ABSTRACT

THE EFFECT OF SOCIAL SUPPORT ON HOSPITALIZATION RATES FOR CONSUMERS WITH SEVERE MENTAL ILLNESS: A SYSTEMATIC REVIEW OF THE LITERATURE

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This systematic review of the literature explored the relationship between family, social support and psychiatric re-hospitalizations for those with severe mental illness. Also discussed were specific types of family and social support shown to be beneficial to those with mental illness. The meta-analysis reviewed 33 studies written within the last 10 years and analyzed these studies for content. Results of the analysis indicated family and social support did help to reduce rates of psychiatric hospitalizations. Results of the analysis also indicated that family support consisting of high levels of expressed emotion resulted in negative outcomes for those with severe mental illness, including higher rates of relapse and psychiatric readmissions. Findings also found other themes in the literature correlating to psychiatric readmission rates. Implications for social work and cultural relevance in social work regarding practice, future research and social policy for individuals with severe mental illness experiencing multiple psychiatric hospitalizations were also discussed.

THE EFFECT OF SOCIAL SUPPORT ON HOSPITALIZATION RATES FOR CONSUMERS WITH SEVERE MENTAL ILLNESS: A SYSTEMATIC REVIEW OF THE LITERATURE

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CHAPTER 1

INTRODUCTION

Problem Statement

According to the National Institute of Mental Health (NIMH; (2008), 1 in 4 adults suffers from a diagnosable mental health disorder within a given year in the United States and 1 in 17 adults will suffer from severe mental illness. The Substance Abuse and Mental Health Services Administration (SAMHSA; 2012) estimated this equals approximately 9.6 million adults. These numbers are reported to be a low estimate, since this does not include the population of those who are homeless, or who reside in long term locked facilities or jail. Many people with severe mental illness fall into those categories making the problem of severe mental illness even graver (SAMHSA, 2012).

The population of those with severe mental illness is especially vulnerable to the cycle of hospitalizations and re-hospitalizations. The Healthcare Cost and Utilization Project (HCUP) conducted by the Agency for Health Care Policy and Research reported that in 2006, 1 out of every 5 hospitalizations had a primary or secondary mental health condition (Saba, Levit, & Elixhauser, 2008). Approximately 8.4 million hospital stays involved a mental health diagnosis, for 1.4 million of those hospital stays, mental health was the primary reason for being in the hospital (Saba et al., 2008).

Frequent hospitalizations negatively affect not only the quality of life for those requiring hospitalization, but can lead them to being institutionalized (Patrick, Smith,

Schleifer, Morris, & McLennon, 2006). Those with severe mental illness report feeling isolated, alone and some have even said they would prefer to stay in hospital settings due to lack of support outside the hospital (Patrick et al., 2006). More research is needed to help understand how to reduce risk of future hospitalizations, and apply this knowledge in helping individuals maximize treatment so they can further proceed on their road to recovery.

Purpose Statement

The purpose of this systematic review of the literature is to explore the relationship between lack of social or family support, and increased risk of hospitalizations for those with severe mental illness. This will specifically examine literature regarding risk factors to hospitalizations, the impact of family or social involvement on hospitalization rates and types of family or social involvement currently being utilized in mental health practices. This study can contribute to the body of knowledge for social workers in providing the best quality of care for those with severe mental illness, helping to reduce hospitalizations and improve recovery rates.

Research Questions

This analysis will explore the following research questions. (1) What is the association between family or social support and rate of hospitalization for those with mental illness? (2) Is there a specific type of social or family support that has been shown to be most beneficial for those with severe persistent mental illness? (3) Are there any other factors or themes repeated in the literature that are theorized to be correlated to re-hospitalization rates for those with mental illness?

Definition of Terms

The following are definitions of terms that will be frequently used throughout this project:

Institutionalism: Often a result of repeated hospitalizations, the tendency for individuals who are hospitalized to become comfortable in a hospital setting and become dependent and passive over time, often not engaging in discharge planning to enter back into the community (Machado, Leonidas, Santos, & Souza, 2012; Patrick et al., 2006).

Deinstitutionalization: The shift in mental health care to keep people out of hospitals, or in hospitals for as little as possible generally favoring community-based interventions (Botha et al., 2010; Niehaus et al., 2008; Patrick et al., 2006).

Re-Hospitalization: Another word for re-admission, re-hospitalization is the phenomenon in which people are brought back to the hospital within a year after being discharged (Lang, Rohrer, & Rioux, 2009; Mgutshini, 2010; Saba et al., 2008).

Revolving Door Phenomenon: The concept of clients being discharged from a hospital, maintaining stability for a short time, and ending up back in the hospital (Botha et al., 2010; Niehaus et al., 2008).

Recovery: The process a consumer goes through to improve their health and wellness, live an independent and meaningful life and reach their full potential in the realms of basic health, living environment, having a purpose and being engaged in a community outside of the mental health system (SAMHSA, 2012).

Serious/Severe Mental Illness: Described as a person age18 or older who currently has a diagnosable mental illness (excludes developmental and substance use disorders) meeting diagnostic criteria of the Diagnostic and Statistical Manual of Mental

Disorders- IV (DSM-IV) that has resulted in serious functional impairment, which significantly interferes with and impacts one's normal day to day functions and living abilities (American Psychiatric Association [APA], 1994).

Carer/Caretaker: A person who provides unpaid support and assistance to the individual with severe mental illness (Hallam, 2007).

Expressed Emotion: Family attitudes of distress as evidenced by negative comments or criticism including a critical tone, or family reported extreme involvement and self-sacrificing behavior (Glynn, Cohen, Dixon, & Niv, 2006; Kuipers, 2006).

Social Network: Any group of individuals who maintain a relationship with other individuals in the group. Can be examined looking at density of network, size, or similar characteristics within the network (Falci & McNeely, 2009; Lin, 1999; Moren-Cross et al., 2006).

Social Capital: The resources that an individual is able to access as a result of belonging to a certain social network (Guillen & Lin, 2011; Lin, 1999; Moren- Cross et al., 2006).

Differentiation of Self: The ability of an individual to connect to others and separate from others in a relationship (Bartle-Haring & Probst, 2004; Hooper & DePuy, 2010; Steelman, 2007).

CHAPTER 2

LITERATURE REVIEW

Network Theory

Introduction to Network Theory

The relationships that people experience and have with others has been referred to in literature as a social network (Moren-Cross et al., 2006). Moren-Cross et al. (2006) and Lin (1999) helped to develop a concept for the relationships people have with each other, and the effect these relationships have on individuals and a community. Social network theory examines the social structure of a community, and how an individual relates to others in this community. Lin proposed a theory that relationships between individuals and other persons as well as individuals and the community as a whole, are made up of a variety of layers. These layers consist of "outer layers" (Lin, 1999, p. 345) such as the community. The relationship a person has to the community and how they interact within the community, helps to facilitate a person's sense of belonging and sense of worth within the community and overall. People derive a sense of belonging according to Lin, by interacting with others and maintaining relationships through these interactions. In order for a person to be engaged in a relationship they must be involved and interacting with others. If there are no interactions, the social network is not valid and will not be a support for the individual who is a part of it. Lin refers to these interactions between individuals as "bonding" (p. 346). Bonding relationships then lead

to “binding relationships” (p. 346), which are the strongest ties in a social network. Binding occurs when trust is formed, individuals are engaged within their community and are able to receive and give support. Smangs (2010) reported that according the strength of ties within a network is characterized by the amount of time a person spends in the relationship, how intense emotionally the relationship is, intimacy in the relationship and if the relationship is reciprocal. Individuals who are spending significant time with another, engaged emotionally, have some type of intimacy and are able to give as well as receive within the relationship would be considered to have the strongest type of binding relationship (Smangs, 2010).

According to social network theory, when individuals experience belonging, bonding and binding, they are able to maintain social support (Lin, 1999; Moren-Cross et al., 2006). Not all relationships or connections may be equal in strength, but in order for a person to receive some type of benefit from their network, they do need to be engaged in some way. When people receive support, they also begin to experience a benefit referred to as social capital (Guillen & Lin, 2011; Moren-Cross et al., 2006). Social capital refers to the resources available to an individual as a result of the network they are in (Moren-Cross et al., 2006). These resources can be figurative or concrete.

Social Capital as a Resource

Social capital is viewed as beneficial to individuals because it is a way for them to get back what they put into a network. Social capital benefits on a larger scale can include a shared culture or cultural norms, facilitation of reciprocity and allowing networks to share and expand on knowledge (Smith & Ruston, 2013). This can then benefit both individuals and the network as a whole (Guillen & Lin, 2011; Smith &

Ruston, 2013). Social capital benefits on a smaller scale could include emotional, financial or social support that may occur from having access to another person's resources (Guillen & Lin, 2011). Smith and Ruston (2013) found that social capital works best when people within the network are closely connected. In Smith and Ruston's study, this was defined by amount and frequency of contact to other individuals within the network. If social capital in a network is strong, and bonds within the network are strong, trust is likely to be created (Guillen & Lin, 2011). When trust is created, individuals are more likely to continue to invest in the social network, there are better outcomes emotionally for individuals, and it can help the community as a whole to function in a more efficient way (Guillen & Lin, 2011).

Individuals who are able to access social capital within their network have been directly linked to having higher levels of health benefits and better health outcomes (Moren Cross et al, 2006). Ahnquist, Wamala, and Lindstrom (2012) examined the link between social capital, economic capital and both physical and mental health. Financial security and a higher socioeconomic status were found to be correlated to better physical and mental health (Ahnquist et al., 2012). This was what the researchers had predicted, as those with better financial resources would be more likely to afford health care, pay for medicine and live a lifestyle that would allow them to generally be in better physical and mental shape (Ahnquist et al., 2012). Those with more social capital were also found to be more likely to have better physical and mental health (Ahnquist et al., 2012). When Ahnquist et al. examined the effect that having a lower economic capital and social capital had on an individual, they found an even stronger correlation. Those with low economic and social capital were found to be at a greater risk for poor physical health and

poor mental health (Ahnquist et al., 2012). These individuals were less likely to be able to access economic resources, preventing them from also accessing social resources. In addition to not being able to access healthcare for financial reasons, these individuals were also more isolated and more likely to be depressed (Ahnquist et al., 2012). Ahnquist et al. theorized this could be due to the isolation the individuals experienced and also found this lack of access to economic and social resources resulted in higher stress levels for individuals, mistrust of others, mistrust of the community as a whole and higher potential of people further isolating, preventing them from being able to improve their economic and social situations. Ahnquist et al. recommended examining social inequalities, which can contribute to individuals having poorer health due to less access to resources.

Daly and Silver (2008) argued that social capital is in direct contrast with social isolation. In social capital, individuals are viewed as involved and participating. These individuals have strong ties and connections to the network they are involved in, which helps to improve the quality of their relationships. Those who are socially isolated are viewed as not engaged with others or in the community around them, having limited or weak ties to those individuals they do interact with, and not being able to improve the relationships they have due to not investing time or effort into these relationships (Daly & Silver, 2008).

Some cultures use social capital in their social networks as a means of survival, relying on reciprocity in order to keep the community going (Granovetter, 1982). In these cases, people have to rely on a strong social network for social support as well as economic support. It is not just about the benefit people receive, but also about surviving

using all of the resources that the network has (Granovetter, 1982). People in these circumstances are often from smaller communities, usually more rural and have high levels of trust both on individual levels between people and on a macro scale between the individual and community as a whole (Granovetter, 1982).

Lin (1982) also examined the benefit of social capital in regard to economic status, wealth and power and found that people with more social capital and social resources had better access to information and resources. This led to people in these networks being more likely to have a higher status level, and have more privileges than those who were not in the network (Lin, 1982). This helped a person emotionally to feel more secure and engaged in the society around them.

Lin (1982) also discussed the concept of homophily, the idea that people in a network will gravitate towards other people like themselves. Homophily has been found to be helpful and at other times harmful, depending on the nature of the network. An example of a negative impact would be among individuals who are engaging in risky behavior. Being involved in a network where others engage in the same behavior may result in harmful consequences (Schaefer, Kornienko, & Fox, 2011). In contrast, for individuals who are connected in a network where they share economic wealth, being connected to others who are also economically well off would be positive since this could result in opportunities for economic growth and job opportunities (Lin, 1982).

Legh- Jones and Moore (2012) examined the benefit of social capital in relation to physical inactivity. Physical inactivity, when a person does not participate regularly in exercise and does not move their body regularly, has been linked to negative health consequences. These can include a greater risk for obesity, heart problems, diabetes and

even cancer (Legh-Jones & Moore, 2012). Their study found a link between social capital, people being more engaged and involved, and having higher levels of physical activity. Legh-Jones and Moore theorized that people with more social capital and a larger social network may have more access to joining clubs, gyms and socialized sports clubs. People also may expand their networks and increase their social capital by participating in physical activity, which may encourage them to continue with physical activity (Legh-Jones & Moore, 2012). Social capital and social networks may also allow people to gain positive feedback from their physical activity, and act as a motivator for people to continue with physical activity (Legh-Jones & Moore, 2012). Legh-Jones and Moore were able to find that social capital can increase a person´s physical activity and improve their health in positive ways. Their study also concluded that there was the tendency for homophily, and individuals who were not physically activity would most likely associate with individuals who were also limited in their physical activity (Legh-Jones & Moore, 2012).

Giordano and Lindstrom (2011) reported that another social capital benefit is the ability for social capital to increase an individual's trust and reciprocity in the community. This increase in trust and giving and receiving has been linked to the community as a whole having lower levels of crime, individuals being less likely to engage in criminal activity and a reduced likelihood of smoking and binge drinking (Giordano & Lindstrom, 2011). These benefits would allow a person to experience less stressors due to living a healthier lifestyle. This in turn is beneficial for their mental health and has been linked to better psychological health (Giordano & Lindstrom, 2011). Giordano and Lindstrom's study examined the link between social capital and

psychological health. The researchers also controlled for as traits such as socioeconomic status, employment status, marriage status, age and education level (Giordano & Lindstrom, 2011). Most of their findings were insignificant, but they did find correlations between social capital and positive psychological health using trust to measure social capital (Giordano & Lindstrom, 2011). Marriage, age and gender were also correlated positively with psychological health. Those who were married were more likely to have better psychological health. Older individuals were also more likely to have better psychological health and women were more likely to have poorer psychological health compared to men (Giordano & Lindstrom, 2011). Social capital had the strongest correlation to psychological health, leading Giordano and Lindstrom to discuss the impact social capital has on future generations. Giordano and Lindstrom theorized that the family unit is the initial exposing agent for an individual to encounter social capital and trust. If the family is able to instill these values in their children, the children will be able to interact in social networks and learn trust and reciprocity yielding social capital and providing for a more secure society (Giordano & Lindstrom, 2011).

Schultz, O´Brien, and Tadesse (2008) discussed the impact and benefits social capital has on society on a larger scale. In addition to social capital being able to benefit individual health, it can also encourage individuals to come together to make improvements in the health care system on a macro scale (Schultz et al., 2008). Individuals who hold similar beliefs and continue to invest in the network are able to work together to help change a larger network, allowing for growth to occur (Schultz et al., 2008).

In addition to social capital being beneficial to society overall, it also has an effect on an individual's perception of their own health according to Schultz et al. (2008). In their study, Schultz et al. found that individuals who had more social capital were more likely to report better health in themselves than individuals who did not have as much social capital. These individuals had trust in others and thought of themselves as having close friends. Self-reported health was not always congruent with actual health, according to the researchers (Schultz et al., 2008).

When people have a lack of social network, or do not engage with the networks they are a part of, this can result in the individual feeling isolated. Individuals who are not involved can feel excluded or deprived, resulting in a lack of trust both in intimate relationships and a lack of trust in group and community settings (Daly & Silver, 2008). This lack of access most directly affects individuals who are considered minorities, or those who are considered excluded from "main stream society" (Daly & Silver, 2008, p.542). It is important to note that those with severe mental illness often feel excluded and isolated from society, particularly from the community setting, and would be viewed as a minority by social network theory standards (Topor, 2006).

Social Network Benefits

Social network theory reports that social networks do have an effect on an individual's overall psychological well being (Lin, 1999; Schaefer et al., 2011). Social networks and social capital can also affect physical health in both positive and negative ways. One study examined social network theory in relation to college drinking, and found that when individual social networks were comprised of those who drank, they were more likely to engage in this act and their physical health was likely to be affected

negatively (Reifman, Watson, & McCourt, 2006). Students were exchanging social capital ideas that included information regarding parties and drinking. This then led to negative physical health due to excessive drinking, resulting in these individuals being more likely to have health issues related to excessive alcohol intake. For individuals who were involved in networks where binge drinking was not common, the individual was less likely to engage in risky drinking behavior leading to more positive health outcomes for these individuals (Reifman et al., 2006).

As Reifman et al., (2006) and Schaefer et al., (2011) reported, individuals in social networks often exhibit homophily, or sharing common traits. Schaefer et al. reported that when individuals feel isolated or excluded, they often engage with others who also feel isolated or excluded. This can result in not just emotional, but physical pain for individuals, resulting in them withdrawing further from their network, which only increases isolation resulting in negative health and mental health effects (Schaefer et al., 2011). In this case, the social network is not as beneficial and social capital is less likely to be shared due to individuals feelings isolated and not as trusting within the network (Schaefer et al., 2011).

Kennedy, Kiecolt-Glaser, and Glaser (1990) studied in depth the relationship between social support, stress levels and the immune system. They conducted their study around the immune system and level of functioning in the immune system by examining lymphocytes, or white blood cells (Kennedy et al., 1990). When there is stimulation, in this case stress, lymphocytes elicit a response, which is meant to help ward off infections (Kennedy et al., 1990). Kennedy et al. found that those who reported higher levels of loneliness had higher levels of Epstein-Barr Virus (EBV) antibodies, indicating that the

cellular immune systems were not as effective (Kennedy et al., 1990). In another study, patients in a psychiatric facility were monitored. Those who reported being lonelier had poor cell functioning and higher levels of urinary cortisol levels, which is known to be a hormone indicating stress (Kennedy et al., 1990). The conclusion was that those with higher levels of loneliness or stress are prone to lower levels of immune functioning, and those with lower levels of loneliness or stresses have higher levels of immune functioning. Higher levels of immune functioning allow for a person to better fight off infections and maintain better overall health.

Kennedy et al. (1990) found that physical health was affected by social factors and also theorized the reasoning behind social factors affecting physical health. One important benefit of having social support was the ability for individuals to disclose within their network. Kennedy et al. reported self-disclosure as being important due it increasing the trust in the relationships of individuals, as well as reducing feelings of a person being alone or isolated. Self-disclosure was also theorized to allow a person to no longer feel trapped in his or her own thoughts, and ruminate over the stressors in their lives. This can allow for a reduction in stress levels and psychological distress. Health benefits from sharing with another and having lower levels of stress are linked to improved immune system functioning, lower levels of blood pressure and improved heart rates (Kennedy et al., 1990).

Song and Lin (2009) argued that in the same way a person with more individual economic resources has greater access to health benefits, social capital within a social network can also provide health benefits. Song and Lin theorized that this is due in part to the information provided by the social network regarding health, the influence the

network can yield about health benefits, the ability of the network to act as a type of credential for the individuals in the network and the ability of the network to reinforce its identity (Song & Lin, 2009). An example of these concepts presented in the literature was the reaction by hospital staff to a patient´s husband, who was a doctor. This reaction influenced and changed the kind of care the woman ended up receiving due to the social network the woman was a part of (Song & Lin, 2009). Song and Lin theorized the woman received better care due to her husband being able to provide her with information about what was best for her health, the influence her husband had over the health care she was receiving in the hospital, the credentials her husband had which led the hospital staff to perform differently and her identity as a doctor's wife.

In the Song and Lin (2009) study, data was collected from a survey done in Taiwan in 1997. This survey used evidenced-based health measures and scales, and then examined the extent of the person´s social network and social capital benefits that resulted from those social networks (Song & Lin, 2009). The results concluded that social capital did impact depressive signs and physical health, with social capital being linked to lower levels of depression and better overall physical health. Song and Lin also found that when people were at a disadvantage due to lack of education, social capital helped to rectify this and acted as a buffer against depressive symptoms for individuals.

Charles Kadushin (1982) examined the direct relationship between mental health and social network, or social density. He initially examined the link between cultures that were not closely connected, or more industrialized, and those people that resided in more rural areas. Kadushin pointed to theories presented that linked industrialization to a lack of social contact, leading to confusion regarding social roles and eventually leading

to depression or "mental breakdown" (Kadushin, 1982, p. 148). Kadushin argued that in contrast to the link being industrialization, it was actually the quality of the relationships and environment a person is in that are linked to mental health. For a person with a larger social network, there is greater chance that when an individual needs additional support, more people may be available to help support this person as opposed to someone who does not have as many contacts (Kadushin, 1982). Kadushin theorized that the times a person is most likely to need social support is when they are experiencing a stressful situation. During these times their social network becomes a resource to help them get through this difficult time. Lin (1982) reported that in this case, social support is not only a resource but can be viewed as the coping skill a person has in dealing with their situation.

Those who are experiencing severe mental illness or mental health concerns do experience stress not only due to their illness, but also due to the kinds of situations or environments they are in (Kadushin, 1982). If a person is experiencing severe mental illness, this can make it even harder for them to maintain relationships. This difficulty maintaining relationships can also make it more likely that the individual will not be able to maintain many connections and result in an individual being more likely to have a smaller social network. Having a smaller social network puts them in the position of being more susceptible to stress, becoming isolated and not having access to resources provided by the network (Kadushin, 1982). It can become even more difficult for a person to access a network or gain a larger network if they are experiencing symptoms of stress of mental illness, resulting in a negative cycle and preventing the person from being able to access social support (Kadushin, 1982).

Since information is one benefit from social capital, some networks may lack access to information due to being excluded from and not engaging in different and varying types of networks. Sharing and accessing information in a network is one way that social capital has been shown to increase health and mental health benefits (Browne, 2011; Schaefer et al., 2011). Browne (2011) studied African-Americans receiving kidney transplants using a social network theory approach, and found that individuals who received transplants had more access to knowledge of health care and kidney clinics compared to those who were not receiving transplants. He found people who had knowledge were often connected with a network that had access to kidney knowledge, which directly benefited their health since more knowledge provided the individual with a better opportunity (Browne, 2011).

In addition to the knowledge social networks can provide, an overall sense of support is provided which can increase and promote a person's self esteem, increase emotional functioning and improve psychological functioning (Browne, 2011; Lin, 1999). This support when given during times of stress has been coined the "buffering effect" (Rook, 1990, p. 222). It is called so due to the ability of support to help minimize the negative effects of stress.

Rook specifically examined how social support can positively impact mental health in older adults. Older adults are considered especially vulnerable to becoming disconnected from social networks due to loss of loved ones, physical barriers or lack of access to networks due to various reasons (Rook, 1990). She pointed out that in addition to social support helping during times of stress; it also provided the benefit of companionship to older adults (Rook, 1990). Companionship has been linked to

increases in positive mental health and can allow for an individual to feel a sense of belonging in a stronger way than they might feel with acquaintances (Rook, 1990). People who experience companionship are likely to feel a sense of bonding, and at times binding, which ties into the principles Lin argued make up a strong social network (Lin, 1999). Rook (1990) found that people are most likely to obtain companionship from family members, specifically older adults.

Granovetter (1982) argued that some social networks are not as strong as others. In contrast with strong ties and binding or bonding ties, some types of social connections are weaker. Granovetter pointed out that these ties could be beneficial, despite not providing the same benefit as stronger ties. An example of weaker ties benefits include exposing people to different ideas and opinions of others, which can allow people to have access to knowledge they may not have had before (Granovetter, 1982). Weak ties have been linked to improved chances for people to obtain jobs due to information being passed along, with Granovetter arguing that most ties to people at work would be considered an acquaintance, or weaker tie. It is easier for people to form weaker ties, and this allows for people to still be connected to a social network and avoid complete isolation (Granovetter, 1982). Avoiding isolation has benefits that include better overall sense of well being, self worth and can lead to an increase in mental health status (Granovetter, 1982).

McDonald, Lin, and Ao (2009) also examined the benefits a social network can have in helping people secure a job and become fiscally secure. McDonald et al. found that one benefit of a social network was the information passed along throughout the network. They focused primarily on information regarding jobs and job opportunities.

Like Browne (2011), McDonald et al. also found that people can be limited and receive limited information due to not being able to access certain social networks. Populations that were identified as most vulnerable to receiving information leading to job opportunities were racial minorities as well as women (McDonald, Lin, & Ao, 2009). As discussed in the studies by Ahnquist et al. (2012) and Lin (1999), having more access to economic resources and financial security, including jobs or information regarding jobs, can directly impact physical and mental health in positive ways and provide an individual with better opportunities to improve their mental and physical health.

On a macro scale, social networks have been shown to be beneficial in helping people mobilize and accomplish a goal (Westaby, Pfaff & Redding, 2014). Social networks can also contribute to an improvement in overall learning and knowledge in a population as well as overall motivation (Westaby et al., 2014). Westaby, Pfaff, and Redding (2014) examined social network theory and found ways in which social networks are beneficial on macro and micro scales. Decision-making and pursuit of goals were some benefits found to affect both the larger social network and the individual (Westaby et al., 2014). A person who is struggling to make a decision may reach out to those in their network for assistance. This can benefit the person because they get individual support and assistance. This contact with others can benefit the network in a larger sense because it can allow for ideas and motivation to flow through the network (Westaby et al., 2014). This movement of ideas and motivation through the network can then affect other individuals within the network by allowing exposure to new ideas and to the motivation of others (Westaby et al., 2014).

Emotions can also be affected through this system, according to Westaby et al. (2014) both in positive and negative ways. If someone accomplishes a goal, the network as a whole could feel a sense of pride and motivation, while other times this could cause jealousy or feelings of insecurity (Westaby et al., 2014). Individuals in this case are affected, but the network morale as a whole is also affected. This can be beneficial in helping the social network move towards a more positive attitude resulting in better morale (Westaby et al., 2014). It can also be harmful, resulting in the group becoming negative and in return negatively affecting people's emotions and causing stress (Westaby et al., 2014).

Using Social Network Theory

Social network theory can be used in this systematic review of the literature as a theoretical framework to explain why social support may be beneficial to reducing re-hospitalization rates in those with severe mental illness. Falci and McNeely (2009), Granovetter (1982), Lin (1999), and Westaby et al. (2014) have all explained the benefits that can occur as a result of individuals being involved with a social network. Social networks have also been discussed in the literature above to not only affect and benefit a person in the economic and financial sense (Ahnquist et al., 2012; Lin, 1982) but also benefit a person's physical and mental health (Ahnquist et al., 2012; Daly & Silver, 2008; Giordano & Lindstrom, 2011; Guillen & Lin, 2011, Lin, 1999). This can be beneficial in helping to understand the role a social network and support can play in helping a person recover from severe mental illness.

Bowen Family Systems Theory

While network theory examines relationships based on individuals' interactions with each other and at a community level, Bowen's family systems theory examines relationships within the nuclear family and how this relates directly to an individual's life. According to Steelman (2007), Bowen's concepts regarding family interactions show a direct link to a person's mental health and well being. This link is identified by first examining a term known as "differentiation of self" (Steelman, 2007, p. 152). Differentiation of self is defined in this theory as the ability of an individual to connect with others and separate from others in a relationship (Bartle-Haring & Probst, 2004; Hooper & DePuy, 2010; Steelman, 2007). Differentiation of self has been linked to levels of anxiety, psychological benefits and risks and even physical health benefits and risks (Steelman, 2007).

Another concept in Bowen's family systems theory that directly links to mental health is the idea of individuals versus community or being together (MacKay, 2012). According to family systems theory, it is essential for individuals to form bonds and be together. The human practice of forming bonds according to Bowen is first introduced in the bond between a mother and her child (MacKay, 2012). Without this relationship or other relationships, a person is not able to survive. Bowen also looked at when people were in times of extreme distress or crisis, and argued that people coming together to support each other provided survival for individuals and for the family or group as a whole (MacKay, 2012).

Although a person having a sense of togetherness and support is crucial, according to Bowen being overly dependent is also harmful to a person (MacKay, 2012;

Steelman, 2007). When a person is unable to detach, they are likely to try to compensate by engaging in behaviors that are compromising to who they are as an individual (MacKay, 2012). This could result in the individual behaving in ways they believe will make them more desirable or pleasing to others, but cause an internal conflict that brings distress to the person. MacKay stated that according to Bowen's theory, this is likely to produce more anxiety and stress for the individual. This stress and anxiety can then result in a decrease in physical and mental health for the individual (MacKay, 2012).

According to family systems theory, another way that individuals manage their anxiety and stress in relationships is through triangulation (Klever, 2005). Triangulation occurs when two people attempt to manage the anxiety of their own relationship by involving a third party in their relationship (Klever, 2005). Klever (2005) reported that in families where individuals have higher levels of differentiation, the triangle relationship is likely to be stable and result in lower levels of anxiety for all individuals involved. When individuals in the family have lower levels of differentiation, the triangle relationship is likely to result in anxiety not only for the two primary people, but also for the third party. The third party is generally the child of two adults in a relationship (Klever, 2005). Triangle relationships can also exist between other family members including but not limited to, parents and children, extended family, close family friends and even grandparents.

When a child is learning and developing their own coping skills, family systems theory states that much of what they learn about coping is developed through triangulation and the self-differentiation their family exhibits (Klever, 2005). The child grows and develops and if they are surrounded by chronic anxiety, it is likely that they

will grow to have unstable emotional reactions and constant anxiety. They would then bring this into their own nuclear families in the future (Klever, 2005). Bowen theorized that their independence would be compromised and individuals would be less likely to develop autonomy (Klever, 2005). Klever reported that higher levels of triangulation and stress have been linked to "emotional immaturity" (Klever, 2005, p. 141), depression, problems with intimate relationships, and physical health problems.

Differentiation and Coping

When an individual has lower levels of differentiation, they have difficulty with connecting to others or separating from others (Bartle-Haring & Probst, 2004). These individuals are reported to have lower levels of coping and are more likely to cope and deal with stress in negative ways (Bartle-Haring & Probst, 2004). People with lower levels of differentiation often feel the most anxiety or distress when their needs are not being emotionally met. If a person has lower levels of differentiation they may be more likely to view certain situations as stressful, and emotionally be more reactive (Hooper & DePuy, 2010). Bowen argued in his theory that the reason those with higher levels of differentiation respond better to stress is due to being able to act in a more objective manner (Murdock & Gore, 2004). Family systems theory says that individuals are able to be more objective due to having a stronger sense of autonomy and stronger sense of self which allows them to feel more confident in their decisions and reactions to stressors (Murdock & Gore, 2004). This is in direct opposition to acting on emotion. Murdock and Gore (2004) reported individuals with lower differentiation levels are prone to engage more in emotional responses, due in part to heightened levels of anxiety and less successful coping skills that inhibit their decision-making.

Killmer and Hertlein (2004) also found that those who are unable to manage their emotions often end up making irrational decisions and choices. These decisions when based off of anxiety and emotion often end up having negative consequences for the individual. This can in turn affect the other members of the family and result in negative consequences for the family as well (Killmer & Hertlein, 2004). Examples of these emotional responses could be engaging in risky behaviors, engaging in altercations or causing harm to self (Killmer & Hertlein, 2004).

Differentiation levels and the effect on development of an individual have also been examined, with one study looking at differentiation's effect on adolescence. Kolbert, Kolbert, Crothers, and Field (2013) studied how adolescents develop individually and in relation to their families looking at levels of differentiation individually and within the family unit. Kolbert et al. discussed that adolescents in their developmental stages are often beginning to understand others' perspectives and how their own interpretation of the truth may vary significantly from another's. For adolescents who had higher levels of differentiation, they were more likely to be engaged academically and have the ability to solve social problems in an effective manner. For those who did not have higher levels of differentiation, there was more likely to be a correlation to chronic anxiety, drug use, and unsafe sexual behavior (Kolbert, Kolbert, Crothers, & Field, 2013). Kolbert et al. found that the levels of differentiation in the family and the levels of differentiation within the individual affected the development of the adolescent and how the adolescent perceived the world around them. This development was theorized to affect in the future how an individual interacted with others due to these perceptions (Kolbert et al., 2013). Also theorized to be affected were

reactions to others resulting in negative consequences if they were not able to develop emotional understanding of different perspectives (Kolbert et al., 2013).

All people experience some type of stressors in their lives. Family systems theory examined stress and coping from not just an individual level, but from a generational level (Klever, 2005). The way families experience stressful situations, react to stressful situations and interact with each other on a day-to-day basis is viewed at in a family systems theory as being affected by the way their ancestors before them behaved and reacted to similar situations (Klever, 2005). Families then learn norms from previous generations, and according to family systems theory, bring these norms into family relationships in the future (Klever, 2005).

Klever (2005) found from a Bowen perspective, that individuals not only respond to stressful situations or life events, they experience stress due to some changes that may take place within their familial relationships. Families tend to be innately sensitive to each other and their relationships. In situations where families as a whole experience lower differentiation, they are likely to be more perceptive to possible threats to their familial relationships (Klever, 2005). This could result in families using unhealthy coping mechanisms such as avoiding or aggression (Klever, 2005). This avoidant and aggressive behavior has negative effects on the relationships and can negatively affect the individuals who are involved by causing stress and anxiety (Klever, 2005).

Klever (2005) also found that negative coping does have an impact on the family as whole, including their behavior, physical health and emotional health. On an individual level, those that respond to stress in a negative way are more likely to have health problems associated with their immune systems, nervous systems, cardiovascular

systems and metabolic systems (Hooper & DePuy, 2010; Klever, 2005; Murdock & Gore, 2004).

Kim-Appel, Appel, Newman, and Parr (2007) stressed the importance of differentiation of self on psychological well being. They specifically examined the importance of one being able to differentiate themselves as they age. Families change and develop throughout generations, and Kim-Appel et al. examined differentiation of self and psychological health in older adults to see how differentiation of self interacted with generational changes. The study theorized that levels of differentiation were correlated to psychological well being, with higher levels of self-differentiation being correlated with better psychological health. Older adults who were more anxious, more rigid in their behaviors, unable to get along well with others and felt more stress were shown to have lower levels of differentiation (Kim-Appel, Appel, Newman, & Parr, 2007). Not only were these adults affected negatively psychologically, but their relationships with their families were also negatively impacted. For older adults in particular Kim-Appel et al. reported physical health problems were more likely to be present, which also contributed to greater levels of anxiety and stress. For those with lower levels of differentiation older adult years were an especially vulnerable time, since many had a difficult time coping with additional stressors. Older adults who were experiencing extreme stress were prone to emotionally isolate, refuse to participate in family relationships and became increasingly frustrated and irritable due to having to rely on others to help take care of them (Kim-Appel et al., 2007).

Anxiety and the Effect on Individuals and Families

Experiencing distress or anxiety has both emotional and physical consequences on a person (Wright, 2009). Physically when a person experiences anxiety, heart rates go up, body temperature can change, and people can feel dizzy and nauseated and become physically pained (Wright, 2009). Wright (2009) reported that emotional consequences could include people feeling constantly suspicious and paranoid leading to distrust manifesting in a person's relationships. These symptoms can negatively affect and place strain on the relationship. A person may use a technique such as "self-soothing" (Wright, 2009, pg. 33) to reduce their anxiety. Family systems theory viewed this ability to manage ones' own emotions as a key to being an individual even within the context of the family unit (Wright, 2009). When people are able to regulate themselves in this way, it prevents them from being likely to respond to the emotional pull of the family. Bowen believed that it was not about getting rid of the anxiety, but the person being able to process and experience this emotion (Wright, 2009). Being able to understand the emotion and experience discomfort would allow the individual to gain insight into themselves and how to cope with this discomfort in the future (Wright, 2009).

Sauerheber, Nims, and Carter (2014) examined anxiety in couples that were from a different culture, using a family systems theory perspective. They studied couples that were from a Muslim background, and that were experiencing extreme anxiety in their relationships. This anxiety from their personal relationships was affecting other aspects of the individuals' lives which lead to more anxiety overall (Sauerheber, Nims, & Carter, 2014). When these couples initially sought out therapy, this act of seeking help increased their anxiety due to it being taboo in their culture to seek help outside of the family

(Sauerheber et al., 2014). According to Sauerheber et al., this anxiety stemmed not only from the individuals, but also from the generations of family members that had come before them. Similar to the findings from Klever (2005), Sauerheber et al. also found that using family systems theory, the emotional and physical well-being of the individuals was not just made up of the current nuclear family, but also made up from traditions and norms that had been passed down through previous generations (Sauerheber et al., 2014). For individuals who are transitioning to another culture even more anxiety can be produced. When individuals in these situations become overwhelmed, they may be unable to handle the anxiety and begin using defense mechanisms in order to deal with the anxiety they feel (Sauerheber et al., 2014). According to Sauerheber et al. this could manifest in people isolating themselves, cutting themselves off from the family to avoid conflict, or becoming increasingly agitated resulting in being defensive and attacking. This increases the likelihood a person will struggle with depressive symptoms, physical health problems and an anxiety disorders (Sauerheber et al., 2014).

At times, individual´s actions affect the family so severely that not only is anxiety produced but the family may feel they are in a crisis. Bickerton, Ward, Southgate, and Hense (2014) examined families´ reactions when a child in the family was suffering from a severe mental illness. Bickerton et al. found that using Bowen family therapy techniques was helpful in helping the individuals in the family begin to reduce anxiety. Bickerton et al. also engaged the families in understanding how generations of previous family members had been influential to current family issues. Oftentimes, the child that was in crisis was experiencing such severe emotional distress that it created stress throughout the entire family. According to family systems theory, this is understandable

and normal but the family will not be able to obtain a healthy balance unless they begin to talk and work out the sources of their anxiety (Bickerton, Ward, Southgate, & Hense, 2014). Although it can be difficult for families to begin discussing family secrets, Bickerton et al. found that the anxiety within the family was reduced once discussions were had. It was a way for the family as a whole to begin healing, and allowed for the recovery process to begin for the child who had been struggling with mental health issues.

Killmer and Hertlein (2004) examined the effects of anxiety and differentiation of self on individuals who were characterized as chronically homeless. Clinical interventions for those who were homeless were developed using a Bowen family systems framework. This framework was developed after multiple interviews with those who were homeless revealed a connection between the person's homelessness and their relationships with others (Killmer & Hertlein, 2004). Some of these relationship issues included problems with triangulation in the family, being isolated from the family, being emotionally reactive and having anxiety surrounding familial issues (Killmer & Hertlein, 2004). According to family systems theory, the differentiation of self in these individuals had a direct effect on their decision-making, often resulting in the individual making emotionally rash decisions. These individuals would be more likely to have lower levels of differentiation, according to Killmer and Hertlein. Homelessness for individuals can have negative long-term consequences emotionally, which can include individuals isolating and disengaging from society, leading to negative mental health side effects (Killmer & Hertlein, 2004).

Using Bowen Family Systems Theory

For the purposes of this study, Bowen's family systems theory will be used as one theoretical framework for explaining why those with severe mental illness may benefit from family and social support. As explained in the literature reviewed above, family dynamics have an impact on the mental health of individuals and have an impact on the development and the behaviors individuals' display (Bickerton et al., 2014; Klever, 2005; Wright, 2009). Family systems theory can also be applied to the quality of interactions between individuals and type of support that may be useful in reducing hospitalization rates for those with severe mental illness. As discussed by Hooper & DePuy (2010), Klever (2005), Kolbert et al. (2013), and Sauerheber et al. (2014), family levels of differentiation affect individual levels of differentiation and can affect family and individual well being. Family systems theory can be used to help explain why some family support may or may not be useful in helping those with severe mental illness reduce hospitalization rates.

CHAPTER 3

RESEARCH METHODS

Research Design

This systematic review of the literature used a qualitative, comparative analysis research design (Higgins & Green, 2011). Use of this design allowed empirically researched articles to be studied and evaluated concerning the effect of family and social support in re-hospitalization rates for those with severe mental illness, and the types of family and social support that have been shown to be most beneficial to those with severe mental illness. Articles were specifically examined through Network Theory and Bowen Family theory lenses.

Data Collection Method

To identify and explore relevant research, a comprehensive search was conducted using certain keywords and search strategies from the following databases: Academic Search Complete, Social Services Abstracts, SocINDEX, CINAHL Plus with Full Text, PsycINFO, RAND California Statistics and Statistical Abstract of the United States. The search resulted in relevant literature related to the research topic and questions during the last ten years. This timeframe incorporated the significant and relevant portion of research related to severe mental illness and what recent literature had to say on re-hospitalization in this population.

Additional searches of the literature followed, using some references identified in articles retrieved from the above databases. This additional literature was utilized to further maximize this meta-analysis. Keywords used in both databases and locating additional information from literature retrieved included: *psych, psychiatric, mental health, locked settings, hospital, hospitalization, re- hospitalization, acute, family, support, social support, risk factors, deinstitutionalization, recidivism* and *recovery*.

Sample

In order to conduct a thorough but reliable and valid systematic review of the literature, exclusion and inclusion criteria was implemented to ensure quality of the research. Exclusion criteria included any literature over ten years old, any literature done in a language besides English, commentary based articles, opinion based articles, narrative reviews, multiple reports of the same study or data, studies with a strong bias with no scientific backing and studies that did not meet the critique criteria set forward by the Cochrane Handbook (Higgins & Green, 2011). Inclusion criteria included studies that were within the time frame specified, articles from the United States, articles that were international and articles that had been peer reviewed. Articles were organized in a chronological sequence, with a final selection of 33 articles.

Analysis Plan

All literature was first selected by ensuring it was in line with the PICO method (Schardt, 2007), which in turn ensured the literature was focused around the research questions specified. The PICO method examines population, interventions, comparisons and outcomes and requires both research questions and literature being used to meet these criteria in order to be applicable and relevant to a meta-analysis (Schardt, 2007).

Studies were then critiqued to ensure that they meet the criteria set forward by the Cochrane Handbook for Systematic Reviews of Interventions (Higgins & Green, 2011). All studies were organized into tables with the criteria for assessing the literature. Critical analysis of acceptable studies included, but were not limited to, the following criteria:

1. Sources are all listed and include citation and contact details.
2. Eligibility is confirmed based on above criteria, if not met reason for exclusion is stated.
3. Methods are listed in detail including study design, duration, and any concerns regarding bias.
4. Participants are clearly identified and demographics are given.
5. Interventions are listed and are specific, give details that could be used for replication, does not violate IRB rules (is not unethical).
6. Results include outcomes, summary using appropriate tables, includes any missing participants, gives confidence intervals and P values where appropriate.
7. Funding sources are identified, conclusions or recommendations from authors are given, references to other relevant studies are included.

Once acceptable studies were chosen, a comparative analysis was completed to assess the relevance to the study's research questions (Higgins & Green, 2011). This analysis process allowed the writer to generate themes based on responses to research questions and what was found in the literature reviewed. Articles that were within the appropriate time frame and were relevant to the study but were excluded are presented in

table form to better identify research themes and gaps in current research (see Appendix H).

CHAPTER 4

META-ANALYSIS FINDINGS

This chapter is a meta-analysis of 33 empirical studies on the topic of the impact of social support on re-hospitalization rates for those with severe, persistent mental illness. All studies included were published between 2004 and 2014 (see Appendices B & E). The literature included 18 quantitative empirical studies, five qualitative studies, six quasi-experimental comparative studies and four systematic reviews of the literature. Studies used in this analysis contained data from 15 countries around the world and included 16 different ethnicities. Study sample sizes ranged from 15 to 121,271 persons. Of the studies that specified the age range of the participants, ages ranged from 13-60 years for persons with severe mental illness. Eighteen of the studies had a majority of age ranges between 30 and 50. Participant samples for the studies were recruited from various mental health settings including psychiatric hospitals or psychiatric hospital units, outpatient mental health clinics, community mental health centers, mental health support groups and government mental health departments. Diagnoses of persons in studies included schizophrenia, schizoaffective disorders, affective disorders, psychotic disorders not otherwise specified, alcohol or substance dependence, major depressive disorders, anxiety disorders, adjustment disorders, attention-deficit disorders, other disorders diagnosed in childhood, impulse control disorders, bipolar disorders, other mood disorders, personality disorders, anorexia nervosa and developmental handicaps. The

primary diagnosis in studies that reported on diagnoses was schizophrenia or other psychotic disorders, which were listed in 32 of the 33 studies.

In addition, this chapter presents findings on psychiatric readmissions for those with severe mental illness (see Appendix B), demographics of this population (see Appendix C) and characteristics that are found within this population (see Appendix D). There are also findings on types of family and other social support for those with severe mental illness (see Appendices E & F) and the impact this has on the recovery of the individual with severe mental illness (see Appendix G). This chapter also discusses themes emerging from the literature, and any studies that were excluded from this meta-analysis (see Appendix H).

Psychiatric Readmission and Re-Hospitalizations

Ten studies discussed psychiatric readmissions and re-hospitalization rates (see Appendix B). These studies included demographics of this population (see Appendix C) to better identify those being continually hospitalized.

Demographics

Of the 10 studies focusing on psychiatric readmissions, all 10 included details regarding ages of those being re-hospitalized. Six articles had average ages in the 30's (Botha et al., 2010; Broussard, 2010; Ledoux & Minner, 2006; Nelson, Ochocka, Janzen, & Trainor, 2006; Niehaus et al., 2008; Prince, 2006). Only half of the studies listed ethnicities, and of these five studies, two were ethnicities from foreign countries (Ledoux & Minner, 2006; Niehuas et al., 2008). Gender was listed in all ten studies, with six studies having a majority of males in their studies (Botha et al., 2010; Broussard, 2010; Ledoux & Minner, 2006; Niehuas et al., 2008; Prince, 2006; Roick et al., 2004). Six

studies had a majority of participants with a diagnosis of schizophrenia, schizoaffective disorder, or a psychotic disorder (Botha et al., 2010; Broussard, 2010; Mgutshini, 2010; Niehuas et al., 2008; Prince, 2006; Roick et al., 2004).

Family Involvement and Social Support for Those with Mental Illness

Out of the ten studies, eight studies discussed family involvement or social involvement, and the impact on hospitalizations and readmissions for individuals with severe mental illness. Broussard (2010) reported that 42.33%, or 127 patients, had family involvement. In this study families were involved with reporting crises to authorities (Broussard, 2010). Broussard's study focused on family members recognizing that their loved one needed psychiatric care, and helping their loved ones' get emergency services. These family members were directly involved in the process of reporting the emergency to appropriate mental health professionals, and providing helpful information regarding the patients' condition. Families were reported to be more likely to call in emergencies and assist in getting the individual in crisis help (Broussard, 2010).

Lang, Rohrer and Rioux (2009) conducted a quasi-experimental study, examining a control group receiving a new pilot of intensive psychiatric services and a comparison group receiving standard interventions. Lang et al. (2009) found that in the control group, 40.1% of the patients were married and had spousal support. The control group also received services in which 71.4% of patients received family meetings and 90.5% had family contact and involvement while the patient was in the hospital (Lang, Rohrer, & Rioux, 2009). In the comparison group, 67.6% of the patients were married and receiving some kind of spousal support (Lang et al., 2009). Lang et al. (2009) also reported that in the comparison group only 18.9% had family meetings and 56.8% had

family contact. Nelson, Ochocka, Janzen, and Trainor (2006) also conducted a study involving a control group and a comparison group, examining the effect of an intervention for persons with mental illness. In their study, those in the active group had limited family support with 1.6% having family involvement (Nelson et al., 2006). The non-active group had no family support, with 0% of persons having family involvement (Nelson et al., 2006). Prince (2006) conducted a comparative study examining an intervention to help reduce inpatient psychiatric readmissions using quantitative data collected from self-reported surveys from patients. 60.98% of patients in this reported family involvement (Prince, 2006).

Ledoux and Minner (2006) discussed frequent utilizers of hospital psychiatric services, and found that in these cases only 12.7% of patients had some type of family involvement. Niehuas et al. (2008) also discussed readmission rates for patients in hospitals, in this case for patients who were being discharged prematurely. In these cases, 18.7% of patients were reported to have some type of family involvement. Roick et al. (2004) also examined frequent psychiatric hospital users, and factors possibly contributing to readmissions. Seventeen percent of patients in the Roick et al. (2004) study had reported family involvement.

Only three studies had information regarding outside social support from other individuals besides family members. Ledoux and Minner (2006) reported 2.6% of their population had social support outside of family support. Nelson et al. (2006) reported that in their active group, 21.3% of participants had outside social support and 22.8% of participants in their non-active group had outside social support. Prince (2006) reported that 58.33% of her sample had social support outside of the family system.

Multiple Psychiatric Hospitalizations

Nine of the 10 studies discussing psychiatric hospitalization rates also reported previous hospitalizations and future hospitalization rates. Ledoux and Minner (2006) found that 23.4% of persons in their study had previously been hospitalized. Mark et al. (2013) reported a 24.5% previous hospitalization rate for participants in their study. Half of participants in Mguthshini's (2010) study reported previous hospitalizations. Prince (2006) found that 26% of participants had been hospitalized less than 3 times and 50% of participants had more than six previous hospitalizations. Roick et al. (2004) reported an average of five previous hospitalizations per participant in the study.

Lang et al. (2009) found that those who were not receiving the additional interventions had a 14.95% higher chance of being re-hospitalized. In the Niehaus et al. (2008) study, 37.2% of participants were reported to readmit to a psychiatric hospital after they were discharged. Botha et al. (2010) had two groups of participants classified as high frequency psychiatric emergency service users, and low frequency psychiatric emergency service users. High frequency users reported 60.96% of persons were readmitted, with an average readmission rate of 7.64 times (Botha et al., 2010). Low frequency users reported 30.82% of persons were readmitted, with an average readmission rate of 4.80 times (Botha et al., 2010). Prince (2006) found that after 3 months, 24% of participants had been re-hospitalized.

Association Between Family, Social Support and Hospitalizations

Seven of the 10 studies in this meta-analysis discussed the relationship between family support or social support and hospitalizations for individuals with severe mental illness. Broussard (2010) found that even among officers trained to work with persons

with mental illness, family members were more likely to identify a problem going on with their loved one. The result was the family member being hospitalized, which in this study was beneficial to the person with mental illness (Broussard, 2010). The benefits included the person getting appropriate help in a time of crisis when they were a danger to themselves or others, and the family members being able to report the problem and keep themselves safe while providing helpful information to mental health professionals (Broussard, 2010).

Lang et al. (2009) included more interventions with patient and family contact and involvement. They attributed the lower likelihood of hospitalization rates in the control group to be a direct result of the interventions offered. Lang et al. discussed interventions which included more family involvement, which included family meetings regarding basic psychoeducation, discussion of the patients' progress, and facilitating contact between families and the patients. Occupational therapy was also offered to patients in the control group, and emphasized therapy to improve social and relational skills. These interventions were emphasized to improve outcomes for the patients receiving them, including improvement in overall psychiatric symptoms and the patient having a lower likelihood of coming back to the hospital within thirty days (Lang et al., 2009).

Characteristics of frequent users in a psychiatric ER were discussed in the study by Ledoux and Minner (2006). Individuals who were often seen repeatedly were more likely to be younger, male and also have been using substances such as drugs or alcohol prior to admission (Ledoux & Minner, 2006). These individuals were also less likely to have social support or social involvement from others, and others who did have family

involvement reported negative family support (Ledoux & Minner, 2006). This negative family involvement included family conflicts and various family stressors (Ledoux & Minner, 2006).

Mgutshini (2010) examined services being offered to frequent users of psychiatric hospitals. Patients in this study reported multiple reasons contributing to frequent re-hospitalizations. Mgutshini found that patients reported having poor access to social support when outside of the hospital, and many patients felt their mental illness contributed to loss of personal relationships. This loss of personal relationships negatively affected the patients and caused more stress and anxiety, which contributed to worsening symptoms in patients (Mgutshini, 2010).

Nelson et al. (2006) had participants in their control group become involved in a consumer/survivor initiative. This initiative allowed patients being released from the hospital to partner with others who had a mental illness, and receive social supportive services (Nelson et al., 2006). Consumers of the control group receiving this intervention did have lower rates of re-hospitalization, which the study argued was due to the social support being provided to these individuals (Nelson et al., 2006).

In the Prince (2006) study, different interventions were offered to the patients to decrease hospitalization rates. Prince found that all interventions offered including psychoeducation, therapeutic groups, medication management and family support were useful in helping individuals decrease their likelihood of being re-hospitalized. Family support was noted to be especially effective, although short-term intervention was recommended such as family psychoeducation as opposed to family therapy (Prince, 2006).

Roick et al. (2004) also found a link between family support, social support and frequent psychiatric hospitalizations. Patients who had higher rates of readmission were less likely to have family contact and had less family involvement overall (Roick et al., 2004). These individuals also reported they had unmet psychosocial needs that included a lack of social support (Roick et al., 2004).

Types of Family Support for Those with Severe Mental Illness

Twenty-three studies discussed family support for those with mental illness, and variations in support that these families offered (see Appendix E). These studies also included the benefits of certain types of family support for the individual with mental illness.

Demographics

Of the 23 studies focusing on family support types, 14 listed the average ages. Ages in the studies listed ranged from 13 to 60, with the average in 10 of these studies ranging from 25 years to 45 years (Bertrando et al., 2006; Godress, 2005; Leith & Stein, 2012; Nelson et al., 2006; Papastavrou, Charalambous, Tsangari, & Karayiannis, 2010; Richardson, Cobham, Murray, & McDermott, 2011; Rogers, Anthony & Lyass, 2004; Schon, Denhov, & Topor, 2009; Snowden, 2007; Sota et al., 2008; Weisman, Rosales, Kymalainen, & Armesto, 2006). Gender was specified in 13 of studies, with 10 studies having a majority of males (Bertrando et al., 2006; Godress, 2005; Gonzalez-Pinto et al., 2011; Hjärthag, Helldin, Olsson, & Norlander., 2012; Jones, 2004; Leith & Stein, 2012; Nelson et al., 2006; Papastavrou et al., 2010; Rogers et al., 2004; Sota et al., 2008). Seventeen studies reported on ethnicities, which included nine different country origins and ethnicities of White/Caucasian, Black/African American and Hispanic/Latino (Baker,

Proctor, & Gibbons, 2009; Bertrando et al., 2006; Gonzalez-Pinto et al., 2011; Harden, 2005; Kaufman, Scogin, MacNeil, Leeper, & Wimberly, 2010; Kuipers, 2006; La Cruz, Montero, Masanet, & Bellber, 2006; Leith & Stein, 2012; Marquez, Ramirez, & Garcia, 2013; Nelson et al., 2006; Papastavrou et al., 2010; Richardson et al., 2011; Rummel-Kluge, Pitschel-Walz, Bauml, & Kissling, 2006; Schon et al., 2009; Snowden, 2007; Sota et al., 2008; Wasserman, Weisman de Mamani, & Suro., 2012; Weisman et al., 2006). Diagnoses were given in 22 of the 23 studies, with schizophrenia or psychosis being the diagnoses affecting the majority of participants in 21 of these studies (Bertrando et al., 2006; Glynn et al., 2006; Godress, 2005; Gonzalez-Pinto et al., 2011; Hjärthag et al., 2012; Jones, 2004; Kaufman et al., 2010; Kuipers, 2006; La Cruz et al., 2006; Leith & Stein, 2012; Marquez et al., 2013; Papastavrou et al., 2010; Richardson et al., 2011; Rogers et al., 2004; Rummel-Kluge et al., 2006; Schon et al., 2009; Snowden, 2007; Sota et al., 2008; Wasserman et al., 2012; Weisman et al., 2006).

Family Knowledge of Mental Illness

Fifteen studies discussed the impact family knowledge of mental illness had on family types of support for those with mental illness. The Bertrando et al. (2006) study focused on implementation of a new approach in working with families of those with mental illness. Those families that were given more psychoeducation reported more knowledge in mental illness (Bertrando et al., 2006). Glynn, Cohen, Dixon, and Niv, (2006) also found in their meta-analysis that families who were enrolled in services teaching them about mental illness reported more overall knowledge of mental illness. Glynn et al. (2006) also found that until families were in crisis, they often did not enroll in these services. Kaufman, Scogin, MacNeil, Leeper, and Wimberly (2010) reported

that families had lower levels of knowledge regarding mental illness, specifically when not being exposed to educational classes. Richardson, Cobham, Murray, and McDermott (2011) also reported families feeling as though they had low levels of knowledge, and being overwhelmed by not understanding what was going on with their loved one. Rummel-Kluge, Pitschel-Walz, Bauml, and Kissling (2006) reported that families not only had limited knowledge of mental illness, but also were not able to gain access to services to help them increase their knowledge.

Harden (2005) reported that families in his study had limited knowledge of technical medical terms for mental illnesses. These families reported being able to identify a change in the patients' baseline, but a lack of knowledge of what these changes meant (Harden, 2005). Schon, Denhov, and Topor (2009) also found that families reported limited technical knowledge, but were able to identify a problem with the individuals and thus were able to notify professionals. Jones (2004) also found that families reported having limited knowledge of mental illness, and felt they needed more information to accurately understand what was going on with their loved ones. Godress (2005) reported family involvement in support groups, which led to families having an understanding of mental illness. Papastavrou, Charalambous, Tsangari, and Karayiannis (2010) found that families who had more formal educational backgrounds also had higher levels of knowledge regarding mental illness compared to those with no formal education.

Hjärthag, Helldin, Olsson, and Norlander (2012) found that families had sufficient knowledge of mental illness, and were able to identify severity of the illness accurately. Leith and Stein (2012) also reported families having sufficient knowledge surrounding

mental illness. In many cases this was due to the support groups families were a part of which included psycho-educational resources (Leith & Stein, 2012). Marquez, Ramirez, and Garcia (2013) also reported that family support groups helped families increase their knowledge of mental illness. Sota et al. (2008) also reported families initially had limited knowledge, but were able to gain sufficient knowledge after completing psycho-educational courses. Wasserman, Weisman de Mamani, & Suro (2012) also conducted family groups in their study, leading to families having more knowledge of mental illness, specifically schizophrenia.

Different Styles of Family Involvement

Twenty-one of 23 studies reported on specific types of family support and involvement being offered to those with severe mental illness. One type of family involvement found in studies was limited involvement. Baker, Procter & Gibbons (2009) reported that families in their study distanced themselves from the individual with mental illness. In this case, the involvement was minimal and categorized as abandonment (Baker et al., 2009). Godress (2005) found that a majority of parents also reported avoidance of their child with mental illness, in these cases often due to grief and shame. Other families in this study reported trying to be supportive and involved, while others reported over attachment and anxiety surround their child with mental illness, and other families expressed ambivalence towards their children (Godress, 2005). Richardson et al. (2011) found in their study that families reported negative emotions towards their child while included frustration and ambivalence about maintaining a relationship with their child. Rummel-Kluge et al. (2006) also reported limited involvement from family

members, in this study due to lack of proximity since their loved ones were in locked institutions.

Bertrando et al. (2006) found that although families in their study were involved, families could be overly involved with their loved one. In these cases, families were reported to have high levels of expressed emotion (Bertrando et al., 2006). Kuipers (2006) found in her study that families were attempting to be supportive, but at times became overly involved and had high levels of expressed emotion. Family member with high levels of expressed emotion were reported to be critical, hostile and overly emotional towards the individual with mental illness (Kuipers, 2006). La Cruz, Montero, Masanet & Bellber (2006) also found that families though involved could also be overly involved and critical at times. These families were also categorized in this study as having high levels of expressed emotion (La Cruz et al., 2006). Sota et al. (2008) reported that although some families had healthy involvement and support, other families had high rates of expressed emotion, were overly involved, and could be critical, hostile and controlling of the individual with mental illness. Wasserman et al. (2012) also found some families had high rates of over involvement, in this case due to shame and guilt surrounding the illness. Not all families in Wasserman et al. study reported over involvement, with some reporting positive support. Weisman, Rosales, Kymalainen, and Armesto (2006) reported over involvement in families, although culture seemed to play a role in over involvement having a negative impact on an individual's recovery. Those who were African American reported higher rates of criticism and over involvement, but the individual with mental illness did not see this as unsupportive, and felt more supported by this involvement (Weisman et al., 2006).

Glynn et al., (2006) reported that families were able to provide practical support for the individual with mental illness. In this study, practical support was defined as financial support (Glynn et al., 2006). Although the family provided practical support, Glynn et al. also found that families were able to offer emotional support to their loved one. Harden (2005) similarly found that families of those with mental illness were involved in their loved ones' care, and reported wanting even more involvement. Hjärthag et al. (2012) reported high levels of family involvement, and families were reported to be not only active but also appropriately supportive. Jones (2004) reported similar support from families, including emotional, financial and practical support such as providing a place to live for the individual with mental illness. Kaufman et al. (2010) found in their study that families were also providing multiple types of support to their family member with mental illness. Leith and Stein (2012) reported support from families including caregiving, fiscal support and family members attempting to praise and emotionally process with the individual with mental illness. Marquez et al. (2013) found that the three types of support given also included emotional, financial and practical support including housing and caregiving. Papastavrou et al. (2010) found primarily practical support such as housing or caregiving in the families they worked with.

Gonzalez-Pinto et al. (2011) found multiple types of family involvement from their study. Some families were categorized as expressing positive support for the individual, while others reported negative support including conflicts that caused more problems for the individual with mental illness. Families reporting positive support were able to create a comforting, supportive environment for the loved one that also allowed for autonomy and growth of the individual with mental illness (Gonzalez-Pinto et al.,

2011). Schon et al. (2009) also found several themes of family involvement in their study. Some families reported support in practical ways, including advocacy for their loved one (Schon et al., 2009). Other family members reported destructive and harmful relationships, resulting in emotional issues for the individual with mental illness (Schon et al., 2009). These destructive relationships also included over involvement on the families part, and not allowing for growth or autonomy of the individual with mental illness (Schon et al., 2009). Snowden (2007) similarly reported multiple styles of involvement, with families being involved in practical ways daily such as caregiving. Other families reported limited to no involvement, and reported providing no emotional support (Snowden, 2007).

Family Stressors

Seventeen studies reported family stressors present that had an effect on the individual with mental illness and their recovery. Baker et al. (2009) found that individuals with mental illness were negatively affected by their own children being taken away, and experienced emotional distress over family conflicts and family abandonment due to their mental illness. Jones (2004) found that guilt, anger and loss were additional stressors and emotions experienced by the family due to their loved ones' mental illness. La Cruz et al. (2006) and Wasserman et al. (2012) also found guilt and anger were additional stressors for families, in this case resulting in high levels of expressed emotion in families leading to additional stress. Leith and Stein (2012) found that families experienced increases in stress due to the loss of losing their loved one to mental illness. Godress (2005) also found that families reported grief and loss over their loved ones' mental illness, which in some cases resulted in poorer health for other family

members due to an increase in stress. Families also reported family dynamics and attachment styles as being stressors (Godress, 2005). Richardson et al. (2011) found similar results from their study, with families reporting stressors from ambiguous loss and grieving for their loved one with mental illness. Families reported that others did not often understand grieving due to the stigma from mental illness, and families reported an additional stressor of a lack of social support as a result of this lack of understanding (Richardson et al., 2011). Families in the Rummel-Kluge et al. (2006) study similarly reported stressors of stigmatization and isolation from others due to the family's shame, guilt and burnout as a result of caring for their loved one.

Glynn et al. (2006) found in their study that families reported extra stress from their physical environments such as housing the individual with mental illness, in addition to having difficulty communicating with the individual due to their illness. Glynn et al. (2006) also reported financial matters related to the illness put strain on the family, as did a lack of understanding regarding the mental illness. Hjärthag et al. (2012) reported that families were stressed with the burden of caring for the loved one with mental illness. Families in the Kaufman et al. (2010) study also reported stressors due to the burden of caring, but also because of conflicts surrounding the illness, additional financial stress and constriction in social life due to caring for the individual with mental illness.

Schon et al. (2009) found that families reported stress from having to adjust to life with mental illness. This included the stress of shifting family roles, and attempting to figure out new ways for family members to relate to each other. Weisman et al. (2006)

also reported families struggling with adopting new roles, which in some cases led to fighting and criticism of the individual with mental illness.

Gonzalez-Pinto et al. (2011) found that previous history of mental illness within the family was an additional stressor on families. Kuipers (2006) similarly found multiple stressors for families as a result of mental illness including increased financial stress, stress from isolation and reduced social experiences due to caretaking responsibilities. Families in the Kuipers study reported these stressors increased other stressors such as depression or anxiety for the caretaker as a result of their loved one having a mental illness. Papastavrou et al. (2010) found that families reported depression, anxiety and physical health problems as stressors resulting from their loved ones' mental illness. Depression, anxiety and physical health problems were linked to an increase in the financial stress experienced as well as the social stress from stigma linked to mental illness (Papastavrou et al., 2010).

Marquez et al. (2013) found that cultural stressors could be present for families not familiar with the dominant culture. Families in their study reported that finding help in a foreign system was a huge stressor, as was the role of stigma regarding mental illness from a Latino cultural perspective (Marquez et al., 2013). Marquez et al. stressed the difficulty Latino families experienced in getting help, which was reported to be against cultural norms, as well the struggle to maintain their cultural beliefs such as using healers and alternative forms of medications. Fiscal worries and lack of insurance were also report to be stressors for the Latino families interviewed in this study (Marquez et al., 2013). Snowden (2007) also found that cultural barriers were stressors for families of

those with mental illness, specifically when it came to attempting to communicate with mental health professionals.

Recovery Rates for Individuals with Family Involvement

Fifteen of the 23 studies regarding family involvement reported on recovery rates for individuals with severe mental illness. Glynn et al. (2006) found that individuals who had family support had improved outcomes, with a 20% reduction rate in psychiatric hospitalizations reported. Rummel-Kluge et al. (2006) similarly reported a 20% reduction rate in hospitalization within two years when family intervention was provided and applied to a persons' recovery. Individuals in the Papastavrou et al. (2010) study also reported recovery from mental illness, with all members reporting stable conditions while receiving family support through caregiving. All individuals in the Schon et al. (2009) study were also able to stay out of the hospital for three years with help from social supports, active lifestyles and mental health professionals.

Bertrando et al. (2006) found that family support did help to reduce relapses for individuals, however not all family support was linked to reduced relapse rates. Individuals whose families had higher rates of expressed emotion were more likely to relapse (Bertrando et al., 2006). Kuipers (2006) also reported a link between relapse and family expressed emotions. Individuals who had family involvement where there were high rates of expressed emotion reported a 50% relapse rate over nine months (Kuipers, 2006). Individuals who had family involvement with low rates of expressed emotion reported a 20% relapse rate over nine months (Kuipers, 2006). Wasserman et al. (2012) found similar findings, reporting that individuals whose loved ones had higher rates of expressed emotion were more likely to relapse. Weisman et al. (2006) reported similar

findings of criticism resulting in greater chance for relapse, with the exception of Black families. Weisman et al. (2006) found that Black families who had higher levels of criticism were viewed as supportive by individuals and theorized this could be due to cultural differences.

La Cruz et al. (2006) found that family interventions could be helpful for individuals, depending on the type of intervention. Family interventions that included the patient and family together were shown to be less effective, with 64.9% of patients being readmitted (La Cruz et al., 2006). Family interventions provided to the family without the patient inclusion in the session were more effective, with a readmission rate of 58.8% for patients (La Cruz et al., 2006). Sota et al. (2008) reported that family interventions proven to be especially helpful in reducing relapses included family education and increased knowledge of mental illnesses. Individuals had a lower risk of relapse if their families had more knowledge, compared with individuals whose families had limited knowledge of mental illness (Sota et al., 2008).

Hjärthag et al. (2012) also found that family involvement could be helpful, if families had certain attitudes towards the individual with mental illness. Those with family involvement were better able to handle personal relationships as long as family members did not view the individual as a burden (Hjärthag et al., 2012). Godress (2005) also found that family relationships led to better outcomes for the individual with mental illness when families had secure, but not overly attached relationships.

Gonzalez-Pinto et al. (2011) found family environment to be linked to recovery rates of mental illness, with individuals being more likely to have symptoms of mental illness if they had another family member who was ill and if the family environment was

negative. Nelson et al. (2006) reported on social support, and the positive effective a supportive social environment had on individuals with mental illness. Individuals who participated in the consumer survivor initiative and received social support had a 17% readmission rate compared to those who did not participate that had a 27% readmission rate (Nelson et al, 2006). Individuals who participated in the initiative also reported improvements in quality of life, overall happiness and improvements in work and school activities (Nelson et al., 2006). Rogers, Anthony, and Lyass (2004) also focused on overall social support and the effects on recovery rates for individuals with severe mental illness. Those who had more social support were less likely to have severe symptoms of mental illness compared to those with less social support that were more likely to have severe psychiatric symptoms throughout their lives (Rogers et al., 2004).

Other Factors Impacting Readmission Rates

Other themes and factors were mentioned through this meta-analysis of hospital readmission rates for individuals with severe mental illness. Five other themes were found repeated in several articles included in this study.

Substance Use

One topic repeated in the literature was the effect of substance use on readmission rates. Substance use was a theme repeated in a few studies as a potential catalyst for readmission for individuals (Botha et al., 2010; Ledoux & Minner, 2006; Mark et al., 2013).

Medication Compliance

Medication compliance was another subject discussed in the literature. Specifically some studies reported that continued psychiatric medication use led to lower

rates of psychiatric hospitalizations (Botha et al., 2010; Glynn et al., 2006; La Cruz et al., 2006; Lang et al., 2009).

Loss and Grief Experienced by Families

Another subject continually repeated in the literature was the effect of family loss and grief in relation to the individual with severe mental illness. Family members who experienced these feelings of unresolved loss, grief and guilt were more likely to have negative interactions with their loved one, increasing the likelihood of additional stress for the individual with mental illness. This stress was related to higher rates of hospital readmission for some individuals (Baker et al., 2009; Godress, 2005; Harden, 2005; Jones, 2004; Kaufman et al., 2010; Leith & Stein, 2012; Richardson et al., 2011; Rummel-Kluge et al., 2006; Wasserman et al., 2012).

Stigma

This study also revealed a theme of stigma being related to relapse for individuals with mental illness. Many families and individuals in this study reported extra stress due to the stigma and social isolation resulting from being labeled with a mental illness (Kuipers et al., 2006; Marquez et al., 2013; Papastavrou et al., 2010; Richardson et al., 2011; Rummel-Kluge et al., 2006).

Cultural Stressors

Themes of cultural stressors were also present in some articles in this meta-analysis. Lack of respect or understanding of cultural norms was presented in some of the literature as additional stressors possibly contributing to re-hospitalization rates for those with severe mental illness (Marquez et al, 2013; Snowden, 2007; Weisman et al., 2006).

Articles Excluded from Study

Twelve articles met the initial criteria for inclusion, but were later excluded due to various reasons (see Appendix H). Two studies were excluded due to lacking empirical evidence or verifying research results (Anuradha, 2004; Asen & Schuff, 2006). Five other studies were excluded from this meta-analysis due to lacking enough information regarding the population of those with severe mental illness (Hallam, 2007; Lucksted et al., 2013; Segal & Burgess, 2009; Tan et al., 2012; Vigod, Taylor, Fung, & Kurdyak, 2013). Two studies were excluded for not including methodology or identifying how studies were conducting including ethical concerns (Kymalainen & Weisman de Mamani, 2008; Vijayalakshmy, Smith, Schleifer, Morris, & Marlene, 2006). One study was excluded due to lack of information regarding population studied including basic demographic information (Ozgul, 2004). Two other studies were excluded due to lacking objectivity and unbiased information (Penzo & Harvey, 2008; Topor, 2006).

CHAPTER 5

DISCUSSION

Summary of Findings

This meta-analysis of 33 studies helped to identify a better understanding of factors contributing to readmission hospitalizations for those with severe mental illnesses. The studies reviewed found a lack of family and social support to be one major factor contributing to re-hospitalizations for individuals. An increase in family involvement for individuals with mental illness was reported to help reduce psychiatric symptoms and improve overall recovery outcomes for persons with mental illness in numerous studies. Social support and social involvement also improved outcomes for individuals in recovery. These findings were in agreement with the findings from the literature review regarding social network theory. The benefits of one having a support system or social network can reduce symptoms of stress and act as a safety net for individuals who are going through a difficult time. Social network theory could help to explain why individuals who lacked social support had more difficulty coping and required multiple psychiatric hospitalizations. This could be due in part to lacking resources and social capital that comes from participation in social networks.

While family involvement was found to be helpful in reducing hospitalization rates, some family involvement was reported to be harmful to an individual's recovery. Families who expressed high rates of expressed emotion were found to negatively impact

the individual with mental illness, resulting in a higher likelihood of relapse and re-hospitalization rates. Families who reported higher rates of expressed emotion were also more likely to report feelings of guilt, shame and were more likely to criticize the individual with mental illness resulting in poorer outcomes for the individual's recovery. The findings from this study regarding expressed emotion tied back to the information in the above literature review regarding Bowen Family System's theory. Bowen's theory reported that families who experienced higher levels of differentiation including negative coping skills and criticism of family members, were more likely to have negative family interactions and have more stress and anxiety. This held true in studies examining support for those with severe mental illness. Individuals experiencing family support inclusive of higher levels of expressed emotion, criticism and negativity were more likely to relapse and be readmitted to the hospital.

Other factors contributing to psychiatric hospitalizations were found in this review and included themes of substance use, medication compliance, complicated grief experienced by families having a loved one with severe mental illness, negative impacts of stigma surrounding mental illness and lack of cultural understanding leading to stress for the family and individual with severe mental illness.

Limitations

There were several limitations encountered while performing this meta-analysis of research pertaining to readmission rates and factors contributing to readmission rates for those with severe mental illness. The greatest limitation was the lack of literature specifically on readmission and re-hospitalization rates for those with mental illness examining family or social support in the last ten years. Although the general topic of

severe mental illness and readmissions has been widely researched by various disciplines, there was a lack of information regarding social factors related to these readmissions. The majority of studies confirmed there was a problem with individuals with severe mental illness being continually readmitted, but studies often focused on a medical model examining medications and length of stay as opposed to psychosocial factors associated with readmissions.

Studies surrounding family and social support for those with severe mental illness were found in research review, however much of the literature focused on the caregivers or family members and not on outcomes for those with the mental illness. Since many of the studies documented in the literature surrounding this topic were qualitative studies, there is a lack of standardized assessments which makes it difficult to generalize beyond each study.

Of the studies used in this analysis, not all focused solely on family support or social support for those with severe mental illness. As a result, effects of other interventions for studies using comparison techniques could have impacted readmission rates for those participating in the study. This could have prevented researchers from being able to identify the extent of the impact certain types of family or social support had on readmission rates for those with mental illness.

This meta-analysis did include studies from around the world including 15 countries and 16 different ethnicity types; however the number of ethnic groups listed were limited and remained small in studies where ethnic groups were mentioned. Only three of the 33 studies included in this review of the literature examined cultural issues that arose within the population of those with severe mental illness.

Implications for Social Work and Multicultural Practice

For those with severe mental illness considering race, ethnicity and different spiritual and religious beliefs is crucial. Racial and ethnic minorities were reported to be at a higher risk for re-hospitalization, specifically African Americans (Ledoux & Minner, 2006; Mark et al., 2013). Native Americans were noted to have the highest rates of mental illness, despite a low utilization rate of mental health services (Saba et al., 2008). Latinos were reported to have the lowest rates of utilization of mental health services, putting them at a higher risk for re-hospitalization (Marquez et al., 2013).

Severe mental illness, and often times any mental health concern, often comes attached with stigma and prejudice (Marquez et al., 2013). For those of different cultural and ethnic backgrounds, this can be a barrier to services since the stigma in certain cultures and ethnicities can be particularly strong (Marquez et al., 2013; Conner, 2009). Cultural and ethnic barriers to receiving services can also include a lack of access to services since certain ethnicities and cultures are more susceptible to low socioeconomic statuses and a lack of access to healthcare benefits (Conner, 2009; Saba et al., 2008).

In order to uphold National Association of Social Workers (NASW) standards, it is crucial that those who are most vulnerable are advocated for and their dignity is preserved (NASW, 2005). The mental health system providing services should be able to accommodate those with different beliefs and create policies and practices that not only respect these practices, but are culturally competent in order to provide the best services possible (Conner, 2009; NASW, 2005).

Implications for Future Social Work

Examining the effect of social and family involvement on readmission hospitalizations for those with severe mental illness is important to the field of social work practice, social policy development and a basis for future research. Literature has indicated that those without family or social support are at a higher risk for re-hospitalization for psychiatric reasons (Broussard, 2010; Kuipers, 2006; Ledoux & Minner, 2006; Mark et al., 2013; Mgutshini, 2010; Roick et al., 2004). Social workers should strive to promote social and family relationships among consumers with severe mental illness, and help to foster these relationships, which is in accordance with the NASW Code of Ethics (NASW, 2008). By promoting family and social relationships, social workers can help to engage families in meaningful ways which will in turn lead to a better support system for the consumer. These improved relationships could be beneficial to the consumers' recovery process.

Policy makers should further consider and study the impact of social and family relationships on mental health hospitalizations. Scholars, researchers and practitioners recognize that not only is a lack of social support a risk factor for those with severe mental illness, but that the addition of social and family support to a consumer can improve outcome rates and reduce symptoms and hospitalization rates (Kuipers, 2006; Marquez et al., 2013; Mgutshini, 2010; Ledoux & Minner, 2006; Mark et al., 2013). More attention should be paid to hospital policies regarding family and social involvement, and also community engagement for those individuals with severe mental illness. More research could also be done on best practices for family involvement, since some literature did indicate that not all family or social involvement was best for the

consumer (Botha et al., 2010; Ledoux & Minner, 2006). In developing more research surrounding best practices in social support for those who are most likely to be re-hospitalized, consumers' lives could positively be impacted and recovery rates could significantly improve.

Conclusion

Millions of individuals with severe mental illnesses are repeatedly hospitalized each year and end up coming back to hospitals within a year of discharging. Studies have shown that individuals with family and social support outside of the hospital settings are more likely to avoid re-hospitalizations. Although family and social support has been shown to be helpful to individuals at risk for multiple psychiatric hospitalizations, families are not often able to engage with their loved one or receive enough information regarding their loved ones' illness. Studies have also revealed that specific types of family support are more beneficial for individuals with mental illness, specifically when families are involved with lower levels of expressed emotion. Unfortunately, not all families are able to have access to psycho-education to assist them and their loved one with coping with severe mental illness.

The rate of readmissions for those with severe mental illness is alarming and demands attention, interventions and responses from politicians, policy makers and social service providers from different disciplines. Keeping individuals with severe mental illness out of the hospital should be a top priority for those working with this population; family and social support have been shown to be two possible interventions in achieving this goal. By uniting and providing better psychosocial interventions for individuals with

severe mental illness, professionals working in the mental health field can help people further their recovery and live meaningful lives.

APPENDICES

APPENDIX A

META-ANALYSIS CHECKLIST

Meta-Analysis Checklist

Initial Criteria

1. Sources are all listed and include citation and contact details
2. Eligibility is confirmed based on above criteria, if not met reason for exclusion in stated
3. Methods listed in detail including study design, duration, and any concerns regarding bias
4. Participants clearly identified and demographics are given
5. Interventions are listed and are specific, give details that could be used for replication, does not violate IRB rules (is not unethical)
6. Results include outcomes, summary using appropriate tables, includes any missing participants, gives confidence intervals and P values where appropriate
7. Funding sources are identified, conclusions or recommendations from authors are given, references to other relevant studies are included

Table 1. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates

1. Author and year of publication
2. Purpose of study
3. Research design
4. Sampling procedure
5. Data collection
6. Sample size
7. Source of sample

8. Setting of study

Table 2: Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Demographics

1. Author and year of publication
2. Average age
3. Ethnicity
4. Gender
5. Diagnoses

Table 3: Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Characteristics

1. Author and year of publication
2. Family involvement
3. Other social involvement
4. Previous hospitalizations
5. Themes emerging

Table 4: Studies on Family and Social Support for those with Severe Mental Illness

1. Author and year of publication
2. Purpose
3. Research design
4. Sampling procedure
5. Data collection
6. Sample size

7. Source of sample
8. Setting of study

Table 5: Studies on Family and Social Support for those with Severe Mental Illness: Demographics

1. Author and year of publication
2. Average age
3. Ethnicity
4. Gender
5. Diagnoses
6. Family knowledge of mental illness

Table 6: Studies on Family and Social Support for those with Severe Mental Illness: Characteristics

1. Author and year of publication
2. Family types of support
3. Family stressors present
4. Recovery rate for individual with illness
5. Themes occurring

Table 7: Studies Excluded from Meta-Analysis

1. Author and year of publication
2. Subject of research
3. Reason for exclusion

APPENDIX B

TABLE 1: STUDIES ON PSYCHIATRIC RE-ADMISSION/

RE-HOSPITALIZATION RATES

TABLE 1. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Broussard, 2010	Identify patients being referred to police, differences between family and police referrals	Quantitative; Purposive; Data Analysis of Records	300 patients	Crisis Intervention Police Unit; Georgia, USA
Lang, Rohrer, & Rioux, 2009	Examine readmission rates in an inpatient psychiatric rurarl setting	Quasi-Experimental; Purposive, Convenience Sampling; Data Analysis of Records	184 total patients; 147 patients in control group; 37 patients in comparison group	Medical records from Psychiatric Unit; Minnesota, USA
Ledoux & Minner, 2006	Identify characteristics of frequent patients in psychiatric emergency rooms	Quantitative; Purposive; Data Analysis of Medical Records	2,470 patients	Medical records from Psychiatric Unit; Brussels, Belgium
Mark, Tomic, Kowlessar, Chu, Vandivort-Warren, & Smith, 2013	Examine readmission data as a performance indicator	Quantitative; Purposive; Data Analysis of Medicaid Records	121,271 patients	Hospital Settings; Multiple States in USA

TABLE 1. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Mgutshini, 2010	Examine services offered to frequent users of psychiatric hospitals	Quantitative; Purposive, Random Selection; Data Analysis of Patient Records and Interviews	59 patients	Psychiatric Hospital & Outpatient Clinic; Indiana, USA
Nelson, Ochocka, Janzen, & Trainor, 2006	Examine effect of consumer/survivor initiative on different facets of a patients' recovery	Quasi-Experimental; Purposive; Interviews & Questionnaires	118 participants	Community Mental Health Centers; Ontario, Canada
Niehaus, Koen, Galal, Dhansay, Oosthuizen, Emsley, & Jordaan, 2008	Examine effect of early discharge on readmission rates in psychiatric hospitals	Quantitative; Purposive; Data Analysis of Medical Records	438 patients	Psychiatric Hospital; Western Cape, South Africa
Oosthuizen, Botha, Koen, Joska, Parker, Horn, & Hering, 2010	Determine factors contributing to high frequency of inpatient psychiatric services in patients	Quantitative; Purposive; Data Analysis of Medical Records	146 patients	Psychiatric State Hospitals; Cape Cod, Africa
Prince, 2006	Determine effective interventions in reducing inpatient psychiatric readmissions	Quantitative; Purposive; Self Reported Questionnaires	264 patients	Psychiatric Units in Hospitals; New York City, New York, USA

TABLE 1. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Roick, Heider, Kilian, Matschinger, Toumi, Angermeyer, 2004	Examine factors contributing to frequent inpatient psychiatric service usage	Quantitative; Purposive & Snow Ball Sampling; Data Analysis of Medical Records & Patient Interviews	180 patients	Outpatient Mental Health Centers; Leipzig, Germany

APPENDIX C

TABLE 2: STUDIES ON PSYCHIATRIC RE-ADMISSIONS/

RE-HOSPITALIZATION RATES: DEMOGRAPHICS

TABLE 2. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses
Broussard, 2010	38.4, SD of 13.6	234 (81.8%) African American; 44 (15.4%) Euro American; 8 (2.8%) Hispanic/Latino	128 (42.7%) Female; 172 (57.3%) Male	178 Schizophrenia or Related Primary Psychotic Disorder; 60 Primary Affective Disorder
Lang, Rohrer, & Rioux, 2009	40.0, Patients in Control Group; 37.4, Patients in Comparis-on Group	_____	55.1% Females, 44.9% males in Control Group; 62.2% Females, 37.8% Males in Comparison Group	Control Group: 51% Anxiety/Depression; 23.1% Chemical Dependency; 12.9% Psychotic; 12.9% Other /Comparison Group: 45.9% Anxiety/Dep-ression; 13.5% Chemical Dependency; 16.2% Psychotic; 24.3% Other
Ledoux & Minner, 2006	37.5, SD of 13.7	72.8% Belgian, 27.2% other	46% Female, 54% Male	19.6% Alcohol Dependence; 15.9% Adjustment Disorder; 14.4% Active Psychosis or Schizophrenia (positive symptoms); 13.9% Major Depression; 6.2% Non Active Psychosis (without
Mark, Tomic, Kowlessar, Chu, Vandivort-Warren, & Smith, 2013	28.4, SD of 15.3	65.4% (79,328) Caucasian; 28.6% (34,683) African American; 1.0% (1,240) Hispanic; 5.0% (6,020) Other/Unk-nown	54.6& (66,244) Female; 45.4% (55,027) Male	3.3% (4,057) Adjustment disorders; 2.6% (3,185) Anxiety disorders; 6.6% (8,042) Attention-deficit disorders; 0.7% (866) Disorders Diagnosed in Infancy/Childhood/Adolescence; 2.7% (3,215) Impulse Control Disorders; 53.2% (64,463) Mood Disorders; 19.9% (24,126) Schizophrenia/ Other Psychotic Disorders; 4.3% (5,211) Alcohol Related Disorders; 5.5% (6,690) Substance Use Related Disorders; 0.6% (717) Miscellaneous Mental Disorders

TABLE 2. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses
Mgutshini, 2010	49.8 Single Admissions; 37.3 Multiple Admissions	_____	19 Females, 10 Males: Single Admission Group; 13 Females, 17 Males: Multiple Admission Group	Schizophrenia/Schizoaffective Disorders; Mood Disorders; Substance Use Disorders
Nelson, Ochocka, Janzen, & Trainor, 2006	39.3 SD of 10.5: Active in CSI; 42.0 SD of 10.3: Non Active in CSI	_____	50.8% (31) Females, 49.1% (30) Males: Active in CSI; 56.1% (32) Female, 43.9% (25) Males: Non Active in CSI	Active in CSI: 63.9% (39) Mood Disorder; 32.7% (20) Schizophrenia; 26.2% (16) Anxiety Disorder; 11.5% (7) Personality Disorder; 4.9% (3) Developmental Handica; 8.2% (5) Substance Related Disorder; Non Active in CSI: 61.4% (35) Mood Disorder; 38.6% (22) Schizophrenia; 33.3% (19) Anxiety Disorder; 15.8% (9) Personality Disorder; 3.5% (2) Developmental Handicap; 7.0% (4) Substance
Niehaus, Koen, Galal, Dhansay, Oosthuizen, Emsley, & Jordaan, 2008	32.9 SD of 10.4	82.3% (359) Afrikaans	100% (438) Males	42.7% (207) Schizophrenia; 15.3% (67) Bipolar Disorder; 7.5% (33) Schizo-Affective Disorder; 38.9% 119 Substance Related Disorder
Oosthuizen, Botha, Koen, Joska, Parker, Horn & Hering (2010)	33 SD of 10.0	_____	High Frequency Users: 23.16% (22) Females, 76.84% (73) Males; Low Frequency Users: 33.33 (17) Females, 66.67% (34) Males	100% (146) Schizophrenia/Schizoaffective Disorder

TABLE 2. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses
Prince, 2006	76 persons 18-30 yrs; 99 persons 31-40; 88 persons over 40	148 Black, 109 White, 5 Other	103 Females, 160 Males	100% (264) Schizophrenia
Roick, Heider, Kilian, Matschinger, Toumi, & Angermeyer, 2004	44 SD of 11	_____	90 Females, 94 Males	100% (184) Schizophrenia

APPENDIX D

TABLE 3: STUDIES ON PSYCHIATRIC RE-ADMISSION/

RE-HOSPITALIZATION RATES: CHARACTERISITICS

TABLE 3. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Characteristics

Study (Author, Year)	Family Involvement	Other Social Involvement	Previous Hospitalizations	Themes Emerging
Broussard, 2010	127 patients had family involvement, family reporting patient needed help	_____	_____	No difference in crisis unit and amount of people brought in; Families more likely to call in to hospitalize loved one
Lang, Rohrer, & Rioux, 2009	Control Group: 40.1% married; 71.4% family meetings; 90.5% family contact. Comparison Group: 67.6% married; 18.9% family meetings; 56.8% family contact	_____	14.95% likelihood those in comparison group more likely to be hospitalized	All intervention benefited patient; Family meeting/ family support emphasized to improve outcomes; Occupational therapy also recommended to improve social and relational skills
Ledoux & Minner, 2006	12.7% had some family involvment	2.6% had other social involvement	23.4% had previous hospitalizations	Frequent utilizers of psych ER services likely to be younger, have less social support, more likely to be male, have some current substance use and be experiencing family conflict or family stressors

TABLE 3. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Characteristics

Study (Author, Year)	Family Involvement	Other Social Involvement	Previous Hospitalizations	Themes Emerging
Mark, Tomic, Kowlessar, Chu, Vandivort-Warren, & Smith, 2013	_____	_____	24.5% (29,683) previously hospitalized	Individuals with more symptoms likely to be continually re-hospitalized, those who abuse substances more likely to be hospitalized
Mgutshini, 2010	_____	_____	50.8% (30) previously hospitalized	Those more likely to experience multiple hospitalizations have poor access to social support, break downs in personal relationships, feel unsupported by mental health professionals and experience financial difficulties
Nelson, Ochocka, Janzen & Trainor, 2006	Active Group: 1.6% (1); Non Active Group: 0% (0)	Active Group: 21.3% (13); Non Active Group: 22.8% (14)	Active Group: 32.8% (20); Non Active Group: 31.6% (18)	Community integration difficult to achieve for those receiving mental health services; Those who received communtiy support had lower rates of rehospitalization
Niehaus, Koen, Galal, Dhansay, Oosthuizen, Emsley, & Jordaan, 2008	18.7% (82)	_____	37.2% (163) re-admitted	Patients with a shorter length of stay had lower admission rates; Those discharged prematurely were more likely to be re-hospitalized

TABLE 3. Studies on Psychiatric Re-Admission/Re-Hospitalization Rates: Characteristics

Study (Author, Year)	Family Involvement	Other Social Involvement	Previous Hospitalizations	Themes Emerging
Oosthuizen, Botha, Koen, Joska, Parker, Horn, & Hering, 2010	High Frequency Users: 89.01% (91); Low Frequency Users: 91.0% (45)	_____	High Frequency: 89 persons readmitted (7.64 times, SD of 4.68); Low Frequency: 45 persons readmitted (4.80 times, SD of 3.55)	Those on injectable medications more likely to be low frequency users; Those continuing on psychotropic medications more likely to be low frequency users; Alcohol use correlated to more readmissions
Prince, 2006	60.98% (161)	58.33% (154)	26% had fewer than 3 admissions (74/307 originally chosen; 50% had more than 6 admissions (154/307) after three months 24% or (64/264) of the persons participating had been re-hospitalized	All interventions helped to decrease re-hospitalization rates. Most effective were symptom education, family support noted to be effective on a superficial level (no family therapy but family psycho-educuation)
Roick, Heider, Kilian, Matschinger, Toumi, & Angermeyer, 2004	17% ((32)	_____	5 average number of previous hospitalizations; SD of 6	Frequent use of hospitals was related to severity of mental illness; Social factors also found to play an “important role”. Patients required more frequentpsychiatric ER use if they had less intensive family contacts and unmet psychosocial needs

APPENDIX E

TABLE 4: STUDIES ON TYPES OF FAMLY AND SOCIAL SUPPORT FOR THOSE WITH SEVERE MENTAL ILLNESS

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Baker, Procter, & Gibbons, 2009	Explore the nature, scope and consequences of loss resulting from mental illness	Systematic Review of the Literature; Purposive & Inclusive; Meta-Analysis	_____	Current literature; University in South Australia
Bertrando, Cecchin, Clerici, Beltz, Milesi, & Cazzulo, 2006	Assess a standardized version of the Milan systemic approach and potential positive effects on families of persons with a diagnosis of schizophrenia	Quantitative; Purposive; Milan approach "Circular Interview" conducted using Expressed Emotion Index	18 families	Psychiatric unit; Town outside Milan, Italy
Glynn, Cohen, Dixon, & Niv, 2006	Examine literature regarding family outcomes, attitudes and interventions for those with schizophrenia	Systematic Review of the Literature; Purposive & Inclusive; Meta-Analysis	25 quantitative articles	Department of Veterans Affairs; Veteran's Health Administration; Virginia, USA

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Gonzalez-Pinot, Ruiz de Azua, Ibanez, Otero-Cuesta, CastropFornieles, Graell-Berna, Ugarte, Parellada, Moreno, Soutullo, Baeza, & Arango; 2010	Assess if positive and negative environmental factors, together with psychotic family history, are associated with the development of psychosis	Quasi-Experimental; Purposive, Voluntary Recruitment, Snow Ball Sampling; Self Reported questionnaire using standarized tools of Family Environment Scale & K-SADS-PL	208 persons	Hospitals or outpatient mental health settings; various cities throughout Spain
Harden, 2004	Discuss the experiences of parents of young people with mental illness and their relations with health care professionals	Qualitative; Purposive; Interviews, Semi-Structured	25 parents of 18 children	Hospital conference rooms; Edinburgh, Scotland

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Hjarthag, Helldin, Olsson, & Norlander, 2012	Study individuals with psychotic disorders in daily functioning using 6 different dimensions & considering their relations to family burden. Also examined functional ratings from staff compared to relatives	Quantitative; Purposive; Interviews and self reported assessments including Specific Level of Functioning Assessment Scale and GAF Scores, Burden Inventory for Relatives for persons with psychotic disturbances	88 persons	Outpatient mental health clinics; Trollhattan, Sweden
Jones, 2004	Examine experiences of people who have a family member who suffers from serious mental illness	Qualitative; Purposive & Snow Ball Sampling; Structured Interviews	47 families	Mental health clinics; Urban area, London, England
Kaufman, Scogin, MacNeil, Leeper & Wimberly, 2010	Examine effects of a home-delivered, intervention aimed at helping aging parental caregivers of adult children with schizophrenia	Quantitative; Purposive, Snow-Ball Sampling; Self-Reported Survey Responses using Care Giver Competence Survey, Zarit Burden Interview, Family Burden Interview Scale, Life Satisfaction Scale, Quality of Life Index, Emotional well being using SCL-90-R	15 total: 5 in treatment group, 10 in control group	Community mental health centers, West central Alabama, USA

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Kuipers, 2006	Examine theoretical and empirical basis of family interventions developed for psychosis, review outcome data and discuss study about family interventions	Systematic Review of the Literature; Purposive; Meta-Analysis	18 randomized control trials which included 1458	Current literature using psychological data bases; Institute of Psychiatry, London, U.K.
La Cruz, Montero, Masanet, & Bellber, 2006	Determine whether clinical and social benefits observed in the short term would be maintained 5 years	Quasi-Experimental; Purposive recruitment; Initial Assessments, Medical records of admission, Psychiatric Assessment scale used to measure severity of patient symptoms, Disability Assessment scale, Knowledge of Schizophrenia questionnaire, Camberwell family interviews	71 total families and patients	Mental health settings & Patient homes; Valenica, Spain
Leith & Stein, 2012	Examine personal loss due to mental illness and strategies of caregiving among siblings of adults with serious mental illness	Quantitative; Purposive & Snow Ball Sampling; Assessments using Emotional Processing Sclae, Personal Loss from Mental Illness Scale, Intentions to Care Scale, Current Caregiving Scale, Illness Severity Scale, Involvment & Support group affiliation	103 siblings	Outpatient mental health centers; NAMI groups; Bowling Green, Ohio, USA

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Marquez, Ramirez, & Garcia, 2013	Broaden understanding of Latino family caregivers' roles in treatment, engagement and retention of their relatives diagnosed with serious persistent mental illness	Qualitative; Purposive recruitment & Snow Ball Sampling; Informal Interviews	32 caregivers	Mental health service providers; Private offices throughout South West, USA
Nelson, Ochocka, Janzen, & Trainor, 2006	Evaluate impact of participation in mental health Consumer/Survivor Initiatives (CSIs) on outcomes in social support, community integration, personal empowerment, subjective quality of life, symptom distress, utilization of hospitals and employment/education rates	Quasi-Experimental; Purposive Recruitment; Interviews using measuring instruments of Social Provisions Scale, Maton's Meaningful Activity Scale, Rosenberg's Self Esteem Scale, Quality of Life Scale, Symptom Distress Scale	118 participants	Community mental health clinics; Ontario, Canada

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Ozgul, Goddress, Owen, & Foley-Evans, 2005	Examine grief experience of parents of adult children with mental illness and its' relationship to parental health, well-being, parent child attachment and relationships.	Quantitative; Purposive recruitment; Self-Reported questionnaires mailed using Impact of Event Scale and the Mental Illness Version of Mental Illness Inventory of Grief, 36 question Health Survey, Attachement Style Measure, Affect Scale Regarding Child Relationships	71 participants	Mental health organizations and newsletters;multiple cities in Australia
Papastavrou, Charalmbous, Tsangari, & Karayiannis, 2010	Examine the burden and emotional well-being experienced by families caring for a loved one with schizophrenia	Quantitative, Cross-Sectional design; Purposive recruitment; Self-Reporting questionnaire using instrument of Family Burden Scale	113 caregivers	Outpatient mental health clinics; Homes of caregivers in Cyprus
Richardson, Cobham, Murray, & McDermott, 2010	Review existent research on parental grief experiences in relation to adult child's mental disorder	Systematic Review of the Literature; Purposive; Data analysis of research related topics using PSYCHinfo	12 studies	University Library; St. Lucia, Australia

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Rogers, Anthony, & Lyass, 2004	Assess the psychological properties of a measure of social support (the interpersonal Support evaluation Checklist) among people with severe mental illness	Quantitative; Purposive, Referrals; Self-Reported questionnaires using instruments of Interpersonal Support Evaluation List, Rosenberg Self-Esteem Scale, Quality of Life Interview, Brief Psychiatric Rating Scale	147 participants	Mental Health State Department referrals; classroom settings, Boston, Massachusettes, USA
Rummel-Kluge, Pitschel-Walz, Bauml, & Kissling, 2006	Investigate percentage of patients and family members participating in psychoeducation in the year 2003 and to evaluate how psychoeducation was conducted	Quantitative; Purposive; Self Reported survey consisting of two parts	131 facilitators of groups	Psychiatric institutions; Germany, Austria & Switzerland
Schon, Denhov & Topor, 2009	Discuss factors people regard as important to their own recovery, what makes them beneficial	Qualitative; Purposive; Informal interviews	58 participants	Outpatient mental health centers, Sweden

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Snowden, 2007	Examine whether ethnic minority consumers more likely than white consumers to live with their families and to receive family support	Quantitative; Purposive; Secondary Data Analysis	4,038 cases	State of CA Department of Mental Health records from county mental health programs; California, USA
Sota, Shimodera, Kii, Okamura, Suto, Suwaki, Fujita, Fujito, & Inou, 2008	Compare several models of educational approaches to help determine which model is more effective in providing support to families of those with mental illness	Quasi-Experimental; Purposve & Snow Ball Sampling; Questionnaire using Knowledge about Schizophrenia Interview before first and last sessions	110 relatives of 95 patients	Support groups in hospitals; Kochi, Japan
Wasserman, Weisman de Mamani, Suro, 2011	Determinet the relationship between guilt about having a relative with schizophrenia and predicting higher levels of expressed emotion in relatives of patients with schizophrenia	Qualitative; Purposive recruitment; Self-reported questionnaires using the Five Minute Speech Sample, for expressed emotion and the Self-Directed Emotions for Schizophrenia Scale	68 individuals from 68 different families	Outpatient mental health centers; Miami, Florida; USA

TABLE 4. Studies on Types of Family and Social Support for Those with Severe Mental Illness

Study (Author,Year)	Purpose	Research Design, Sampling Procedure, & Data Collection	Sample Size	Source of Sample & Setting of Study
Weisman, Rosales, Kymalainen, Armesto, 2006	Examine by ethnicity the relationship between patients' experience of their family members' criticism and the number of critical comments expressed by family members' during interviews	Quantitative; Purposive recruitment; Interview questionnaires	42 participants	Mental health agencys from Department of Mental Health; Los Angeles, California & Miami, Florida, USA

APPENDIX F

TABLE 5: STUDIES ON TYPES OF FAMILY AND SOCIAL SUPPORT FOR THOSE WITH MENTAL ILLNESS: DEMOGRAPHICS

TABLE 5. Studies on Types of Family and Social Support for those with Severe Mental Illness: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses	Family Knowledge of Mental Illness
Baker, Procter, & Gibbons, 2009	_____	Not specified; Articles included perspectives from researches around the world	Not specified, both males and females subjects in studies reviewed	Anxiety, Depression, Schizophrenia, Bipolar Disorder, Borderline Personality Disorder, Anorexia Nervosa, Other Psychotic Disorders NOS	_____
Bertrando, Cecchin, Clerici, Beltz, Milesi, & Cazzulo, 2006	Group 1: 30.90 SD of 7.16; Group 2: 29.38 SD of 4.50	All Italian from village near Milan	Group 1: 4 Females, 6 Males; Group 2: 3 Females, 5 Males	Schizophrenia	Some, families in the Group 1 were given more psycho education, resulting in more knowledge in mental illness, and lower scores of expressed emotion
Glynn, Cohen, Dixon, & Niv, 2006	_____	_____	Not specified, both males and females discussed in literature review	Schizophrenia	Many families in literature enrolled in family services, but lacked knowledge about mental illness until loved one was in crisis

TABLE 5. Studies on Types of Family and Social Support for those with Severe Mental Illness: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses	Family Knowledge of Mental Illness
Gonzalez-Pinot, Ruiz de Azua, Ibanez, Otero-Cuesta, CastropFornieles, Graell-Berna, Ugarte, Parellada, Moreno, Soutullo, Baeza, & Arango; 2010	16	All from Spain	69 Females, 124 Males	7.2% (7) Psychotic depression; 28.9% (28) Schizophrenia; 49.5% (48) Psychotic; 14.4% (14) Bipolar	_____
Harden, 2004	13-16	All Caucasian descent	Females & Males, numbers not specified	_____	Parents reported limited knowledge of technical and medical terms; Parents reported having "common sense" and knowing something was wrong; Felt there was insufficient information from professionals
Hjarthag, Helldin, Olsson, & Norlander, 2012	Females: 53.2 SD of 13.9; Males: 45.1 SD of 11.3	_____	34 Females, 54 Males	3 Disorganized, 22 Paranoid, 9 Residual, 26 Schizoaffective, 18 Undifferentiated Schizophrenia, 10 Delusional Disorder	Families had appropriate knowledge of mental illness, and severity of illness as compared with staffs' ratings of illness and severity

TABLE 5. Studies on Types of Family and Social Support for those with Severe Mental Illness: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses	Family Knowledge of Mental Illness
Jones, 2004	_____	_____	11 Females, 23 Males	Schizophrenia, Bipolar Affective Disorder	Families reported some knowledge, though felt they did not have enough and had difficulty understand illness
Kaufman, Scogin, MacNeil, Leeper & Wimberly, 2010	_____	African American, White	Females & Males, number not specified	Schizophrenia	Family knowledge reporting to be lower, especially when families did not have educational classes offered
Kuipers, 2006	_____	UK residents specified	Females & Males, number not specified	Schizophreni	_____
La Cruz, Montero, Masanet, & Bellber, 2006	_____	Spanish	Females & Males, number not specified	Schizophreni	_____
Leith & Stein, 2012	38.4 SD of 13	90.3% European American	36% Females, 64% Males	46% Schizophrenia, 18% Schizoaffective Disorder, 18% Bipolar Disorder, 9% Major Depressive Disorder	Family members had knowledge of mental illness since they were involved in organizations such as NAMI or had been researching psychoeducational resources

TABLE 5. Studies on Types of Family and Social Support for those with Severe Mental Illness: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses	Family Knowledge of Mental Illness
Marquez, Ramirez, & Garcia, 2013	_____	NAMI Sample: 71% (12) Born in Mexico; 29% (5) Born in US; Non NAMI Sample: 73% (11) Born in Mexico; 4% (4) Born in US	84% Females, 16% Males	Schizophrenia, Schizoaffective, Bipolar Disorders	NAMI members had more knowledge than non-NAMI members. Both groups admitted that prior to illness becoming more serious, they had little to no knowledge
Nelson, Ochocka, Janzen, & Trainor, 2006	Active Group: 39.3 SD of 10.5; Non Active Group: 42 SD of 10.3	Active Group: 80% (48) White; Non Active Group: 94.7% (54) White	Active Group: 50.8% (31) Females, 49.2% (39) Males; Non Active Group: 47.4% (27) Females, 52.6% (30) Males	Active Group: 63.9% (39) Mood Disorder, 32.7% (20) Schizophrenia, 38.6% (22) Anxiety Disorder, 11.5% (7) Personality Disorder, 15.8% (9) Developmental Handicap, 8.2% (5) Substance Disorder; Non Active Group: 61.4% (35) Mood Disorder, 38.6% (22) Schizophrenia, 33.3% (19) Anxiety disorder, 15.8% (9) Personaltiy Disorder, 4.9% (3) Developmental Handicap, 7.0% (4) Substance Disorder	_____
Ozgul, Goddress, Owen, & Foley-Evans, 2005	28.39 SD of 6.71	_____	19 Females, 52 Males	48 Schizophrenia, 10 Bipolar Disorder, 11 Schizoaffective Disorder	All families had knowledge of mental illness due to involvement in support services

TABLE 5. Studies on Types of Family and Social Support for those with Severe Mental Illness: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses	Family Knowledge of Mental Illness
Papastavrou, Charalmbous, Tsangari, & Karayiannis, 2010	45 SD of 0.5	All from Greece or Cyprus	62 Males, made up most of study	Schizophrenia	Family that had more formal education had more overall knowledge of mental illness
Richardson, Cobham, Murray, & McDermott, 2010	33	Primarily Caucasian	Primarily Males	Schizophrenia, Schizoaffective Disorder, Bipolar Disorder, Major Affective Disorder, Non Specified Mental Illness	Families reported knowing something was "wrong" but not having specific knowledge of mental illness or ability to handle intense and dangerous situations; Parents reported fear, confusion and apprehension due to no specific knowledge; Reported difficulty receiving a diagnosis from doctors adding to confusion
Rogers, Anthony, & Lyass, 2004	34.4 SD of 8.05	_____	45% (64) Females, 55% (77) Males	51% (62) Schizophrenia, 19% (23) Schizoaffective, 29% (35) Depression 2% (2) Substance Abuse	_____

TABLE 5. Studies on Types of Family and Social Support for those with Severe Mental Illness: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses	Family Knowledge of Mental Illness
Rummel-Kluge, Pitschel-Walz, Bauml, & Kissling, 2006	_____	German, Austrian, Swiss	Females & Males, number not specified	Schizophrenia	Family knowledge limited, 2% of families of those in institutions had participated in psychoeducation groups conducted by institution
Schon, Denhov & Topor, 2009	78% 31-60 years	56 Swedish born, 2 non Swedish parentage	50% (29) Females, 50% (29) Males	71% (41) Psychosis, 16% (9) Personality Disorders, 13% (8) Bipolar Disorders	Patients reported their families had limited technical knowledge of mental illness, but were able to recognize a problem within an individual and alert people who did have more knowledge about mental illness
Snowden, 2007	59% ages 25-44	Asian, Latino, African American, White	52% Females, 48% Males	42.7% Schizophrenia, 35.6% Mood Disorders; 12.9% Other Psychotic Disorder	_____
Sota, Shimodera, Kii, Okamura, Suto, Suwaki, Fujita, Fujito, & Inou, 2008	32.5	Japanese	40% Females, 60% Males	Schizophrenia	Initially knowledge was limited regarding illness; families all showed increase in knowledge of mental illness after completion of psychoeducation course

TABLE 5. Studies on Types of Family and Social Support for those with Severe Mental Illness: Demographics

Study (Author,Year)	Average Age	Ethnicity	Gender	Diagnoses	Family Knowledge of Mental Illness
Wasserman, Weisman de Mamani, Suro, 2011	_____	52% Hispanic, 29% Caucasian, 18% African American	Females & Males, number not specified	Schizophrenia, Schizoaffective Disorder	Families reported more knowledge than average person due to being part of a 15 week program to help individuals with schizophrenia
Weisman, Rosales, Kymalainen, Armesto, 2006	39.17 SD of 11.44	15 Non Hispanic White, 13 Latino, 14 Black	21 Females, 21 Males	Schizophrenia, Schizoaffective Disorder	_____

APPENDIX G

TABLE 6: STUDIES ON TYPES OF FAMILY AND SOCIAL SUPPORT FOR THOSE WITH SEVERE MENTAL ILLNESS: CHARACTERISTICS

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Baker, Procter, & Gibbons, 2009	Documented primarily as families abandoning or distancing themselves from those with mental illness	Children being taken away, family conflicts and abandonment due to peoples' mental illness	_____	Individuals with mental illness experience many losses, grouped into five categories: loss of self, loss of health and abilities, loss of work and employment, loss of relationships, friendships and intimate relationships, loss of future
Bertrando, Cecchin, Clerici, Beltz, Milesi, & Cazzulo, 2006	Many relatives at the beginning of study were involved, but were shown to have high levels of expressed emotion	_____	Those whose families had higher rates of expressed emotion more likely to relapse; in the control group 5 of the persons relapsed & went back to hospital. 3 individuals relapsed from the circular interview group. Those with low levels of expressed emotion in the family had 0 relapse (4 from interview group, 2 from control group)	Those with higher levels of expressed emotion in the family more likely to experience a relapse; Circular interviewing can be beneficial for families due to providing them with increased knowledge of mental illness, can help lower levels of expressed emotion
Glynn, Cohen, Dixon, & Niv, 2006	Practical support such as financial but also included emotional support	Physical stressors such as housing a loved one who is ill, inability to communicate effectively, fiduciary concerns, lack of understanding of illness	Iimproved outcomes for individuals whose loved ones received family interventions; 20% reduction rate reported in hospitalization rates	Family support important and crucial to recovery, only other factor in literature making significant difference is medication compliance

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Gonzalez-Pinot, Ruiz de Azua, Ibanez, Otero-Cuesta, CastropFornieles, Graell-Berna, Ugarte, Parellada, Moreno, Soutullo, Baeza, & Arango; 2010	Family positive support reported in some families, others reported negative family support, others reported conflicts in families; some families were reported to support independence and fostering an intellectual and creative environment	Previous history of mental illness in families	Individuals with mental illness more likely to have a family member who also had a mental illness; Those whose families reported negative family environments more likely to have mental illness	For those with history of mental illness within family, positive family support can help minimize/support against symptoms; Negative family environments associated with higher risk of having psychosis
Harden, 2004	Families interviewed all involved in child's care and felt they should be more involved	_____	_____	Parental guilt surrounding child having mental illness, lack of knowledge, exclusion from professionals in child's care, having to learn a new set of parenting skills, family resilience and many reporting that although it was a struggle family had figured out ways to cope and adapt to situation

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Hjarthag, Helldin, Olsson, & Norlander, 2012	Families all perceived to be active and supportive	Some families felt burdened due to loved ones' mental illness	Patients who had illness were able to better manage interpersonal relationships when family members reported patient as being less of a burden	Relatives believing their loved one to be limited in abilities more likely to perceive themselves as having a higher burden. Staff and family members generally agreed on level of functioning and severity of illness for the person with illness; Individuals who's family perceived a higher burden were less likely to be successful in interpersonal relationship
Jones, 2004	Emotional, financial and practical support	Guilt, anger and loss experienced by the family when loved one had a mental illness	_____	Complex grieving process involved for families of those with mental illnesses; Anger/Guilt were often observed in family members due to loved ones' mental illness; Shame and stigma struggles there is difficulty understanding and managing these feelings
Kaufman, Scogin, MacNeil, Leeper & Wimberly, 2010	Families all supportive in multiple ways	Patient symptoms, patient being disruptive, conflict due to illness, future worries about care for loved one, financial stressors, constriction of social life	_____	Individuals provided with more information and support from professionals experienced lower levels of stress and burden and were less likely to have negative associations with their loved one

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Kuipers, 2006	Families were supportive as care givers but not always able to be supportive without being overly involved/having high levels of expressed emotion; Some families critical, hostile and emotionally over involved in the persons	Financial stressors, isolation and reduced social networks due to caretaking on family members' part; depression or anxiety of their own partially due to mental illness of loved one and the stress this causes the care giver	In families with high levels of expressed emotion relapse rate found to be 50% over nine months; for families with low levels of expressed emotion 20% relapse rate was reported	Families that express higher levels of expressed emotion are more likely to have a person relapse and go back to the hospital. When families are educated properly and given enough support, relapse rates have been shown to be decreased, by as much as 64% to 24%. Interventions shown to be beneficial are CBT technqiues, problem solving and coping skills
La Cruz, Montero, Masanet, & Bellber, 2006	Families involved in therapy, interventions, generally in caretaking and at times overly involved and critical at times (showing expressed emotion)	High levels of Expressed Emotion	24/37 people were readmitted (64.9%) in the BFT intervention where patients were included; 20/34 (58.8%) were readmitted in family interventions without patient present	Strong association between not taking antipsychotic medications before intervention and risk for readmission. Family meetings appeared to be more useful in the short term rather then the long term, effectiveness of interventions appeared to wear off. Intervention showing to be most beneficial was one where family present but patient

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Leith & Stein, 2012	Provided concrete support such as caregiving, or fiscal support; family members reported trying to encourage in positive ways such as praising or emotional processing	Ambigous loss from losing siblings to mental illness	_____	Siblings appeared to show a more positive approach to dealing with stress of caretaking such as positive praise or emotional coping such as processing
Marquez, Ramirez, & Garcia, 2013	Emotional, financial and practical support such as direct caregiving	Acculturation, Finding help in a system they were not aware of (most of the sample was from Mexico and some did not speak English at all), Fiscal problems, Role of stigma and cultural beliefs (the concept of familisimo and no seeking out services because it should be kept in the family), Use of folk healers/ using alternative methods instead of medication, Feeling isolated taking care of loved one since others don't understand or agree with treatments; Lack of insurance	_____	Culture plays a role in a patients treatment, caregiving from a Latino perspective and lack of resources available to caregivers of Latino population, Family important to Latinos, Family members want to be supportive but lack knowledge regarding how to be supportive, Importance of family education on reducing stress and depression within family

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Nelson, Ochocka, Janzen, & Trainor, 2006	_____	_____	Active in CSI at 9 months average days of psych hospitalization at 9 months was 2.1 days with a SD of 8.6. ; Non active: number of psych days in hospital was 2.4 with a SD of 6.9. Active in CSI at 18 month: Days in psych hospital estimated to be 1.7 with a SD of 7.3. Non Active at 18 months: Days in psych hospital were 2.6 with a SD of 8.2 at 18 months. 17% of active group used psychiatric emergency services at 18 months . 27% used emergency psych services in non active group at 18 months	CSI successful especially at 18 months with improving people's quality of life and overall happiness as well as social support. Hospitalization rates were also reduced. However those who dropped out of study may not account for the most severe and persistently mentally ill persons. CSI groups may be beneficial in helping others to feel understood and related to since they are consumer run . People were also more likely to return to work and school when involved in CSI. Consumer run programs are less expensive then programs run by professionals, this study may show another option available to organizations short on

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Ozgul, Goddress, Owen, & Foley-Evans, 2005	Parents reported avoiding child, having grief over loss of "norm", making some Other family reported supportive attachment still allowing child to have space. Other families reported over attachment/anxiety in relationships. Others reported ambivalence towards child	Attachment styles and dynamics between family members, Health issues that parents experienced in addition to care taking, Grief regarding family norms being lost	Secure attachment between child and parents yielded less stress for parent, and greater chance for positive influence from relationship, leading to more promising outcome for individual	Family attachment styles have an impact on parents own health and mental health as well as child's mental health; overly anxious or avoidant parents had poorer relationships with child; parental grief appeared to reduce over time
Papastavrou, Charalmbous, Tsangari, & Karayiannis, 2010	Practical, 99 persons lived with their families	Fear of stigma, financial stressors, own mental health issues as a result of caregiving including depression, anxiety, and physical health problems	Most reported to be in recovery or have stable syptoms	Results of caregiver burden were similar to others countries and nations showing loved ones of those with mental illness share similar concerns regardless of background
Richardson, Cobham, Murray, & McDermott, 2010	Caregiving present for most families, some reported negative emotions and frustration towards child, or ambivalence about relationship	Loss and grief the family had to deal with over norms lost and loss of a future for child; lack of social support and stigma they experienced due to loved ones mental illness	_____	Grief and loss, variety experienced by parents or family members over time; the confusion surrounding a diagnosis for their child; parent helplessness over not being able to help child at times

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Rogers, Anthony, & Lyass, 2004	_____	_____	Those who had more social support were less likely to experience more severe/intense symptoms of mental illness. Those with poorer amounts of social support predicted to have more severe psychiatric symptoms later on in life	Women reported more social support than men, social support is an important factor in helping those with mental illness to improve quality of life
Rummel-Kluge, Pitschel-Walz, Bauml, & Kissling, 2006	Family members gave limited support of their loved ones since they were in institutions	Stigmatization as a stressor, isolation from others, guilt and shame, and burnout from their loved one	When family interventions and psychoeducation groups are provided hospitalization rates were reduced within 2 years by 20%	Resources not being offered to families, only 1/50 family member was receiving psychoeducation and only 1/5 persons with schizophrenia was receiving psychoeducation. Having psychoeducation allowed family members and loved ones to feel more supported; Engaging family and supports for patients shown to reduce readmission rates; there can be many barriers to psychoeducation such as not enough funding, shortage of staff trained to run these groups

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Schon, Denhov & Topor, 2009	Practical help (financial, place to stay); Emotional support, Advocacy for loved one's; Some reported destructive relationships with loved ones resulting in emotional issues; Some family reported to negatively impact recovery due to behaviors including taking on role of "helper" solely & not allowing individuals autonomy.	Adjusting to the mental illness, figuring out new relationship roles	All individuals in this study stayed out of the hospital within the last three years	Importance of connections to others in the lives of individuals recovering from mental illness; relationships with professionals in the mental health field came up in interviews as important, medication and taking medication was brought up, hospital time when looked back on was viewed as primarily helpful since it allowed people to begin moving forward realizing they needed help, being able to be active outside of the house was noted to be import, and connections with family and friends were also discussed as helpful to individual's recoveries
Snowden, 2007	Active support where families involved in day to day life of individuals; Practical support (living/financial); Some families had no involvement with their loved one/limited contact without	Cultural barriers, not speaking English and being able to communicate with mental health professionals	_____	Asians and Latinos more likely to live with their families than Whites or African Americans; those who are ethnic minorities are less likely to seek out services; could be due to improvement of symptoms but could also be due to stigma from cultural norms

TABLE 6. Studies on Types of Family and Social Support for those with Severe Mental Illness: Characteristics

Study (Author,Year)	Family Type of Support	Family Stressors Present	Recovery Rate for Individual with Illness	Themes Occuring
Sota, Shimodera, Kii, Okamura, Suto, Suwaki, Fujita, Fujito, & Inou, 2008	Some healthily involved, others overly involved and had high rates of expressed emotion meaning they were critical, hostile at times and overly controlling	_____	Families had less of a risk of relapse in their family if they had more knowledge about mental illness; those who had higher rates of relapse had less knowledge	Education for families regardless of method of psychoeducation was useful in helping families understand more about mental illness; more knowledge of mental illness did have a correlation to lower rates of relapse for individuals with mental illness
Wasserman, Weisman de Mamani, Suro, 2011	Some overly involved due to guilt and shame about mental illness; Some positively supportive which helped to increase outcomes for their loved one	Guilt, shame about loved ones illness	Individuals whose loved ones had higher rates of Expressed Emotion more likely to relapse	Family members having more guilt about loved ones mental illness had higher rates of contact with them; females were more likely to have higher rates of expressed emotion than males; not all loved ones have high rates of expressed emotion
Weisman, Rosales, Kymalainen, Armesto, 2006	Some families overly involved and more critical than others, but for families that were African American this was not viewed as unsupportive and was discussed to be more of a cultural norm	Criticism, lack of harmony in relationships due to mental illness	Those who had more critical relatives were more likely to experience relapse than those who did not, with the exception of Black families	Generally criticism in families is viewed as negative although in Black families this did not hold true; important to be aware of cultural norms and what involvement and support may mean to different families

APPENDIX H

TABLE 7: STUDIES EXCLUDED FROM META

TABLE 7. Studies Excluded from Meta-Analysis

Study (Author,Year)	Subject of Research	Reason for Exclusion
Anurada, 2004	Family support for loved one with severe mental illness	Lacking any empirical evidence or showing any research done. Research did not give a methods section, and did not give any demographics about the population they were referring to, in this case those with severe mental illness and their family
Asen & Schuff, 2006	New model for families of loved ones with severe mental illness	Lacking any empirical evidence or showing any research done. Article claimed to have begun a model that they have been implementing for two years, but there were no demographics about population worked with, no information given regarding outcomes, no details given regarding methods use
Hallam, 2007	How involuntary psychiatric commitment impacts families	Lack of information regarding population, lack of information regarding basic demographics, lack of information regarding methods used
Kymalainen & Weisman de Mamani, 2008	Systematic review regarding expressed emotion, communication deviance and cultural differences in families of patients with schizophrenia	Article removed from systematic review due to not meeting criteria including a lack of methods (no methods section listed at all) lack of criteria given regarding articles chosen
Lucksted, Medoff, Burland, Stewart, Fang, Brown, Jones, Lehamn, & Dixon, 2012	Study regarding family to family program ran by NAMI	Lacking relevance to this study, Much of the relevant information needed such as family support, knowledge, recovery rates and information regarding persons with mental illness was excluded, focusing specifically on the family to family program run by NAMI. Research was also all supported from a gran from NAMI and did not discuss limitations to study or possible bias
Ozgul, 2004	Narratives focused on family members in supporrt groups who had loved ones with mental illness	No information regarding demographics and limited information regarding methods was discussed (no mention of process of participants consenting, or being aware they were being taped, no way to ensure study was ethical); Lacked objectivity due to referencing personal beliefs

TABLE 7. Studies Excluded from Meta-Analysis

Study (Author,Year)	Subject of Research	Reason for Exclusion
Penzo & Harvey, 2008	Narratives regarding experience of parents with a child having severe mental illness	Author included personal narrative and experience; Not an objective study due to not including other narratives and not being able to be objective due to including own experience; Article mainly discussed Kubler and Ross' theory of loss and how authors own experience fit into this theory; not appropriate for this meta analysis
Segal & Burgess, 2009	Readmission rates for those in outpatient or partial hospitalization programs	Lacking relevant information to this study. Did not give information regarding prevention of hospitalization or factors related to this, but was focused on outpatient and partial hospitalization programs without giving specific data on readmissions.
Tan, Yeoh, Choo, Huang, Ong, & Ismail, 2012	Caregivers of loved ones with severe mental illness	Focused primarily on caregivers not giving any information on demographics of loved ones with mental illness so not relevant to this study
Topor, 2006	Discussion of previous study performed examining effect of family support on those with severe mental illness	Referenced previously study performed by one of the authors, summarizing this study but not giving details regarding methods, not detailing data collection or listing the population or demographics or listing or ethical considerations needed for this kind of study
Vigod, Taylor, Fung, & Kurdyak, 2013	Readmission rates across hospital in Ontario	Lacking relevant information to this study. Focused primarily on readmission rates in hospitals across Ontario, without giving demographics of population or discussing contributing factors to readmissions

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