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The stigmatization of methadone maintenance treatment and its effect on social support

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THE STIGMATIZATION OF METHADONE MAINTENANCE TREATMENT AND ITS EFFECT ON SOCIAL SUPPORT

A Project

Presented to the

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ABSTRACT

Methadone Maintenance Treatment (MMT) is a treatment modality that has been proven to help achieve abstinence. However, due to controversy over MMT, this has brought stigmatization, social injustice and powerlessness to those who seek out treatment. The purpose of the study was to explore the correlation between perceived stigmatization from family as well as friends and its probable effects on social support from the same. Quantitative data collection was utilized through the use of surveys at various Narcotics Anonymous meetings developed by the researchers. The sample size included 80 participants with a history of receiving MMT aged 18 and older. Univariate and bivariate statistical analyses were performed using SPSS. Results suggest that there were statistically significant differences in perceived stigmatization from family by gender ($t(69) = 4.707$, $p < .05$), years in MMT ($r(69) = .325^{**}$, $p < .001$), and participant's age ($F(5,65) = 3.67$, $p < 0.05$). Furthermore, a significant difference was found in social support received from friends with participants who had been in treatment less than a year ($F(3,69) = 2.85$, $p < 0.05$). Findings of this study can change the way

social work clinicians approach individuals by providing awareness of MMT clients' perceived acceptance within their social network and, also, set the standard for social support assessment, including peer integration in treatment and education about MMT to reduce stigmatization and bias.

ACKNOWLEDGMENTS

We would like to thank Dr. Shon for his support and guidance throughout this journey. Also, to the many participants' who opened their hearts and minds to make this project possible.

DEDICATION

This project is dedicated to our children, supportive husbands, and our wonderful families. We couldn't have done this without you.

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CHAPTER ONE

INTRODUCTION

Chapter One consists of an explanation of the research focus and insight into the dynamics of co-occurring disorders with an emphasis on methadone maintenance treatment (MMT). The research focus is described with regards to societal criticisms and its effect on social support. Also, the purpose and significance of this study for social work practice is discussed illustrating its contribution to social work practice on a micro, macro, and mezzo level.

Problem Statement

Today, the need for treatment has increased for individuals currently receiving MMT. In fact, many maintenance clinics "in the United States, [now provide] approximately 260,000 individuals" narcotic treatment for the addictions (Kleber, 2008, p. 4). It has been proven that "therapeutic success" can now be possible for clients, however, there is still a low success rate due to "the issue of patient dropout...always [being] present" (Onken, Blaine, & Boren, 1997, p. 1) and many who are in treatment still "abuse...cocaine and

benzodiazepines" which have led to "disruptive behavior...in many programs" (Kleber, 2008, p. 2). This is a substantial indicator because substance abuse seems to be escalating rather than decreasing and "even patients receiving maintenance for long periods with substantial lifestyle changes often relapse after leaving treatment and death rates are much higher than for individuals who remain in treatment" (Kleber, 2008, p. 2). For some patients this can mean that being on methadone maintenance treatment can take years and "there is often patient and family opposition" (Kleber, 2008, p. 3) which is a common issue that arises within this group, along with societal stigmatization.

After looking at these issues, how does social support come into play? Do familial and peer values, biases, and criticisms of Methadone Maintenance Treatment (MMT) effect a client's social support system? Much of the focus in research has been placed on mental health providers' views and criticisms of MMT. No research was found studying the client's perceptions of their familial and peer views on MMT and whether it has caused difficulty in their social support network and, ultimately, increased problems in mental health such as

increased isolation, depression, low self-worth. In fact, a recent study on the risk factors of depression among former heroin addicts affirmed that common risk factors include those "(1) already enrolled in MMT, (2) female gender (especially when pregnant at admission to MMT), (3) with any DSM-IV Axis I psychiatric diagnosis, (4) treated with any psychotropic medication, (5) abusers of BZD or on prescribed BDZ and (6) taking a methadone dose N120 mg/day" (Peles, Schreiber, Naumovsky, & Adelson, 2007, p. 7). None of these include social support. Even more interesting, the same study showed that "patients who were about to enter MMT or had just been admitted to treatment were not found to be depressed" (Peles et al., 2007, p. 6) indicating that factors arose after beginning treatment which have not been unveiled, with criticisms and ridicule by those in their social network as a possibility.

What is hoped to be measured is the client's perception of how familial and peer views and criticisms have affected their social support network and, ultimately, treatment. For example, a client may have experience poor treatment by his family and friends which have caused escalation in depressive symptomology,

suicide, and a decrease in self-worth. Based on the research, social support is essential to patient recovery. Best, Ghufran, Day, Ray, and Loaring (2008) identified that maintaining "abstinence [was] linked more often to social networks, including moving away from heroin-using friends and relying on support from non-using friends" (Best et al., 2008, p. 623) suggesting the importance of "developing appropriate support systems for drug users who achieve abstinence" (Best et al., 2008, p. 624). Of course, this could be problematic given the controversy over MMT in which it is not socially acceptable in the views of society and, unfortunately, within the social network of those undergoing treatment.

Purpose of the Study

Individuals with a co-occurring mental illness and substance use disorder are not alone. Early views of drug-dependent individuals tended to characterize them as "loners-people who were cut off from primary relationships and living a kind of [alley cat] existence" (Stanton, 1997, p. 157), but have now maintained close ties with their families and peers around them. They are individuals who interact on a daily basis with various

networks such as family, friends, and their community. A challenge most of the individual clients with a dual disorder face is having the need to rebuild "non-substance-using social networks [and]...establishing positive social support resources" (Tracy & Johnson, 2007, p. 70).

Due to limited information on the social networks of persons with a dual disorder, it would be of interest to find out if social support is available for people on methadone treatment. If it is not available, can this "make it difficult [for them] to engage in treatment" (Onken et al., 1997, p. 1). According to research "in drug addiction treatment... the issue of patient dropout is always present" (Onken et al., 1997, p. 1) but it can be prevented if providers find a way to help the client engage in treatment. Needless to say, this will not prove effective if individuals don't seek treatment. With this being said, there is a chance that individuals' refusing to take part in treatment may have other issues that impedes him or her from successfully receiving treatment, such as a lack of emotional support to aid in, and finish, treatment successfully. When individuals receive adequate support throughout the treatment process, it

"reduces the effect of stressful situations and facilitates successful adaptation" (Hepworth et al., 2010, p. 220). A client's quality of life can be improved if social support is much more available and agencies can identify and integrate supportive social treatment for their clients.

Significance of the Project for Social Work

It seems that patients are not receiving the needed support to become successful in treatment. "What to do under such circumstances remains contentious" (Kleber, 2008, p. 3) and only research can help in defining such issues along with aiding clinics in finding innovative interventions to address the problem. The question still remains what can be done to provide a positive success rate for clients in methadone maintenance clinics and, can social support really help in establishing more success rates?

Findings of this study can change the way social work practice in maintenance clinics approach the individual but, also, set the standard for social support assessment throughout an agency on a macro level. On a mezzo level, program implementation for family support

and peer groups could be a possible implication for services which could assist clients with completion of the treatment process, which may be lacking.

This study will assist in developing insight into the role of social work professionals in better aiding clients to reach their respective goals by staying in treatment despite the difficulties. This study will also provide implications of treatment aimed towards family integration in treatment, including education about MMT to reduce stigmatization and bias that may be prevalent within the social network of MMT clients. Addressed is a means of assessing each individual's social support networks so that they are appropriated treatment that will benefit maintaining close ties with others. Peer and family social support groups could build social networks of clients who can identify with the same issues and difficulties but, also, positive aspects of treatment. Again, this study is aimed at clients' perceptions of familial and peer views and whether it has caused difficulty in their social support network and, ultimately, increased problems in mental health such as increased isolation, depression, and low self-worth.

CHAPTER TWO

LITERATURE REVIEW

Introduction

A literature review is provided with an overview of substance use in the United States with a focus on opiates and its detriment to the individual and society as a whole. Also included is an introduction to the history of methadone maintenance treatment (MMT) along with the benefits of the treatment of opiate use disorder. Societal controversy over MMT as a treatment modality is discussed and, last, the correlation between social support and depression as it relates to treatment of substance use disorders.

A Social Problem

Substance abuse, in general, has been termed "a disease" (Fisher & Harrison, 2000, p. 41) that has plagued the lives of millions of Americans and their families. In fact, it is estimated that "at least 980,000 people in the United States are currently addicted to heroin and other opiates (such as oxycontin, dilaudid, and hydrocone)" (Center for Disease Control, 2002, p. 1). Heroin is "an opiate drug that is synthesized from

morphine, a naturally occurring substance extracted from the seed pod of the Asian opium poppy plant" (National Institute on Drug Abuse, 2010, p. 1) which has been constituted as highly addictive. Research from the National Institute on Drug Abuse (2010) has shown that "about 23 percent of individuals who use heroin become dependent on it" (p. 1). Interestingly enough, research also supports the concept of "opioid abuse as an emotional substitute for social attachments" (Schindler, Thomasius, Petersen, & Sack, 2009, p. 322) which are often times lacking among substance users. Opiods provide the individual with a euphoric state of mind which has been described as "contentedness, well-being and feeling carefree" but, also, "relief from fear and sorrow" (Julien, 2000, p. 260) helping them escape from the realities of their life.

This escape, however, also comes at a hefty price tag to the United States as a whole; substance abuse, in general, has an estimated economic cost of $180.9 billion (National Drug Intelligence Center, 2006). Costs to the nation are only a fraction of this national problem. For the individual, this addiction oftentimes "include[s] ill health, sickness and, ultimately, death" but, also, puts

the individual at-risk for "the contraction of needle borne illnesses including hepatitis and HIV/AIDS through injection drug use" (NDIC, 2006) which is a concern of epidemic proportions. It was stated that "if a person has this disease... the person will continue to exhibit all the symptoms of the disease if he or she discontinues the use" (Fisher & Harrison, 2000, p. 41).

History of Methadone Treatment

Such a problem requires intervention. According to the literature, "the early 1960s saw a virtual epidemic of heroin and morphine abuse in America...[and] it soon became clear that methadone maintenance was the one and only treatment option achieving any positive results" (Straus & Straus, 2006, p. 316) in its attempt to decrease the number of cases of opiate addicted individuals. Methadone "was synthesized in Germany during World War II as an analgesic alternative to morphine" (Substance Abuse & Mental Health Services Administration, 2003, p. 11) and first studied in the U.S. in 1946.

According to Nelkin (1973), "methadone is a synthetic, addictive opiate used as a substitute for

heroin" (p. 3). The Center for Disease Control (2002) affirms that methadone,

> blocks the euphoric and sedating effects of opiates; relieves the craving for opiates that is a major factor in relapse; relieves symptoms associated with withdrawal from opiates; [and] does not cause euphoria or intoxication itself (with stable dosing), thus allowing a person to work and participate adequately in society. (p. 1)

Other benefits to the individual, and society, include "reduced or stopped use of injection drugs; reduced risk of overdose and of acquiring or transmitting diseases such as HIV, hepatitis B or C, bacterial infections, endocarditis, soft tissue infections, thrombophlebitis, tuberculosis, and STDs; reduced mortality - the median death rate of opiate-dependent individuals in MMT is 30 percent of the rate of those not in MMT; possible reduction in sexual risk behaviors, although evidence on this point is conflicting; reduced criminal activity; improved family stability and employment potential; and improved pregnancy outcomes" (CDC, 2002, p. 1).

Although methadone treatment has proven effective in reduction of self-medicating behaviors, it has also been

limited in "effective[ness] in terms of physical and mental health outcomes" (Comiskey & Cox, 2010, p. 201) which should be included in treatment for dual diagnosis. Research on MMT affirms that following a successful detoxification, opioid abusers must "learn how to regulate emotional states, how to cope with emotional distress, and how to regulate interpersonal relationships" (Schindler et al., 2009, p. 325) which becomes difficult for clients who have turned to illegal substances because of a lack of the above coping skills. Again, analysis of various studies illustrates that methadone treatment is effective in the reduction of substance use, however, there is an equally important need to "expand these studies to measure and model more effectively why and where treatment works best particularly in relation to physical, mental, and social functioning rehabilitation outcomes" (Comiskey & Cox, 2010, p. 201) which is thus far lacking.

Controversy: The Rise of a Societal Stigma

With intervention comes criticism and ridicule. When "methadone maintenance spread, controversy over the program grew...the medical professionals, law enforcement

officials, politicians, religious and community leaders, journalists, writers, and scientists" raised spirited opposition during this time due to their negative perceptions of methadone treatment leading to stigmatization (Hutchings, 1985, p. 66).

Stigmatization is viewed as "an element of suffering accompanying the experience of having a condition that is devalued in society" (Conner & Rosen, 2010, p. 2). To a certain degree "ambivalence toward methadone maintenance is a reflection of conflicting values within society" that only brings social injustice and powerlessness to those who seek out treatment (Nelkin, 1973, p. 6).

Opiate-dependent patients who are trying to intervene in their maladaptive patterns of self-medicating behaviors are being devalued by society, including family and friends, and therefore ridiculed for utilizing a treatment that enables the person to continue the use of a substance. In the past, addicts were stigmatized as being "irresponsible, selfish, immature, thrill-seeking individuals who [were] constantly in trouble-the type of person who acts first and thinks afterwards" (Nelkin, 1973, p. 13). Even now, the ways these perceptions have changed have not yet been proven;

instead it still seems to be a controversial topic. These negative perceptions, brought on by society, allow institutions to justify their stigma against patients on methadone treatment.

What society and those that provide services to patients don't understand is that "methadone, like heroin and morphine, is an addictive and controlled substance...however, [it] does not create feelings of euphoria and...it has the ability to bind to the "opiate" receptors reducing the craving for other opiates" (Straus & Straus, 2006, p. 316). Methadone has been used in outpatient treatment facilities for years, nevertheless, "MMT is still controversial, and treatment facilities have trouble [in properly treating patients]... despite the fact that methadone maintenance has been found to be medically safe and nonsedating" (Straus & Straus, 2006, p. 317).

However, opiate dependent patients need to receive mental health services from providers other than methadone treatment alone. But, "there is little systematic knowledge about the etiology of addiction, [and] contradictory and often emotional attitudes persist toward both the problem and the relative advantages of

various solutions" (Nelkin, 1973, p. 7). It has been shown that "a debilitating stigma and bias continues to handicap these programs and its patients, compromising the effectiveness of services" (Straus & Straus, 2006, p. 317). Furthermore, it has been found that stigmas against opiate dependent patients, due to negative perceptions in society, have violated The Americans with Disabilities Act, but nothing has been done to correct this problem. The American with Disability Act states that "Denying employment to job applicants because of a history of addiction or treatment for addiction must be carefully scrutinized to ensure that the policies are job-related and consistent with business necessity...unless it poses a threat" (Jasper, 1998, p. 37). But even then, patients have found that this Act has not fully protected them from being negatively viewed in society.

The biased perceptions from professionals are often seen even within the methadone maintenance clinics, in which "there remain many fundamental disagreements, even among those who work in established methadone programs and seek to expand this approach to heroin problem" (Nelkin, 1973, p. 7).

The need to understand what is going on with mental health providers is essential to a growing number of opiate dependent patients. The need for methadone maintenance clinics has expanded during the years, as more and more people become addicted to substances. In order to find successful outcomes for clients on methadone, one must not "ignore the moral stigma of addiction" and methadone treatment (Nelkin, 1973, p. 7). There has been research that has assessed these negative perceptions, but not much has been done to address the stigma that patients encounter when trying to receive services from mental health providers. Furthermore, clients were becoming stigmatized for using the clinics on top of being already stigmatized due to their opiate dependency. Society's negative perceptions interfered with clients utilizing the clinics.

Social Support

Studies have indicated that social support for individuals with a substance use disorder and a mental health problem, "plays an important role in enhancing and maintaining [their] physical as well as mental health" (Bertera, 2005, p. 33). Hence, social support is vital in

the lives of those suffering from a mental health disorder and a substance use problem which, if lacking, can result in depressive symptomology. If individuals are not encountering necessary support, whether from family or friends, it can cause escalation in loneliness and isolating behaviors. Research "[has] repeatedly found that people who receive a high level of social support enjoy enhanced health and well-being, improved physical health, less depression, improved life satisfaction and less loneliness" (Chalise, Kai, & Saito, 2010, p. 116). If individuals reconnect with others in a healthy and supportive environment the likelihood of management of their mental and substance disorders is likely to increase.

When individuals are faced with critical issues that affect their everyday living, it has been confirmed that they require some form of support to help them accomplish their everyday tasks. This type of support is widely known as social support, which can be given formally and informally. Formal support is the support clients receive from their professional providers and informal support is the support they receive outside of treatment such as friends, family, and society as a whole. Having social

support networks "help[s] to buffer stress and depression and enhance [an] individual's morale and well being" (Chalise et al., 2010, p. 116).

There are three types of social support that people are in need of: informational support that offers advice and guidance, the concrete support that looks at tangible help and assistance, and finally emotional support that includes the giving of encouragement. According to Tracy Munson, Peterson, and Floersch (2010), "the most commonly cited extra therapeutic factor that help people stay substance free [is] the emotional and practical support supplied by family members, friends or both" (p. 260).

In the context of recovery, individuals with a mental disorder who hope to live substance free, have difficulty finding the support that they need to deal effectively with their conditions. In order for them to be successful in treatment, it has been found that "support within the treatment setting and social support outside of treatment appear to be significant factors in treatment progress and outcome" (Tracy et al., 2010, p. 260). Social support is given by expressing the acceptance, affection, and understanding a person might need in difficult times of recovery.

People, who are faced with a substance abuse problem and a mental health problem, need the support that they can receive in order to have a successful recovery. In the social work arena, social support systems are a way to determine a person's level of functioning. Therefore, people with a substance use and a mental health disorder "have vital needs that can only be met through affiliation with supportive systems" (Hepworth et al., 2010, p. 220). There are many benefits that can come out of having a supportive system for people with a co-occurring disorder such as those described by Hepworth et al. (2010)

1. Attachment, provided by close relationships that give a sense of security and sense of belonging
2. Social integration, provided by memberships in a network of people who share interests and values
3. The opportunity to nurture others, which provides incentives to endure in the face of adversity

4. Physical care when persons are unable to care for themselves due to illness, incapacity, or severe disability
5. Validation of personal worth (which promotes self-esteem), provided by family and colleagues
6. A sense of reliable alliance, provided primarily by kin
7. Guidance, child care, financial aid, and other assistance in coping with difficulties as well as crises (p. 220).

Theories Guiding Conceptualization

There are numerous theories to guide the researcher and help understand the circumstances of stigmatization and its effects on social support. The two theories that affect a client's system are social justice theory and empowerment theory. These theories will explain how these concepts could intervene with methadone treatment clinics. By developing a critical consciousness it will help "not only [to] recognize how society operates to foster oppression, but...also [continue] to observe and gain knowledge about oppressive social structures"

(Hardina, 2002, p. 24) even within social support networks of this population.

Social justice theory is used widely in the generalist social work arena. This theory places social workers "on the side of groups who have experienced oppression" (Hardina, 2002, p. 26). When looking at the literature review, it is apparent that people who are addicted to opiates and have been on methadone have been stigmatized by society and even professional providers due to their personal biased perceptions. According to Hardina, "to work for social justice, social workers must...[fight] against organizational and professional practices that are harmful" to clients (p. 26). Social justice is the "values that support justice and fairness to individuals" such as clients on methadone treatment (p. 26). Individuals who find themselves needing to receive methadone maintenance treatment (MMT), should not be perceived as any different than someone who receives medical treatment.

The NASW code of ethics guides understanding regarding values. Values need to "promote social justice and social change with and on behalf of clients" (MSW Student Handbook, 2009). The way this change will be

accomplished is by exploring the perceptions of familial and peer networks to uncover how this can be helpful or harmful to clients. According to Hepworth et al. (2006), "The experiences of people, especially those without power, and the conditions they face should prompt all social workers to analyze social problems and conditions using the lens of social justice and to assess whether civil and human rights are being violated" (p. 414) especially in social support networks.

Additionally, empowerment theory states that "groups or communities can act to prevent problems, gain or regain the capacity to interact with the social environment" (Hepworth et al., 2006, p. 414). It was expected that exploring the clients perceptions of his or her perceived social support network can lead to insight on positive interventions for the wellbeing of MMT clients. According to the empowerment perspective, "issues of power (and powerlessness) are inextricably linked to the experiences of oppression" (Hepworth et al., 2006, p. 414).

It has been proven through the literature review that opiate dependent clients have experienced some type of oppression in the past due to being on methadone

treatment which has only produced "a history of discrimination, stigma, and oppression" (Hepworth et al., 2006, p. 414). This power struggle does not help the growth of social support within its own environment. Instead, issues of power only create harmful problems that can destroy people's lives. Empowerment practice is essential in this study because "oppressed people often internalize their treatment by the dominant culture and thus acquire negative self-images" (Hardina, 2006, p. 21).

Summary

The prevalence of substance use disorder in the United States is rampant and increasing each year. The detriment to the individual is high but, also, to society as a whole. However, even with treatment options society has chosen to ostracize those receiving MMT services due to personal bias, ultimately, causing a hiatus in the social support networks of these individuals. Research has shown that social support is essential to higher outcomes of success than those without any social support. Needless to say, it is important for clinicians to integrate aspects of social support in treatment with

substance use disorder as a means of increasing success rates among treatment seeking individuals.

CHAPTER THREE

METHODS

Introduction

This chapter will cover the steps that were taken to conduct the research such as the phases of collecting, recording, and analyzing the data. The first step was study design. This presents an overview of the study purpose, where the question is clearly stated along with its limitations to the study. Second, it describes how the data was sampled and obtained. Issues regarding time and resources were further explored along with the procedure used for conducting research in a timely manner. From this, the data collection and instrument are described including its use of dependent and independent variables. Also explained are the procedures of the study and how data was gathered using surveys. Finally, the data was analyzed through quantitative analysis.

Study Design

The purpose of the study was to explore the correlation between perceived stigmatization and its probable effects on social support. The study was quantitatively based through the responses of

participants in numerical values given to each response. Through descriptive data gathering, researchers "describe[d] and [quantified] variables and relate[d] them to each other" (Grinnell & Unrau, 2011, p. 477). This was useful in exploring the relationship between perceived stigmatization in familial and friendship units and the perceived support which assists in the understanding of current trends between the two. The question was as followed: Does stigmatization of methadone maintenance treatment within family and friend units have any correlation with perceived social support?

Sampling

In this study, individuals participating in Narcotics Anonymous (NA) were the sample and focus of the study or sampling units. This sample represented individuals on methadone maintenance treatment receiving support from this group setting. This population represents individuals' with both a substance use and mental health disorder in general. Although the agency serves a large number of clients with various types of substance use disorders, the researchers informed the group of the need for only methadone maintenance

treatment users for this study. The sample size was fair for two students and doable due to conducting the research in the NA meetings at one particular facility due to its availability 7 days a week, numerous times throughout the day. There are a total of 3-4 meeting times daily which gave the researchers a large population to conduct research at different times in the day, every day of the week.

Access to the client population was gained after approval from the NA leaders. This group did not have its own human subjects review process; therefore, it required less time to get an approval and allowed more time to conduct the research.

A survey was conducted at various NA meetings where members were invited to participate. The surveys were distributed to the clients before and after meetings began. Researchers also utilized snowball sampling when presenting the surveys to the members. The sample represents the number of individuals that completed surveys for the study.

Not every member in the NA meetings were able to participate in the study based on their substance use history, however, they were all welcome to enjoy

complimentary refreshments provided by the researchers. This participation did not affect members over other members in the NA meetings. Participants were represented fairly using operational construct sampling. This type of sample allowed for a substantial number of cases from a clearly defined population, clients specifically on methadone maintenance treatment. Every qualifying member of the group was allotted the opportunity to participate in the study in attempt to unveil the relationship, if any, of perceived stigmatization and social support.

Also, snowball sampling was utilized during this study by asking NA members if they had any other potential participants for this study. Through their recommendation, a greater number of participants were found and, ultimately, assisted in increasing our research sample size.

Data Collection and Instruments

The data was collected on the individual's perception of his or her social networks' views of methadone maintenance treatment and its effects on social integration and interaction, e.g. "my family and friends have made me feel ashamed because of methadone

maintenance treatment." Also examined were the effects of such bias on the individual's ties, or lack there of, with their social support network, e.g. "how many relatives and family do you see or hear from twice a month?" The dependent variable was the individual's social support network because it could potentially result in difficulty with familial values, norms, and bias of the stigmatization of methadone maintenance treatment. Therefore, the independent variable was the perceived stigmatization of the participant because of its possible affects on social support networks.

Stigmatization Scale

Stigmatization in the family and peer system was measured in this study through a series of 20 questions on the individual's perceived acceptance (See Appendix A). Questions were derived, and altered, from "the stigma scale" which was also a derivative of the Internalized Stigma of Mental Illness Scale created in 2003 according to Boyd. The test-retest reliability of this particular scale indicated that 7 of the 42 original questions were removed while those with a "kappa coefficient of 0.4 or greater were retained and subjected to common factor analysis" (King et al., 2007, p. 249).

With this being said, revisions of the statements for new study were taken into consideration based on the original scale results. The stigma scale by King et al. (2007) showed that "people with psychosis or drug dependence were most likely to report feelings and experiences of stigma and were most affected by them" (p. 248) showing the effectiveness of the scale for individual perception of outside stigmatization which is a main focus of this study. The revisions of questions were formulated to fit the theme of family and friend networks and methadone maintenance treatment, rather than mental illness and society as a whole, which was the focus of the original scale.

King et al. (2007), also found that this scale "directly reflects the lived experience of stigma and may help us to extend our current theoretical concepts (p. 252) and was felt to contribute "usefully to our understanding of processes that affect help-seeking, treatment uptake and outcome of mental illness" (p. 253). A limitation of this scale indicated that it "did not examine how stigma varied with the demographic and clinical characteristics of participants, as they might not have been representative of all people with mental

health problems" thus, "the instrument needs further evaluation in larger groups of patients in distinct diagnostic groups or in particular settings" (King et al., 2007, p. 253) such as patients in methadone maintenance based treatment clinics.

Statements were measured on a Likert scale which "reflect the extent to which a respondent holds a particular attitude or feeling" (Grinnell & Unrau, 2011, p. 340) with two possible responses: agree and disagree. Measurements will be numerically quantitative data as followed: agree = 1 and disagree = 2.

Lubben's Social Network Scale

Lubben's Social Network Scale (LSNS-6) (See Appendix B), revised in 2002, is

> a brief instrument designed to gauge social isolation in older adults by measuring perceived social support received by family and friends... [and] consists of an equally weighted sum of 10 items used to measure size, closeness and frequency of contacts of a respondent's social network. (Lubben & Gironda, 2004)

Although this scale is primarily utilized in studies of older adults, its importance to this study was due to its

focus on the client's perceived social support from family and friends. This particular instrument, although brief, has been utilized in various settings including doctor's offices, clinics, and hospitals. It has been modified to the LSNS-R to "better specify and distinguish the nature of family, friendship and neighborhood social networks...and...distinguish between kin and non-kin" (Lubben & Gironda, 2004) in a brief and consistent matter which illustrates the perceived support of the individual by his or her family and friend units added to form a scale.

Demographic information was also utilized for correlation purposes during data analysis. Variables utilized were age, gender, marital status, race, religious affiliation, and period of time in methadone maintenance treatment. Age, gender, marital status, race, religion and length of time in treatment were given a nominal value such as, male = 1 and female = 2, single = 1, married = 2, separated = 3, divorced = 4, ect. Data will be input into the SPSS system for analysis following data gathering phase.

Procedures

Data was gathered at various NA meetings, in the lobby area. Participants were informed of the study before conduction of data retrieval through posters and fliers throughout the facility explaining the research. Researchers set up a table in the lobby area and engaged the clients by providing complimentary refreshments, whether or not they chose to participate in the study. Another incentive used to engage participation was through a raffle where winners had the opportunity to win gift certificates to restaurants, grocery stores, and entertainment venues, again, with no obligation to participate in study. A raffle was conducted after completion of the data collection phase and winners were announced throughout the facility. During the engagement phase, the study focus was explained to potential participants including informed consent, confidentiality, and the importance of the research topic in regards to treatment and future clinicians.

Surveys were available for clients throughout the week when researchers were not present at NA locations. Also, a drop box was available for participants to drop off completed surveys at any time. This was to ensure the

clients that their confidentiality was secured and that surveys could be left at any time without disclosure of participation. Drop box surveys were collected two to three times a week when researchers were present.

Protection of Human Subjects

The confidentiality and anonymity of clients were protected at all times. To do this, a procedure was taken to ensure that clients were not harmed by participating in this study in any way. The School of Social Work Sub-Committee, of the CSUSB IRB, requires that an application be first submitted to their department describing the steps taken to protect human subjects when conducting the research project. During the research data collection phase, clients were invited to participate in the study and their consent to participate was voluntarily. Equally important, potential participants were assured that their participation was voluntary and in no way affect the individuals' membership to Narcotics Anonymous. To ensure that their confidentiality and anonymity was protected, the surveys had a cover letter (See Appendix B) that stated the purpose of the research, risk and benefits for participation, the consent to

participate voluntarily, the right to discontinue the research, and how confidentiality was protected. If they decided to participate, the research was explained to them thoroughly and clearly in basic language. Clients were asked to put a check mark at the bottom of the cover letter for their consent to participate as a sign of approval or consent. Furthermore, an envelope was provided where they sealed in their surveys and put them in a drop box. This also ensured that no bias is formed toward the clients.

Data Analysis

Based on descriptive analysis, researchers used frequency count through bivariate analysis on the SPSS computer data system. Variables for the stigmatization scale were given a nominal value such as: agree= 0 and disagree= 1. Results were then analyzed based on frequency of scale scores through One-Way ANOVA and Independent-Sample t test. Also, the Lubben's Social Support Scale responses were analyzed using the same procedures to create interval subscales.

Concluding bivariate analysis, the researchers focused on aspects of correlation between responses to

both instruments using Pearson r Correlation tests. The survey responses were used to explore a connection or relationship between stigmatization within family and friend units and perceived social support, i.e., dependent and independent variables. This will be conducted through bivariate analysis.

Summary

This chapter explained the usage of quantitative descriptive design to explore the correlation between perceived stigmatization and its probable effects on social support. The sample represented individuals on methadone maintenance treatment in attendance at various Narcotics Anonymous meetings, which allowed for a substantial number of cases from a clearly defined population. The independent variable was indicated to be the perceived stigmatization of the family on the individual which could potentially have an effect on social support. The dependent variable was the individual's actual social support, or lack thereof. The scales used were Lubben's Social Support Scale and the adapted Stigma Scale, along with client demographic information. Data collection procedures were discussed

with its protection of human subjects. Data analysis included both univariate and bivariate descriptive research.

Table 1. Timetable of Activities

Date	Activities
2/16/2011	Distribution of flyers throughout facility, i.e. bulletin boards and lobby area
02/18/2011	First day of data gathering at various NA meetings, engagement phase w/ refreshments
02/22/2011	Data gathering w/ refreshments, survey pick-up
02/24/2011	Survey distribution w/ refreshments, survey pick-up
03/1/2011	Survey distribution w/ refreshments, survey pick-up
03/3/2011	Data gathering
03/8/2011	Data gathering and survey pick-up
03/10/2011	Data gathering w/ refreshments, Survey pick-up
03/15/2011	Last day of Data gathering w/ refreshments, survey pick-up, and raffle of prizes

CHAPTER FOUR

RESULTS

Introduction

This chapter discusses the results of univariate and bivariate analysis demonstrated through frequency counts, independent-sample t tests, Pearson r correlations, and one-way ANOVA tests to describe the sample, determine the extent to which perceived stigmatization is related to social support, and whether this differs by the sociodemographic variables, gender, age, religion, marital status, as well as years spent in Methadone Maintenance Treatment. Findings are represented with appropriate statistics.

Presentation of the Findings

All 80 participants had a history of receiving Methadone Maintenance Treatment and were aged 18 or older: 7.5% (n = 6) were 18-25; 20% (n = 16) 26-35; 25% (n = 20) 36-45; 23.8% (n = 19) 46-55; 20% (n = 16) 56-65; 2.5% (n = 2) were 66 and above. Almost half the sample (48.8%) was Caucasian, 37.5% were Hispanic, 8.8% were African American, 2.5% were Native American, 1.3% were Asian Pacific Islander, and 1.3% were Other.

Furthermore, 46.3% were single, never married, 23.8% were married, 12.5% were divorced, 11.3% were separated, and 5% were widowed. Concurrently, almost half (45%) identified themselves as Christians, 18.8% as Catholics, 13.8% as Other, 3.8% as Buddhist, 1.3% as Jewish, and 17.5% chose not to answer.

More than half of the participants (56.3%) were male and 43.8% were female. Of those receiving MMT, 45% reported being in treatment 1-5 years (n = 36); 27.5% less than a year (n = 22); 18.8% more than 10years (n = 15); 7.5% 6-10 years (n = 6); and 1.3% chose not to answer.

Independent-Sample T-Test

An independent-sample t test was conducted to determine if there was a statistically significant difference between mean scores by gender on perceived stigmatization by family members. The result suggests a that there is a statistically significant difference in perceived stigma scores by gender ($t(69) = 4.707$, $p < .05$). The mean of the female participants was significantly lower ($m = 28.22$, $sd = 4.32$) than the mean of the control group or male participants ($m = 32.64$, $sd = 3.59$). These results suggested that males

experienced more perceived stigma from family than females.

Furthermore, an independent- sample t test was conducted to determine if statistically significant gender differences existed in perceived stigmatization by friends. The result suggested that there was no statistically significant difference found between the means of the two groups ($t(65) = 1.248$, $p > .05$). The mean of the female participants was not significantly different ($m = 31.65$, $sd = 3.99$) from the mean of the male participants ($m = 32.89$, $sd = 4.13$). These results suggested that there is not a statistically significant difference in perceived stigma from friends by gender. Specifically, both males and females are not that different in perceived stigma from friends.

As part of our exploratory study, an independent-sample t test was conducted to assess for mean differences between male and female participants who felt that they had social support from friends and family.

We found that when we compares social support from family members between the genders, no significant difference was found between the means of the two groups ($t(66) = 1.314$, $p > .05$). The mean of the female

participants was not significantly different (m = 21.57, sd = 7.43) from the mean of the male participants (m = 23.93, sd = 7.15). These results suggested that there is not a statistically difference in social support from family by gender.

When using the independent-sample t test to compare social support from friends by gender, no significant difference was found between the means of the two groups (t(72) = -.453, p > .050. The mean of the females was not significantly different (m = 24.73, sd = 7.15) from the mean of the male participants (m = 23. 93, sd = 7.86). These results suggested that there is not a statistically significant difference in social support from friends by gender.

Table 2. Results of T-Tests for Perceived Stigma by Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Perceived Stigmatization by Family	Male	39	32.64	3.594	.576
	Female	32	28.22	4.323	.764
Perceived Stigmatization by Friends	Male	36	32.89	4.132	.689
	Female	31	31.65	3.988	.716

Table 3. Results of T-Tests for Social Support (LSNS-6) by Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Social Support (LSNS-6) from Family	Male	40	23.93	7.148	1.130
	Female	28	21.57	7.436	1.405
Social Support (LSNS-6) from Friends	Male	41	23.93	7.863	1.228
	Female	33	24.73	7.147	1.244

Table 4. Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Perceived Stigmatization by Family	Equal variances assumed	3.825	.055	4.707	69	.000	4.422	.939	2.548	6.296
	Equal variances not assumed			4.622	60.309	.000	4.422	.957	2.509	6.336
Perceived Stigmatization by Friends	Equal variances assumed	.454	.503	1.248	65	.216	1.244	.996	-.746	3.233
	Equal variances not assumed			1.252	64.129	.215	1.244	.994	-.741	3.229
Social Support (LSNS-6) from Family	Equal variances assumed	.579	.450	1.314	66	.193	2.354	1.791	-1.222	5.929
	Equal variances not assumed			1.305	56.781	.197	2.354	1.803	-1.258	5.965
Social Support (LSNS-6) from Friends	Equal variances assumed	.228	.634	-.453	72	.652	-.800	1.766	-4.322	2.721
	Equal variances not assumed			-.458	70.892	.648	-.800	1.748	-4.286	2.685

Pearson r Correlation Test

Pearson r correlations for bivariate analyses were generated to assess the strength of linear relationships between the amount of years in MMT and the clients' perceived stigmatization from families, and from friends. A significant positive linear relationship between the number of years in MMT and the increase of stigmatization from family members was found ($r(69) = .325^{**}$, $p < .001$). This suggests that as the amount of years in MMT increases, the level of perceive stigmatization by family members also increases.

With regards to the number of years in MMT and perceived stigmatization from friends, there was no evidence of either a positive nor negative linear relationship between the two ($r(69) = .154$, $p < .001$). In other words, there was no significance in the amount of years in MMT with perceived stigmatization by family support systems.

Table 5. Results of Pearson r Correlation Coefficient between Years Spent in Methadone Maintenance Treatment (MMT) Program and Perceived Stigmatization by Family

		Years in MMT	STIGMA SCALE - A
Years in MMT	Pearson Correlation	1	.325**
	Sig. (2-tailed)		.006
	N	79	70
Perceived Stigmatization by Family	Pearson Correlation	.325**	1
	Sig. (2-tailed)	.006	
	N	70	71

**. Correlation is significant at the 0.01 level (2-tailed).

Table 6. Results of Pearson r Correlation Coefficient between Years Spent in Methadone Maintenance Treatment (MMT) Program and Perceived Stigmatization by Friends

		Years in MMT	STIGMA SCALE - B
Years in MMT	Pearson Correlation	1	.154
	Sig. (2-tailed)		.217
	N	79	66
Perceived Stigmatization from Friends	Pearson Correlation	.154	1
	Sig. (2-tailed)	.217	
	N	66	67

A Pearson r correlation coefficient was generated to show the strength of a linear relationship between the amount of years in MMT and perceived social support from family and from friend support systems, if any. Our result showed that there was no statistically significant linear relationship between the amount of years spent in MMT and social support from family ($r(65) = .153$, $p < .001$) (Table 6) or from friends ($r(72) = .057$, $p > .05$) (Table 7).

Table 7. Pearson r Correlation Coefficient, Years Spent in Methadone Maintenance Treatment, and Social Support from Family

		Years in MMT	LUBBEN SCALE - A
Years in MMT	Pearson Correlation	1	.153
	Sig. (2-tailed)		.216
	N	79	67
Social Support from Family	Pearson Correlation	.153	1
	Sig. (2-tailed)	.216	
	N	67	68

Table 8. Pearson r Correlation Coefficient, Years Spent in Methadone Maintenance Treatment and Social Support from Friends

		Years in MMT	LUBBEN SCALE - B
Years in MMT	Pearson Correlation	1	.057
	Sig. (2-tailed)		.629
	N	79	73
Social Support from Friends	Pearson Correlation	.057	1
	Sig. (2-tailed)	.629	
	N	73	74

Social Support from Family by Years in Methadone Maintenance Treatment

One-way ANOVA Test

A one-way ANOVA was used to compare the means between the participant's perceived family social support with years in MMT (Table 8). There was not a significant difference found among years in treatment ($F(3, 63) = .68$, $p > 0.05$). Participants who were in treatment less than a year had a mean score of 20.86 (sd = 6.99). Participants in treatment 1-5 years had a mean score of 22.85 (sd = 7.96). Participants in treatment 6-10 years had a mean score of 25.40 (sd = 7.70) and participants in treatment 10 years or more had a mean score of 24.13 (sd = 6.29).

Table 9. One-way ANOVA Test Results for Years in Methadone Maintenance Treatment and Social Support from Family

Years in MMT	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Less than a year	14	20.86	6.993	1.869	16.82	24.89
1-5 years	33	22.85	7.961	1.386	20.03	25.67
6-10 years	5	25.40	7.701	3.444	15.84	34.96
More than 10 years	15	24.13	6.289	1.624	20.65	27.62
Total	67	22.91	7.352	.898	21.12	24.70

ANOVA

LUBBEN SCALE - A

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	112.573	3	37.524	.684	.565
Within Groups	3454.890	63	54.840		
Total	3567.463	66			

Stigma from Family with Years in Methadone Maintenance Treatment

A one-way ANOVA was used to compare the means between the participant's perceived familial stigmatization and their years in MMT (Table 9). There was a statistically significant difference found among years in treatment ($F(3,66) = 2.62$, $p < 0.05$). Tukey's HSD post-hoc was used to determine the nature of the

differences between stigmatization based on years in treatment (Table 10). This analysis revealed that those who have been in treatment less than a year are less likely to experience stigmatization by family (m = 28.82, sd = 4.67) than those who have been in treatment over a 10-year period (m = 32.93, sd = 3.01).

Table 10. One-way ANOVA Test Results for Years in Methadone Maintenance Treatment and Stigmatization from Family

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.
					Lower Bound	Upper Bound	
Less than a year	17	28.82	4.667	1.132	26.42	31.22	23
1-5 years	33	30.24	4.711	.820	28.57	31.91	24
6-10 years	5	32.00	4.123	1.844	26.88	37.12	27
More than 10 years	15	32.93	3.011	.777	31.27	34.60	27
Total	70	30.60	4.509	.539	29.52	31.68	23

Years in Methadone Maintenance Treatment					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	149.335	3	49.778	2.621	.058
Within Groups	1253.465	66	18.992		
Total	1402.800	69			

Table 11. Tukey HSD Post Hoc Test for Years in Methadone Maintenance Treatment and Stigmatization from Family

(I) Years in MMT	(J) Years in MMT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than a year	1-5 years	-1.419	1.301	.696	-4.85	2.01
	6-10 years	-3.176	2.217	.484	-9.02	2.67
	More than 10 years	-4.110*	1.544	.047	-8.18	-.04
1-5 years	Less than a year	1.419	1.301	.696	-2.01	4.85
	6-10 years	-1.758	2.091	.835	-7.27	3.75
	More than 10 years	-2.691	1.357	.205	-6.27	.89
6-10 years	Less than a year	3.176	2.217	.484	-2.67	9.02
	1-5 years	1.758	2.091	.835	-3.75	7.27
	More than 10 years	-.933	2.250	.976	-6.86	5.00
More than 10 years	Less than a year	4.110*	1.544	.047	.04	8.18
	1-5 years	2.691	1.357	.205	-.89	6.27
	6-10 years	.933	2.250	.976	-5.00	6.86

*. The mean difference is significant at the 0.05 level.

Table 12. Tukey HSD Post-Hoc Test for Years in Methadone Maintenance Treatment and Stigmatization from Family

Years in MMT	N	Subset for alpha = 0.05
Less than a year	17	28.82
1-5 years	33	30.24
6-10 years	5	32.00
More than 10 years	15	32.93
Sig.		.124

Social Support of Friends with Years in Methadone Maintenance Treatment

A one-way ANOVA was used to compare the means between the participants' perceived friends' social support and their years in MMT (Table 12). A significant difference was found among years in treatment ($F(3, 69) = 2.85$, $p < 0.05$). Tukey's HSD post-hoc was used to determine the nature of the differences between social supports based on years in treatment (Table 13). This analysis revealed that those in treatment less than a year have less social support from friends ($m = 20.61$, $sd = 6.78$) than those who have been in treatment over a year ($m = 26.44$, $sd = 7.33$).

Table 13. One-way ANOVA Test Results for Years in Methadone Maintenance Treatment and Social Support from Friends

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.
					Lower Bound	Upper Bound	
Less than a year	18	20.61	6.784	1.599	17.24	23.98	7
1-5 years	36	26.44	7.331	1.222	23.96	28.92	6
6-10 years	5	25.80	8.044	3.597	15.81	35.49	14
More than 10 years	14	22.79	7.547	2.017	18.43	27.14	6
Total	73	24.26	7.561	0.885	22.50	26.02	6

Years in Methadone Maintenance Treatment

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	453.731	3	151.244	2.850	.044
Within Groups	3662.324	69	53.077		
Total	4116.055	72			

Table 14. Tukey HSD Post-Hoc Test for Years in Methadone Maintenance Treatment and Social Support from Friends

(I) Years in MMT	(J) Years in MMT	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than a year	1-5 years	-5.833*	2.103	.035	-11.37	-0.30
	6-10 years	-5.189	3.683	.498	-14.89	4.51
	More than 10 years	-2.175	2.596	.836	-9.01	4.66
1-5 years	Less than a year	5.833*	2.103	.035	.30	11.37
	6-10 years	.644	3.477	.998	-8.51	9.80
	More than 10 years	3.659	2.295	.389	-2.38	9.70
6-10 years	Less than a year	5.189	3.683	.498	-4.51	14.89
	1-5 years	-.644	3.477	.998	-9.80	8.51
	More than 10 years	3.014	3.796	.857	-6.98	13.01
More than 10 years	Less than a year	2.175	2.596	.836	-4.66	9.01
	1-5 years	-3.659	2.295	.389	-9.70	2.38
	6-10 years	-3.014	3.796	.857	-13.01	6.98

*. The mean difference is significant at the 0.05 level.

Years in MMT	N	Subset for alpha = 0.05
Less than a year	18	20.61
More than 10 years	14	22.79
6-10 years	5	25.80
1-5 years	36	26.44
Sig.		.237

Stigmatization from Family with Years in Methadone Maintenance Treatment

A one-way ANOVA was used to compare the means between the participant's perceived friend stigmatization and their years in MMT (Table 14). There was not a significant difference found among years in treatment ($F(3,62) = 2.47$, $p>0.05$), however, it came close to being significant. Participants in treatment less than a year had a mean score of 30.00 (sd = 5.33). Participants in treatment 1-5 years had a mean score of 33.29 (sd = 3.37); participants in treatment 6-10 years had a mean score of 32.80 (sd = 3.03); and, participants in treatment 10 years and above had a mean score of 32.43 (sd = 3.65).

Table 15. One-way ANOVA Test Results for Years in Methadone Maintenance Treatment and Stigmatization from Friends

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Less than a year	16	30.00	5.329	1.332	27.16	32.84
1-5 years	31	33.29	3.368	.605	32.05	34.53
6-10 years	5	32.80	3.033	1.356	29.03	36.57
More than 10 years	14	32.43	3.652	.976	30.32	34.54
Total	66	32.27	4.101	.505	31.26	33.28

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	116.475	3	38.825	2.465	.071
Within Groups	976.616	62	15.752		
Total	1093.091	65			

Lubben Social Support Network Scale (for Family) with Age

A one-way ANOVA was used to compare the means between the participant's perceived familial social support and the age of participants (Table 15). There were no statistically significant differences found among participant ages ($F(5, 61) = 1.05$, $p > 0.05$); participants aged 18-25 had a mean score of 19.40 ($sd = 4.62$); participants aged 26-35 had a mean score of

22.31 (sd = 5.69); participants aged 36-45 had a mean score of 22.38 (sd = 8.76); participants aged 46-55 had a mean score of 26.19 (sd = 6.87); participants aged 56-65 had a mean score of 21.47 (sd = 8.19); participants aged 66 and above had a mean score of 25.00 (sd = 4.24).

Table 16. One-way ANOVA Test Results for Participants' Age and Family Social Support

Age	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min.
					Lower Bound	Upper Bound	
18-25	5	19.40	4.615	2.064	13.67	25.13	14
26-35	13	22.31	5.692	1.579	18.87	25.75	13
36-45	16	22.38	8.755	2.189	17.71	27.04	8
46-55	16	26.19	6.872	1.718	22.53	29.85	14
18-25	5	19.40	4.615	2.064	13.67	25.13	14

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	282.737	5	56.547	1.048	.398
Within Groups	3289.890	61	53.933		
Total	3572.627	66			

Age and Stigmatization from Family

A one-way ANOVA was used to compare the means between the participant's perceived familial

stigmatization and their years in age (Table 16). There was a statistically significant difference found among the participant's ages and their perceived stigmatization from family ($F(5, 65) = 3.67$, $p < 0.05$). Turkey's HSD post-hoc was used to determine the nature of the differences between stigmatization based on participant years of age (Table 17). This analysis revealed that those participants aged 36-45 are less likely to experience stigmatization by family ($m = 28.61$, $sd = 4.67$) than those aged 56-65 who are more likely to experience stigmatization from family ($m = 33.64$, $sd = 2.90$).

Table 17. One-way ANOVA Test Results for Participants' Age and Stigmatization from Family

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
18-25	5	27.80	4.087	1.828	22.73	32.87
26-35	15	29.33	4.546	1.174	26.82	31.85
36-45	18	28.61	4.667	1.100	26.29	30.93
46-55	17	32.06	3.944	.957	30.03	34.09
56-65	14	33.64	2.898	.775	31.97	35.32

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	311.631	5	62.326	3.674	.005
Within Groups	1102.567	65	16.963		
Total	1414.197	70			

Table 18. Tukey HSD Post-Hoc Test for One-way ANOVA Test Results for Participants' Age and Stigmatization from Family

(I) Current age	(J) Current age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18-25	26-35	-1.533	2.127	.979	-7.78	4.71
	36-45	-.811	2.082	.999	-6.92	5.30
	46-55	-4.259	2.095	.336	-10.41	1.89
	56-65	-5.843	2.146	.084	-12.14	.46
	66 and above	-5.200	3.446	.660	-15.32	4.92
26-35	18-25	1.533	2.127	.979	-4.71	7.78
	36-45	.722	1.440	.996	-3.51	4.95
	46-55	-2.725	1.459	.431	-7.01	1.56
	56-65	-4.310	1.531	.068	-8.80	.18
	66 and above	-3.667	3.100	.843	-12.77	5.44
36-45	18-25	.811	2.082	.999	-5.30	6.92
	26-35	-.722	1.440	.996	-4.95	3.51
	46-55	-3.448	1.393	.147	-7.54	.64
	56-65	-5.032*	1.468	.013	-9.34	-.72
	66 and above	-4.389	3.070	.709	-13.40	4.63
46-55	18-25	4.259	2.095	.336	-1.89	10.41
	26-35	2.725	1.459	.431	-1.56	7.01
	36-45	3.448	1.393	.147	-.64	7.54
	56-65	-1.584	1.486	.893	-5.95	2.78
	66 and above	-.941	3.079	1.000	-9.98	8.10
56-65	18-25	5.843	2.146	.084	-.46	12.14
	26-35	4.310	1.531	.068	-.18	8.80
	36-45	5.032*	1.468	.013	.72	9.34
	46-55	1.584	1.486	.893	-2.78	5.95
	66 and above	.643	3.113	1.000	-8.50	9.78
66 and above	18-25	5.200	3.446	.660	-4.92	15.32
	26-35	3.667	3.100	.843	-5.44	12.77
	36-45	4.389	3.070	.709	-4.63	13.40
	46-55	.941	3.079	1.000	-8.10	9.98
	56-65	-.643	3.113	1.000	-9.78	8.50

*. The mean difference is significant at the 0.05 level

Table 19. Tukey HSD Post-Hoc Test for One-way ANOVA Test Results for Participants' Age and Stigmatization from Family

Current age	N	Subset for alpha = 0.05
18-25	5	27.80
36-45	18	28.61
26-35	15	29.33
46-55	17	32.06
66 and above	2	33.00
56-65	14	33.64
Sig.		.134

Summary

This chapter showed that statistically significant differences were found when using independent-sample t tests, Pearson r Correlation tests, and one-way ANOVA tests. Significant differences were found in the amount of years in treatment when compared to family and friend social support along with significant differences in participant's perceived stigmatization of family and friends with the number of years in MMT. When comparing participant's age with level of stigmatization from family and friends, responses revealed significant differences between two age groups: those 36-45 years of

age and those 56-65 years in age. Furthermore, a comparison was made between social support and stigmatization with gender differences in which the results suggested that males experienced more perceived stigma from family than females. Lastly, comparisons were made using ANOVA tests to compare demographical information which illustrated no significant difference found in relation to marital status, religion or race.

CHAPTER FIVE

DISCUSSION

Introduction

The analysis of this study demonstrates the importance of positive social support, whether from family or friends, as an essential component in the recovery process of drug and alcohol users. This chapter will discuss the statistically significant differences referenced in the last chapter along with implications for such results. Research limitations of this study are mentioned along with recommendations for social work practice, policy, and future research.

Discussion

The objective of this study was to explore the correlation between perceived stigmatization and its effects on social support. To accomplish this, we broke down our questions into two categories: participant's perceived stigmatization and their perceived social support from friends and family. The participants' stigmatization from family might be explained according to gender. This impact is found in males (32.6%) more than females (28.2%). This difference might be explained

by the way women are more dependent on family members for their recovery. "Early research [has] suggested[ed] that...women...tend to rely heavily on...parents and partners as their major providers of practical help and advice" (Lewandowski & Hill, 2009, p. 214). As the results suggested, men seem to rely more on friends and feel that they are less likely to be stigmatized by them than their family members. By contrast, women feel that they can rely on family equally as they can rely on friends without feeling stigmatized. Women seem to report that they feel "satisfied with the support they receive from family and friends" as well as feeling less stigmatized by them (Lewandowski & Hill, 2009, p. 214). Men, on the other hand, report feeling satisfied by the support they receive from family and friends but feel that they are more likely to be stigmatized by family, which can be due to the way men feel about depending on family or relying on them for help. Women feel that "the family of origin, especially mothers, grandmothers, and sisters, can be the chief providers of both emotional and material support" unlike men who have been known to be the chief providers for their own families (Lewandowski & Hill, 2009, p. 214). Furthermore, women may even have "better long-

term recovery outcomes compare to men" as they demonstrate better readiness to change (Rao et al., 2009, p. 268).

When comparing the means between the participants's perceived stigmatization and their years in age, significant difference was found between those participants aged 36-45 and those aged 56-65. Those who were 36-45 seem to experience less stigmatization from family members than those aged 56-65. This might be explained by the participant's years in treatment. The longer they are in treatment, the more stigmatization they might experience from family members as shown in Table 9. This might also mean that for some patients being on Methadone Maintenance Treatment might take years leading to "patient and family opposition" (Kleber, 2008, p. 3). According to Erikson's stages of development, those who experienced less stigmatization are in the stage of Intimacy vs. Isolation, while those who experience more stigmatization are in the stage of Generativity vs. Stagnation. This can be explained by Those who are in the stage of Intimacy vs. Isolation are more occupied with life's demands such as raising children and taking care of their family. They are

beginning to form relationships with friends and family. If they don't meet their own needs then it can lead to isolation in latter stages.

On the other hand, those in the Generative vs. Stagnation stage can be more disconnected to family as their children have become adults and they are now left to deal with life's losses on their own. "Recovering individuals may mourn the lack of children or life partner and wonder how their life may have been different without the disability… while some people reach this stage at advancing age, many come to this point while still fairly youthful" (Vogel-Scibilia et al., 2009, p. 411). These individuals may begin to establish healthy life patterns which can be explained by those who have been in treatment for an extended amount of time decrease their use of drugs and their use of seeking treatment becomes less appealing. Also it is during middle adulthood that patients with dual diagnosis might find themselves adjusting to physical changes and needing more help from family members to get the treatment necessary; therefore "family caregiving [can generally mean] experiencing a stressful process, with potentially negative…outcomes" for those who cannot take care of

themselves (Perrig-Chiello, 2010, p. 195). Family plays an important role in the lives of the aged and is an important source of social support.

Based on the positive linear relationship between MMT client's number of years in treatment and their perceptions of an increase in stigmatization from family members ($r(69) = .325^{**}$, $p < .001$) this study suggests that as the amount of years in MMT increases, the level of perceive stigmatization by family members also increases. This could be evident that underlying factors are arising throughout the course of treatment within the family unit. While family members may initially be supportive of the client's efforts in seeking alternative treatment when compared to self-medicating behaviors, as the years increase so does the stigmatization from family members who may feel that the treatment should be time-limited and not a life-long treatment. In fact, studies show that "family members with relatives with mental illness or drug dependence or both report that they are frequently harmed by public stigma" (Corrigan et al., 2006, p. 239) meaning that families are being stigmatized because of their family member's mental illness and usage of treatment services. This could potentially decrease a

family's acceptation of MMT being that they are also experiencing stigmatization.

To support the positive linear relationship between years in MMT with stigmatization as mentioned above, a one-way ANOVA was used to compare the means between the participant's perceived familial stigmatization and their years in MMT (Table 9). This test showed a statistically significant difference found among years in treatment ($F(3, 66) = 2.62$, $p < 0.05$) with stigma. This analysis revealed that those who have been in treatment less than a year are less likely to experience stigmatization by family ($m = 28.82$, $sd = 4.67$) than those who have been in treatment over a 10 year period ($m = 32.93$, $sd = 3.01$), supporting the outcome of the Pearson r Correlation. With this being said, it has been noted that there is an increase in "marginalization and stigmatization among those who end up in treatment for alcohol or drug problems" (Room, 2005, p. 152) which, based on this study, is received from family ($F(3, 66) = 2.62$, $p < 0.05$) more so than friends ($F(3, 62) = 2.47$, $p > 0.05$). This study possibly indicates that although clients perceive themselves has having substantial social support, they have identified that the interaction

between that family support is not necessarily positive, i.e. stigmatization from family. This could, in part, be related to the "occurrence of problems which are ascribed to the substance use: illness, violence, casualties, and failure in major social roles, particularly at work and in the family" (Room, 2005, p. 49) which, often times, is left into the hands of the family. For these reasons, it is important that social service agencies and practitioners are "[i]mproving the social reintegration of such treated populations, or implementing effective interventions" which will "require a better understanding of how and under what conditions the marginalization and stigmatization happens" (Room, 2005, p. 152) whether during the assessment or treatment phase of MMT.

Lastly, when comparing the means between the participants' perceived friends' social support and their years in MMT (Table 10) a significant difference was found among years in treatment ($F(3, 69) = 2.85$, $p < 0.05$) revealing that those in treatment less than a year have less social support from friends ($m = 20.61$, $sd = 6.78$) than those who have been in treatment over a year ($m = 26.44$, $sd = 7.33$). Research suggests that "entry and retention in opiate drug treatment is

associated with a reduction in the number of social network friends that use drugs and a reduction in the number of social network friends that inject drugs" (Lloyd et al., 2008, p. 418). This supports our findings of participant's perception of less social support when entering into treatment because they are possibly losing their social support of drug using friends once they enter into treatment. When compared to individuals in treatment more than a year there is an increase in perceived social support, many of which could possibly be other individuals seeking MMT alongside the participant. Once entering treatment, the individual may not know anyone in treatment, leaving them with a lower social support. As the individual attends treatment regularly, whether during daily dosage or groups, the individual is acclimating to the environment and meeting other individuals just like them. Social networks have been researched to have a "positive impact on opiate-dependent persons' QoL [and] stresses the need for establishing individuals' (non-professional) social networks during and after methadone treatment in order to enhance their social inclusion" (Maeyer et al., 2011, p. 146). Although an individual enters into treatment with little or no

social support, being around others who can empathize with the individuals struggles and life suggests the importance of "developing appropriate support systems for drug users who achieve abstinence" (Best et al., 2008, p. 624) which is often related to "social networks, including moving away from heroin-using friends and relying on support from non-using friends" (Best et al., 2008, p. 623) such as those in MMT.

Limitations

One of the limitations of this study is its usage of correlational research in which variables were utilized to predict one from another, i.e. social support with stigmatization. By doing so, researchers hoped to demonstrate a causal relationship between the variables, however, by doing so we are ruling out all alternative explanations which may exist. Also, it is important to understand that we cannot make causal conclusion from the results represented due to its possible association rather than causal relationship.

Another limitation to this study is related to the sample size and misrepresentation of participants. This study was completed using a total sample size of 80

participants from various NA meeting locations, which. Based on the demographical information received, race appeared to be presented unequally with a majority of the sample being of Caucasian decent (48.8%) while minority population subgroups such as African American (8.8%), Native American (2.5%), Asian Pacific Islander (1.3%), and others (1.3%) were represented with a smaller sample size. If researchers had conducted data collection at methadone clinics with a wide variety of clientele, this research could have demonstrated stronger results through higher and more diverse client populations.

Lastly, this research was based on self-report by individuals in MMT and their perceptions of social support and stigmatization received from family and friends. With this being said, individuals may have under reported or over reported their responses due to shame and/or a lack of understanding of stigmatization. Based on verbal communication with individuals, many felt that they were talked down to by some family members, but supported by other family members. These participants choose to base their answers on the social interaction with family members that were supportive, ultimately,

distorting results to appear more positive rather than negative.

Recommendations for Social Work Practice, Policy and Research

With this being said, families, practitioners, and MMT agencies need to take an "individualistic view of addiction problems, and...conceive of them instead as problems that have a significant social component - that both impact upon and are to a great extent influenced by the social environment of the substance user" (Copello, 2010, p. 4). If individuals reconnect with others in a healthy and supportive environment the likelihood of management of their mental and substance disorders is likely to increase. It is also said that "social interaction can help to shape behaviour, and families and social networks can influence the process of treatment entry as well as addictive behaviour change" (Copello, 2010, p. 4) meaning that MMT clients would benefit from family integration of services including: family therapy, support groups and education. In fact, in the past,

> antistigma efforts have included protest, asking participants to suppress their negative attitudes about a group; education, contrasting the myths of

> mental illness with the facts; and contact, decreasing stigma by fostering interactions between a person with mental illness and a group where such stereotypes might exist (Corrigan et al., 2006, p. 245)

which has proven beneficial within social support networks.

Although clients may perceive high social support within their network of family and friends, this support is not always positive social interaction and could be detrimental to the client's recovery. Sometimes clients do not have the understanding of social support and stigmatization. For this reason, social worker's in the field should assess "the experiences of people, especially those without power, and the conditions they face should prompt [them] to analyze social problems and conditions using the lens of social justice and to assess whether civil and human rights are being violated" within the clients' formal and informal networks (Hepworth, 2006, p. 414). It is important to educate clients about Methadone Maintenance Treatment so they can be able to advocate for themselves and educate others. Furthermore, "treatment engagement and retention are critical if

people entering substance abuse programs are to be successful in remaining abstinent from illegal drug use" (Conner et al., 2010, p. 17) indicating clinic's need to start where the client is in treatment with regards to family and friend stigmatization and/or lack of social support.

Conclusions

In summary, this research represented findings exploring stigmatization and social support from friends and family for clients receiving Methadone Maintenance Treatment. Receiving treatment for both substance abuse and the mental health might interfere with the support received by family and friends through stigmas. These stigmas can follow the clients' throughout their treatment if not addressed and might interfere with a healthy and supportive environment. Studies have indicated that receiving social support from friends and family is important in treatment and a lack of social support can result in escalation of loneliness and isolating behaviors. Those who receive high levels of social support develop healthy lifestyles and receive higher outcomes in treatment. If MMT clients reconnect

positively with others in their social support networks, without feeling stigmatized, they are more likely to manage their mental and substance use disorder through treatment. Treatment for alcohol or drug problems is a "potentially humiliating evidence of failure in self-management [which] can serve as an instrument of social inclusion or social exclusion" (Room, 2005, p. 152). Stigmatization, with or without social support, has the potential to be detrimental to those in MMT fighting to overcome the illness of both a mental health disorder and a substance abuse disorder, leaving this population at-risk and in need of integrated services to ensure higher outcome success rates for those in treatment.

APPENDIX A

QUESTIONNAIRE

Please place a checkmark on your responses to the following statements. A response is needed for both family and friends categories.

		Family		Friends	
1.	My family and friends are understanding of Methadone Maintenance Treatment.	Agree	Disagree	Agree	Disagree
2.	My family and friends have made me feel ashamed of myself because of Methadone Maintenance Treatment.	Agree	Disagree	Agree	Disagree
3.	The way family and friends have treated me because of methadone maintenance treatment upsets me.	Agree	Disagree	Agree	Disagree
4.	I feel that I am being talked down to by my family and friends because of methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
5.	Having had methadone maintenance treatment has made my family and friends more understanding.	Agree	Disagree	Agree	Disagree
6.	My family and friends think less of me because I am on methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
7.	I am open to my family and friends about methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
8.	I worry about telling people in my family and friends that I receive methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
9.	My family and friends have never made me feel embarrassed because I receive methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
10.	My family and friends have not been understanding of methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
11.	I have been discriminated against by my family and friends because of methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
12.	Very often I feel alone because of my mental health problems.	Agree	Disagree	Agree	Disagree
13.	I am scared of how my family and friends will react if they find out about me receiving methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
14.	I worry about telling my family and friends that I take medicine methadone for mental health problems.	Agree	Disagree	Agree	Disagree
15.	My family and friends' reactions to methadone maintenance treatment make me keep to myself.	Agree	Disagree	Agree	Disagree
16.	I am angry with the way my family and friends have reacted to methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
17.	I have not had any trouble from my family and friends because of methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
18.	My family and friends have avoided me because of methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
19.	My family and friends have insulted me because of methadone maintenance treatment.	Agree	Disagree	Agree	Disagree
20.	I avoid telling my family and friends about my mental health and methadone maintenance treatment.	Agree	Disagree	Agree	Disagree

Adapted from King, M., Dinos, S., Shaw, J., Watson, R., Stevens, S., Passetti, F., Weich, S., & Serfaty, M. (2007). The Stigma Scale: Development of a standardized measure of the stigma of mental illness. *The British Journal of Psychiatry, 190*, 248-254. doi: 10.1192/bjp.bp.106.024638.

Since the beginning of methadone maintenance treatment (please circle your response to both family and friend categories):

1.	How many relatives and friends do you see or hear from at least once a month?	**Family**	None	1	2	3-4	5-8	9 or more
		Friends	None	1	2	3-4	5-8	9 or more
2.	How often do you see or hear from both the relative and friend with whom you have the most contact with?	**Family**	Less than Monthly	Monthly	Few times a month	Weekly	Few times a week	Daily
		Friends	Less than monthly	Monthly	Few times a month	Weekly	Few times a week	Daily
3.	How many relatives and friends do you feel at ease with that you can talk about private matters?	**Family**	None	1	2	3-4	5-8	9 or more
		Friends	None	1	2	3-4	5-8	9 or more
4.	How many relatives and friends do you feel close to such that you could call on them for help?	**Family**	None	1	2	3-4	5-8	9 or more
		Friends	None	1	2	3-4	5-8	9 or more
5.	When one of your relatives and friends has an important decision to make, how often do they talk to you about it?	**Family**	Never	Seldom	Sometimes	Often	Very Often	Always
		Friends	Never	Seldom	Sometimes	Often	Very Often	Always
6.	How often is one of your relatives or friends available or you to talk to when you have an important decision to make?	**Family**	Never	Seldom	Sometimes	Often	Very Often	Always
		Friends	Never	Seldom	Sometimes	Often	Very Often	Always

Adapted from Boston College. (2011). *The Lubben Social Network Scale*. Retrieved on January 10, 2011 from http://www.bc.edu/schools/gssw/lubben/downloads.html

Demographic Information

Age: 18-25_____ 26-35_____ 36-45_____ 46-55_____ 56-65_____ 66 and above_____

Gender: Male_____ Female_____

Marital Status: Single, never married____ Married____ Separated____ Divorced____ Widowed____

What is your race: White___ African American____ Hispanic_____ Asian /Pacific Islander_____ Native American____ Other_____

What is your religious affiliation? Christian_____ Catholic_____ Jewish_____ Muslim_____ Hindu_____ Buddhist_____ Other____

I have been in Methadone Maintenance Treatment? Less than a year_____ 1-5 years_____ 6-10 years____ More than 10 years_____

If you could send the world a message about the impact Methadone Maintenance Treatment has had on your life, what would it be? _____

_____

_____

Developed by Kenia Rivas and Franceen Rosales

APPENDIX B

INFORMED CONSENT

INFORMED CONSENT

You are invited to participate in a study exploring stigmatization and social support. Stigmatization is considered the negative labeling of persons, groups, or communities, such as making someone feel worthless due to mental health issues or even substance abuse. Research will be conducted by two Master level graduate students from California State University San Bernardino's School of Social work under the supervision of Dr. Herbert Shon. The results of the survey will be conveyed to NA meetings, clinics, and the Social Work profession to aid in future planning of treatment aimed towards family integration, including education about MMT to reduce stigmatization and bias that may be common within the social network of MMT clients. The study has been approved by the School of Social Work Sub-committee of the CSUSB Institutional Review Board.

Methadone maintenance in itself has been a controversial topic among society as a whole. Due to this, clients are labeled and often faced with prejudice from those around them. The purpose of the study is to explore the relationship between your views of this stigmatization and its possible effects on your social support.

This survey is anonymous and no record will be made or kept of your name or any identifying information. You are free to skip any questions you do not want to answer. The anonymous data from this survey will be seen by only the researchers and, again, your identity will be unknown. Only the results of the entirety of the study will be conveyed to NA meetings, clinics, Social Work profession and the School of Social Work without any indentifying information. Results will also be posted and available to you in the fall of 2011 at the NA meetings.

If you choose not to participate in this survey, it will not affect your services with NA meetings. Also, questions might bring up emotional aspects of past and present family and friendships. If so, you are free to skip any questions that may affect you emotionally. However, your opinions will help the clinics plan for future programs that will better match the interests of your community.

If you have any questions or concerns about this study you can contact Dr. Herbert Shon at #(909) 537-5532.

By marking below, you agree that you have been fully informed about this survey and are volunteering to take part.

Agree_____ Date_____

APPENDIX C

DEBRIEFING STATEMENT

DEBRIEFING STATEMENT

Thank you for participating in our study. Due to limited information on the social networks of persons with a dual disorder, it is of interest to find out if social support is available for you during the course of your treatment. This research can help in defining such issues along with aiding clinics in finding innovative interventions to address the problem. This study will provide implications of treatment aimed towards family integration in treatment. Findings of this study can change the way counselors in maintenance clinics approach the individual but, also, set the standard for social support assessment throughout the agency and the Social Work profession.

Your participation in this study was greatly appreciated. Remember, you will in no way be affected by your responses as this study is completely anonymous and confidential.

Again, in the fall of 2011, the results of the study will be available for your viewing at NA meetings and the School of Social Work, Cal State San Bernardino. If you have any questions or concerns regarding the results of the study, or feel as though you were effected by the study, please contact Dr. Herbert Shon at #(909) 537-5532.

APPENDIX D

DEMOGRAPHICS

DEMOGRAPHICS

Age: _____

Gender: Male _____ Female _____

Marital Status: Single, never married _____ Married _____

Separated _____ Divorced _____ Widowed _____

What is your race: White _____ African American _____ Hispanic _____

Asian /Pacific Islander _____ Native American _____

Other _____

What is your religious affiliation? Christian _____ Catholic _____

Jewish _____ Muslim _____ Hindu _____ Buddhist _____ Other _____

How long have you been in Methadone Maintenance Treatment? _____

If you could send the world a message about the impact Methadone Maintenance

Treatment has had on your life, what would it be?

_____

_____

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ASSIGNED RESPONSIBILITIES PAGE

This was a two-person project where authors collaborated throughout. However, for each phase of the project, certain authors took primary responsibility. These responsibilities were assigned in the manner listed below.

1. Data Collection:

   Team Effort: Kenia Rivas & Franceen Rosales

2. Data Entry and Analysis:

   Team Effort: Kenia Rivas & Franceen Rosales

3. Writing Report and Presentation of Findings:

   a. Introduction and Literature

      Team Effort: Kenia Rivas & Franceen Rosales

   b. Methods

      Team Effort: Kenia Rivas & Franceen Rosales

   c. Results

      Team Effort: Kenia Rivas & Franceen Rosales

   d. Discussion

      Team Effort: Kenia Rivas & Franceen Rosales