contact with mentally ill people with various levels of intimacy. Initially, three experts in mental illness ranked each situation in terms of intimacy of contact. The mean of rank order correlations summarizing inter-rater reliability was 0.83 in the original sample. The lowest level, scored 1 “I have never observed a person that I was
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aware had a mental illness” to the highest level, 12 “I have a mental illness.” Participants are asked to put a check mark next to each statement that is true for them. The highest rank is then used in the study. The LOC Report is a measure of contact with mental illness that has been widely used; in 2016 only it was used at least seven times in published studies (Beatie, Stewart, & Walker, 2016; Busby Grant, Bruce, & Batterham, 2016; Hing et al., 2016; Mallick, Mitchell, Millikan-Bell, & Gallaway, 2016; Perciful & Meyer, 2016; Taft, Bedell, Naftaly, & Keefer, 2016; Wiesjahn, Makowski, Mnich, Angermeyer, & von dem Knesebeck, 2016).

For the purpose of this study, the original LOC report was modified. Since all the potential participants worked with patients with mental illness, questions that pertained to lower levels of contact with mental illness were omitted. Only questions that scored higher on the LOC Report than level 8, i.e., “my job involves providing services/treatment for people with mental illness,” were included. The four categories included were: having a friend (level 9) or a family member (level 10) with mental illness, living with a person with mental illness (level 11), or having a mental illness oneself (level 12).

Study Procedures

Recruitment and administration of instruments. IRB approval was obtained for this study from Columbia University Medical Center and the study hospital with a waiver of written documentation of consent. By agreeing to participate in the study each participant expressed his or her consent. The Chief Nursing Officer of the hospital provided assistance and facilitated the conduct of the study. The co-investigator (MG) is a registered nurse (RN) employed part-time by the hospital who also holds a baccalaureate degree in psychology and masters’ degree in nursing education and has been employed by the hospital in various positions for eight years. She is a member of the Evidence Based Practice Council (EBPC), which is responsible for overseeing the
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conduct of research and implementation of best practices in the study institution. In consultation with the hospital’s EBPC, it was decided that paper-based, rather than an internet-based survey, would be more effective to maximize the number of respondents in this setting.

Data collection. The study was presented to patient care directors of the nursing units at the Extended Leadership Meeting on August 31st, 2017; they suggested that the surveys be distributed by pre-addressed interoffice envelopes. An email was sent to all RNs and MHWs a week before the survey distribution, informing them about the research. Three days before the distribution day another email was sent to the RNs and MHWs informing them about the exact date of the distribution. On the announced day, the two primary investigators placed the survey forms into the individual mailbox of each RN and MHW.

Each of the participants received a blank survey. The first page, the informed consent, described the aims of the study, participants’ rights, and instructions for completing the instruments. Subsequent pages contained the demographic variable questions, and four statements from the LOC. The page with demographic information was followed by the DD, then the three versions of the SDS (schizophrenia, depression, diabetes), presented in three different orders.

Every effort was made to maximize the response rate. An internal mailbox was obtained for the collection of completed surveys in the pre-addressed interoffice envelopes. Each participant was able to complete the surveys at a convenient time for him/her, put it back in the pre-addressed interoffice envelope, and then put it in the inter-office mailbox. The data were collected between September 28th, 2017 and October 20th, 2017. Each week the researchers visited every hospital program and unit to respond to questions and encourage participation.

Statistical Analysis.
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Collected data were entered into an excel spreadsheet, stored on an encrypted and password protected computer, and the original paper surveys were destroyed after data entry and analysis. Statistical analyses were conducted using Statistical Package for the Social Science (SPSS) v24. Descriptive statistics were used to summarize participant characteristics. Variables were assessed for normal distribution by visual observation of histograms, normal Q-Q plots and Shapiro-Wilk tests. Internal reliability of the study instruments (DD, SSDS, DSDS, and MSDS) was assessed with Cronbach alphas. Bivariate relationships between each predictor and each of the outcome variables of interest were examined with independent sample t-tests for dichotomous variables, one-way ANOVA for categorical variables (three or more categories), and simple regression analyses for continuous variables. Multiple regression was used to identify predictor variables of the dependent measures (DD, SSDS, DSDS, and MSDS). Normality of residuals was assessed for each of the regressions by observation of the histograms and normal P-P plots. Final models were tested based on the results of the bivariate analyses, initial hypotheses, and theoretical underpinnings.

Results

Characteristics of the Respondents

A total of three hundred thirty-three questionnaires were distributed and 146 were returned, representing a 44% response rate. The majority of the participants (101/146, 69.2%) were female (see Table 4.1). The mean age was 46, ranging from 24 to 71 years; nine respondents did not provide their age. The majority of respondents identified themselves as White (67/146, 45.9%), followed by African Americans (41/146, 28.1%). The third group included Hispanics, Asians and Others (38/146, 26%). The mean length of employment in psychiatric settings was 15.8 years, ranging from 0 to 47. Five respondents did not provide
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information about their length of employment. The highest level of education was a doctoral degree (6/146, 4.1%), and the majority of respondents have completed a baccalaureate or a master’s degree (56/146, 38.4% and 48/146, 32.9% respectively).

The majority of respondents were RNs (91/146, 62.3%), then MHWs (55/146, 37.7%). Most respondents (122/146, 83.6%) were employed as clinical staff, were full-time employees (128/146, 87.7%), and worked in inpatient settings (138/146, 94.5%).

Participants’ Level of Contact (LOC) with Mental Illness

Ten respondents indicated intimate familiarity with mental illness: that they lived with a person with mental illness or had a mental illness themselves. The majority (136/146, 91.2%) reported having a family member or a relative with mental illness, or no contact with people with mental illness other than at work (Table 4.1).

Reliability of Study Instruments

The instruments used in this study assessed participants’ endorsement of devaluation and discrimination (DD) of people with mental illness, and discriminating actions (SDS, Link, 1987). The SDS scale was presented in three versions, each one describing either a person with schizophrenia, depression or diabetes (SSDS, DSDS, and MSDS respectively). The Cronbach alpha for the DD scale was .81, and for the SSDS, DSDS, and MSDS .87, .85, and .82, respectively.

Factors Associated with Devaluation – Discrimination of People with Mental Illness

The mean score of the DD scale was 2.6 (SD = .41), indicating devaluation and discrimination of the mentally ill people by respondents. Bivariate analyses revealed that there was no significant association between mean scores of the DD and age, length of employment in psychiatric settings, sex, profession, employment status, work setting, race, or education level
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(all p values > .05). Clinical staff members and respondents who reported intimate familiarity with mental illness had significantly (p < .05) higher mean scores of the DD scale (see Table 4.2).

A multiple regression analysis was used to test if staff position (clinical/non-clinical) and reported familiarity with mental illness significantly predicted respondents’ mean scores of the DD scale; the two predictors explained 8.9% of the variance ($R^2 = .089, F(2,143) = 6.98, p = .001$). Clinical staff position and reported intimate familiarity with mental illness were significant predictors of higher mean scores of the DD scale (see Table 4.3 for detailed results).

Factors Associated with Stigmatizing Actions

Stigmatizing actions toward people with schizophrenia, depression and no mental illness (diabetes condition) were measured by three versions of the Social Distance Scale, described in the method section. The midpoint of each scale is 2.5 and mean values above indicate expressed discriminating actions.

Stigmatizing actions toward people with schizophrenia (SSDS). The SSDS mean score was 2.54 ($SD = .62$). In bivariate analyses, there was no significant difference in the mean scores of the SSDS by age, length of employment in a psychiatric setting, sex, employment status, work setting, or reported familiarity with mental illness (all $p > .05$). There was a significant association between the mean scores of the SSDS and mean scores of the DD, staff position, profession, race, education level, and order of presentation of the Social Distance Scales (Table 4.4).

Multiple regression analysis was used to test if the mean scores of the DD scale, staff position, profession, and order of scale presentation significantly predicted respondents’ mean scores of the SSDS scale. Race and education level were not included in the final model since
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	heir inclusion showed non-significant partial effects. Four predictors explained 32% of the variance ($R^2 = .32, F(5,140) = 13.28, p < .001$). Stronger beliefs about devaluation and discrimination of people with mental illness significantly predicted higher mean scores of the SSDS ($p = .01$). Clinical staff position and being a MHW predicted higher mean scores of the SSDS ($p = .03$, and $p = .001$, respectively). The order of the questionnaires predicted a stronger reported desire for social distance from a person with schizophrenia when SSDS was presented as second and third when compared to first option ($p < .001$) (see Table 4.5 for detailed results).

In a separate analysis which included RNs only, there was no significant association ($p > .05$) between mean scores of the SSDS and age, sex, employment status, work setting, reported familiarity with mental illness, race, or education level. Longer employment in psychiatric setting was associated with lower mean scores of the SSDS. Higher mean scores of the DD, clinical staff position, were associated with higher scores of the SSDS. The order of the scales was also significantly associated with a difference in mean scores. The mean scores of the SSDS were the highest when the questionnaire was presented as the first, then as the second, and the lowest when presented as third (all $p < .05$) (see Table 4.4 for details).

Multiple regression analysis for RNs only was used to test if the mean scores of the DD scale, length of employment in psychiatric settings, staff position, and order of the questionnaires significantly predicted mean scores of the SSDS scale among RNs. Since the length of employment in psychiatric settings was not a significant predictor of the mean scores of the SSDS among RNs, it was excluded from the final regression analysis. The results of the final regression analysis indicated that the three predictors explained 26% of the variance ($R^2 = .26, F(3,87) = 7.67, p = .000$). It was found that the mean scores of the DD, staff position, and the
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order of the questionnaires significantly predicted the mean scores of the SSDS ($p = .008$, $p = .04$, and $p = .02$, and $p < .001$, respectively). Table 4.6 presents detailed results.

**Stigmatizing actions toward people with depression (DSDS).** The DSDS mean score was 1.96 (SD = .55). Bivariate analyses revealed that there was no significant difference ($p > .05$) in mean scores of the DSDS by age, length of employment in psychiatric settings, sex, employment status, work setting, familiarity with mental illness, or mean scores of the DD scale. There was a significant difference ($p < .05$) in mean scores of the DSDS by staff position, profession, race, education level, and order of questionnaires. Being a staff member who worked in a clinical setting, being an MHW, Black or other race, and having a doctoral degree, was associated with higher mean scores on the DSDS scale. Mean scores of the DSDS were higher when the questionnaire was presented at first, then second, and lowest when it was third (see Table 4.7 for detailed results).

Multiple regression analyses were run to determine predictors of DSDS mean scores. In the first model, the race was not a statistically significant predictor of the mean scores of the DSDS and since it was not theoretically linked with the model, the race was excluded from the final model. The results of the regression indicated that four predictor variables explained 25.7% of the variance in mean scores of the DSDS scale ($R^2 = .26$, $F(5,140) = 6.15$, $p < .001$). Mean scores of the DD were not significantly related to the mean scores of the DSDS. The other factors, such as clinical staff position, being an MHW, and having the DSDS questionnaire as first or second were significant predictors of higher mean scores of the DSDS. Table 4.8 presents detailed results.

In bivariate analyses including only RNs, that there was no significant association ($p > .05$) between mean scores of the DSDS and age, sex, employment status, work settings, reported
familiarity with mental illness, race, or education level. There was a significant ($p < .05$) negative association between the length of employment in psychiatric settings, and mean scores of the DSDS, and a significant positive association between mean scores of the DD and the mean scores of the DSDS. Nurses who worked in clinical settings had higher mean scores of the DSDS than those employed in a non-clinical setting. There was also a significant order effect (see Table 4.7 for details).

Since the length of employment in psychiatric settings was not a significant predictor of the mean scores of the SSDS among RNs, in the first regression analysis, it was excluded from the final regression analysis. In the multiple regression analysis, three predictor variables explained 14% of the variance ($R^2 = .14, F(4,86) = 5.45, p = .000$). Clinical staff position and DSDS presented first and second significantly predicted the mean scores of the DSDS. The mean scores of the DD were not associated with the mean scores of the DSDS in the final model (see Table 4.9 for detailed results).

**Stigmatizing attitudes toward people with diabetes (MSDS).** The MSDS mean score was 1.34 ($SD = .36$) (see Table 4.10). In bivariate analyses, there was no significant association ($p > .05$) between the mean scores of the SSDS and age, length of employment, mean scores of the DD, staff position, profession, employment status, work setting, reported familiarity with mental illness, race, education level, or the order of questionnaires. There was a significant association ($p < .05$) between means scores of the MSDS and sex; female respondents reported higher scores on the MSDS than males. Since the residuals were not normally distributed, all the bivariate analyses were repeated with non-parametric analyses, and results were similar. Table 4.10 shows the individual results of the bivariate analyses. In the final regression analysis, two predictors explained 3.7% of the variance in mean scores of the MSDS scale ($R^2 = .04, F(2,142)$
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= 2.75, \( p = .07 \)). Mean scores of the DD were not significant predictors of the mean scores of the MSDS scale, but female sex was a significant predictor of higher mean scores of the MSDS (see Table 4.11 for detailed regression results).

**Expressed desire for social distance by mental illness.** There was a significant difference in mean values between the mean scores of the SSDS and the mean scores of the DSDS with \( p < .001 \), and in mean values between the DSDS and MSDS with \( p < .001 \). Respondents expressed stronger desire for social distance from a person with schizophrenia than from a person with depression and a stronger desire for social distance from a person with depression than from a person with no mental illness (see Table 4.12 and Table 4.13 for detailed results).

For RNs only, there was also a significant difference between mean scores of the SSDS and mean scores of the DSDS at \( p < .001 \). There was also a significant difference between mean scores of the DSDS and MSDS at \( p < .001 \), among RNs only (see Table 4.14 and Table 4.15 for detailed results).

**Discussion**

In this study, we first examined the reported attitudes of RNs and MHWs about devaluation and discrimination of people with mental illness and factors associated with those attitudes. Second, the expressed desire for a social distance from a person with schizophrenia was compared with the expressed desire for social distance from a person with depression, and the expressed desire for social distance from a person with diabetes was compared with the depression and schizophrenia conditions. Finally, the results of the study were examined in the context of the theoretical underpinnings of the MLT.

**Devaluation and Discrimination of People with Mental Illness**
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Intimate reported familiarity with mental illness and clinical staff position were associated with respondents’ stronger expressed beliefs about devaluation and discrimination of people with mental illness. Even though most previously published literature has reported that closer contact with people who have mental illness is associated with more positive attitudes (Arvaniti et al., 2009; Bjorkman et al., 2008; Dabby et al., 2015; Mittel et al., 2014; Stull et al., 2013), the results of this study were in the opposite direction. The respondents who worked in close contact with mentally ill patients and had longer exposure to these patients reported stronger beliefs about devaluation and discrimination of people with mental illness than those who worked in, where they had less to no exposure to these patients. It is possible that the experience of the clinical staff members, their exposure to their patients, their interactions with their patients, and their familiarity with patients’ experiences, influenced their beliefs about devaluation and discrimination of people with mental illness. It would be useful to assess whether there is an association between the time spent with people with mental illness and the desire for social distance from them in staff members personal lives.

Furthermore, respondents who indicated that they had an intimated knowledge of mental illness reported stronger beliefs in devaluation and discrimination of people with mental illness than those who had no reported intimate contact. It is possible that respondents who had intimate knowledge of mental illness themselves experienced devaluation and discrimination, thus their responses may have reflected their own experience. It is recommended to further explore the relationship between intimate knowledge of mental illness and stronger beliefs that people with mental illness will be devaluated and/or discriminated.

Expressed Desire for Social Distance Based on Diagnosis (schizophrenia, depression or diabetes)
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Respondents expressed a stronger desire for social distance from a person with schizophrenia than from a person with depression. These results are consistent with other studies in which researchers assessed respondents desire for social distance from people with schizophrenia and depression (Aydin, et al., 2003; Stuber et al., 2014; Noblett et al., 2015). The respondents expressed weaker desire for social distance from a person with depression. However, the results of this study also indicated that the respondents expressed that they preferred to be closer to a person with no mental illness (diabetes) than to someone with depression. This finding is mirrored in another study that compared respondents’ desire for social distance toward people with depression and no mental illness (Noblett et al., 2015). Both MHWs and RNs showed the same predisposition although RNs expressed desire for social distance was somewhat less. Respondents expressed a stronger desire for social distance from a person with schizophrenia than from a person with no mental illness. This finding was also consistent with the literature (Dabby et al., 2015, Noblett et al., 2015).

This finding might be partially explained by psychiatric training and experience that RNs received during their nursing education in contrast to the minimum educational requirement for MHWs which is a high school diploma or equivalent. This finding might also be explained by the longer exposure time to the patients on a psychiatric unit that was mentioned above. This study focused on the inpatient setting only, so it is recommended to assess if there is a difference in the expressed desire for social distance from people with certain mental health diagnoses between inpatient and outpatient staff members.

Relevance of the Theoretical Framework

Consistent with the MLT, the beliefs about the devaluation and discrimination of people with mental illness were significantly associated with respondents’ desire for social distance.
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from a person with schizophrenia. This positive relationship between the expressed stereotypes about people with mental illness, measured in this study with the DD, and the expressed desire for social distance with a person with schizophrenia, is consistent with previous findings (Link et al., 1987, Stuber et al., 2014). In our study the relationship between beliefs about devaluation and discrimination of people with mental illness and the desire for social distance from a person with schizophrenia was consistent among RNs and MHWs (see Figure 4.2).

Consistent with the MLT, there was no association between respondents’ beliefs about devaluation and discrimination of people with mental illness and their expressed desire for social distance from a person with diabetes. This finding also confirms the underpinnings of the MLT. According to the MLT, the label “diabetes” does not lead to discriminating actions, as measured in this study with the SDS (Link et al, 1987, Stuber et al, 2014). The finding for a person with depression mirrored the results of the person with diabetes. The respondents expressed no desire for social distance from a person with depression. Furthermore, there was no relationship between the expressed desire for social distance from a person with depression and respondents’ beliefs about devaluation and discrimination.

While the study results support the theoretical underpinnings of the MLT, caution is warranted because there was also a significant order effect. Respondents who had questionnaires that presented SSDS first endorsed less desire for social distance from a person with schizophrenia than those who responded to the SSDS statements as second or third. This order effect was found in analyses that included RNs and MHWs and RNs only. There was also an order effect, although less pronounced, in the depression condition. Respondents who had DSDS presented first or second expressed a stronger desire for social distance from a person with depression than those who had DSDS presented as third. The order effect was stronger for all
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respondents (RNs and MHWs) than for RNs only. Such an order effect has been found to be
common in survey literature, particularly in the within-subject design (Holbrook, A., 2008).
Clearly, order effect must be assessed and controlled for in any survey.

Strengths and Limitations of the Study.

One of the limitations of the study is the use of the within-subject design that lead to the
order effect discussed above. However, the within-subject design has two advantages over the
between-subject design. First, its internal validity is independent of a random assignment of
participants to groups. Second, it increases the statistical power. Further, the self-report
questionnaire requires that respondents answer each statement honestly, but social desirability
bias, the tendency to show a positive image of self by censuring one own answers, can skew the
results. However, we used validated instruments to measure key variables in order to facilitate
comparisons with other studies, an established theoretical framework to guide the research, and a
setting which made it possible to survey staff with extensive experience with people with mental
illness.

We were not able to investigate if the respondents were different from non-respondents.
Due to the anonymous nature of the survey, it was not possible to investigate the characteristics
of the non-respondents, so it is possible that the non-respondents were different from the
respondents, and that they would express different beliefs. Therefore, the results of this study
have to be considered with caution, because of the possibility of non-response bias, and a low
response rate of 44%. Other limitations are that the study was conducted in a single, inpatient
psychiatric hospital and a convenience sample was used, therefore potentially limiting the
generalizability of the results to nursing staff in general.

Conclusion
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Stronger devaluation and discrimination of people with mental illness were associated in this study with two factors: clinical position and intimate knowledge of mental illness. The respondents expressed a stronger desire for social distance from a person with schizophrenia than depression or no mental illness. Furthermore, the theoretical underpinnings of the MLT were verified by the study results. It is recommended that future research focus on exploring non-psychiatric nurses’ attitudes toward people with mental illness. Further testing of the MLT is also warranted.
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CHAPTER V

Conclusions

The purpose of this dissertation was to examine psychiatric nurses’ and mental health workers’ attitudes toward mental illness. This examination was undertaken in three studies. The first study was an integrative review of the literature about nurses’ attitudes toward people with mental illness. This review revealed two gaps in knowledge: 1) the lack of a theoretical framework that guided studies included in the review and 2) the lack of a study that examined nurses’ attitudes toward mental illness in the United States (U.S.). Therefore, to address the two gaps, the second study focused on the analysis and evaluation of two leading mental illness stigma theories. This analysis and evaluation allowed the researcher to select a theoretical framework. Finally, the third study explored nurses’ attitudes toward mental illness in the U.S.

Key findings

The integrative literature review (see Chapter II) revealed that surveyed nurses had mixed attitudes toward people with mental illness. The authors of six studies reported that nurses had mostly mixed attitudes, four studies found mostly negative attitudes toward mental illness, while the other four studies reported the opposite results. The authors of three studies comparing nurses’ attitudes toward people with depression and schizophrenia and found that respondents expressed more positive attitudes toward depression than schizophrenia. Among ten studies that explored nurses’ attitudes toward social restrictiveness toward people with mental illness, only two showed that their respondents supported mentally ill people’s right to vote, to drive a car, or to get married. There was no difference in attitudes between psychiatric and non-psychiatric nurses.
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The second study focused on the analysis and evaluation of two leading stigma theories. The Modified Labeling Theory (MLT) and the Social Cognitive Model (SCM) were analyzed and evaluated. Both theories originated in the sciences adjunctive to nursing; the MLT in sociology and the SCM in social psychology. The evaluation of the two theories showed that they both met most of the criteria for further use in research. The MLT and the SCM met or partially met the criteria of significance to science, internal consistency, parsimony, and testability. However, the MLT met the criterion of empirical adequacy, since it was used in various studies, with diverse populations, by numerous researchers. The SCM was used by its original author, and the population studied was college students only. Therefore, the MLT was selected to guide the third study, which explored U.S. nurses’ attitudes toward people with mental illness.

The third study had three aims. First, it explored nurses’ beliefs about devaluation and discrimination of people with mental illness and factors related to those beliefs; second, it assessed nurses’ desire for social distance from a person with schizophrenia or depression, compared to a person with no mental illness, but with diabetes; third, the results of the study were compared with the theoretical underpinnings of the MLT. We found that respondents’ beliefs about devaluation and discrimination of people with mental illness were related to their clinical role and to their reported familiarity with mental illness. Respondents who worked more closely with patients and those who were intimately familiar with mental illness had stronger beliefs about devaluation and discrimination of people with mental illness. Respondents also expressed a desire for more social distance from a person with schizophrenia than the one with depression. They expressed no desire for social distance from a person with depression or no mental illness (diabetes), however, they expressed their preference to be closer to a person with
diabetes than a person with depression. The theoretical underpinnings of the MLT were verified by the study results. Stronger beliefs about devaluation and discrimination of people with mental illness were positively associated with a stronger desire for social distance from a person with schizophrenia. Consistent with the theoretical underpinnings of the MLT, there was no association between beliefs about devaluation and discrimination of people with mental illness and an expressed desire for a social distance from a person with depression or diabetes.

**Implications for Nursing Education**

This dissertation sheds light on several important aspects of attitudes toward mental illness: the attitudes of healthcare providers toward the mentally ill are diverse, associated with a number of factors, and pervasive across the groups studied. RNs in the quantitative study endorsed lesser stigmatizing actions toward people with mental illness than the MHWs suggesting that specialty training and education may influence attitudes. As noted, the MLT has been tested with diverse patient populations, including those with mental illness (Davis et al., 2012; Kroska & Harkness, 2006; Kroska et al., 2015; Lehman et al., 2015; Link, 1987; Link et al., 1989; Moses, 2009; Thoits & Link, 2016; Wright et al., 2000; Wright et al., 2011). This current study adds to the evidence that the four steps described in the MLT apply to many patients with mental illness and suggests that nurse educators can use the MLT as a guide in psychiatric nursing education. The MLT can provide nursing students with insights into both facets of stigma: the experiences of people with mental illness and the parallel processes that may operate among themselves and other providers. On the one hand, this will allow the students to see the possible consequences of the stigma faced by people with mental illness. On the other hand, it will promote nursing students’ insight into their own beliefs about devaluation and
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discrimination of these patients. This approach may help students to become aware of and avoid stigmatizing actions that their attitudes could otherwise engender.

Implications for Practice

Psychiatric nurse practitioners can also use the MLT framework to understand and identify their own attitudes toward people with mental illness. Devaluing beliefs about patients with mental illness may lead a provider to offer sub-standard care. Furthermore, such beliefs may lead to unconsciously express a desire for social distance from those patients, thus compromising the provider–patient relationship. The MLT provides nurse practitioners with a practical framework within which they can assess whether they are effectively approaching their patients.

Registered nurses in general can use the MLT to guide the care they provide to patients with mental illness by understanding the wider context in which mental illnesses occur. Since nurses are usually the first providers who see the patient, they are well positioned to assess patients’ responses to their status of being mentally ill and its resulting impact on social networks. Nurses can help refer patients to specialized centers, support groups and peer networks that may empower them. Nurses can also intervene and use cognitive behavior therapy tools to help the patients identify their beliefs, challenge some of those beliefs, and provide the patients with necessary skills to deal with possible discrimination and devaluation.

Implications for Policy

The findings of this dissertation demonstrate that trained professionals such as RNs expressed less stigmatizing actions toward people with mental illness than the MHWs. This finding suggests that professional training may alleviate negative attitudes toward people with mental illness and is consistent with previous findings (Arvaniti et al., 2009; Foster et al., 2008; Hamdan-Mansour & Wardam, 2009; Magliano et al., 2004; Nordt et al., 2006). This has broader
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implications, suggesting that an emphasis on the care and attitudes toward the mentally ill should be part of the standardized basic curriculum or mandatory continuing education for nurses. Currently, the American Association of Colleges of Nursing (AACN, 2008) states that the curriculum in baccalaureate nursing education should promote the understanding of self and others. The American Psychiatric Nurses Association (APNA, 2008) identified 13 core psychiatric mental health nurse competencies, one of which is therapeutic communication with the patients. Hence, an understanding of one’s own attitudes toward these patients should be included in the core curriculum of psychiatric education. Furthermore, this training should be offered to those who are currently practicing in the form of continuing education activities. However, without policies at the level of educational or health care institutions supporting this initiative, it is unlikely that such curricular changes will be made in education and/or professional training.

Implications for research

Several research directions have been identified based on the results of this dissertation. The findings from the literature review presented in Chapter I demonstrated that one obstacle to care for patients with mental illness in medical and surgical settings is the lack of skills and knowledge, suggesting that sensitization and training about the needs of patients with mental illness could lead to more positive attitudes of nursing staff toward people with mental illness (Arvaniti, et al., 2009; Foster et al., 2008; Hamdan-Mansour & Wardam, 2009; Magliano et al., 2004; Nordt et al., 2006). RNs who participated in this study were specialized in psychiatric nursing and they expressed less desire for social distance from a person with schizophrenia or depression than the MHWs who had less training. However, both groups expressed a stronger
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desire for social distance from a person with schizophrenia than depression, and their preference to be closer to a person with diabetes as compared to a person with depression. It would be informative to follow this quantitative study with a qualitative study to explore what skills RNs and MHWs use to work with patients whom they would prefer to keep at a distance on a more personal level. It is therefore recommended that this quantitative study be followed by a qualitative study engaging RNs and MHWs to explore the skills they use to provide quality of care. A qualitative study, guided by the MLT underpinnings, might shed light on these skills and the findings of this study might assist non-psychiatric nurses in their work with patients with mental illness.

In this dissertation, RNs from a specialized psychiatric hospital expressed lesser stigmatizing actions toward people with mental illness than MHWs. Professional/specialty training may be an important factor contributing to more positive attitudes toward people with mental illness (Arvaniti, et al., 2009; Foster et al., 2008; Hamdan-Mansour & Wardam, 2009; Magliano et al., 2004; Nordt et al., 2006). However, there is still need to assess the attitudes toward mental illness among other nurses who do not have specialty training. Therefore, further research is warranted to assess the attitudes toward mental illness and possible stigmatizing actions toward patients with mental illness among non-psychiatric nurses and other care providers.

Chapter I of this dissertation provided a review of attitudes of the general public and different healthcare providers toward mental illness. Current evidence about the link between providers’ negative attitudes toward patients with mental illness and resulting poorer quality of care is inconclusive (Corrigan et al., 2014; Noblett et al., 2015; Welch et al., 2015). Therefore, studies to assess the correlation between care provider attitudes and the quality of care provided
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to patients with mental illness is warranted. Additionally, studies to assess patients’ perception of
their providers’ care and the correlation between providers’ attitudes and patients’ perception of
their care could add important new knowledge to the field.

Another recommended area for future research pertains to the use of the MLT. Although
this dissertation provided support for the theoretical underpinnings of the MLT in psychiatric
nursing, more empirical evidence is needed prior to making recommendations for its wide
application in nursing research, education and practice. The MLT was tested in a psychiatric
setting, so far. It is recommended to test the theoretical underpinnings of the MLT among nurses
in a non-psychiatric setting.

Conclusions
This dissertation consisted of three studies that produced evidence about attitudes toward
people with mental illness. While the literature review provided information about nurses’
attitudes about mental illness, it also identified gaps in the literature, providing the foundation for
the theory analysis and evaluation, and the quantitative study that was guided by the selected
theory. Findings from this dissertation suggest that specialty education/training may lead to more
positive attitudes toward people with mental illness. Therefore, recommendations for nursing
education were discussed. Furthermore, the results of the study showed that the MLT is a
promising theory that can be used in nursing education and practice and as theoretical
underpinnings for further research. Future research directions should be designed to inform the
link between education, attitudes toward people with mental illness, and the quality of care.
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### Appendix

### Table 2.1

<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Sample</th>
<th>Measures</th>
<th>Key Findings</th>
</tr>
</thead>
</table>
| Arvaniti et al., 2009 | Greece | 130 nurses, 76 physicians, 140 other staff, 239 medical students from various medical wards and one psychiatric ward of a general hospital | • The Level of Contact Report (LCR)  
• Opinion about Mental Illness (OMI)  
• The Authoritarianism Scale (AS) | **(% Nurse Agreement)**  
**Social discrimination**:  
• Mentally ill patients as dangerous (24%)  
• Mentally ill patients should not marry (53%)  
• Mentally ill patients should be separated from patients without mental illness (60.7%)  
• Higher discrimination against mental illness among women, older adults, and nurses  
**Social restriction**:  
• Mentally ill patients should not vote (31%)  
• Nurses endorsed more restrictive attitudes than physicians  
• More knowledge about mental illness was associated with more positive attitudes  
**Social integration**:  
• Nurses were more negative than physicians but less authoritarian than medical students. |
| Aydin et al., 2003 | Turkey | 40 nurses, 40 academicians, 40 physicians, 40 hospital employees from medical clinics | • Schizophrenia and depression vignettes measures: Social distance  
• Burden of illness | | |
| Chambers et al., 2010 | Finland, Italy, Lithuania, Portugal, Ireland | 810 nurses, 21 Psychiatric Hospitals (n=21) | • Community Attitudes toward the Mentally Ill (CAMI) | • Nurses exhibited positive attitudes toward mentally ill across all countries  
• Most positive attitude toward mental illness (Portugal) |
<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Sample Size</th>
<th>Setting</th>
<th>Measured with</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Foster et al., 2008</td>
<td>Fiji</td>
<td>23 nurses</td>
<td>Psychiatric hospital</td>
<td>Attitudes Toward Acute Mental Health Scale</td>
<td>• Most negative attitude toward mental illness (Lithuania)</td>
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<td></td>
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<td>48 orderlies</td>
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<td><strong>Etiology (% agreement)</strong></td>
<td>• “Mental illnesses are caused by genetic factors” (65.2%)</td>
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<td><strong>Attitudes</strong></td>
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<td>“Psychiatric illness deserves as much attention as physical illness” (86.9%)</td>
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<td>“Mentally ill have no control over their emotions” (30.5%)</td>
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<td>“Manner in which you talk to patients affects their mental state” (91.3%)</td>
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<tr>
<td>Hamdan-Mansour and Wardam., 2009</td>
<td>Jordan</td>
<td>92 nurses</td>
<td>Acute and chronic mental health inpatient and outpatient facilities</td>
<td>Attitudes Toward Acute Mental Health Scale</td>
<td>• Significant difference in attitudes between older and younger nurses</td>
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<tr>
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<td></td>
<td></td>
<td>• Special training in psychiatric nursing led to more positive attitudes</td>
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<td></td>
<td>• Higher level of education was associated with more positive attitudes.</td>
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<td><strong>Nurse Agreement (%)</strong></td>
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<td>“Psychiatric Illness deserves as much attention as physical illness” (5.4%)</td>
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<td>“Depression occurs in people with weak personality” (68.5%)</td>
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<td>“Mentally ill patients have no control over their emotions” (84.8%)</td>
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<td>“Mental illnesses are genetic in origin” (76.1%)</td>
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<tr>
<td>Hsiao et al., 2015</td>
<td>Taiwan</td>
<td>180 nurses.</td>
<td>Psychiatric hospitals (n=3)</td>
<td>Jefferson Scale of Empathy-Health Profession version (JSE-HP)</td>
<td>• More negative attitudes towards schizophrenia than depression (p &lt;.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Attitudes of Mental Illness Questionnaire (AMIQ)</td>
<td>• The older the nurse, the more positive attitude (p &lt;.01)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>• The more experience the more positive attitudes (p &lt;.001)</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>• There was a positive correlation between empathy and attitudes toward mental illness (p &lt;.01)</td>
</tr>
<tr>
<td>Study</td>
<td>Country</td>
<td>Participants</td>
<td>Setting</td>
<td>Measures</td>
<td>Results</td>
</tr>
<tr>
<td>------------------</td>
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<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Kukulu and Ergun, 2007 | Turkey  | 543 nurses   | Psychiatric wards of teaching hospitals | Questionnaire reported in Turkish language | • There was no gender difference ($p = .84$)  
• Staff nurses endorsed more negative attitudes than nurse managers ($p < .02$)  
• Nurses on acute psychiatric units endorsed more negative attitudes toward schizophrenia than nurses who worked in community-based outpatient clinics ($p = .006$)  

**Etiology (%) Agreement**  
• Schizophrenia present from birth (93.2%)  
• Schizophrenia caused by social problems (51.4%)  

**Social distance**  
• “People with schizophrenia should be free in society” (31.9%)  
• Could work with people with schizophrenia (56.7%)  
• Could marry a person with schizophrenia (8.3%)  
• Have a neighbor with schizophrenia (42.9%)  
• Rent home to a person with schizophrenia (63.2%)  

| Linden and Kavanagh 2012 | Ireland | 121 nurses | 66 student mental health nurses  
Inpatient and Community Setting (n=2) | Community Attitudes toward Mental Illness Scale (CAMI)  
Social Interaction Scale (SIS) | • Nurses disagreed with social restrictiveness and authoritative attitudes toward mental illness  
• Nurses agreed with integrating mentally ill into the community  
• Nurses agreed with exhibiting benevolent attitudes toward those with mental illness  
• Community mental health nurses showed more positive attitudes than those who worked in inpatient setting  

**SIS**  
• Inpatient mental health nurses showed more socially restrictive attitudes than nurses in a community setting. |
<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Participants</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magliano et al., 2004</td>
<td>Italy</td>
<td>190 nurses, 110 psychiatrists, 709 patient relatives</td>
<td>Etiology of schizophrenia (% Nurse agreement)</td>
<td>Heredity (74%); Stress (53%); Alcohol (42%); Drugs (48%); Family conflict (48%); Trauma (36%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mental health services (n=30)</td>
<td>Social functioning</td>
<td>“Patients with mental illness should work as other people” (79%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Patients with schizophrenia are unpredictable (86%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Civil rights</td>
<td>Patients with schizophrenia should be responsible in court (72%)</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Patients with schizophrenia should vote (66%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Patients with schizophrenia should not get married (63%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Patients with schizophrenia should not have children (72%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wife of patient with schizophrenia should be allowed to divorce upon diagnosis (50%)</td>
</tr>
<tr>
<td>Munro and Baker 2007</td>
<td>England</td>
<td>141 nurses, Acute mental health unit</td>
<td>Attitude Toward Acute Mental Health Scale</td>
<td>Positive Attitudes (% Nurse Agreement)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Psychiatric illness deserves at least as much attention as physical illness” (80%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“Depression occurs in people with a weak personality” (20%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Negative Attitudes</td>
<td>Psychiatric drugs are used to control disruptive behavior” (67%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Neutral Attitudes</td>
<td>“Mental illness is genetic in origin” (46.4%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>“People are born vulnerable to mental illness” (45.7%)</td>
</tr>
<tr>
<td>Nordt et al., 2006</td>
<td>Switzerland</td>
<td>684 nurses, 204 psychiatrists, 185 other professionals</td>
<td>Computer Assisted Telephone Interview</td>
<td>Nurses and Psychiatrists reported similar negative attitudes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Psychiatric wards of hospitals (n=29)</td>
<td></td>
<td>Nurses endorsed higher social distance toward people with schizophrenia than toward people with depression.</td>
</tr>
</tbody>
</table>
### NURSES’ ATTITUDES

<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Sample Description</th>
<th>Measures</th>
<th>Results</th>
</tr>
</thead>
</table>
| Scheerder et al., 2011        | European Alliance Against Depression  
Belgium  
Estonia  
France  
Germany  
Hungary  
Ireland  
Italy  
Scotland  
Slovenia | 1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public  
1737 members of the general public | Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  
Social restrictiveness (% Nurse Agreement)  | Mentally ill people should have driver’s license revoked (46%)  
In favor of withdrawing the right to vote (2.8%)  
Mentally ill should abort when pregnant (9.8%)  
In favor of compulsory admission (98.2%)  
Mentally ill should abort when pregnant (9.8%)  
In favor of compulsory admission (98.2%)  
Mentally ill should abort when pregnant (9.8%)  
In favor of compulsory admission (98.2%)  
Mentally ill should abort when pregnant (9.8%)  
In favor of compulsory admission (98.2%)  
Mentally ill should abort when pregnant (9.8%)  
In favor of compulsory admission (98.2%)  |
| 887 nurses  
334 nursing assistants  
169 mental health professionals (physicians and mental health professionals)  
968 community facilitators (clergy, social workers) from a training program and professional associations | Adaptation of 3 tools  
Depression Attitude Questionnaire  
Defeat Depression Questionnaire  
Instruments of EAAD partner countries | Mental health professionals had the least negative attitudes toward people with depression and the use of antidepressants.  
Nurses had more negative attitudes toward people with depression  
“Depression is a real disease” (60% nurses; 95% physicians)  
“Depression can be treated” (81.9% nurses; 95.8% physicians)  |
| Serafini et al., 2011          | Italy                            | 50 nurses  
50 medical physicians  
50 medical students  
52 psychiatric outpatients from a university hospital | Responses to questions about vignettes  
Standardized Stigmatization Questionnaire (SSQ), (Part 1) | Vignettes (% Nurse Agreement)  
Positive attitudes  
Negative attitudes
Genetic basis of schizophrenia (80%)  
Most people think that people with schizophrenia are unpredictable (75%)  
Most people want to keep their distance from people with schizophrenia (80%)  
Most people think that people with schizophrenia are unpredictable (75%)  
Most people want to keep their distance from people with schizophrenia (80%)  |
### Neutral attitudes

- Most people thought that people with schizophrenia are dangerous (50%)

**SSQ**

Significant response difference between medical doctors and nurses ($p<0.038$)

### Nurses endorsed mostly negative attitudes (% Nurse Agreement)

- “Mental illness is an illness as any other” (38%)
- “Most women who were once patients in a mental hospital can be trusted to take care of babies” (30%)
- “Mental patients need the same kind of control and discipline as a young child” (63%)
- “Anyone with a history of mental problems should be excluded from taking public office” (71%)
- “The mentally ill should not be given any responsibility” (78%)

### Nurses endorsed more negative attitudes than physicians

<table>
<thead>
<tr>
<th>Sevigny et al., 1999</th>
<th>China</th>
<th>74 nurses</th>
<th>26 physicians</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Psychiatric hospital</td>
<td>Community Attitudes Toward the Mentally Ill</td>
</tr>
</tbody>
</table>
Table 3.1.  

*Framework for Evaluation and Analysis of Nursing Theories adapted from Fawcett and Desanto-Madeya (2013)*

<table>
<thead>
<tr>
<th>Analysis: Theory scope</th>
<th>What is the scope of the theory?</th>
</tr>
</thead>
</table>
| Analysis: Theory Context   | Does the theory deal with human beings?  
|                            | Does the theory deal with the environment? 
|                            | Does the theory deal with health?  
|                            | Does the theory deal with nursing processes or goal? 
|                            | On what philosophical claims is the theory based?  
|                            | From what conceptual model was the theory derived?  
|                            | What antecedent knowledge from nursing and adjunctive disciplines was used in the development of the theory? |
| Analysis: Theory Content   | What are the concepts of theory?  
|                            | What are the propositions of the theory?  
|                            | Which propositions are non-relational?  
|                            | Which propositions are relational?  |
| Evaluation: Significance   | Are the metaparadigm concepts and proposition addressed by the theory explicit?  
|                            | Are the authors of antecedent knowledge from nursing and adjunctive disciplines acknowledged, and are bibliographical citations given?  
|                            | Are the specific social and theoretical contributions of the theory acknowledged?  |
| Evaluation: Internal Consistency | Is each concept of the middle-range theory explicitly identified and clearly defined? (Semantic clarity)  
|                            | Are the same terms and same definition used consistently for each concept? (Semantic consistency)  
|                            | Are the propositions of the middle-range theory reasonable? (Structural consistency)  |
| Evaluation: Parsimony      | Is the theory content stated clearly and concisely?  |
| Evaluation: Testability    | Does the research methodology reflect the middle-range theory?  
|                            | Are the middle-range theory concepts observable through instruments that are appropriate empirical indicators of those concepts?  
|                            | Do the data analysis techniques permit measurement of the middle-range theory propositions?  |
| Evaluation: Empirical Adequacy | Are theoretical assertions congruent with empirical data?  |
| Evaluation: Pragmatic Adequacy | Are education and special skill training required before applying the theory in nursing practice?  
|                            | Has the theory been applied in the real world of nursing practice?  
|                            | Is it generally feasible to implement practical activities based on the theory?  |
### Table 3.2.

*Measures Used in Link studies, Adapted from Link et al. (1987), Link (1987), and Link et al., (1989)*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Population tested</th>
<th>Reliability</th>
<th>Validity</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Dangerousness of Mental Patients</td>
<td>OH, USA</td>
<td>α=.85</td>
<td>Construct validity</td>
<td></td>
</tr>
<tr>
<td>Social Network Questions</td>
<td>Inter-rater reliability=.73</td>
<td></td>
<td>Not mentioned</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.3. 

**Empirical Evidence for the Modified Labeling Theory: A Review of Studies that Used the MLT.**

<table>
<thead>
<tr>
<th>Aims</th>
<th>Population</th>
<th>Results</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examine the mediating effect of self-esteem on the relationship between role functioning and psychiatric symptoms.</td>
<td>148 people with severe mental illness from a community based clinic in Los Angeles.</td>
<td>Better role functioning was positively associated with self-esteem ($p = .02$). Self-esteem was negatively associated with severity of psychiatric symptoms ($p &lt; .001$). Changes in role functioning were positively associated with self-esteem ($p = .03$). change in self-esteem was negatively associated with changes in symptoms ($p &lt; .01$)</td>
<td>Davis, L., Kurzban, S., &amp; Brekke, J. (2012). Self-esteem as a mediator of the relationship between role functioning and symptoms for individuals with severe mental illness: A prospective analysis of Modified Labeling theory. <em>Schizophrenia Research, 137</em>(1–3), 185-189. doi:<a href="http://dx.doi.org/10.1016/j.schres.2012.02.003">http://dx.doi.org/10.1016/j.schres.2012.02.003</a></td>
</tr>
<tr>
<td>Explore the relationship between the experience of stigma between people with HIV/AIDS and cancer. Assess the impact of stigma in those two groups.</td>
<td>130 patients with HIV under treatment 76 patients with cancer under treatment Midwestern city</td>
<td>Patients with HIV/AIDS experienced significantly higher feelings of stigma than patients with cancer: social rejection ($p&lt;.001$); financial insecurity ($p&lt;.001$); social isolation ($p&lt;.001$); internalized shame ($p&lt;.001$). The impact of stigma on self-esteem or body image was not statistically significant when controlled for background characteristics and functional health status.</td>
<td>Fife, B. L., &amp; Wright, E. R. (2000). The dimensionality of stigma: A comparison of its impact on the self of persons with HIV/AIDS and cancer. <em>J Health Soc Behav, 41</em>(1), 50-67.</td>
</tr>
<tr>
<td>Explored the relationship between perceived alcohol stigma and past year of alcohol use disorder and past year of psychiatric disorder and individuals’ social network involvement and perceived social support. Explored the influence of perceived social network support for labeled versus not unlabeled individuals.</td>
<td>Secondary data analysis from National Epidemiologic Survey of Alcohol and Related Conditions, (2004-2005) cross-sectional analysis. 3,608 participants</td>
<td>$H_1$ was partially supported: higher perceived alcohol stigma was associated with internalizing psychiatric disorder while mediated by perceived social support ($p &lt;.000$). Social network mediator was non-significant. Relationship between perceived alcohol stigma and internalized psychiatric disorder was non-significant. The mediated effect was statistically significant in labeled individuals than in non-labeled individuals (alcohol use disorder 0.065; psychiatric disorder 0.058).</td>
<td>Glass, J. E., Mowbray, O. P., Link, B. G., Kristjansson, S. D., &amp; Bucholz, K. K. (2013). Alcohol stigma and persistence of alcohol and other psychiatric disorders: A modified labeling theory approach. <em>Drug and Alcohol Dependence, 133</em>(2), 685-692. doi:<a href="http://dx.doi.org/10.1016/j.drugalcdep.2013.08.016">http://dx.doi.org/10.1016/j.drugalcdep.2013.08.016</a></td>
</tr>
<tr>
<td>Explore the influence that a psychiatric hospitalization may have on same-sex dyads in men and women. Assess the moderating influence of education.</td>
<td>NURSES’ ATTITUDES</td>
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<td></td>
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</tr>
<tr>
<td>49 male and 121 female undergraduate students from a public southern university</td>
<td>History of psychiatric hospitalization increased men’s resistance to teammate’s suggestions ($p = .047$) but not in women ($p = .185$) Education decreased men’s resistance to teammate’s suggestions in men ($p = .002$) when the teammate has no history of psychiatric hospitalization but has no moderating effect when the teammate has history of psychiatric illness ($p = .198$). No difference in women. Men perceive teammates with history of psychiatric hospitalization as less powerful then the non-psychiatric patients ($p = .021$), but no difference for women ($p = .422$)</td>
<td>Kroska, A., Harkness, S. K., Brown, R. P., &amp; Thomas, L. S. (2015). Gender, status, and psychiatric labels. Social Science Research, 54, 68-79. doi:<a href="http://doi.org/10.1016/j.ssresearch.2015.06.021">http://doi.org/10.1016/j.ssresearch.2015.06.021</a></td>
<td></td>
</tr>
</tbody>
</table>

| NURSES’ ATTITUDES |
|---|---|
| Explore if cultural conceptions of “mentally ill person” become personally relevant to people who were diagnosed with mental illness. | Examine if cultural conceptions of “mentally ill person” become personally relevant to people who were diagnosed with mental illness. |
| 146 psychiatric patients; 187 people from patients’ network; 226 college students from Indianapolis. | Former patients expressed feeling as bad rather than good people ($p < .01$) and considered themselves as weak rather than strong ($p < .01$). Former patients considered that other people perceived them as bad rather than good ($p < .05$) and that people perceived them as weak rather than strong ($p < .01$). Non-patients self-perception was significantly different, they perceived themselves as good, compared to former patients ($p < .001$), strong ($p < .05$) and active ($p < .001$) | Kroska, A., & Harkness, S. K. (2006). Stigma sentiments and self-meanings: Exploring the Modified Labeling Theory of mental illness. Social Psychology Quarterly, 69(4), 325-348. doi:10.1177/019027250606900403 |

| Explored if stereotype awareness was associated with lower self-esteem among people with history of suicide attempt | Explored if stereotype awareness was associated with lower self-esteem among people with history of suicide attempt |
| 637 undergraduate students from the University of Maryland | Higher stereotype awareness was associated with lower self-esteem for both groups ($r = -.101; p = .01$). Stereotype awareness was more negatively correlated with lower self-esteem among young people who had | Lehmann, M., Hilimire, M. R., Yang, L. H., & Link, B. G. (2016). Investigating the relationship between self-esteem and stigma among young adults with history of suicide attempts. Crisis: the journal of crisis intervention and suicide |

stigma, the degree of subjective burden, the frequency with which children with disabilities interact with peers, and the maternal preference for interaction with wise individuals.
chronic disabilities West coast of Florida, pediatric clinic
burden that the mothers perceive in their caregiving tasks ($r = .46; p < .001$)
Perception of courtesy stigma has no relationship with frequency of children’s interactions with peers ($r = -.14; p > .05$). Perceived stigma is positively correlated with maternal preference for interaction with wise individuals ($r = .31; p < .01$).

Social Science & Medicine, 57(8), 1361-1374. doi:http://doi.org/10.1016/S0277-9536(02)00511-7

Explore the influence that a psychiatric hospitalization may have on same-sex dyads in men and women. Assess the moderating influence of education.

49 male and 121 female undergraduate students from a public southern university

History of psychiatric hospitalization increased men’s resistance to teammate’s suggestions ($p = .047$) but not in women ($p = .185$) Education decreased men’s resistance to teammate’s suggestions in men ($p = .002$) when the teammate has no history of psychiatric hospitalization but has no moderating effect when the teammate has history of psychiatric illness ($p = .198$). No difference in women. Men perceive teammates with history of psychiatric hospitalization as less powerful than the non-psychiatric patients ($p = .021$), but no difference for women ($p = .422$)


Explore if cultural conceptions of “mentally ill person” become personally relevant to people who were diagnosed with mental illness.

146 psychiatric patients; 187 people from patients’ network; 226 college students from Indianapolis.

Former patients expressed feeling as bad rather than good people ($p < .01$) and considered themselves as weak rather than strong ($p < .01$). Former patients considered that other people perceived them as bad rather than good ($p < .05$) and that people perceived them as weak rather than strong ($p < .01$). Non-patients self-perception was significantly different, they perceived themselves as good, compared to former patients ($p < .001$), strong ($p < .05$) and active ($p < .001$)


Explored if stereotype awareness was associated with lower self-esteem among people with history of suicide attempt

637 undergraduate students from the University of Maryland

Higher stereotype awareness was associated with lower self-esteem for both groups ($r = -.101; p = .01$). Stereotype awareness was more negatively correlated with lower self-esteem among young people who had

<table>
<thead>
<tr>
<th>Study</th>
<th>Participants/Context</th>
<th>Findings</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moses, T. (2009). Self-labeling and its effects among adolescents diagnosed with mental disorders</td>
<td>54 adolescents from a mid-Western city</td>
<td>Majority of adolescents avoided self-labeling (80%). Adolescents who avoided self-labeling had less depression than those who self-labeled ($p = .04$). Adolescents who self-labeled had higher perception of public stigma ($p = .002$). Results suggested that self-labeling was disempowering and demoralizing.</td>
<td>doi:10.1027/0227-5910/a000399</td>
</tr>
<tr>
<td>Mustillo, S. A., Hendrix, K. L., &amp; Schafer, M. H. (2012). Trajectories of body mass and self-concept in Black and White girls: The lingering effects of stigma</td>
<td>Girls who were obese at age 9, had lower self-esteem than those with normal weight ($p &lt; .01$). For girls who were obese at age 9 and returned to normal body weight by 17, the internalized stigma of obesity remained after the return to normal body weight ($p &lt; .05$). Girls who were obese at age 9 and returned to normal body weight by age 17 had self-esteem comparable to girls who was obese at 9 and 17.</td>
<td>doi:<a href="http://doi.org/10.1016/j.soscimed.2008.11.003">http://doi.org/10.1016/j.soscimed.2008.11.003</a></td>
<td></td>
</tr>
<tr>
<td>Smith, R. A., &amp; Hipper, T. J. (2010). Label management: Investigating how confidants encourage the use of communication strategies to avoid stigmatization.</td>
<td>223 students from a Mid-Atlantic college</td>
<td>The beliefs in devaluation and discrimination of people with mental illness resulted in advocacy for withdrawal, secrecy, and education ($p &lt; .05$).</td>
<td>doi:10.1080/10410236.2010.483335</td>
</tr>
<tr>
<td>Thoits, P. A., &amp; Link, B. G. (2016). Stigma resistance and well-being among people in treatment for psychosis.</td>
<td>65 patients from New York and New Jersey Stigma and Psychosis study</td>
<td>People who experienced discrimination were more likely to engage in concealment strategies ($p &lt; .01$) and challenging strategies ($p &lt; .01$). People who internalized stigma were more likely to engage in concealment strategies than those who did not internalize the stigma ($p &lt; .01$). Concealment strategies were associated with low self-esteem ($p &lt; .01$) and depressive symptoms ($p &lt; .05$).</td>
<td>doi:10.1177/2156869315591367</td>
</tr>
</tbody>
</table>
### NURSES’ ATTITUDES

<table>
<thead>
<tr>
<th>Examination</th>
<th>Population</th>
<th>Findings</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examine the association between the labels of the mentally ill used by young people and stigma related to depression, psychosis and social phobia.</td>
<td>3,746 Australians between 12 and 25 years old.</td>
<td>Labeling was less relevant to the perception of what other people think than to personal stigmatizing beliefs. The significant findings: label was relevant to the perception of dangerousness of a person with schizophrenia (OR=2.77, ( p &lt; .001 )), and the perception of people with depression as weak rather than sick (OR=0.29, ( p &lt; .001 ))</td>
<td>Wright, A., Jorm, A. F., &amp; Mackinnon, A. J. (2011). Labeling of mental disorders and stigma in young people. <em>Social Science &amp; Medicine, 73</em>(4), 498-506. doi:<a href="http://doi.org/10.1016/j.socscimed.2011.06.015">http://doi.org/10.1016/j.socscimed.2011.06.015</a></td>
</tr>
<tr>
<td>Examine impact of standard community treatment and continued institutionalization on former patients.</td>
<td>88 former patients from Central State Hospital (Indiana)</td>
<td>Experience of rejection (stigmatization) was associated with more secrecy and withdrawal (( p &lt; .001 )). Experience of rejection reduced former patients’ feeling of mastery (( p = &lt;.05 )). Decreased feeling of mastery was associated with increased self-deprecation (( p = &lt;.01 ))</td>
<td>Wright, E. R., Gronfein, W. P., &amp; Owens, T. J. (2000). Deinstitutionalization, social rejection, and the self-esteem of former mental patients. <em>Journal of Health and Social Behavior, 41</em>(1), 68-90. doi:10.2307/2676361</td>
</tr>
</tbody>
</table>
Table 3.4.

_Social Cognitive Model Adapted from Corrigan et al. (2005)_

<table>
<thead>
<tr>
<th>Public Stigma</th>
<th>Self-Stigma</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stereotype:</strong></td>
<td><strong>Stereotype:</strong></td>
</tr>
<tr>
<td>Negative belief about a group</td>
<td>Negative belief about self</td>
</tr>
<tr>
<td>e.g. dangerousness</td>
<td>e.g. character weakness</td>
</tr>
<tr>
<td>incompetence</td>
<td>incompetence</td>
</tr>
<tr>
<td>character weakness</td>
<td>character weakness</td>
</tr>
<tr>
<td><strong>Prejudice:</strong></td>
<td><strong>Prejudice:</strong></td>
</tr>
<tr>
<td>Agreement with belief and/or negative</td>
<td>Agreement with belief</td>
</tr>
<tr>
<td>emotional reaction</td>
<td>Negative emotional reaction</td>
</tr>
<tr>
<td>e.g. anger</td>
<td>e.g. low self-esteem</td>
</tr>
<tr>
<td>fear</td>
<td>low self-efficacy</td>
</tr>
<tr>
<td><strong>Discrimination:</strong></td>
<td><strong>Discrimination:</strong></td>
</tr>
<tr>
<td>Behavioral response to prejudice</td>
<td>Behavioral response to prejudice</td>
</tr>
<tr>
<td>e.g. avoidance of work or housing opportunities</td>
<td>e.g. fails to pursue work and housing opportunities</td>
</tr>
<tr>
<td>withholding help</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measures used</th>
<th>Population tested</th>
<th>Reliability</th>
<th>Validity</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinions on Mental Illness Scale (OMI)</td>
<td>1194 patients from two VA hospitals, USA</td>
<td>Authoritarianism=0.81 Benevolence=0.62 Social Restrictiveness=0.61</td>
<td>Construct validity and Factor Analysis</td>
<td>Cohen, J., &amp; Struening, E. L. (1962). Opinions about mental illness in the personnel of two large mental hospitals. The Journal of Abnormal and Social Psychology, 66(5), 349-360.</td>
</tr>
<tr>
<td>Social Distance Scale</td>
<td>153 residents of mid-western city, USA</td>
<td>$\alpha = 0.91$ (“normal man” vignette) $\alpha = 0.85$ (“neurotic” vignette)</td>
<td>Factor Analysis</td>
<td>Link, B. G., &amp; Cullen, F. T. (1983). Reconsidering the social rejection of ex-mental patients: Levels of attitudinal response. American Journal of Community Psychology, 11(3).</td>
</tr>
<tr>
<td>Attribution Questionnaire - 27</td>
<td>518 community college students, Midwestern urban setting, USA</td>
<td>$\alpha = 0.70$ (personal responsibility) $\alpha = 0.74$ (pity) $\alpha = 0.96$ (fear) $\alpha = 0.88$ (helping behavior) $\alpha = 0.89$ (coercion/segregation)</td>
<td>Confirmatory Factor Analysis</td>
<td>Corrigan, P., Markowitz, F. E., Watson, A., Rowan, D., &amp; Kubiak, M. A. (2003). An Attribution Model of Public Discrimination Towards Persons with Mental Illness. Journal of Health and Social Behavior, 44(2), 162-179.</td>
</tr>
</tbody>
</table>
Table 4.1.

Demographic Characteristics of the Participants (N = 146)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>101</td>
<td>69.7</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
<td>30.3</td>
</tr>
<tr>
<td><strong>Staff position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical</td>
<td>122</td>
<td>83.6</td>
</tr>
<tr>
<td>Non-clinical</td>
<td>24</td>
<td>16.4</td>
</tr>
<tr>
<td><strong>Profession</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health workers</td>
<td>55</td>
<td>37.7</td>
</tr>
<tr>
<td>Nurses</td>
<td>91</td>
<td>62.3</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>128</td>
<td>87.7</td>
</tr>
<tr>
<td>Part time</td>
<td>18</td>
<td>12.3</td>
</tr>
<tr>
<td><strong>Work setting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>138</td>
<td>94.5</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>5.5</td>
</tr>
<tr>
<td><strong>Familiarity with mental illness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimate</td>
<td>10</td>
<td>6.8</td>
</tr>
<tr>
<td>Not intimate</td>
<td>136</td>
<td>93.2</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>67</td>
<td>45.9</td>
</tr>
<tr>
<td>Black</td>
<td>41</td>
<td>28.1</td>
</tr>
<tr>
<td>Other</td>
<td>38</td>
<td>26.0</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>15</td>
<td>10.2</td>
</tr>
<tr>
<td>Associate degree</td>
<td>14</td>
<td>9.6</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>56</td>
<td>38.4</td>
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<tr>
<td>Master’s degree</td>
<td>48</td>
<td>32.9</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>6</td>
<td>4.1</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4.8</td>
</tr>
</tbody>
</table>
Table 4.2.

*Differences in Mean Scores of the Devaluation – Discrimination Scale (DD) for Each Predictor Variable, Bivariate Analyses.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>DD M (SD)</th>
<th>Range</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>p = .45</td>
</tr>
<tr>
<td>Length of employment&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>p = .22</td>
</tr>
<tr>
<td>Sex&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2.63 (0.38)</td>
<td>1.83 – 3.58</td>
<td>p = .65</td>
</tr>
<tr>
<td>Female</td>
<td>2.59 (0.43)</td>
<td>1.25 – 3.75</td>
<td></td>
</tr>
<tr>
<td>Staff position&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical</td>
<td>2.64 (0.42)</td>
<td>1.25 – 3.75</td>
<td>p = .03</td>
</tr>
<tr>
<td>Non-clinical</td>
<td>2.43 (0.30)</td>
<td>1.67 – 2.91</td>
<td></td>
</tr>
<tr>
<td>Profession&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health workers</td>
<td>2.58 (0.41)</td>
<td>1.25 – 3.50</td>
<td>p = .57</td>
</tr>
<tr>
<td>Nurses</td>
<td>2.62 (0.42)</td>
<td>1.67 – 3.75</td>
<td></td>
</tr>
<tr>
<td>Employment status&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>2.61 (0.40)</td>
<td>1.25 – 3.75</td>
<td>p = .93</td>
</tr>
<tr>
<td>Part time</td>
<td>2.60 (0.48)</td>
<td>1.67 – 3.73</td>
<td></td>
</tr>
<tr>
<td>Work setting&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>2.60 (0.40)</td>
<td>1.25 – 3.75</td>
<td>p = .78</td>
</tr>
<tr>
<td>Other</td>
<td>2.64 (0.58)</td>
<td>1.67 – 3.67</td>
<td></td>
</tr>
<tr>
<td>Familiarity with mental illness&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimate</td>
<td>2.97 (0.51)</td>
<td>2.17 – 3.75</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Not intimate</td>
<td>2.58 (0.39)</td>
<td>1.25 – 3.67</td>
<td></td>
</tr>
<tr>
<td>Race&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.63 (0.42)</td>
<td>1.67 – 3.73</td>
<td>p = .16</td>
</tr>
<tr>
<td>Black</td>
<td>2.50 (0.44)</td>
<td>1.25 – 3.50</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2.66 (0.36)</td>
<td>1.92 – 3.75</td>
<td></td>
</tr>
<tr>
<td>Education level&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>2.47 (0.45)</td>
<td>1.25 – 3.17</td>
<td>p = .18</td>
</tr>
<tr>
<td>Associate degree</td>
<td>2.57 (0.35)</td>
<td>2.08 – 3.33</td>
<td></td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>2.66 (0.44)</td>
<td>1.83 – 3.75</td>
<td></td>
</tr>
<tr>
<td>Master’s degree</td>
<td>2.56 (0.38)</td>
<td>1.67 – 3.67</td>
<td></td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>2.95 (0.45)</td>
<td>2.50 – 3.73</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2.54 (0.31)</td>
<td>2.00 – 2.92</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* <sup>1</sup> simple regression; <sup>2</sup> independent sample t-test; <sup>3</sup> one-way ANOVA
Table 4.3.

Multiple Regression Analyses for Variables Predicting Mean Scores of the Devaluation – Discrimination Scale (N = 146)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B coefficient</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical vs Non-clinical</td>
<td>-.19</td>
<td>-2.17</td>
<td>.03</td>
</tr>
<tr>
<td>Intimate vs Non-intimate</td>
<td>.38</td>
<td>2.94</td>
<td>.004</td>
</tr>
</tbody>
</table>

Note:
1 Intimate: living with a person with mental illness, having mental illness oneself.
1 Non-intimate: working with people with mental illness, having a friend with mental illness, having a relative with mental illness.
## Table 4.4.

**Differences in Mean Scores of the Schizophrenia Social Distance Scale (SSDS) for Each Predictor Variable, Bivariate Analyses.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Respondents (N = 146)</th>
<th>Nurses (N = 91)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SSDS M(SD)</td>
<td>Range</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>2.52 (0.60)</td>
<td>1.43 – 4.00</td>
</tr>
<tr>
<td><strong>Length of employment</strong></td>
<td>2.54 (0.64)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td><strong>Mean scores of the DD</strong></td>
<td>2.79 (0.64)</td>
<td>1.86 – 4.00</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2.61 (0.61)</td>
<td>1.29 – 4.00</td>
</tr>
<tr>
<td>Female</td>
<td>2.15 (0.53)</td>
<td>1.00 – 3.00</td>
</tr>
<tr>
<td><strong>Staff position</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical</td>
<td>2.56 (0.62)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Non-clinical</td>
<td>2.12 (0.54)</td>
<td>1.57 – 3.00</td>
</tr>
<tr>
<td><strong>Profession</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health workers</td>
<td>2.79 (0.64)</td>
<td>1.86 – 4.00</td>
</tr>
<tr>
<td>Nurses</td>
<td>2.38 (0.56)</td>
<td>1.00 – 3.86</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>2.56 (0.62)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Part time</td>
<td>2.34 (0.63)</td>
<td>1.29 – 3.86</td>
</tr>
<tr>
<td><strong>Work setting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>2.56 (0.62)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Other</td>
<td>2.12 (0.54)</td>
<td>1.57 – 3.00</td>
</tr>
<tr>
<td><strong>Familiarity with mental illness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimate</td>
<td>2.60 (0.72)</td>
<td>1.29 – 3.71</td>
</tr>
<tr>
<td>Not intimate</td>
<td>2.53 (0.62)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2.38 (0.59)</td>
<td>1.29 – 4.00</td>
</tr>
<tr>
<td>Black</td>
<td>2.63 (0.60)</td>
<td>1.43 – 4.00</td>
</tr>
<tr>
<td>Other</td>
<td>2.69 (0.66)</td>
<td>1.00 – 3.86</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>2.64 (0.56)</td>
<td>1.86 – 3.57</td>
</tr>
<tr>
<td>Associate degree</td>
<td>2.65 (0.53)</td>
<td>1.71 – 3.57</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>2.57 (0.63)</td>
<td>1.29 – 4.00</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>2.33 (0.59)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>3.36 (0.62)</td>
<td>2.43 – 4.00</td>
</tr>
<tr>
<td>Other</td>
<td>2.47 (0.51)</td>
<td>1.86 – 3.00</td>
</tr>
<tr>
<td><strong>Order of the scales</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-D-S</td>
<td>2.61 (0.71)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>S-M-D</td>
<td>2.17 (0.43)</td>
<td>1.29 – 3.00</td>
</tr>
<tr>
<td>D-S-M</td>
<td>2.77 (0.54)</td>
<td>1.71 – 4.00</td>
</tr>
</tbody>
</table>

Note: 1 simple regression; 2 independent sample t-tests; 3 one-way ANOVA.
NURSES’ ATTITUDES

Table 4.5.

Multiple Regression Analyses for Variables Predicting Mean Scores of the Schizophrenia Social Distance Scale, All Respondents (N = 146).

<table>
<thead>
<tr>
<th>Variable</th>
<th>B coefficient</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DD(^1)</td>
<td>.27</td>
<td>2.48</td>
<td>.01</td>
</tr>
<tr>
<td>Clinical vs Non-clinical</td>
<td>-0.28</td>
<td>-2.22</td>
<td>.03</td>
</tr>
<tr>
<td>MHWs(^2) vs RNs(^3)</td>
<td>-0.34</td>
<td>-3.46</td>
<td>.001</td>
</tr>
<tr>
<td>Order M-D-S(^4)</td>
<td>0.48</td>
<td>4.35</td>
<td>.000</td>
</tr>
<tr>
<td>Order D-S-M(^4)</td>
<td>0.54</td>
<td>5.00</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note:
\(^1\) DD: Devaluation – Discrimination Scale
\(^2\) MHW – mental health workers
\(^3\) RNs – registered nurses
\(^4\) Order of presentation: M-D-S: Diabetes – Depression – Schizophrenia
D-S-M: Depression – Schizophrenia – Diabetes

Table 4.6.

Multiple Regression Analyses for Variables Predicting Mean Scores of the Schizophrenia Social Distance Scale, RNs only (N = 91).

<table>
<thead>
<tr>
<th>Variable</th>
<th>B coefficient</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DD(^1)</td>
<td>.35</td>
<td>2.72</td>
<td>.008</td>
</tr>
<tr>
<td>Clinical vs Non-clinical</td>
<td>-0.28</td>
<td>-2.03</td>
<td>.046</td>
</tr>
<tr>
<td>Order M-D-S(^2)</td>
<td>0.31</td>
<td>2.47</td>
<td>.02</td>
</tr>
<tr>
<td>Order D-S-M(^2)</td>
<td>0.51</td>
<td>3.85</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note:
\(^1\) DD: Devaluation – Discrimination Scale
\(^2\) Order of presentation: M-D-S: Diabetes – Depression – Schizophrenia
D-S-M: Depression – Schizophrenia – Diabetes
Table 4.7.

**Differences in Mean Scores of the Depression Social Distance Scale for Each Predictor Variable, Bivariate Analyses, and Final Model**

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Respondents (N = 146)</th>
<th>Nurses (N = 91)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DSDS M (SD)</td>
<td>Range</td>
</tr>
<tr>
<td>Age</td>
<td>1.98 (0.63)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Length of employment</td>
<td>1.96 (0.52)</td>
<td>1.00 – 3.57</td>
</tr>
<tr>
<td>Mean scores of the DD</td>
<td>2.03 (0.53)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Sex</td>
<td>1.98 (0.63)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Staff position</td>
<td>1.96 (0.52)</td>
<td>1.00 – 3.57</td>
</tr>
<tr>
<td>Profession</td>
<td>2.17 (0.61)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Employment status</td>
<td>1.84 (0.47)</td>
<td>1.00 – 2.71</td>
</tr>
<tr>
<td>Full time</td>
<td>1.98 (0.56)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Part time</td>
<td>1.87 (0.45)</td>
<td>1.00 – 2.71</td>
</tr>
<tr>
<td>Work setting</td>
<td>1.98 (0.55)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Inpatient</td>
<td>1.63 (0.53)</td>
<td>1.00 – 2.71</td>
</tr>
<tr>
<td>Other</td>
<td>1.63 (0.52)</td>
<td>1.00 – 3.57</td>
</tr>
<tr>
<td>Familiarity with mental illness</td>
<td>1.77 (0.50)</td>
<td>1.00 – 2.29</td>
</tr>
<tr>
<td>Intimate</td>
<td>1.98 (0.55)</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Not intimate</td>
<td>1.84 (0.47)</td>
<td>1.00 – 2.71</td>
</tr>
<tr>
<td>Race</td>
<td>1.83 (0.50)</td>
<td>1.00 – 3.14</td>
</tr>
<tr>
<td>White</td>
<td>2.07 (0.60)</td>
<td>1.14 – 4.00</td>
</tr>
<tr>
<td>Black</td>
<td>2.09 (0.53)</td>
<td>1.00 – 3.29</td>
</tr>
<tr>
<td>Other</td>
<td>1.84 (0.48)</td>
<td>1.00 – 2.71</td>
</tr>
<tr>
<td>Education level</td>
<td>2.05 (0.35)</td>
<td>1.29 – 2.57</td>
</tr>
<tr>
<td>High school</td>
<td>2.23 (0.53)</td>
<td>1.57 – 3.29</td>
</tr>
<tr>
<td>Associate degree</td>
<td>1.94 (0.54)</td>
<td>1.00 – 3.57</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>1.79 (0.50)</td>
<td>1.00 – 3.14</td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>2.83 (0.67)</td>
<td>2.14 – 4.00</td>
</tr>
<tr>
<td>Other</td>
<td>1.94 (0.41)</td>
<td>1.57 – 2.57</td>
</tr>
<tr>
<td>Order of the scales</td>
<td>M-D-S</td>
<td>2.02 (0.60)</td>
</tr>
<tr>
<td></td>
<td>S-M-D</td>
<td>1.79 (0.46)</td>
</tr>
<tr>
<td></td>
<td>D-S-M</td>
<td>2.06 (0.54)</td>
</tr>
</tbody>
</table>

*Note:* 1 simple regression; 2 independent sample t-tests; 3 one-way ANOVA
## NURSES’ ATTITUDES

### Table 4.8.

*Multiple Regression Analyses for Variables Predicting Mean Scores of the Depression Social Distance Scale, All Respondents (N = 146).*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B coefficient</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DD¹</td>
<td>.15</td>
<td>1.39</td>
<td>.17</td>
</tr>
<tr>
<td>Clinical vs Non-clinical</td>
<td>-.28</td>
<td>-2.26</td>
<td>.03</td>
</tr>
<tr>
<td>MHWs² vs RNs³</td>
<td>-.26</td>
<td>-2.79</td>
<td>.006</td>
</tr>
<tr>
<td>Order M-D-S⁴</td>
<td>.27</td>
<td>2.58</td>
<td>.01</td>
</tr>
<tr>
<td>Order D-S-M⁴</td>
<td>.23</td>
<td>2.25</td>
<td>.03</td>
</tr>
</tbody>
</table>

*Note:*
1. DD: Devaluation – Discrimination Scale
2. MHW – mental health workers
3. RNs – registered nurses
   D-S-M: Depression – Schizophrenia – Diabetes

### Table 4.9.

*Multiple Regression Analyses for Variables Predicting Mean Scores of the Depression Social Distance Scale, RNs only (N = 91).*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B coefficient</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DD¹</td>
<td>.11</td>
<td>1.01</td>
<td>.31</td>
</tr>
<tr>
<td>Clinical vs Non-clinical</td>
<td>-.40</td>
<td>-3.39</td>
<td>.001</td>
</tr>
<tr>
<td>Order M-D-S²</td>
<td>.27</td>
<td>2.45</td>
<td>.02</td>
</tr>
<tr>
<td>Order D-S-M²</td>
<td>.27</td>
<td>2.50</td>
<td>.01</td>
</tr>
</tbody>
</table>

*Note:*
1. DD: Devaluation – Discrimination Scale
2. Order of presentation: M-D-S: Diabetes – Depression – Schizophrenia
   D-S-M: Depression – Schizophrenia – Diabetes
### Table 4.10.

**Differences in Mean Scores of the Diabetes Social Distance Scale for Each Predictor Variable, Bivariate Analyses, and Final Model**

<table>
<thead>
<tr>
<th>Variable</th>
<th>MSDS M (SD)</th>
<th>Range</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>p = .88</td>
</tr>
<tr>
<td>Length of employment&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>p = .92</td>
</tr>
<tr>
<td>Mean scores of the DD&lt;sup&gt;1&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>p = .42</td>
</tr>
<tr>
<td><strong>Sex&lt;sup&gt;2&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1.24 (0.36)</td>
<td>1.00 – 2.29</td>
<td>p = .03</td>
</tr>
<tr>
<td>Female</td>
<td>1.39 (0.37)</td>
<td>1.00 – 2.71</td>
<td></td>
</tr>
<tr>
<td><strong>Staff position&lt;sup&gt;2&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical</td>
<td>1.36 (0.36)</td>
<td>1.00 – 2.43</td>
<td>p = .30</td>
</tr>
<tr>
<td>Non-clinical</td>
<td>1.27 (0.39)</td>
<td>1.00 – 2.71</td>
<td></td>
</tr>
<tr>
<td><strong>Profession&lt;sup&gt;3&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health workers</td>
<td>1.30 (0.32)</td>
<td>1.00 – 2.29</td>
<td>p = .27</td>
</tr>
<tr>
<td>Nurses</td>
<td>1.37 (0.39)</td>
<td>1.00 – 2.71</td>
<td></td>
</tr>
<tr>
<td><strong>Employment status&lt;sup&gt;2&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>1.35 (0.37)</td>
<td>1.00 – 2.71</td>
<td>p = .53</td>
</tr>
<tr>
<td>Part time</td>
<td>1.29 (0.34)</td>
<td>1.00 – 2.00</td>
<td></td>
</tr>
<tr>
<td><strong>Work setting&lt;sup&gt;2&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>1.35 (0.37)</td>
<td>1.00 – 2.71</td>
<td>p = .54</td>
</tr>
<tr>
<td>Other</td>
<td>1.27 (0.34)</td>
<td>1.00 – 2.00</td>
<td></td>
</tr>
<tr>
<td><strong>Familiarity with mental illness&lt;sup&gt;2&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intimate</td>
<td>1.17 (0.24)</td>
<td>1.00 – 1.57</td>
<td>p = .12</td>
</tr>
<tr>
<td>Not intimate</td>
<td>1.35 (0.37)</td>
<td>1.00 – 2.71</td>
<td></td>
</tr>
<tr>
<td><strong>Race&lt;sup&gt;3&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1.38 (0.38)</td>
<td>1.00 – 2.71</td>
<td>p = .49</td>
</tr>
<tr>
<td>Black</td>
<td>1.29 (0.34)</td>
<td>1.00 – 2.00</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.35 (0.39)</td>
<td>1.00 – 2.43</td>
<td></td>
</tr>
<tr>
<td><strong>Education level&lt;sup&gt;3&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>1.27 (0.32)</td>
<td>1.00 – 2.00</td>
<td>p = .57</td>
</tr>
<tr>
<td>Associate degree</td>
<td>1.27 (0.32)</td>
<td>1.00 – 2.00</td>
<td></td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>1.38 (0.39)</td>
<td>1.00 – 2.71</td>
<td></td>
</tr>
<tr>
<td>Master’s degree</td>
<td>1.34 (0.35)</td>
<td>1.00 – 2.29</td>
<td></td>
</tr>
<tr>
<td>Doctoral degree</td>
<td>1.24 (0.30)</td>
<td>1.00 – 1.71</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1.51 (0.55)</td>
<td>1.00 – 2.43</td>
<td></td>
</tr>
<tr>
<td><strong>Order of the scales&lt;sup&gt;3&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-D-S</td>
<td>1.32 (0.35)</td>
<td>1.00 – 2.43</td>
<td>p = .62</td>
</tr>
<tr>
<td>S-M-D</td>
<td>1.39 (0.38)</td>
<td>1.00 – 2.29</td>
<td></td>
</tr>
<tr>
<td>D-S-M</td>
<td>1.33 (0.37)</td>
<td>1.00 – 2.71</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* <sup>1</sup> simple regression; <sup>2</sup> independent sample t-tests; <sup>3</sup> one-way ANOVA.
Table 4.11.

*Multiple Regression Analyses for Variables Predicting Mean Scores of the Diabetes Social Distance Scale, All Respondents (N = 146)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B coefficient</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean DD¹</td>
<td>.07</td>
<td>.90</td>
<td>.37</td>
</tr>
<tr>
<td>Sex (female)</td>
<td>-.14</td>
<td>-2.20</td>
<td>.03</td>
</tr>
</tbody>
</table>

*Note:*
¹ DD: Devaluation – Discrimination Scale

Table 4.12.

*Mean Scores, Standard Deviations and Range of the Scales, All Respondents (n = 146)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Means*</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSDS</td>
<td>2.54</td>
<td>.62</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>DSDS</td>
<td>1.97</td>
<td>.55</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>MSDS</td>
<td>1.34</td>
<td>.37</td>
<td>1.00 – 2.71</td>
</tr>
</tbody>
</table>

SSDS – Schizophrenia Social Distance Scale  
DSDS – Depression Social Distance Scale  
MSDS – Diabetes Social Distance Scale  
* Scores above 2.5 indicate desire for social distance

Table 4.13.

*Comparison of Mean Scores by Label, All Respondents (n = 146)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>t</th>
<th>df</th>
<th>Significance</th>
<th>Mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean SSDS vs Mean MSDS</td>
<td>23.11</td>
<td>145</td>
<td>.000</td>
<td>1.19</td>
</tr>
<tr>
<td>Mean SSDS vs Mean DSDS</td>
<td>11.08</td>
<td>145</td>
<td>.000</td>
<td>.58</td>
</tr>
<tr>
<td>Mean DSDS vs Mean MSDS</td>
<td>13.65</td>
<td>145</td>
<td>.000</td>
<td>.62</td>
</tr>
</tbody>
</table>

SSDS – Schizophrenia Social Distance Scale  
DSDS – Depression Social Distance Scale  
MSDS – Diabetes Social Distance Scale  
* Scores above 2.5 indicate desire for social distance
Table 4.14.

*Mean Scores, Standard Deviations and Range of the Scales, RNs only (n = 91)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Means*</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSDS</td>
<td>2.38</td>
<td>0.56</td>
<td>1.00 – 3.86</td>
</tr>
<tr>
<td>DSDS</td>
<td>1.84</td>
<td>0.47</td>
<td>1.00 – 2.71</td>
</tr>
<tr>
<td>MSDS</td>
<td>1.37</td>
<td>0.39</td>
<td>1.00 – 2.71</td>
</tr>
</tbody>
</table>

SSDS – Schizophrenia Social Distance Scale  
DSDS – Depression Social Distance Scale  
MSDS – Diabetes Social Distance Scale  
* Scores above 2.5 indicate desire for social distance

Table 4.15.

*Comparison of Mean Scores by Label, RNs only (n = 91)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>t</th>
<th>df</th>
<th>Significance</th>
<th>Mean difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean SSDS vs Mean MSDS</td>
<td>17.23</td>
<td>90</td>
<td>.000</td>
<td>1.01</td>
</tr>
<tr>
<td>Mean SSDS vs Mean DSDS</td>
<td>9.19</td>
<td>90</td>
<td>.000</td>
<td>.54</td>
</tr>
<tr>
<td>Mean DSDS vs Mean MSDS</td>
<td>9.48</td>
<td>90</td>
<td>.000</td>
<td>.47</td>
</tr>
</tbody>
</table>

SSDS – Schizophrenia Social Distance Scale  
DSDS – Depression Social Distance Scale  
MSDS – Diabetes Social Distance Scale  
* Scores above 2.5 indicate desire for social distance
NURSES’ ATTITUDES

Figure 2.1.

PRISMA Flow Diagram for Integrative Review of Studies Assessing Attitudes of Nurses Toward Individuals with Mental Illness

Records identified through database searching (n = 2615)

Additional records identified through other sources (n = 5)

Records after duplicates removed (n = 2343)

Records screened by title (n = 2343)

Records excluded (n = 1573)

Records screened by title and abstract (n = 770)

Articles excluded based on title and abstract (n = 701)

Full-text articles assessed for eligibility (n = 69)

Studies eligible for inclusion (n = 15)

One article excluded after quality appraisal

Studies synthesized in final review (n = 14)
NURSES’ ATTITUDES

Figure 3.1.
Modified Labeling Theory, Adapted from Link et al. (1989)
NURSES’ ATTITUDES

Figure 3.2.

The Relationship Between Prejudice and Discrimination, Adapted from Corrigan et al. (2001)

Figure 3.3.

The Relationship Between Stereotypes, Prejudice and Discrimination, Adapted from Corrigan et al. (2002)
NURSES’ ATTITUDES

Figure 3.4.

The Relationship Between Stereotypes, Personal Beliefs, Prejudice and Discriminatory Behavior, Adapted from Corrigan et al. (2003)

- Controllability
- Personal responsibility
- Dangerousness
- Emotional response
- Discriminatory and helping behavior
NURSES’ ATTITUDES

Figure 4.1.

Modified Labeling Theory, Adapted for the Study (Link et al., 1989)

Key: The grey box indicates the step that was not examined in the present study.
Figure 4.2.

Testing of the Modified Labeling Theory

Step 1

OUTCOME 1
Beliefs about devaluation and discrimination of people with mental illness
Devaluation – Discrimination Scale
$M = 2.60$

Step 2

Labeled person: a person with schizophrenia

Step 3

Labeled individual’s responses: secrecy, withdrawal, evasiveness

$\rho < .01$

OUTCOME 2
The desire for social distance from a person with schizophrenia
Social Distance Scale
$M = 2.54$

Step 4

Not Labeled person: a person with diabetes

$\rho = .42$

OUTCOME 2
No desire for social distance from a person with diabetes
Social Distance Scale
$M = 1.34$

Key: The grey box indicates the step that was not examined in the present study.