

AN EFFECTIVENESS STUDY OF THE UCLA
FRIENDSHIP AND INTIMACY MODULE

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ABSTRACT

The sexual and relationship needs of individuals diagnosed with serious and persistent mental illness (SPMI) are often ignored by psychiatric treatment providers. The purpose of this study was to examine the effectiveness of the UCLA Friendship & Intimacy module, a manualized skills training intervention that focuses on teaching individuals with SPMI how to develop friendships, make sound decisions regarding their sexuality, and engage in safe and satisfying sex. The sample consisted of 17 chronic psychiatric patients who were assigned to either the Friendship and Intimacy group or a manualized social skills group that did not include a focus on sexuality. All groups were held in extended partial hospital programs. Outcomes were assessed using a series of self-report instruments that measured: knowledge related to dating skills and sexual health, behavioral intentions and expectations to practice safe sex, attitudes regarding condom use, and quality of life. Data, which were collected pre and post treatment, were analyzed using multivariate analysis of variance (MANOVA) and univariate tests. The results of the MANOVA were significant, in that, overall, there was a significant effect of treatment group (i.e., treatment versus control) on the set of nine outcome variables when considered together in the model. For participants in the Friendship and Intimacy group, hypothesized changes from pre- to post-treatment were observed on several variables related to knowledge acquisition and condom attitudes. Due to small sample size, these differences were not statistically significant. However, the effect sizes ranged from 0.11 (small effect) to 0.96 (large effect), suggesting that this intervention may be useful for promoting friendship and healthy sexuality in people with chronic SPMI.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Sexuality and the need for intimacy are universal human experiences. Despite this, the sexual and relationship needs of individuals diagnosed with serious and persistent mental illness (SPMI) are often ignored. Historically, sexuality in this population has been pathologized and riddled with misconception. For example, it has been reported that sexual activity for persons with mental illness might slow recovery, that people diagnosed with schizophrenia cannot manage their sexuality, and that discussing sexual issues with this population might trigger inappropriate behavior (Pinderhughes, Grace & Reyna, 1972; Sadow & Corman, 1983). Although long held beliefs such as these no longer prevail, there remains a great reluctance among mental health clinicians to acknowledge sexuality as an important part of their SPMI patients' lives and to incorporate sexual health education into therapeutic interventions. According to McCann (2000), interventions, as well as assessment of sex and relationship needs, are not commonly included in "comprehensive" treatment plans for this population. A study investigating the self-perceived clinical and social needs among patients with chronic mental illness revealed that counseling about sexual expression and intimate relationships were two areas with the highest proportion of unmet needs (Bengtsson & Hansson, 1999). The same remains true for the formation and maintenance

of non-intimate interpersonal relationships. While traditional psychosocial treatment programs focus on symptom management and the development of social skills, they typically lack structures that assist people in developing enduring friendships (Wilson, 1999). Perese (1997) found that lack of a friend was the most frequently identified unmet need for persons with chronic mental illness. Further inquiry is needed in the field of friendship in the psychiatric community, in large part, because the meaning and importance of friends as expressed by people with SPMI is often subsumed under the general category of “social support” or as a component of community integration (Boydell, Gladstone, & Crawford, 2002; Caroline, 1993).

Lack of education and support from practitioners regarding interpersonal relationships and healthy sexual behavior places SPMI patients at a considerable disadvantage. The literature suggests that this population has considerable difficulties in finding and maintaining intimate partner relationships (Wright, Wright, Perry, & Foote-Ardah, 2007). More than half of individuals diagnosed with chronic mental illness report problems with loneliness in comparison to one-third of the general population (Perese & Wolf, 2005). The failure to address sexual health topics in a clinical setting is particularly troublesome given that patients with SPMI may be more vulnerable to sexual exploitation than the general population due to poor assertiveness skills, which are needed to negotiate safe sex, and the presence of co-morbid diagnoses of substance use, which is often associated with sexual risk taking (Higgins, Braker, & Begley, 2006). In fact, the prevalence of HIV infection among people with SPMI is much higher than in the general population in the United States (McKinnon, Cournos, & Herman, 2002). One recent study found that, of the 96 women with SPMI who were interviewed, more than

two-thirds had sex with multiple partners, and almost one-third had been treated for a sexually transmitted infection (STI) in the past year (Randolph et al., 2007). Meade and Sikkema (2007) investigated sexual risk behavior among adults with severe mental illness and found that the majority of the sample reported unprotected sexual intercourse, and many reported multiple sex partners and sex trading.

Goals of the Study

This dissertation will examine the effectiveness of the UCLA Friendship & Intimacy module, a manualized skills training intervention that focuses on teaching individuals with SPMI how to develop friendships, make sound decisions regarding their sexuality, and engage in safe and satisfying sex. Social skills training uses behavioral principles and techniques to teach individuals how to communicate their emotions and requests in order to achieve their goals, meet their needs for affiliative relationships, and assume roles required for independent living (Kopelowicz, Liberman, & Zarate, 2006). A growing body of research supports the effectiveness of psychosocial skills training with people who have been diagnosed with SPMI. However, despite increasing use of this treatment approach in psychiatric rehabilitation programs, sexual and relationship issues are rarely included as a component (McCann, 2003). A recent literature review revealed that, of the research investigating sexual health among patients with SPMI, an overwhelming majority has been limited to the study of sexual risk behavior and sexual dysfunction due to medication, with few studies providing descriptions of, or empirical data related to sexual health education programs (Higgins, Braker, & Begley, 2006).

The Friendship and Intimacy module is one of several modules in the Social and Independent Living Skills (SILS) series developed by the UCLA Clinical Research

Center for Schizophrenia and Psychiatric Rehabilitation. The two main objectives of the SILS series are to 1) teach patients social and instrumental competencies in key domains of community functioning, and 2) to provide techniques that are easily and accurately used by interdisciplinary professionals and paraprofessionals in a wide array of mental health facilities and natural environments (Lieberman et al., 1993). To date, nine modules have been produced: Medication Management, Symptom Management, Basic Conversation Skills, Recreation for Leisure, Community Re-entry, Workplace Fundamentals, Substance Abuse Management, Involving Families, and Friendship and Intimacy. These specific domains were selected because competency in these areas has been associated with better social adjustment, longer community tenure, and decreased risk of relapse and rehospitalization (Lieberman, 1992). For example, an investigation of marital relationships between psychiatric patients revealed that the frequency of readmissions to psychiatric hospitals decreased when patients were involved in romantic relationships (Shanks & Atkins, 1985). Additionally, other studies have found that social contact with family and friends is central to the recovery process (Schon, Denhov, & Topor, 2009) and that peer support results in reduced anxiety and feelings of loneliness, increased participation in group activities, and adoption of healthier behaviors (Bouchard, Montreuil, & Gros, 2000).

Of the skills training approaches that have been developed for people with SPMI, the UCLA Social and Independent Living Skills (SILS) modules have been the most widely studied (Pfammatter, Junghan, & Brenner, 2006). The SILS modules have been translated into 23 languages and implemented in six continents, which includes use by practitioners and mental health facilities in all 50 states of America. A survey of those

who use the modules revealed that 61% were using the modules regularly, and an additional 36% planned to institute or reinstitute the modules after administrative and logistical issues had been resolved (Wallace, Liberman, MacKain, Blackwell, & Eckman, 1992). Over the past fifteen years, numerous investigations into the effectiveness of the SILS modules have found a general pattern of results indicating that proper implementation results in increases in targeted behaviors and knowledge acquisition (e.g., Eckman, 1992; Liberman, et al., 1998; Smith, et al., 1996; Wallace, et al., 1992). However, none of the published research on this skills training series have investigated the Friendship and Intimacy module. As stated previously, the mental health community is grossly inattentive to the sex and relationship needs of psychiatric patients, and it can be argued that the absence of the Friendship and Intimacy module from the available literature is the result of their negligence in this area.

This dissertation will be the first known investigation of the effectiveness of the Friendship and Intimacy skills training module. Thus, the main goal of this study will be to add to the body of literature in support of sexual health education among persons with severe and persistent mental illness. Additionally, the module will teach skills related to developing friendships and healthy sexual relationships.

CHAPTER II

LITERATURE REVIEW

Benefits of Friendship for Individuals with Serious Mental Illness

It has long been recognized that friendship plays a central role in a meaningful and happy life (Badhwar, 1993). In fact, it has been argued that friendships can be as important, if not more important, than other types of relationships (Fehr, 1996). Within the field of psychology, friendship has often been assumed to be the basic and universal relationship (Argyle & Henderson, 1984). Friendship is thought to be a core aspect of our lives that provides, among other things, a sense of comfort, safety, and belongingness. Despite this recognition, however, the role of friendship for individuals with serious mental illness has received little attention in the psychiatric literature.

One of the more notable investigations into the importance of friendship for those with serious mental illness was conducted by Boydell, Gladstone, and Crawford (2002). In this qualitative study, twenty-one individuals diagnosed with psychiatric illness were asked to describe the meaning and significance of friendship. The data revealed that all participants highly valued friendship and believed that a relationship such as this was essential to good mental health. Participants reported that friendship made a significant contribution to overall quality of life, serving as a source of emotional support and enhancing their ability to cope with life stressors and vulnerabilities. Qualitative differences in peer friendships (with those who were also diagnosed with mental illness)

and friendships with those who had not been diagnosed were also discovered. For example, Boydell et al. (2002) found that befriending individuals with psychiatric illness resulted in the alleviation of loneliness, an enhanced level of understanding, support, and acceptance, and exposure to information about new developments in treatment. On the other hand, friendship bonds with those who did not have a psychiatric illness resulted in the feeling that one was “worthwhile” and served as a reminder of life prior to mental illness.

A similar study conducted by Wright (2001), explored the experience of friendship in relation to mental health problems. Findings revealed that several specific types of support are provided by friends. The most significant kind of help or support was reportedly delivered in the form of understanding and acceptance. Other notable types of support included emotional support (e.g., listening when needed), practical support (e.g., helping with household chores, providing a place to stay), helping to maintain a social life, keeping in touch, and providing information.

According to Lencucha, Kinsella & Sumsion (2008), “associate relationships,” which were defined as relationships with friends and acquaintances, were among one of four types of social relationships acknowledged as important by people diagnosed with schizophrenia. Participants in this study explained that mutuality was an important dimension to social relationships, in that it allowed the individual to provide support to others, as well as receive support and encouragement. This act of giving to others, in turn, contributed to the individual’s sense of purpose. Furthermore, having a connection with others such as friendship was reported to provide a sense of constancy and hopefulness about the future.

More recently, the psychiatric literature has begun to investigate the ways in which friendship contributes to psychiatric rehabilitation and recovery. In 2006, Topor, Borg, Mezzina, Sells, Marin, & Davidson examined the role of family, friends, and professionals in contributing to the recovery process of people with serious mental illness. Each of the participants interviewed in this study stated that their relationships, which included friendships, played a major role in the course of their illness and in their recovery. Long-time friends made three specific contributions to the recovery process. The first contributory act was termed “standing alongside the person”, which describes the ability of long-time friends to 1) stand for a continuity that includes the person’s history prior to the onset of illness, 2) demonstrate that the person cannot be reduced to the stigmatized image of someone who consists only of symptoms and shortcomings, and 3) represent hope for a future that is not marked by limitations. A second contribution was termed “being there for the person in recovery” which refers to actions such as connecting the person with mental health services when they decompensate, serving as an advocate and lobbyist on the person’s behalf, and helping with practical problems such as housing and economic issues. The third contribution to the recovery process was labeled “moving on with recovery.” This phrase describes a time in the recovery process during which the formation and maintenance of friendships signifies a transformation from dependent relationships with support networks into reciprocal relationships that are marked by fellowship, acceptance, and the ability to give to, rather than rely on, others.

Schon, Denhov, & Topor (2009) conducted in-depth interviews with individuals who had recovered from severe mental illness in an attempt to identify which factors they regarded as decisive to their recovery. Results revealed that social relationships were a

vital component of the recovery process. In addition to social relationships with family and professionals, connection to others in the form of friendship was identified as important to recovery. Similar to Topor et al. (2006), it was found that friendships that were established prior to psychiatric care served as a connection between the individual's current psychiatric problems and the past and represented hope for the future. New friendships that were established during recovery were also significant in that they provided "company where one could be just oneself."

Barriers to Friendship for Individuals with Serious Mental Illness

Individuals with psychiatric disorders encounter numerous obstacles in their efforts to establish and maintain friendships. Research has found that, among people with severe mental illness, lack of friends is nearly double that of the general population (Perese & Wolf, 2005). Perese & Wolf (2005) suggest that opportunities to initially establish friendships are hampered during adolescence and young adulthood as a result of limitations in cognitive functioning or negative childhood experiences. Early life experiences are, at times, also marked by a lack of exposure to appropriate role models, leaving the individual without opportunities to learn how to communicate effectively with others (Lieberman, DeRisi, & Mueser, 1989). This absence of behavior modeling leaves the person without a basic foundation for knowledge and acquisition of social skills. Those skills that *were* mastered early in life are sometimes lost due to disuse or lack of reinforcement (Bellack, Mueser, Gingerich, & Agresta, 1997). As an individual experiences change in his or her social environment, interpersonal skills that were once reinforced and supported can go ignored or unused, leaving the person powerless to employ these skills when appropriate (Lieberman et al., 1989).

Smaller friendship networks among chronic psychiatric patients have been attributed to factors other than social skills deficits. As the illness progresses, opportunities for these individuals are hindered by the residual effects of psychiatric illness, such as psychosis, fearfulness, poor frustration tolerance, lack of motivation, and decreased ability to initiate new behaviors. Boydell et al. (2002) found that individuals with psychiatric disabilities had difficulty managing relationships due to impairment in the areas of attention and concentration, which ultimately led to withdrawal from others in order to avoid failure and embarrassment. Bellack et al. (1997) attribute difficulties in initiating and maintaining social relationships and fulfilling social roles to significant deficits in information processing, positive and negative symptoms, motivation and affect, and environmental constraints. Other documented reasons for decreased friendship networks include repeated hospital admissions, isolative behavior, unsupportive family relationships, disruptive behavior when acutely ill, and loss of employment or status (Wilson, Flanagan, & Rynders, 1999).

Sexual Health Education for SPMI population

In comparison to the general American population, very little is known about the sexuality of people living with chronic mental illness. The hesitancy to acknowledge and better understand the sexual identities and behaviors of this population is disconcerting given that sexual intimacy is a normal and healthy aspect of the human experience. According to Volman and Landeen (2007), although psychiatric illness can have a profound impact on sexuality, it does not eliminate this factor from the lives of people with mental illness or prevent the formation of meaningful relationships and sexually satisfying lives. More importantly, the sexual self has been described as an essential

aspect of the core self and overall well-being that, when shared with another person in the context of a loving relationship, allows individuals with mental illness to feel wanted and needed (Volman et al., 2007).

Research indicates that sexual relationships are of concern for a majority of people living with psychiatric illness (Eklund & Ostman, 2010). There is disparity in the findings regarding the sexual activity of this population; however, estimated prevalence rates range between 44% and 75% for this group (Carey, Carey, Maisto, Gordon, & Venable, 2001; Carey, Carey, Weinhardt, & Gordon, 1997). Psychiatric patients are more likely to have multiple sexual partners concurrently and enter into sexual relationships sooner (Perry & Wright, 2006). Overall, the data indicate that this population frequently engages in high-risk sexual behaviors including infrequent condom use, sexual encounters with high risk groups, casual sex, and trading sex for material gain (Quinn & Browne, 2009). As a result of risky sexual behavior such as this, those with severe mental illness are disproportionately more vulnerable to HIV infection, with elevated HIV seroprevalence rates that exceed rates for the general population (Carey et al., 2001).

Lack of knowledge and information appears to be one of the major barriers that prevents those with mental illness from practicing safer sex and engaging in less risky sexual behaviors. Research indicates that individuals with psychiatric disabilities do not receive the appropriate support, information, and professional help needed to effectively handle sexual and relationship problems (Eklund et al, 2010; Perry, et al., 2006). According to McCann (2010a), individuals with schizophrenia reported that they were rarely if ever, provided with sex education while growing up or while receiving treatment

in healthcare settings. Similarly, an investigation by the same author into the sexual and relationship experiences of this population found that only 10% of mental health staff recognized sexual expression as a need for patients in their care and less than half perceived a need for intimate relationships (McCann, 2010b).

Kelly and Conley (2004) argue that mental health service providers are reluctant to discuss sexual concerns because treatment settings are embedded in a negative sexual culture that lacks acceptance of patients' sexual expression and discourages discussion of sexuality-related concerns. In the absence of any support or treatment initiative that focuses on sexuality, psychiatric patients and their intimate partners are often left feeling abandoned by the mental health care system (Ostman, 2008). Moreover, they are left without the educational background and skill set required for maintaining a healthy sexual relationship. Studies have shown that problem solving, sexual assertiveness, and the ability to negotiate are only a few of the many skills found to be critical elements in reducing sexual risk taking behaviors. (Carey, Carey, Maisto, Gordon, Schroder, & Venable, 2004; Kalichman, Sikkema, Kelly, & Bulto, 1995; Weinhardt, Carey, Carey & Verdecias, 1998).

Sexual health education programs are considered to be among the best suited methods for promoting safe sex practices in those with psychiatric disabilities (Higgins et al., 2006); however, treatment approaches such as this are not commonly integrated into plans of care (McCann, 2000). In fact, according to Higgins, Barker, and Begley (2006), the need for this type of intervention is a fairly recent theme in the psychiatric literature. A literature review conducted by these authors found that only fourteen research studies provided a description or evaluation of sexual health education programs, with the

majority of the interventions addressing the prevention of HIV and sexually transmitted diseases, negotiating safe sex, and skill acquisition regarding proper use of condoms.

Overall, the findings from the studies reviewed by Higgins et al. (2006) suggested that participation in sexual health education programs resulted in more favorable attitudes toward condom use, increased intentions to avoid risky sexual behaviors, reduced number of casual sex partners, and reductions in the frequency of unprotected vaginal intercourse. It was also learned that education interventions addressing this topic are most effective when delivered in small group formats that include an informative component, motivational exercises, and behavior skills acquisition.

CHAPTER III

METHODOLOGY

Participants

The participants for this study were patients receiving psychological services from three separate University Behavioral Health Care (UBHC) extended partial hospitalization programs in Piscataway, Newark, and Monmouth Junction, New Jersey. All participants were at least 18 years of age and carried a current diagnosis of major depressive disorder, bipolar disorder, schizophrenia, or schizoaffective disorder. Participants whose capacity to consent was affected by psychiatric symptoms were excluded from the study. Of the 27 participants who provided informed consent to participate in the study, 9 were excluded from statistical analysis for the following reasons: the participant transferred to a non-UBHC treatment facility prior to the end of treatment ($n = 2$); the participant was discharged from the partial hospitalization program prior to the end of treatment ($n = 2$); the participant was non-compliant with treatment and dropped out of the partial hospitalization program entirely ($n = 4$); and the participant failed to complete the post test measures ($n = 1$).

The total sample included in the present study was comprised of 17 people ($N = 17$). Of these participants, there were 13 males (76.5%) and 4 females (23.5%). In regards to race, twelve participants identified as African American (70.6%), three as Caucasian (17.6%), and two as Hispanic (11.8%). All individuals were diagnosed with a severe mental illness, including: Schizophrenia ($n = 12$; 70.6%), Major Depressive

Disorder (n = 3; 17.6%), Schizoaffective Disorder (n = 1; 5.9%), and Bipolar Disorder (n = 1; 5.9%). Nine people were in the treatment group (52.9%) and the remaining eight were in the control group (47.1%).

Procedures

Prior to the start of the study, participants were enrolled in either the Friendship and Intimacy group or a manualized social skills group at three UBHC extended partial hospitalization sites. The comparison group in this study taught communication skills using the UCLA Basic Conversation Skills module. All participants were assigned to treatment based on the clinical judgment of their respective treatment teams. The study procedures were explained to each participant and they were asked to sign an informed consent form if they agreed to participate. Participation in data collection (i.e., completion of study questionnaires) was voluntary and those who did not wish to participate remained in their respective groups as dictated by their treatment plan.

Participants who consented to participate in the study were asked to complete a series of self-report measures prior to the start of treatment. Both the treatment and comparison groups were conducted during the participants' regular treatment program hours. All groups were led by staff from the Division of Schizophrenia Research at UBHC and/or clinical staff at the UBHC extended partial hospitalization programs. Group sessions were held twice per week and the duration of each group was approximately 60 minutes. At the conclusion of each group, participants were asked to complete the same series of self-report measures.

Intervention

The Friendship and Intimacy module is one of nine modules developed as part of the UCLA Social and Independent Living Skills series. The principal aim of the module is to provide a framework for helping individuals acquire the knowledge and skills needed to develop close friendships and intimacy, and to engage in safe and satisfying relationships. This is accomplished by focusing the content on five specific skill areas:

Skill Area 1: Establishing a Friendship – participants learn how to practice good conversation skills, how to meet new people with similar interests, how to develop emotionally intimate relationships, how to ask someone out on a date and what to do during the date, and how to appropriately end a date.

Skill Area 2: Obtaining Information about Safe Sex – participants learn how to openly discuss sexual problems and concerns with health care professionals, with self-confidence and without feeling embarrassed. Information is also provided about how to prevent an unwanted pregnancy and reduce the chance of contracting a sexually transmitted disease.

Skill Area 3: Identifying the Risks and Benefits of Having Sex – participants learn how to ask for advice from trusted friends, family members, and clinicians about the consequences of introducing sex into a relationship.

Skill Area 4: Sharing Concerns, Consequences, and Cautions about Sexuality – participants learn how to have an open and honest discussion about their sexual history with a potential sexual partner, without feeling embarrassed. Information is also provided about how to protect themselves and their partners from sexually transmitted diseases by learning about available medical tests.

Skill Area 5: Sexual Decision Making – participants learn how to openly discuss with their potential sexual partner the consequences of having sex. Because the decision to include or exclude sex from a relationship is important and may affect the relationship, participants are also taught how to use appropriate verbal and nonverbal skills when having this discussion.

Each of the five skill areas in the Friendship and Intimacy module employs a core set of learning activities, which are detailed in Table 1. These activities are designed to teach the skills needed to achieve the designated goal of each skill area, as well as for solving problems that might arise when using the skills outside of the treatment setting (Lieberman, 2000). The learning activities are based on a wide range of behavioral techniques including behavioral rehearsal, modeling, roleplaying, positive reinforcement, and repetition. Using behavioral learning principles such as these compensates for most symptomatic and cognitive deficits found in this population (Kopelowicz, Lieberman, & Wallace, 2003)

The Friendship and Intimacy module includes a 1) the trainer's manual, which provides specific instructions for what the group leader is supposed to say and do in order to teach each of the five skill areas; 2) a demonstration videotape, which demonstrates correct performance of the skills to be learned; and 3) a participant's workbook, which provides all of the information that the participants will need for the exercises, including an outline of the key points taught in each skill area and a section for notes and questions.

Table 1.
Seven learning activities utilized in each skill area

1. Introduction to Skill Area	Introduces the topic and component skills, and stimulates the participants' interests.
2. Videotape and Questions/Answers	Participants view videotaped scenes that demonstrate skill usage, followed by question/answer review
3. Roleplay	Participants practice and rehearse the skills demonstrated
4. Resource Management	Participants discuss how to obtain the resources needed to perform the skills successfully
5. Outcome Problems	Participants apply the problem solving method to resolve difficulties that may occur when using the skill
6. In Vivo Exercises	Participants perform exercises in real life situations, accompanied by the group leader
7. Homework Assignments	Participants complete assignments outside of the training sessions, independent of the trainer

Measures

Friendship and Intimacy Module Pre and Post Tests. In developing the Friendship and Intimacy module, Liberman (2000) included in its contents a multiple choice questionnaire so that group facilitators could assess each participants' level of knowledge prior to the start of treatment. This questionnaire (see Appendix A) has 25-items; each with one correct answer. To date, no research has been conducted to estimate the reliability or validity of this measure. For the purposes of this study, the total score was derived by adding up each correct answer. Sample items include, "*Which people among the following are not good to date or develop intimacy with?*", "*You can help prevent STDs by....?*", and "*When deciding to have sex, things to discuss include....?*"

The Sexual Risks Scale. Behavioral intentions and expectations to practice safe sex were measured using the Intentions to Practice Safer Sex and the Expectations About the Feasibility of Safer Sexual Activity subscales of the Sexual Risks Scale (SRS; DeHart & Birkimier, 1997). The SRS is a 38 item scale, which was developed to measure theoretical constructs of safe sex behavior. There are 7 items on the Intentions subscale and 5 items on the Expectations subscale, both of which are based on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". Total scores are calculated by computing the mean scores, with higher scores indicating greater intentions to try to practice safer sex and greater expectations to practice safer sex. Scores derived from the entire scale have evidence of internal reliability, and both construct and predictive validity. Cronbach's alphas for scores on the Intentions and Expectations subscales are .76 and .82, respectively.

The Multidimensional Condom Attitudes Scale. The Multidimensional Condom Attitudes Scale (MCAS; Helweg-Larsen & Collins, 1994) was used to assess attitudes toward preventive behavior. It consists of five distinct factors: (a) embarrassment about negotiation for condoms, (b) embarrassment about purchasing condoms, (c) reliability and effectiveness of condoms, (d) identity stigma associated with condom use, and (e) the sexual pleasure associated with condom use. Participants respond to items on a seven-point Likert scale, with anchors ranging from "strongly disagree" to "strongly agree." Higher total scores indicate more favorable attitudes toward condom use. The MCAS has adequate-to-poor psychometric properties. Cronbach's alphas for the subscales were .64 for Embarrassment about Negotiation and Use, .68 for Embarrassment About Purchase, .65 for Reliability and Effectiveness, .57 for Identity Stigma, and .65 for Pleasure.

The Quality of Life Enjoyment and Satisfaction Questionnaire -18. The Quality of Life Enjoyment and Satisfaction Questionnaire -18 (Q-LES-Q-18; Ritsner, Kurs, Gibel, Ratner, & Endicott, 2005) is an 18-item self-report questionnaire that measures five conceptual domains of quality of life: physical health, subjective feelings, leisure time activity, social relationships and satisfaction with medication. Scoring is based on a five-point Likert scale, with anchors ranging from 1 (not at all or never) to 5 (frequently or all the time). Higher scores denote higher levels of satisfaction. A General Quality of Life Index was calculated by averaging the scores of all 18 items. This index demonstrates high internal consistency for psychiatric patient samples ($\alpha = .96$).

Hypotheses

Hypothesis I: Participants in the treatment group will demonstrate statistically significant increases in overall knowledge of the information presented as part of the Friendship and Intimacy group, as compared to those in the control group.

Hypothesis II: Participants in the treatment group will demonstrate statistically significant increases in behavioral intentions to practice safe sex, as compared to those in the control group.

Hypothesis III: Participants in the treatment group will demonstrate statistically significant increases in their expectation to practice safer sex, as compared to those in the control group.

Hypothesis IV: Participants in the treatment group will demonstrate more favorable attitudes toward condom use, as compared to those in the control group.

Hypothesis V: Participants in the treatment group will report significant increases in overall quality of life, as compared to those in the control group.

Data Analysis

Basic inferential statistics were conducted for data analysis. The experimental and control groups were compared on the dependent measures using a multivariate analysis of variance (MANOVA). Univariate test results were used to determine the specific measures on which the experimental and control groups differ.

CHAPTER IV

RESULTS

As presented above, five *a priori* hypotheses were set forth in the present study. The hypotheses pertained to the prediction that the treatment group would demonstrate statistically greater scores on nine post-test outcome variables included in this study: (i) *Friendship and Intimacy Module (FIM)*; (ii) *Sexual Risks Scale (SRS) – Expectations subscale*; (iii) *Sexual Risks Scale (SRS) – Intentions subscale*; (iv) *Multidimensional Condom Attitudes Scale (MCAS) – Reliability and Effectiveness factor*; (v) *Multidimensional Condom Attitudes Scale (MCAS) – Pleasure factor*; (vi) *Multidimensional Condom Attitudes Scale (MCAS) – Identity Stigma factor*; (vii) *Multidimensional Condom Attitudes Scale (MCAS) – Embarrassment about Negotiation and Use factor*; (viii) *Multidimensional Condom Attitudes Scale (MCAS) – Embarrassment about Purchase factor*; and (ix) *Quality of Life Enjoyment and Satisfaction Questionnaire-18 (Q-LES-Q-18) – General Quality of Life index*.

A Multivariate Analysis of Variance (MANOVA) was conducted to test the five hypotheses simultaneously while controlling for the potential effects of error (i.e., capitalizing on chance by conducting a series of *t*-tests). The results of the MANOVA are presented; however, the particular focus will be on the univariate tests that follow, as they directly relate to the aforementioned hypotheses.

The results of the MANOVA were significant, in that, overall, there was a significant effect of treatment group (i.e., treatment versus control) on the set of nine outcome variables when considered together in the model. All four multivariate tests (i.e., Pillai's Trace, Wilks' Lambda, Hotelling's Trace, Roy's Largest Root) produced the same results: $F = 5.96$, $p = 0.14$. Per the univariate tests, one of the hypotheses was supported, whereas three approached significance and five did not reach statistical significance. These results, which correspond to the aforementioned hypotheses are as follows:

Hypothesis I. The treatment group ($M = 19.0$, $SD = 1.8$) did not statistically differ from the control group ($M = 15.4$, $SD = 4.9$) with respect to the FIM total score, but there was a trend towards statistical significance: $F = 4.26$, $p = 0.057$.

Hypothesis II. The treatment group ($M = 18.6$, $SD = 5.1$) did not statistically differ from the control group ($M = 14.9$, $SD = 2.3$) on the SRS Expectations scale, but there was a trend towards statistical significance: $F = 3.48$, $p = 0.08$.

Hypothesis III. The treatment group ($M = 29.3$, $SD = 4.8$) did not statistically differ from the control group ($M = 26.6$, $SD = 6.7$) on the SRS Intentions scale.

Hypothesis IV. The treatment group differed statistically from the control group on one of the MCAS factors (i.e., Identity Stigma) and approached significance on another factor (i.e., Pleasure), but not on the three other factors. Specifically, the treatment group ($M = 22.3$, $SD = 4.7$) did not differ from the control group ($M = 22.1$, $SD = 7.1$) on the MCAS Reliability and Effectiveness factor, the MCAS Embarrassment about Negotiation and Use factor (treatment group $M = 25.9$, $SD = 5.1$, control group $M = 24.6$, $SD = 3.7$), or the MCAS Embarrassment about Purchase factor (treatment group

$M = 26.6$, $SD = 5.4$, control group $M = 23.1$, $SD = 6.0$). The treatment group ($M = 29.3$, $SD = 4.7$) did statistically differ from the control group ($M = 23.8$, $SD = 5.3$) on the MCAS Identity Stigma factor: $F = 5.39$, $p = 0.04$. The treatment group ($M = 26.4$, $SD = 5.0$) did not statistically differ from the control group ($M = 22.1$, $SD = 4.1$) on the MCAS Pleasure factor, but there was a trend towards statistical significance: $F = 3.74$, $p = 0.07$.

Hypothesis V. The treatment group ($M = 3.8$, $SD = 0.6$) did not differ statistically from the control group ($M = 3.5$, $SD = 0.6$) on the Q-LES-Q-18 General Quality of Life index.

Additional statistical analyses were conducted to investigate the difference between the pre- and post-test scores of the treatment group across the nine outcome variables outlined above. Nine dependent t -tests were conducted to investigate this and Bonferroni alpha-level corrections were made to account for the nine t -tests conducted; therefore, the adjusted p-value needed to reach statistical significance was 0.005 (.05/9).

The treatment group did not statistically differ from pre-test ($M = 16.4$, $SD = 4.5$) to post-test ($M = 19.0$, $SD = 1.9$) on the FIM total score based on the adjusted p-value: $t(8) = -1.89$, $p = 0.048$, $d = -0.63$.

The treatment group did not statistically differ from pre-test ($M = 19.4$, $SD = 3.8$) to post-test ($M = 18.6$, $SD = 5.1$) on the SRS Expectations scale: $t(8) = 0.97$, $p = 0.181$, $d = 0.32$; it also did not differ from pre-test ($M = 29.9$, $SD = 4.6$) to post-test ($M = 29.3$, $SD = 4.8$) on the SRS Intentions scale: $t(8) = 0.42$, $p = 0.342$, $d = 0.14$.

The treatment group did not statistically differ from pre-test ($M = 28.7$, $SD = 5.2$) to post-test ($M = 22.3$, $SD = 4.7$) on the MCAS Reliability and Effectiveness factor based on the adjusted p-value: $t(8) = 2.70$, $p = 0.014$, $d = 0.90$; it did not differ from pre-test

($M = 22.2$, $SD = 5.2$) to post-test ($M = 26.4$, $SD = 5.0$) on the MCAS Pleasure factor: $t(8) = -3.25$, $p = 0.006$, $d = -0.11$. Likewise, the treatment group did not differ from pre-test ($M = 28.3$, $SD = 7.7$) to post-test ($M = 29.3$, $SD = 4.7$) on the Identity Stigma factor: $t(8) = -0.60$, $p = 0.283$, $d = -0.20$, the MCAS Embarrassment about Negotiation and Use factor (pre-test $M = 26.4$, $SD = 7.2$, post-test $M = 25.9$, $SD = 5.1$, $t(8) = 0.44$, $p = 0.336$, $d = 0.15$), or the MCAS Embarrassment about Purchase factor (pre-test $M = 26.0$, $SD = 6.0$, post-test $M = 26.5$, $SD = 5.4$, $t(8) = -0.45$, $p = 0.333$, $d = -0.15$).

Lastly, the treatment group did not significantly differ from pre-test ($M = 4.3$, $SD = 0.5$) to post-test ($M = 3.8$, $SD = 0.6$) on the Q-LES-Q-18 General Quality of Life index; however, the analysis approached significance: $t(8) = 2.82$, $p = 0.011$, $d = 0.96$.

CHAPTER V

DISCUSSION

The present study evaluated the effectiveness of the UCLA Friendship and Intimacy module, a manualized skills training intervention that focuses on teaching individuals with SPMI how to develop friendships, make sound decisions regarding their sexuality, and engage in safe and satisfying sex. More specifically, the study examined whether participation in the Friendship and Intimacy group resulted in treatment gains in the areas of: knowledge related to dating skills and sexual health, behavioral intentions and expectations to practice safe sex, attitudes regarding condom use, and quality of life. A multivariate analysis of variance was used to analyze data from a small sample of participants assigned to either the Friendship and Intimacy group or the UCLA Basic Conversation Skills Module by their respective treatment teams at an extended partial hospital program. Univariate tests results were used to determine the specific measures on which the two groups differ as well as to determine whether there were statistically significant differences from pretreatment to post treatment for participants in the Friendship and Intimacy group. These findings are summarized below.

The Friendship and Intimacy group intervention was found to be clinically effective as compared to the Basic Conversation Skills module, with results revealing that there was a statistically significant effect of the treatment group. This finding supports the extensive body of research that has concluded that training specific social skills is an

effective treatment for individuals with serious and persistent mental illness (Benton & Schroeder, 1990; Heinssen, Liberman, Kopelowicz, 2000; Kopelowicz, et al., 2006).

More importantly, however, it supports the notion that psychiatric patients can benefit from therapeutic interventions that address their sexual health and relationship needs.

Post treatment comparisons with the control group were not statistically significant, however the mean differences were in the expected direction for all outcome variables. The most likely reason for the lack of observed group differences is the small number of participants ($N = 17$), and thus the underpowered nature of the study. This supposition is supported by the fact that several studies have found increased knowledge acquisition as a result of social skills training interventions that address sexual health (Kalichman et al., 1995; Weinhardt, et al., 1997). Likewise, investigations into the role of friendship have found that it is associated with an improved quality of life (Bouchard et al., 2000; Boydell et al., 2002).

In regards to behavioral intentions and expectations to practice safe sex, it is possible that low self-efficacy impacted participants' ratings on these variables. Condom self efficacy in particular has been shown to be significantly related to protective behaviors and AIDS-preventive behavioral intentions (e.g., Basen-Engquist, & Parcel, 1992; Goh, Primavera, & Bartalini, 1996). Lescano, Brown, Miller & Puster (2007) found that, for adolescents diagnosed with psychiatric disorders, self-efficacy regarding condom use was closely associated with HIV-related attitudes and behaviors. According to Weinhardt, Carey, & Carey (1997), low self efficacy for preventative behavior may decrease the likelihood that an individual will employ a learned behavioral skill. Given this, it is plausible that low self-efficacy decreased the likelihood that participants in this

study expected to practice new behavioral skills. Historically, these patients may have had difficulty learning new behaviors or implementing new skills sets and consequently believed that they would be unable to do so, despite exposure to training techniques taught in the Friendship and Intimacy group.

Participants in the Friendship and Intimacy group reported more favorable attitudes toward condom use. In particular, they perceived significantly less stigma associated with condom use. They also had more positive perceptions regarding the reliability and effectiveness of condoms, the pleasure associated with condoms, the embarrassment associated with the purchase of condoms, and the embarrassment associated with the negotiation and use of condoms. There were no significant differences between the two groups on these dimensions, however. In a similar study that provided skills training interventions to reduce HIV-risk, SPMI patients also failed to show any differences on the MCAS subscales during post-intervention assessment (Weinhardt, et al., 1997). It was suggested by these authors that this may have been influenced by participants' relatively low perception of their risk of infection, a variable that was not assessed in the current study. Perception of risk may be related to impaired insight, which is found in many people with severe mental illness.

In addition to examining the differences in treatment outcomes for participants in the treatment and control groups, additional analyses were conducted to investigate the difference between pre-treatment and post-treatment scores of the treatment group. Changes occurred in the expected direction for knowledge acquisition and condom attitudes related to the pleasure associated with condoms, stigma associated with condom use, and embarrassment about purchasing condoms. However, the improvements

observed were not significantly different from pre-treatment to post-treatment. This is likely to be due to the same issue of power noted above.

Limitations/Future Research

In addition to the small sample size in this study, another factor that may have impacted the research findings is the statistical correction method used to determine pre-treatment and post-treatment differences in the Friendship and Intimacy group. This Bonferroni method, which reduces the chances of obtaining false-positive results (i.e., Type I errors) when multiple pair wise tests are performed on a single set of data, was called for in this study due to the large number of t-tests conducted. In applying this correction method, it was determined that an adjusted p value of 0.005 was needed to reach statistical significance, thereby making it more difficult to observe significant findings. For example, based on the adjusted p-value of 0.005, the difference between the pre-treatment and post treatment scores on the MCAS Reliability and Effectiveness factor: $t(8) = 2.70$, $p = 0.01$ and the Q-LES-Q-18 General Quality of Life index: $t(8) = 2.82$, $p = 0.01$ failed to reach significance, yet under the traditional p-value of 0.05 they would have achieved statistical significance.

There were also limitations regarding treatment fidelity. Although manualized treatment should in theory improve standardization across treatment sites, clinicians' adherence to the treatment manual was not assessed in this study, making it possible that there were differences in treatment implementation. Also, there was no formal training provided to clinicians prior to the start of treatment, making it plausible that they had varying levels of competency in their ability to adequately implement treatment. Research has found that extensive deviations from skills training modules can have

negative effects, resulting in a failure to observe treatment gains (Wallace et al., 1992). Future research should include fidelity measures to assess the adequacy of implementation in order to ensure that interventions specified in the module are delivered as intended.

Another methodological flaw is related to the measures employed for data collection. The subscales of the MCAS lacked acceptable internal consistency and the Friendship and Intimacy Module Pre and Post Tests did not have documented evidence of the test's psychometric properties. Future investigations into the clinical utility of the Friendship and Intimacy module should consider more appropriate measures as well the limitations resulting from non-random group assignment and confounding variables such as symptom severity, psychotropic medication, and group attendance.

This study evaluated the effectiveness of the UCLA Friendship and Intimacy module. It was the first known investigation of this skills training module, and the results discussed add to the body of literature in support of sexual health education among persons with severe and persistent mental illness. The research presented also supports the notion that psychiatric patients can benefit from therapeutic interventions that address their sexual health and relationship needs. With the Friendship and Intimacy module as a tool, mental health clinicians can hopefully be less reluctant to address these areas of concern for patients. At the conclusion of the Friendship and Intimacy group, participants were asked to share their opinions about the group and reflect on their experience. Overall, feedback was limited; however, the comments that were provided were positive. In fact, the group was described as "excellent" and "educating," and

participants reported that the information provided helped them to have open discussions with their sexual partners.

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APPENDIX A

Friendship and Intimacy Module
Pre and Post Tests

1. You can tell if someone is willing to talk with you by
 - a. reading “go” and “no-go” signals
 - b. starting a conversation
 - c. keeping a conversation going
 - d. ending a conversation pleasantly
2. Basic conversation skills that are a foundation forming friendships include
 - a. knowing where to find people who share your interests and values
 - b. being able to start conversations with open-ended questions
 - e. using appropriate levels of self-disclosure, depending on how well you know the person
 - d. all of the above
3. Friendships can provide
 - a. satisfaction through companionship
 - b. security and self-esteem
 - c. social and emotional support
 - d. all of the above
4. Compliments are important in building a friendship because
 - a. they let the other person know that you like him/her
 - b. they prevent you from getting conceited or a “big head”
 - c. they can help you learn modesty by not taking them to heart
 - d. b and c above
5. Friendships with people you like will only be successful if they lead to
 - a. dating and sex
 - b. marriage
 - c. extra money
 - d. none of the above
6. One good thing to do when asking for a date is to
 - a. mention how much money you have
 - b. indicate he or she is special
 - c. talk about personal problems
 - d. suggest you do your favorite hobby together
7. If a person accepts a date, agree on
 - a. what to tell your family
 - b. whether to date once again
 - c. specific details such as day, time, and place
 - d. who will pay for what

8. Which people among the following are not good to date or develop intimacy with?
 - a. classmates who are about the same age
 - b. co-workers who are about the same age
 - c. teachers or work supervisors and employers
 - d. people you meet in singles groups
9. Good people to date are
 - a. counselors
 - b. people significantly younger than you
 - c. people with whom you've developed a friendship
 - d. therapists
10. You can keep the mood light on a date by
 - a. using a high amount of self disclosure
 - b. talking about pleasant things
 - c. discussing medications you take
 - d. speaking quickly
11. An important reason to ask for feedback on a date is so you can
 - a. express pleasure in spending time together
 - b. use good conversation skills
 - c. elicit compliments for yourself
 - d. modify your plans as needed
12. A cue that lets you know your date might be willing to kiss you goodnight include
 - a. he or she is standing close to you
 - b. he or she is looking at you
 - c. he or she has a pleasant expression
 - d. all of the above
13. Sexually transmitted diseases (STDs) are diseases that
 - a. you must never talk about
 - b. you can get from unsafe sex
 - c. are not very serious
 - d. usually go away by themselves
14. When first getting information about sex
 - a. it's normal to feel uncomfortable
 - b. you need to get a counselor's approval
 - c. you shouldn't ask too many questions
 - d. you should have a check up by a doctor
15. AIDs is caused by
 - a. hugging your partner
 - b. having too much sex
 - c. one specific way of having sex
 - d. the HIV virus

16. You can help prevent STDs by
 - a. abstinence
 - b. sharing sexual histories
 - c. using condoms and spermicidal jelly
 - d. all of the above
17. The only 100% effective way to prevent pregnancy is
 - a. birth control pills
 - b. condoms
 - c. abstinence
 - d. the “morning after” pill
18. When buying condoms it’s important to
 - a. choose latex condoms
 - b. get condoms with ribs
 - c. buy condoms through the mail
 - d. talk to your doctor
19. Consequences of an unplanned pregnancy can include
 - a. more recreation
 - b. fewer expenses
 - c. stress
 - d. a way to keep busy
20. Deciding to have sex will result in
 - a. emotional consequences
 - b. relationship consequences
 - c. physical consequences
 - d. all of the above
21. Sharing sexual histories will help you
 - a. avoid STDs
 - b. cool off before sex
 - c. have better sex
 - d. find a good partner
22. Commitment includes
 - a. no sex with anyone else
 - b. a continuous relationship
 - c. respect for each other over time
 - d. all of the above
23. When deciding to have sex, things to discuss include
 - a. contraception
 - b. methods for coping with frustration
 - c. medications you take
 - d. all of the above

24. A good reason to decide not to have sex in your relationship is
- a. you're not sure how to make love
 - b. you haven't talked about it with your doctor
 - c. you need time to make the right decision
 - d. you're feeling tired
25. If you don't have a condom
- a. you can just use spermicidal jelly
 - b. you can stop making love during intercourse
 - c. you should abstain from sexual intercourse
 - d. all of the above