EVALUATION OF A COMMUNITY-BASED SEX EDUCATION PROGRAM FOR ADULTS WITH DEVELOPMENTAL DISABILITIES

By

RACHEL AELENE NEAL

Bachelor of Arts
Oklahoma State University
Stillwater, Oklahoma
1997

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1999

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Thesis Approved:

Carolyn S. Henry

Thesis Adviser

Patricia A. Self

Linda C. Robinson

Diane Montgomery

Timothy J. Pettibone

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

The following study addresses the issue of sexuality education for individuals with developmental disabilities and the importance of including support persons in such programs. Issues discussed include sexuality attitudes and knowledge of individuals with developmental disabilities and their support persons, as well as inappropriate sexual behaviors exhibited by individuals with developmental disabilities. Specifically, this study examines selected aspects of *Responsible Choices for Sexuality*, a comprehensive, community-based sexuality education program developed by Marla Sanchez, PhD, LPC.

Significance of the Problem

The human rights movement of the 1960s in the United States brought attention to the rights of individuals with developmental disabilities. The concept of normalization was introduced in an effort to incorporate the norms of everyday life into the lives of individuals with developmental disabilities. For example, previously denied rights for individuals with developmental disabilities that emerged from the human rights movement include marriage, childbearing, and employment. In addition, sexuality emerged as a human right of individuals with developmental disabilities, which will be the focus of the current project. In recent decades, individuals with developmental disabilities have legally been recognized as having sexual rights (Rowe & Savage, 1987), including choosing to be involved in sexual relationships. However, society has been reluctant to approve of the sexual rights for individuals with developmental disabilities (McCabe, 1993).

Although professionals tend to view sexual development as a normative part of development in humans, including individuals with developmental disabilities, societal stereotypes often prevail that inaccurately portray individuals with developmental disabilities as asexual, oversexed, and/or sexual deviants (Ludlow, 1991). For example, members of society may tend to deny the possibility that individuals with developmental disabilities have valid sexual desires and qualities, preferring to assume that these individuals are asexual and do not need sexuality education. However, human nature includes sexuality, and individuals with developmental disabilities have physical and emotional needs involving sexuality. In addition, many people believe that individuals with developmental disabilities will never marry or have children. However, as individuals with developmental disabilities and their families become more aware of their rights and become more independent, many choose to marry or have adult sexual relationships (Kupper, 1995). Ultimately, comprehensive sexuality education holds excellent promise for preparing individuals with developmental disabilities to incorporate healthy sexuality and sexual rights into their lives.

Sexuality is often a difficult issue for individuals with developmental disabilities because many have little or no comprehension of sexuality, or very limited ways to express their feelings (Burke, Bedard, & Ludwig, 1998). Due to this limitation, there is concern for this population in regard to sexual abuse and experiences with sexual activity. First, research has documented a high rate of sexual victimization of individuals with developmental disabilities (Lumley & Miltenberger, 1997; Sobsey, 1994), including repeated victimizations (Sobsey & Doe, 1991). Unfortunately, incidents of sexual abuse may be under-reported since the nature of some cognitive disabilities common among individuals with developmental disabilities can hinder detection (Burke et al., 1998). Further, the high risk of sexual victimization among individuals with developmental disabilities may be increased by limited exposure to sexuality education and abuse prevention. Since many in the overall society minimize sexuality as a part of the lives of individuals with developmental disabilities, the availability of developmentally appropriate

sexuality education may be limited. In contrast, the Sexuality Information and Education Council of the United States (SEICUS) advocates that sexuality programs are needed to meet the specific needs of communities and cultural groups (SEICUS, 1997). Therefore, individuals with developmental disabilities can be viewed as a population that merits both developmentally and culturally sensitive sexuality education programs.

Second, according to McCabe and Cummins (1996), although adults with developmental disabilities often have less experience with emotional and sexual intimacy, the risk for pregnancy and sexually transmitted diseases is higher than that of adults without developmental disabilities. Therefore, sexually active adults with developmental disabilities need information about contraception and disease prevention that can be easily understood by individuals with lower levels of comprehension (Martin, 1997). Rowe and Savage (1987) suggested that a key factor in designing sexuality education programs for adults with developmental disabilities is to recognize that inadequate social skills may increase the risk for sexual abuse or inappropriate sexual expression. One approach to addressing sexuality education for adults with developmental disabilities who may have inadequate sexual socialization is to design and evaluate community-based sexuality education programs that are developed with attention given to the cognitive and social challenges that may be common among members of this population (Irwin, 1996; McCabe, 1993; Whitehouse & McCabe, 1997).

Third, caregivers of children *without* developmental disabilities have difficulty dealing with the issue of sexuality (Rowe & Savage, 1987), yet other parts of the community (e.g., school or church) often provide basic sexuality education for the broader population in the United States. However, caregivers of those *with* developmental disabilities face additional challenges because social norms do not necessarily encourage developmentally appropriate sexuality education opportunities for individuals with developmental disabilities or prepare caregivers to effectively provide sexual socialization or education. In addition, because caregiving for individuals with developmental disabilities often extends into adulthood, caregivers often assume responsibility

for sexuality education, typically without formal preparation. Further, few programs are available to support caregivers who seek services to help prepare individuals with developmental disabilities for adult sexuality. Therefore, appropriate community-based sexuality education programs hold potential to provide caregivers with the knowledge and skills needed to appropriately teach and support those with developmental disabilities.

Community-based programming for individuals with developmental disabilities is becoming a national trend (Heller, Miller, & Hsich, 1999). However, community service providers often design programs with inadequate evaluation procedures (Myers-Walls, 2000). Therefore, agencies and community-based programs that target individuals with developmental disabilities need the assistance of professionals with experience in program evaluation to maintain high-quality programming.

Problem Statement

Many individuals with developmental disabilities and their families have filed class action suits against their states, arguing that those residing in institutional settings have been violated of their individual civil rights (e.g., choosing to be in intimate relationships, marrying, or having children). In response to these suits, individuals with developmental disabilities have been de-institutionalized, with the agreement that additional community services will be provided to meet the needs of this population (Tyler & Bourguet, 1997). However, states are not equipped with services for these individuals and their families. In addition, available community programs have insufficient evaluation procedures to assess the effectiveness of the programs. Ultimately, those states searching for community programs targeting individuals with developmental disabilities have limited information regarding the effectiveness of those programs. Therefore, effective evaluation procedures are needed in order to allow states, family life educators, and others to make informed decisions regarding programming.

Purpose of the Study

The program of interest for this study, *Responsible Choices for Sexuality,* is a community-based, comprehensive, socio-educational human sexuality program developed specifically for individuals with developmental disabilities and their support persons (Sanchez, 2003). The program is based on the perspective that individuals with developmental disabilities are sexual beings who deserve to be empowered with accurate knowledge and skills to assist them in their natural sexual development and to avoid sexual victimization and perpetration. Prior to the program, individuals and their support persons are given pre-program assessments relating to sexual knowledge and/or behavior. The same instruments are administered as post-tests after completion of the program. All instruments were developed by the author of the program.

Although *Responsible Choices for Sexuality* has been delivered over five years to over 300 individuals with developmental disabilities and their support persons in a single state, little evaluation of the data collected prior to beginning or after completing the program is available to help the program designer refine or strengthen the program. Therefore, the purpose of this study was to examine the pre- and post-test data collected from the adults with developmental disabilities and their support persons. Specifically, pre- and post-program scores will be examined regarding (a) adults with developmental disabilities' knowledge of sexuality, (b) support persons' knowledge of sexuality and developmental disabilities, and (c) adults with developmental disabilities' inappropriate sexual behaviors as reported by support persons. Additionally, the relationship of sexuality knowledge, both before and after the program, and support persons' reports of inappropriate sexual behaviors was examined. Thus, the following research questions guide this study:

1. To what extent do (a) adults with developmental disabilities' knowledge of sexuality, (b) support persons' knowledge of sexuality and developmental disabilities, and (c) the support persons' reports of inappropriate sexual behaviors exhibited by the adults with

developmental disabilities vary before and after participating in *Responsible Choices for Sexuality*?

2. To what extent does adults with developmental disabilities' knowledge of sexuality relate to support persons' reports of inappropriate sexual behaviors exhibited by adults with developmental disabilities before and after participating in *Responsible Choices for Sexuality*?

Based upon the results of the study, recommendations for program modification, and implications for others interested in developing or evaluating similar programs are provided.

Although an initial evaluation of *Responsible Choices for Sexuality* was previously conducted to examine knowledge gained and satisfaction of participants (Longmore, 2002), this project extends beyond initial evaluation efforts by (a) utilizing a theoretical framework, (b) using additional statistical analyses, (c) examining the relationship between adults with developmental disabilities' sexuality knowledge and inappropriate sexual behaviors, and (d) examining the validity and reliability of the measurements administered throughout the program.

Theoretical Framework: Family Systems Perspectives

Systems perspectives as applied to families serve as the theoretical framework guiding this study. Family systems perspectives are utilized to conceptualize the incorporation of family and support persons into a sexuality education program for adults with developmental disabilities.

The family systems perspectives are a collection of loosely related approaches that have significant application to the family and other close relationships. The basic tenet of family systems perspectives is that humans are part of larger interactional and social systems that are intrinsically linked together through patterns of social organization and interaction (Whitchurch & Constantine, 1993). Simply defined, a family system is comprised of more than just the family members, but also the interactions and structure of the family in such a way that the members behave in a predictable relationship with one another, thus creating a pattern that maintains a stable equilibrium by making changes in itself. Ultimately, the primary focus of family systems

perspectives is on process (e.g., family functioning, family communication) rather than structure (e.g., positions, roles; Whitchurch & Constantine, 1993).

General systems theory, as applied to the family, views the family as a system composed of interconnected parts where the family system is greater than the sum of the family members (i.e., nonsummativity). In other words, the family system cannot be wholly understood by simply looking at the parts (i.e., wholeness) since the system consists of more than the individual family members. Therefore, the family system is not limited to just its members, in that the system is also comprised of the various subsystems and the whole system (White & Klein, 2002).

A family system is one component of a whole hierarchy of other systems (von Bertalanffy, 1968). Systems that are smaller than the family system are known as subsystems (Becvar & Becvar, 1996; White & Klein, 2002). Various subsystems can be arranged in many different ways (e.g., marital dyad, sibling subsystem, mother-child dyad, father-child dyad, mother-father-child triad). In addition, those who live in institutional or group home settings may have subsystems comprised of the individual and a member from agency support staff. Similarly, those who live at home may have subsystems comprised of the individual and a family member. Each subsystem exists within the relationship of the larger system, just as the larger system exists within a suprasystem (e.g., family of origin, racial or ethnic subculture, etc.). In general, the larger the system, the more it is inclined to exert control over the smaller systems. Smaller systems may have influence on larger systems but typically do not have any control over them (White & Klein, 2002).

Another fundamental concept in general systemic thinking is boundaries. Boundaries are hypothetical constructs to conceptualize how various systems (e.g., dyads), or levels of systems (e.g., subsystems and susprasystems), are distinguishable from one another (White & Klein, 2002; Whitchurch & Constantine, 1993). When identifying a system, a boundary defines what is and what is not included in the system (Becvar & Becvar, 1996). In addition, boundaries act as buffers for information entering and exiting the system.

Two other important concepts of family systems perspectives include first-order and second-order changes. A first-order change occurs when a family member makes an initial change, but the system structure or process remains the same or returns to its initial structure. For example, a family including an individual with a developmental disability may attend a community-based program to teach the individual the self-care skills needed to live independently. The change, in this case, may only be short term if the family continues to provide continuous care for the individual. On the other hand, if the change is of such magnitude that the process or structure of the system changes to adapt, then second-order change occurs (Whitchurch & Constantine, 1993). For example, the family in the previous example might make a second- order change by encouraging the individual with the developmental disability to assume greater responsibility for his or her own self care and no longer need to provide continuous care for the individual.

In regard to sexuality, general systems perspectives are most often used in understanding problematic aspects of sexuality, as opposed to addressing sexuality as a fundamental part of human development and family process (Chilman, 1990; Maddock, 1990). For example, general systems perspectives have been applied to areas such as sexual therapy/dysfunction, sexual abuse/incest, and sexual aggression in children (Jurich & Myers-Bowman, 1998). For the current project, family systems perspectives are used to aid in the understanding of how incorporating the support systems of individuals with developmental disabilities into sexuality education can facilitate an increase in knowledge and a decrease of inappropriate sexual behaviors exhibited by members of this population. In other words, a family systems perspective is used to guide the better understanding of incorporating the families or support networks into sexuality education programs, a specific type of family life education program.

Overview of Family Systems Perspectives on Sexuality Education for Individuals with Developmental Disabilities

Family life education (FLE) approaches may be guided by a variety of theoretical perspectives, including family systems perspectives. Family systems perspectives support the

importance of reciprocal interactions between family members within systems (Bredehoft, 2001). Specifically, families are viewed as involving a complex set of interaction patterns whereby each individual or subsystem influences, and is influenced by, other components of the system (Minuchin, 1974). Therefore, FLE programs using family systems perspectives are designed to provide the knowledge necessary in developing and promoting individual and family well-being while recognizing that the behavior of one family member is intertwined in interaction patterns with other family members. Further, when families have a member with a developmental disability, there are often support persons from service programs who become an integral part of the broader extended "family" system. Thus, FLE programs are designed to promote individual and family well-being through prevention, intervention, and educational activities that may consist of program development and implementation, program evaluation, teaching and training, and research (Bredehoft, 2001). FLE may cover a range of content areas including (a) pre-marital enrichment, (b) interrelationship of families, (c) human sexuality, (d) marital enrichment, (e) parent education, (f) communication, (g) financial management, (h), stress reduction, (i) anger management, and (j) conflict resolution.

According to Arcus (1995), several advances in FLE have occurred in recent years. First, parent education has been modified to meet the needs of specific groups (e.g., individuals with developmental disabilities, sexually abused, teen parents). Second, marriage education has been modified to address various aspects of marriage (e.g., enrichment, divorce issues, remarriage). Third, sexuality education has become more comprehensive and integrative. For example, sexuality education has a history of problems such as inadequate preparation, divergent views, and dealing mostly with anatomy and reproduction. However, more recently, the primary goal of sexuality education has been sexual health. Therefore, FLE programs have been designed to prevent or reduce social problems, (e.g., pregnancy, disease, and abuse) through teaching values, self-esteem, skill-development, and knowledge.

In regard to evaluation, many FLE programs need appropriate procedures for program improvement and accountability (Small, 1990). For example, many programs receive government funding (e.g., county, state, and federal). Therefore, these programs are under great inspection and subject to accountability by policymakers when government funds start to diminish and when programs begin to compete for sponsorship (Rossi & Freeman, 1989). In addition, FLE programs developed specifically for participants with limited intellect may need to be sensitive to their cognitive limitations (Foxx, McMorrow, Story, & Rogers, 1984). Similarly, programs designed for individuals with limited social skills may require methodologies that accommodate such limitations. Therefore, various methods must be utilized to assess the participants' understanding of the information being delivered, so as to identify the effectiveness of the program. In addition, evaluation is necessary for program improvement by encouraging the modifications that programs need when they have lost their rationale and objectives over time (Rossi & Freeman, 1989).

Outcome evaluations of FLE are needed throughout the existence of the program (Small, 1990), after the program has been operating long enough to identify and eliminate problems and to assure continued effectiveness. Similarly, summative evaluations are concerned with the results of the program, if program goals were met, and how participants were affected by the program (e.g., knowledge gain). In addition, summative evaluations are used to determine if programs should be modified, replicated, or discontinued (Ayers, 1989). Therefore, this study involves a summative evaluation of the sexuality education program, *Responsible Choices for Sexuality.*

Theoretical Limitations

One limitation of general systems perspectives in regard to the current study is that this theory proposes circular rather than linear causality. However, if significant changes are found from Time 1 to Time 2 in a one-group pre-test post-test design, the findings reflect a non-systemic linear causal explanation (i.e., suggesting the treatment caused the changes). However,

according to general systems perspectives, any set of interactions can be "punctuated" to allow for consideration of a specific time frame. Thus, while sexual socialization is part of a much broader time frame, this study limits the focus to the time frame from pre-test to post-test data collection. Theoretically, limiting (or punctuating) the process in this way arbitrarily assigns the beginning of a sequence to allow for the examination of changes in pre- and post-test scores from before to after completion of the program. Such a process allows for the use of statistical procedures that assume the program is the "cause" of any measured "effects" (Montgomery & Fewer, 1988).

General systems theory proposes more interactive, dynamic models based on equifinality and circular causal explanations (von Bertalanffy, 1968; Whitchurch & Constantine, 1993), in which there may be several methods for achieving the same result. However, these models are hard to test given the limitations inherent in social sciences that have numerous confounding variables. In addition, traditional statistics measure linear relationships and general systems theory is concerned with circular relationships. Lastly, it would be difficult to operationalize the level of second-order change, especially based on change from pre-test to post-test.

In regard to FLE, a specific challenge is expanding programs to meet the needs of neglected audiences (e.g., individuals with developmental disabilities). In addition, FLE programs need to be modified or developed to focus on the entire family, as opposed to only individual family members. Lastly, research needs to address the effectiveness of FLE programs and how programs affect various audiences differently. For example, determining gender, age, socio-economic, geographic, or cultural factors are related to different experiences in FLE. In addition the long term impact of FLE programs merits further consideration. Therefore, new methodologies and designs are needed to answer these questions (Arcus, 1995).

Conceptual Definitions

The following concepts are important in discussing the issue of sexuality for individuals with developmental disabilities. The concepts defined will be utilized extensively throughout the course of this project.

Consumer. According to *Responsible Choices for Sexuality*, a consumer is an individual with a developmental disability who participates in the program.

Developmental disability. A developmental disability refers to a severe, chronic disability of an individual that (a) is caused by a mental or physical impairment or combination of both, (b) is likely to continue indefinitely, (c) manifests itself before the individual reaches the age of 22 years, (d) reflects the individual's need for a combination and sequence of extended or lifelong individually planned services, and (e) results in significant functional limitations in three or more areas of major life activity (e.g., self-care, receptive and expressive language, learning, mobility, self-direction; Developmental Disabilities Assistance and Bill of Rights Act, 2000).

Family life education. Family life education (FLE) refers to programs that are designed to enhance individual and family life (Bredehoft, 2001). These programs include both preventative and educational activities (e.g., development, implementation, and evaluation of programs; teaching and training; and research). The content areas of FLE programs include (a) anger management, (b) communication, (c) conflict resolution, (d) financial management, (e) human sexuality, (f) interrelationship of families, (g) marital enrichment, (h) parent education, (i) pre-marital enrichment, and (j) stress reduction.

Inappropriate sexual behaviors. Inappropriate sexual behaviors are those that occur outside of having an appropriate partner's consent, an appropriate time and place, and society's range of normality (Griffiths, Quinsey, & Hingsburger, 1989). Examples of inappropriate sexual behaviors include (a) masturbating in public, (b) asking non-intimate peers, staff, or acquaintances to engage in sexual acts, (c) touching another adult's private body parts in public,

and (d) hurting others to become sexually stimulated. According to Ward, Trigler, and Pfeiffer (2001), the most common inappropriate sexual behaviors are those that (a) occur in public places, (b) inappropriately involve others, and (c) involve minors. Inappropriate sexual behaviors are not necessarily deemed as sexually abusive, but may be a part of or lead to sexually abusive acts.

Sexual abuse. Sexual abuse refers to a wide range of exploitive behaviors that may carry legal ramifications (e.g., rape, incest, sexual touching without consent, indecent acts). In addition, sexual abuse includes offenses toward an individual with a lack of capacity for informed consent (Burke, Bedard, & Ludwig, 1998).

Sexuality attitudes. Sexuality attitudes are views concerning sexuality, in general and personally, based on experiences that emerge through interactions with caregivers, peers, media, and the community (Lunksy & Konstantareas, 1998; Szollos & McCabe, 1995).

Sexuality education. In general, sexuality education promotes the learning of information that helps to form beliefs and attitudes toward various aspects of sexuality (National Guidelines Task Force, 1991). Sexuality education is practical and may be either formal or informal (Furey & Niesen, 1994). Sexuality education for adults with developmental disabilities includes components addressing self-care skills, distinguishing body parts, relationships, social interaction and manners, sexual exploitation, masturbation, reproduction and contraception, and preventing sexually transmitted diseases (Kupper, 1995).

Sexuality knowledge. Sexuality knowledge refers to the amount of retained information regarding various aspects of sexuality, such as reproduction, body part identification, marriage, and sexual abuse (McCabe, Cummins, & Deeks, 1999). The amount of acquired sexuality knowledge depends, in part, on the individual's level of cognitive functioning (Konstantareas & Lunsky, 1997).

Support person. A support person is a professional caregiver, family caregiver, or any member of a support staff who attends the *Responsible Choices for Sexuality* family life education program with the consumer.

Conceptual Hypotheses

The current study examines four conceptual hypotheses. The concepts within the following hypotheses are defined above.

1. Consumers who participate in the *Responsible Choices for Sexuality* program will demonstrate greater sexuality knowledge after the program than before the program.
2. Support person knowledge of sexuality and developmental disabilities is greater after the completion of *Responsible Choices for Sexuality.*
3. Support persons will report lower frequencies of inappropriate sexual behaviors exhibited by consumers after the completion of *Responsible Choices for Sexuality.*
4. Consumer knowledge of sexuality is negatively related to frequency of inappropriate sexual behavior before and after the completion of *Responsible Choices for Sexuality.*

Summary

In summary, this study examines pre- and post-test data from consumers and support persons who complete *Responsible Choices for Sexuality,* a community-based, comprehensive sexuality education program for individuals with developmental disabilities (i.e., consumers) and their support persons. Chapter 1 provides an overview of the significance of the problem, the problem statement and research questions, the perspectives that guide the study (family systems and family life education), conceptual definitions, and conceptual hypotheses.

Chapter 2 provides an extensive review of the literature regarding sexuality for individuals with developmental disabilities. Specifically, (a) sexuality knowledge, attitudes, and behaviors of individuals with developmental disabilities, (b) support person knowledge and attitudes regarding the sexuality of individuals with developmental disabilities, and (c) sexuality education

for individuals with developmental disabilities (e.g., barriers, need, current programs, importance of contextual factors) are discussed. In addition, an in-depth application of family systems and FLE perspectives to *Responsible Choices for Sexuality*, as well as a description of program, are provided.

Chapter 3 provides a discussion of the methodology utilized for this study, including the research design, sample and procedure, measurement, operational hypotheses, and methodological limitations. Next, Chapter 4 provides the details and results of the statistical analyses. Lastly, Chapter 5 provides a discussion of the results, recommendations for modifying *Responsible Choices for Sexuality*, recommendations for future research and family life education, and conclusions.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The goal of this research study is to examine selected aspects of *Responsible Choices for Sexuality,* a community-based sexuality education program for individuals with developmental disabilities and their support persons. This chapter includes a description of the program of interest (*Responsible Choices for Sexuality*); the application of family systems and family life education perspectives to one family life education program, a sexuality education program for adults with developmental disabilities; and a literature review of research related to sexuality for individuals with developmental disabilities and their support persons. Specifically, the literature review covers the following topics (a) sexuality knowledge, attitudes, and behaviors of individuals with developmental disabilities, (b) support person knowledge and attitudes regarding the sexuality of individuals with developmental disabilities, and (c) sexuality education for individuals with developmental disabilities. Several methods were utilized for locating information regarding this issue. These methods include searching research databases, examining reference sections of recent books and published articles, and searching for relevant research-based books via online bookstores.

Responsible Choices for Sexuality Program

Responsible Choices for Sexuality is a socio-educational human sexuality program developed specifically for individuals with developmental disabilities (i.e., consumers) and their support persons. The program was developed in 1998 by Marla Sanchez, PhD, LPC, and was first delivered in January of 1999. To date, the program has been delivered over 50 times to groups of

individuals with developmental disabilities and their support persons in a Midwestern state. The curriculum is based on the premise that human sexuality is an essential component of the natural process of human development. More specifically, the program is predicated on the belief that individuals with developmental disabilities are sexual beings and deserve to be empowered with accurate knowledge and skills to assist them in their natural sexual development and to avoid sexual abuse.

Rouse and Birch (1991) note, "With increased opportunities to interact socially and develop new relationships, individuals with developmental disabilities are expected to make informed and responsible decisions" (p. ii). However, the sexual responsibility of individuals with developmental disabilities is often related to the availability of support persons in their social environments who are competent and willing to teach and guide them through the processes of their sexual development. *Responsible Choices for Sexuality* is designed to recognize and support the critical role of family values and beliefs in the development and expression of sexuality. Thus, a key goal of *Responsible Choices for Sexuality* is to equip family members and caregivers with sexual development knowledge and skill to become more proficient in teaching, guiding, and supporting sexual development in family members with developmental disabilities. By including the support and involvement of family members or support persons, this program promotes the development and maintenance of healthy and stable relationships as an avenue for understanding and appropriately expressing sexuality for those with developmental disabilities.

Responsible Choices for Sexuality is a family life education program designed to be a tool for fostering the well-being and adjustment of families as they socialize those members with developmental disabilities toward natural and positive sexual development. This program reflects family systems and family life education perspectives that guide the conceptualization of the present study. Specifically, from a family systems perspective, family members or support persons are fundamental elements of sexual socialization processes. Thus, the inclusion of family member or support persons of individuals with developmental disabilities encourages greater

potential for lasting change based upon the *Responsible Choices for Sexuality* program. In addition, since *Responsible Choices for Sexuality* is supported through state funding, the program includes the broader social environment to provide resources for promoting responsible sexuality by preparing individuals with developmental disabilities to make healthy sexual choices based on respect for themselves, respect for sexual partners, and consideration of the consequences of various sexual behaviors.

Applying Family Systems and Family Life Education Perspectives to Sexuality Education for Individuals with Developmental Disabilities

The examination of selected aspects of *Responsible Choices for Sexuality* will be guided by family systems perspectives. Although Chapter 1 provides an overview of the application of family systems perspectives to family life education, this section focuses on the application of family systems and family life education approaches to understanding sexuality and sexuality education for individuals with developmental disabilities.

Much of the scholarship on sexuality and individuals with developmental disabilities is atheoretical, descriptive in nature and based on specific issues, such as sexual abuse (e.g., Burke, Bedard, & Ludwig, 1998; Furey & Niesen, 1994; McCarthy & Thompson, 1997). Little literature has utilized theoretical frameworks (e.g., family stress theory, family systems perspectives) to guide research concerning the issue of sexuality for individuals with developmental disabilities (e.g., Sandler & Mistretta, 1998). However, family systems perspectives are a promising approach for considering how members of support systems (including family members or service providers) may be inherent components of the sexual socialization processes for those with developmental disabilities.

According to White and Klein (2002), family systems perspectives view families as "devoted to maintaining social and spatial relationships within the family and between the family and the environment" (p. 135). In the late 1970s, only a few areas within the study of family dynamics were examined utilizing systems perspectives (e.g., communication and boundary establishment).

As time and research progressed, systems perspectives were applied to many more family issues. Systemic approaches toward families include "how family processes should be understood; the relationship of family systems to other systems; and how systems change" (Whitchurch & Constantine, 1993, p. 330). Therefore, family systems perspectives address key issues relevant to sexuality for individuals with developmental disabilities. Specifically, sexuality involves both social and spatial relationships, and individuals with developmental disabilities have extended systems that are involved in the development of sexual socialization.

Although developed using a variety of theoretical or atheoretical approaches, consistent with family systems perspectives, family life education (FLE) programs are typically designed to enhance any or all of the following: (a) individual well-being, (b) family well-being, or (c) effective individual or family functioning within the broader community. FLE programs include both preventative and educational activities (e.g., development, implementation, and evaluation of programs; teaching and training; and research). The content areas of FLE programs may include a variety of topics including any of the following (a) pre-marital enrichment, (b) interrelationship of families, (c) human sexuality, (d) marital enrichment, (e) parent education, (f) communication, (g) financial management, (h), stress reduction, (i) anger management, and (j) conflict resolution (Bredehoft, 2001). Consistent with traditions of FLE in providing sexuality education, the FLE program of interest, *Responsible Choices for Sexuality*, was designed as a preventive and educational program. However, this program was designed to go beyond the traditional approaches to sexuality education by focusing on a target population, individuals with developmental disabilities (i.e., consumers), and by including a key member of the consumer's system (i.e., a family member or other support person).

The following section presents the application of family systems perspectives to FLE so as to (a) support the importance of incorporating families into sexuality education programs and (b) provide a foundation for evaluating selected aspects of the *Responsible Choices for Sexuality* program

Family Systems Perspectives on Family Life Education

Family systems perspectives support the idea that addressing issues by incorporating families or support systems of an individual will promote more positive change within the system rather than involving only the individual. In regard to family life education, many programs only involve the targeted individuals, as opposed to the entire system. For example, many sexuality education programs developed to prevent sexual abuse only involve those at risk for sexual abuse, and do not incorporate families or support systems (Arcus, 1995). However, from family systems perspectives, if a family life education program encourages healthy family functioning by involving the family/support system in the program, there will be positive growth for the individual, as well as the family system. In other words, family or support systems have a strong involvement in individuals' behaviors, and should be considered when designing family life education programs (Doherty, 1995).

Responsible Choices for Sexuality. Consistent with family systems perspectives, the family life education program, *Responsible Choices for Sexuality*, was developed and currently operates, within the context of the socio-cultural perspective of human sexuality. This perspective views human sexuality as a life-long process that is a natural, positive, and a critical component of physical, emotional, and social growth (Reiss, 1990). This perspective explains human sexuality from a lifespan, ecological, multi-disciplinary context (Chilman, 1990). Supporters of this perspective assert that sexuality is influenced by all socio-cultural experiences, including changes over time.

Using family systems perspectives to evaluate a program within the socio-cultural tradition holds promise since both views support the idea that individuals live and interact within broader social structures. One of the central ideas of family systems perspectives is that individual development, including sexual development, occurs in context with interaction patterns within families and other close associates (e.g., support persons). Family and support systems tend have hierarchical organization (Whitchurch & Constantine, 1993) comprised of smaller subsystems

(e.g., parent-child dyads or consumer-support person dyads) that are also parts of larger suprasystems. For example, larger suprasystems include community services, community norms, political structures, federal policies and laws, and socio-historical changes. In general, suprasystems have more influence on the smaller systems, although influence can go either way.

Suprasystems are extremely important in the development and implementation of *Responsible Choices for Sexuality*. Specifically, if not for changes in the suprasystems, a program such as *Responsible Choices for Sexuality* would not exist. For example, isolation, sterilization, and castration were commonly used in the past to restrict the sexual expression of individuals with developmental disabilities (Rowe & Savage, 1986). However, with changes in policies, attitudes, and community norms within the suprasystems regarding (a) sexuality, (b) sexuality education, and (c) sexuality in relation to individuals with developmental disabilities, there has been recognition that these individuals are in fact sexual beings and could benefit from sexuality education.

Responsible Choices for Sexuality recognizes the importance of interdependence and interconnectedness. Interdependence is the idea that each person's behavior is associated with, depends upon, and fits with the behavior of every other member of the system (Hanson, 1995; Montgomery & Fewer, 1988). Interconnectedness refers to how all parts of the system are interrelated (White & Klein, 2002). Therefore, *Responsible Choices for Sexuality* provides training to the individuals with developmental disabilities (i.e., consumers), requiring that at least one support person (operating within the consumer's system) attend a separate training and complete the program sessions with their consumer. The support person may be a family member (especially if the consumer lives at home), a direct-care staff member in a supported living arrangement or institutional setting, or a social worker. By including both a consumer and at least one support person, the interdependence between these two individuals may influence each other's world views (i.e., maps) of sexuality in relation to individuals with developmental disabilities. Ultimately, the consumer and his/her support person(s) are considered a subsystem

of the whole system because they exist as an entity within the whole family or support system. The inclusion of a member from the consumer's system separates *Responsible Choices for Sexuality* from most programs that only provide training for the individuals with developmental disabilities.

In addition, boundaries are an issue for support persons and those with developmental disabilities. Boundaries are important in allowing individuals to take responsibility for their own behaviors by setting limits and recognizing the limits of others (Whitchurch & Constantine, 1993). Specifically, a challenge for support persons is to establish appropriate boundaries in their interactions when caring for individuals with developmental disabilities. For example, a support person may clean the individual's face, help, or watch the individual get dressed. Therefore, the lack of clear boundaries may inadvertently be encouraged due to special needs of individuals with developmental disabilities. In turn, for individuals with developmental disabilities to experience unclear boundaries with support persons may generalize the unclear boundaries to relationships with others, resulting in increased risk for watching others undress or touching others inappropriately. *Responsible Choices for Sexuality* is designed to help establish appropriate boundaries between support persons and the consumers, to help those individuals understand appropriate and inappropriate behaviors, as well as understand appropriate boundaries within the broader social environment.

Another distinct feature of *Responsible Choices for Sexuality* is the inclusion of holism and nonsummativity. Specifically, these two terms refer to the ideas that (a) the system is composed of interconnected parts, (b) the system is greater than the sum of the parts, and (c) the system must be understood as a whole (White & Klein, 2002). Although these concepts are generally applied to systems of people, the concepts can also be applied to constructs (Whitchurch & Constantine, 1993) such as sexuality education for individuals with developmental disabilities. More specifically, sexuality education for individuals with developmental disabilities exists within suprasystems such as family and institution rules, as well as community and societal

norms and laws, and is comprised of many parts. Often, sexuality programs for individuals with developmental disabilities only focus on one part of sexuality (e.g., pregnancy prevention, STD prevention, sexual abuse prevention) without considering the relationship of all aspects of sexuality in the subsystems and suprasystem. *Responsible Choices for Sexuality* is built upon the systemic assumption that sexuality cannot be understood by simply looking at the parts. Therefore, the program focuses on many integrated aspects of sexuality such as body parts, hygiene, feelings, relationships, individual and community values, intra- and inter-sexual experiences, sexual abuse, societal laws, pregnancy, and sexually transmitted diseases. By enhancing the understanding of many parts of sexuality, then perhaps sexuality education will be more likely to make a difference in the maps of the participants (the relationships they understand between parts of sexuality and the social context).

The goal of *Responsible Choices for Sexuality* is to facilitate second-order change in the consumers (i.e., individuals with developmental disabilities) and their support persons in regard to sexuality. A second-order change refers to a transformation of status and meaning regarding sexuality in the system (Terkelsen, 1980). To achieve a second-order change, *Responsible Choices for Sexuality* provides a training program for the support persons of the consumer, as well as training for the consumers in an 8- or 16-week education program for the consumer. The goal is to provide enough positive feedback (i.e., deviation amplifying), or information, that enables the system to grow, create, innovate, and change (Olson, Sprenkle, & Russell, 1979). The positive feedback would then facilitate first-order change, or increments of adaptation and mastery made by individuals within the system (Terkelsen, 1980), in the consumers and support persons. The successful first-order developments may then pave the way for later second-order developments. Specifically, *Responsible Choices for Sexuality* desires changes in (a) consumers' knowledge of sexuality, (b) support persons' knowledge of sexuality and developmental disabilities, and (c) frequency of consumers' inappropriate sexual behaviors. For example, the

inclusion of the support person makes it possible for both consumers and support persons to make changes on the same issue, increasing the possibility for lasting substantive change.

By including the support persons in sexuality education, the hope is to decrease negative feedback (i.e., deviation dampening) by the support person once the consumer leaves the program. In other words, the support person and consumer can process the information together to facilitate change. According to White and Klein (2002), the greater the number of channels for processing information in the system, the less negative feedback that will occur.

In Figure 1 (see Appendix C), positive feedback is positively related to first-order change. However, this relationship is moderated by negative feedback. As indicated in Figure 2 (see Appendix C), the positive feedback promoting change in this dissertation will be *Responsible Choices for Sexuality*. The indicators of change will be (a) variation from pre-test to post-test in consumers' knowledge of sexuality, (b) variation from pre-test to post-test in support persons' knowledge of sexuality and developmental disabilities, and (c) variation from pre-test to post-test in consumers' behavior (i.e., inappropriate sexual behaviors) as reported by support persons. Of course, the researcher and family systems perspectives recognize that *Responsible Choices for Sexuality* is only one type of positive feedback that may be influencing change, as well as the notion that negative feedback could include a variety of forces.

Sexuality and Individuals with Developmental Disabilities

Healthy sexuality is essential to overall health and well-being. One element of healthy sexuality reflects an absence of problems such as sexually transmitted diseases (STDs) and reproductive disorders, control of fertility, avoidance of unwanted pregnancies, and expressing sexuality without exploitation or abuse (Centers for Disease Control and Prevention, 1996). However, healthy sexuality is much broader, and involves a range of normative developmental sexual socialization that prepares individuals to address sexual desires within the context of broader social norms. By assisting individuals with developmental disabilities in developing healthy sexuality, not only can individuals' lives be enriched by having the abilities to form

relationships or have appropriate sexual relationships, but the risk for problematic sexual attitudes or behavior also may be minimized (Grimes, 1998).

Although sexuality for individuals with developmental disabilities has received increased attention in recent decades, there is still much to be discovered. Specifically, areas such as sexual attitudes, knowledge, behavior, and abuse of individuals with developmental disabilities need to be further investigated. In addition, the role of support persons within the development and education of sexuality for individuals with developmental disabilities needs to continue to be examined.

Sexual Attitudes of Individuals with Developmental Disabilities

One of the key areas in understanding human sexuality is the attitudes that individuals hold about sexuality. Sexuality attitudes include views toward sexuality based on past experiences or interactions with families, caregivers, peers, media, and the community (Lunksy & Konstantareas, 1998; Szollos & McCabe, 1995). Various feelings and attitudes exist within the general public concerning sexuality. These attitudes, which are important in gaining insight into relationships and personal sexual issues, are based on issues such as ethnicity, socioeconomic status, gender, and age.

The sexuality attitudes of individuals with developmental disabilities have not been examined as specifically as with other subgroups. An understanding of existing sexuality attitudes is necessary in promoting more healthy sexual attitudes for individuals with developmental disabilities and their support persons (Lunsky & Konstantareas, 1998). Interestingly, the sexuality attitudes of those with developmental disabilities have been found to be more conservative than other subgroups of the broader community (Lunsky & Konstantareas, 1998; Watson & Rogers, 1980). Specifically, research indicates that adults with mild mental retardation often have negative feelings towards sexual intercourse, oral sex, masturbation, and homosexuality (McCabe & Cummins, 1996). In contrast, these same adults are more likely to feel positive about sexual abuse, not using condoms, and having sex with any person.

Appropriate measures of the sexuality attitudes, needs, and knowledge of adults with developmental disabilities may help parents, caregivers, and researchers define the difficulties that are experienced by this population. "The difficulties that people have in accepting and valuing sexuality among people with disabilities is exemplified by the lack of assessment instruments to evaluate the sexual knowledge, experience, attitudes, or needs of these people" (McCabe et al., 1999, p. 242). Gaining this valuable information may (a) enhance the ability of individuals with developmental disabilities to make responsible choices concerning sexuality and (b) increase the effectiveness of sexuality education programs.

Part of the reason little is known about the sexuality attitudes and feelings of individuals with developmental disabilities is because they are often not asked how they feel about their sexuality (Garwood & McCabe, 2000; Szollos & McCabe, 1995). While several scales have been developed to measure sexual knowledge, experience, and interest (Lunsky & Konstantareas, 1998), attitudes toward sexuality have received less attention. However, the limited (and dated) literature about individuals with developmental disabilities' attitudes about sexuality has suggested that members of this population tend have traditional attitudes toward sexual activities (e.g., masturbation, nudity, talking about sex; Hall, Morris, & Baker, 1973).

According to Brantlinger (1988), teachers of secondary school students with developmental disabilities have reported that the majority of these students desire social intimacy and sexual relationships. In addition, intimacy and sexuality appear to be crucial parts of the lives of adults with developmental disabilities (Heshusius, 1982). However, individuals of this population lack sexuality education, and therefore convey negative attitudes regarding the expression of sexuality (Szollos & McCabe, 1995).

In addition to a lack of sexuality education, individuals with developmental disabilities also often lack privacy. For example, intimacy between males and females is often scrutinized closely. Therefore, the development of true affection may be threatened or minimized due to a lack of recognition that individuals with developmental disabilities have the "right" to privacy at

least part of the time. The lack of privacy for establishing appropriate close relationships can be dangerous if individuals with developmental disabilities do not gain experience with compassion, affection, and friendliness expressed through touch (Heshusius, 1982). Ultimately, individuals, including those with developmental disabilities, need to develop social skills to diminish any social problems and concerns about sexuality.

Sexuality Knowledge of Individuals with Developmental Disabilities

Sexuality knowledge refers to the amount of information individuals have regarding various aspects of sexuality, such as reproduction, body part identification, marriage, and sexual abuse (McCabe et al., 1999), and is related to a range of factors including individual levels of cognitive functioning (Konstantareas & Lunsky, 1997). In general, gaining sexuality knowledge is important in making healthy sexual decisions, dispelling any myths or doubts about sexuality, resolving any traumatic sexual experiences, and/or understanding one's own feelings and beliefs about sexuality (Reiss, 1990). Similarly, sexuality knowledge for individuals with developmental disabilities is important to promote responsible decisions concerning sexuality. However, individuals with little experience or knowledge may be unfamiliar with cultural expectations regarding sexuality. Therefore, it is important for those with developmental disabilities to learn appropriate sexual expectations and behaviors that are consistent with broader societal views about sexuality.

Advocates of sexuality education for individuals with developmental disabilities propose that education is needed concerning sexual relationships, appropriate sexual touching, and how to prevent sexual abuse and the transmission of sexually transmitted diseases. However, a lack of instruments to assess sexuality knowledge of individuals with developmental disabilities contributes to the general public's difficulty of understanding sexuality (including sexual knowledge) for this population (McCabe et al., 1999).

Sexuality knowledge gained by individuals with developmental disabilities varies depending both on exposure to sexuality education and the level of cognitive functioning (Konstantareas &

Lunsky, 1997). For example, when exposed to the same information, persons with higher cognitive functioning might be expected to demonstrate sexuality knowledge, such as awareness of sexual terminology. Yet, other factors may also be influential such as motivation, effectiveness of teaching style, and encouragement by others (e.g., family, friends, support persons).

Sexuality knowledge can be divided into the following areas: friendship, dating and intimacy, marriage, body part identification, sex and sex education, menstruation, sexual interaction, contraception, pregnancy, abortion and childbirth, sexually transmitted diseases, masturbation, and homosexuality (McCabe et al., 1999). Individuals with developmental disabilities can be assessed of their knowledge in each of these areas. For example, McCabe and colleagues (1999) developed a scale, the SexKen-ID, to assess sexuality knowledge, experiences, feelings, and needs of adults with developmental disabilities. Therefore, assessing knowledge in each of the sexuality areas can help to determine the needed focus of sexuality education programs for individuals with developmental disabilities.

McCabe and Cummins (1996) reported adults with developmental disabilities were lower in sexuality knowledge compared to those without developmental disabilities. Specifically, adults with developmental disabilities from the sample were lower in knowledge in the following content areas: dating and intimacy, sexual interaction, contraception, pregnancy, abortion and childbirth, sexuality transmitted diseases, masturbation, and sexual abuse. No differences were found between groups concerning menstruation and body part identification. Yet, those with developmental disabilities had little or no knowledge of appropriate sexual expression (or behavior).

Sexual Behavior of Individuals with Developmental Disabilities

Sexual behavior refers to a wide array of activities related to sexuality (e.g., intercourse, masturbation, touching, utilization of birth control methods and contraceptives) that are considered normal or abnormal based on cultural norms (Kinsey, 1948). Sexual behaviors within

the general population are associated with issues such as ethnicity and marital status. For example, single marital status for both Whites and Blacks is associated with having more sexual partners, a lack of contraceptive responsibility, and a greater likelihood of contracting sexually transmitted diseases (Staples & Johnson, 1993). While ethnicity and marital status play a significant role in the general public's sexual behaviors, these variations have not yet been examined for individuals with developmental disabilities. However, at the current time, individuals with developmental disabilities may be considered as a group that merits the same or greater focus as marital status, age, or race in requiring culturally-sensitive and appropriate sexuality education. For example, there is evidence that individuals with developmental disabilities are engaging in sexual activities, even with constant supervision and vigilance (Ousley & Mesibov, 1991). With a greater focus on enhancing the sexual socialization processes for individuals with developmental disabilities, the ability to engage in healthy sexual behavior may be possible.

The sexual behavior and knowledge of individuals with developmental disabilities may not be solely dependent on cognitive functioning. For example, Edmonson, McCombs, and Wish (1979) found that gender, living arrangement at the time of testing, experiences, instruction received, and interest were more related to knowledge scores than IQ level. However, McCurry et al. (1998) found that poor verbal functioning was associated with more sexual behavior problems. In addition, those with developmental disabilities have been found to have a great interest in sex and are considerably more experienced in sexual behavior as compared to individuals with autism (Ousley & Mesibov, 1991). Therefore, more extensive research is needed to identify the relationship between types of cognitive functioning and sexual behavior.

One area of concern relating to individuals with development disabilities is the risk for inappropriate sexual behaviors. Inappropriate sexual behaviors are those that occur outside of having an appropriate partner's consent, an appropriate time and place, and society's range of normality (e.g., masturbating in public; asking non-intimate peers, staff, or acquaintances to

engage in sexual acts; touching another adult's private body parts in public; hurting others to become sexually stimulated) (Griffiths, Quinsey, & Hingsburger, 1991). The most common inappropriate sexual behaviors are those that (a) occur in public places, (b) inappropriately involve others, and (c) involve minors (Ward, Trigler, & Pfeiffer, 2001). Often, inappropriate sexual behaviors exhibited by individuals with developmental disabilities are restricted by family or support staff through close supervision or monitoring. However, treatment for inappropriate sexual behaviors should facilitate the development of appropriate expressions of sexuality, as opposed to only avoiding behaviors that are socially considered to be inappropriate (Ward & Bosek, 2002).

Sexual Abuse of Individuals with Developmental Disabilities

Sexual abuse may be defined as (a) the procession of illegal sexual acts, and/or (b) acts which result because of inequality (e.g., undue pressure or compliance) (McCarthy & Thompson, 1997). Individuals with developmental disabilities suffer a high prevalence of sexual abuse (Sobsey, 1994), with women experiencing a higher rate (61%) than men (25%) (Brown, Stein, & Turk, 1995; McCarthy & Thompson, 1997). Turk and Brown (1993) report adults with developmental disabilities are the most likely to be sexually abused by other adults with developmental disabilities, followed by others known to the victim (e.g., family members, members of caregiving staff). In addition, research reports that the majority of sexual perpetrators are male (Furey & Niesen, 1994; McCarthy & Thompson, 1997). Thus, two concerns about sexual abuse are common regarding adults with developmental disabilities: (a) the risk of sexual abuse, especially among women; and (b) the risk of perpetrating sexual abuse on others, especially by men.

Sexual abuse. Various factors increase the risk for sexual abuse of individuals with developmental disabilities. These factors include: physical limitations that may hinder self-defense; cognitive limitations that obstruct the individual's ability to recognize a dangerous or

inappropriate situation; loneliness and vulnerability to suggestion; lack of information about how to respond to sexual exploitation or unwanted sexual advances; and tendency to have low self-esteem and poor decision-making skills (Kupper, 1995).

Parents of adults with developmental disabilities may express concern about their children's sexuality. Common fears are that (a) their child's behavior may be misinterpreted as sexual, (b) their child's sexual behaviors may be misunderstood, and (c) their child may be taken advantage of sexually (Ruble & Dalrymple, 1993). It is important for parents or caregivers of these individuals to be able to (a) recognize and support the individual who may exhibit signs of sexual abuse, (b) understand the difficulty of disclosing sexual abuse, and (c) facilitate disclosure of sexual abuse. One approach to preparing parents or other support persons to address these issues is to provide empirically validated comprehensive sexuality education programs that incorporate parents and/or support persons.

Perpetration of sexual abuse by individuals with developmental disabilities. Individuals with developmental disabilities are highly represented in correctional agencies for sexual crimes (Petersilia, 1997). Interestingly, the rates of crimes committed by individuals with developmental disabilities are consistent with the rates of crimes committed by persons without developmental disabilities. One explanation of the high rates is that perpetration and being sexually abused are closely linked, illustrating that those who are sexually abused during childhood may be more likely to become criminal perpetrators at a later time (Demetral, 1994).

In regard to the social response to perpetration, McCarthy and Thomson (1997) found that 63% of abused women with developmental disabilities had perpetrators who also had developmental disabilities. In these cases, little was done in response to the situation. Police considered the perpetration as less serious and were generally not involved if the perpetrators had developmental disabilities. Therefore, the most common response to these perpetrators was to do nothing.

Hingsburger (1987) suggests that sexual perpetrators with developmental disabilities behave so because of (a) deficiency in sexual and sociosexual knowledge, (b) negative early sexual experiences, and (c) lack of personal power. In addition, Demetral (1994) stated that perpetration by individuals with developmental disabilities may be attributed to (a) lack of sexuality education, and (b) a history of sexual abuse. Hayes (1991) also states that sexual misconduct by persons with developmental disabilities may be attributed to one or more of the aforementioned reasons and a lack of sexuality education programs.

Sexuality and Support Persons of Individuals with Developmental Disabilities

According to Fujiura and Braddock (1992), families are the largest single providers of support to those with developmental disabilities, often serving as an alternative to institutionalization. For example, it is estimated that approximately 85% of individuals with developmental disabilities living outside of a residential service system reside with their parents or other family members (Fujiura & Braddock, 1992; Hayden, 1992). In addition to family, other caregivers of this population include support staff from community residential agencies.

There has been an increase in the examination of support persons for individuals with developmental disabilities, especially in the area of sexuality (e.g., Brown, 1997; Christian, Stinson, & Dotson, 2001). Yet, areas such as sexual attitudes and knowledge of support persons need to be further investigated, as well as the role of support persons within the development and education of sexuality for individuals with developmental disabilities.

Sexuality Attitudes and Beliefs of Support Persons

There is limited research concerned with support persons' (e.g., parents or other caregivers) attitudes or beliefs about sexual rights for adults with developmental disabilities. These beliefs may be important in relation to individuals with developmental disabilities' opportunities for sexual relationships and entrance into sexuality education programs.

Support persons' attitudes toward sexuality vary (Ruble & Dalrymple, 1993). Research revealed that many parents of individuals with developmental disabilities fear their children's sexuality or do not believe their children have sexual needs and desires (Ludlow, 1991; Watson, 1980). However, recent research indicates that more families are becoming more positive (Murray & Minnes, 1994) and are accepting the idea that their children have sexual needs (Brown, 1997). Common perspectives include (a) beliefs about the relevance of sexual relations, (b) beliefs about sexuality education, and (c) concerns about their child being sexually victimized. "Better understanding about specific belief systems and more efficient communication can enhance the care and education delivered to individuals with intellectual disabilities" (Brown, 1997, p. 18).

Characteristics of the individual with the developmental disability and the support person, along with broader community and cultural norms, may explain the range of attitudes toward the sexuality of adults with developmental disabilities. Assessing support persons' attitudes may strengthen school and community-based sexuality education for this population by minimizing potential controversy and building a broader base of active community support and involvement for sexuality education (Brown, 1997).

Welshimer and Harris (1994) demonstrated changes in community norms and parental attitudes toward sexuality across a ten-year period for parents of children and adolescents *without* developmental disabilities. These results will be used as a supplement to discussing the influence of community norms and support persons' attitudes toward the sexuality of individuals with developmental disabilities.

Characteristics of support persons. Support persons' (e.g., parental or caregivers) attitudes toward sexuality may vary by demographic characteristics. For example, parents with higher education favor maintaining and expanding sexuality education and approve of various topics (Welshimer & Harris, 1994). Concerning gender, most mothers and fathers endorsed sexuality education. However, women are more supportive than men for various age groups and topics of

sexuality. This finding somewhat contrasts with the Gallup poll, in which men were somewhat more liberal toward sexuality education than women ("Sex in America," 1991). Lastly, sexuality education must incorporate the support persons' values on issues ranging from personal modesty to adult sexuality (Welshimer & Harris, 1994).

Individual characteristics. Research has reported that the cognitive and verbal level of the individual with a developmental disability relates to the parents' beliefs about the relevance of sexual relations and sexuality education (Ruble & Dalrymple, 1993). Support persons may be unsure of how much information the individual can understand, and the language used for individuals *without* developmental disabilities may not be helpful. Gender of the individual has also been reported as a contributor to attitudes and how concerned families are of their children being taken advantage of sexually. Similarly, parents have reported that they were mostly concerned about their child being taken advantage of by a male perpetrator (Ruble & Dalrymple, 1993). Finally, the individual's age and type of sexual activity (e.g., abuse, relationships) are also associated with the type of information families desire regarding sexuality, and potential contributors for support persons' attitudes toward sexuality.

Cultural and community norms. Cultural and community norms of sexuality and values of sexuality for individuals with developmental disabilities are potential influences on family attitudes toward the individual's sexuality and are important contributors to planning effective sexuality education programs. In order to be successful, sexuality educators must request community involvement by seeking input, and involving the community in planning and developing the curriculum, while anticipating opposition (Welshimer & Harris, 1994).

Support persons' attitudes toward sexuality education. Welshimer and Harris (1994) reported that support persons' approval for teaching about sexually transmitted diseases, birth control, teen parenting, rape, and sexual abuse is significantly greater as compared to ten years earlier. Family support for education about sexually transmitted diseases, a more complex and

crucial issue with the advent of HIV/AIDS, also has increased significantly. However, sexuality education challenges many support staff of individuals with developmental disabilities because they may deny the individual's sexuality, fear sexual exploitation or pregnancy, and have difficulty deciding what and how to talk to the individual about sexuality (McCabe, 1993; Tharinger, Horton, & Millea, 1992).

According to Brown's research (1997), the majority of caregivers agree that sexuality education for persons with developmental disabilities should lead to an overall understanding of appropriate and inappropriate behaviors between adults. In addition, most caregivers agree that there should be discussion of the morality of sexual activity and that sexuality education should be made available to any individual who is capable of understanding.

Investigating support persons' attitudes or belief systems regarding the sexuality of individuals with developmental disabilities is also important in the context of sexual abuse. For example, parents' beliefs about sexuality may relate to their willingness to teach and discuss effective communication regarding sexual abuse with their child. Thus, parents or other support persons' beliefs are important to individuals with developmental disabilities' expression of their feelings about sexual abuse, which may help caregivers to recognize signs of abuse.

It is important for future research to further define the characteristics of support person beliefs concerning the sexuality of individuals with developmental disabilities. These characteristics may relate to the opportunities for the individual to participate in sexual relationships and sexuality education programs. Defining these characteristics can also facilitate the development of sexuality education programs and the involvement of parents, caregivers, or other support persons.

Sexuality Education

One prominent approach to increasing sexuality knowledge and/or modifying sexual behaviors is sexuality education, a form of family life education. Sexuality education began in the late 1800s, with the delivery of sex-related lectures and discussions of adding sexuality

education into public schools. The early 1900s consisted of a broadening of programs, including topics of biology, reproduction, and birth (Carerra, 1980; Strong, 1973). Finally, the 1950s led to a sex education movement, with broader programs and national organizations (e.g., Sexuality Information and Education Council of the United States [SIECUS]) being developed to provide needed guidance for designing, implementing, and evaluating sexuality education programs (Moran, 2000).

Today, most members of the general public receive some form of sexuality education before graduating high school. The goal of such programming is to provide young people with the knowledge and self-confidence to make healthy sexual decisions (Moran, 2000). Common topics include birth control, sexually transmitted diseases, sexual intercourse, premarital sex, abortion, and homosexuality. However, some societies view various topics as taboo (e.g., masturbation, abortion, homosexuality), or believe that discussing these topics will lead to increased sexual activity. These views often result in less comprehensive programming for students. In a similar manner, the tendency of the broader society to view individuals with developmental disabilities as asexual often results in a tendency to offer minimal sexuality education to this population. Consequently, the need for theoretically sound, developmentally appropriate, and empirically validated comprehensive sexuality education programs for individuals with developmental disabilities and their support persons holds great potential.

Sexuality education is important for several reasons. First, sexuality education is meant to inform individuals and make them comfortable with the issue of sexuality. This is the case for all groups of individuals (e.g., parents, adolescents, individuals with developmental disabilities). Second, there are physically, psychologically, socially, and legally unhealthy consequences for inappropriate sexual behaviors (Hagan et al., 2001). For example, unprotected sexual intercourse may lead to unwanted pregnancy or sexually transmitted diseases. Third, there is a need to protect all individuals from being sexually abused (e.g., recognizing harmful situations; Engel,

Saracino, & Bergen, 1993). These general needs of sexuality education are also applicable to the needs of sexuality education for individuals with developmental disabilities.

Ultimately, because individuals with developmental disabilities are a unique population, sexuality programs should target specific behaviors to promote sexual health. In accordance with how sexuality education may promote sexual health for individuals in the general public, these characteristics are also applicable to those with developmental disabilities. Specifically, these characteristics include avoiding exploitative relationships, taking responsibility for their own behavior, practicing effective decision making, expressing sexuality while respecting the rights of others, and preventing sexual abuse (SIECUS, 2000).

Areas of sexuality education noted by SIECUS (2000) can be met through comprehensive sexuality programming, such as *Responsible Choices for Sexuality*. This specific program addresses the four primary goals of comprehensive programming (SIECUS, 2000). Specifically, *Responsible Choices for Sexuality* (a) provides information about human sexuality (e.g., relationships, sexual behavior), (b) provides an opportunity to explore sexual attitudes (e.g., increase self-esteem, understand responsibilities to others), (c) helps develop interpersonal skills (e.g., communication, decision-making), and (d) helps create sexual responsibility (e.g., encouraging the use of contraception).

Sexuality Education for Individuals with Developmental Disabilities

While sexuality education is an important issue for individuals with developmental disabilities, the process for this population is difficult. First, they are likely to experience difficulties in dealing with such a complex issue. Second, de-institutionalization often leaves members of this population without knowing appropriate and acceptable sexual behaviors, which may lead to negative social judgments (McCabe & Cummins, 1996). In addition, de-institutionalization often leaves these individuals living in a variety of settings, where access to sexuality education may vary.

Research shows that sexuality education is beneficial and successful in that individuals with developmental disabilities (a) gain significant increases in sexuality knowledge and (b) are able to maintain this new knowledge (Lindsay, Bellshaw, Culross, Staines, & Michie, 1992). For example, Garwood and McCabe (2000) found that the highest knowledge gains for individuals with developmental disabilities completing sexuality education involve the content areas of body part identification, marriage, and masturbation.

Comprehensive sexuality programs address issues such as distinguishing body parts, self-care skills, relationships, social interaction and manners, sexual exploitation, masturbation, reproduction and contraception, and preventing sexually transmitted diseases (Kupper, 1995). Specifically, sexuality education programs should be designed by the following objectives (Committee on Children with Disabilities, 1996): (a) teaching how to appropriately express physical affection; (b) discouraging inappropriate displays of affection in the community (e.g., hugging strangers); (c) expressing clear expectations that behavior conforms with family and societal standards; (d) teaching the difference between acceptable private behaviors versus acceptable public behaviors; (e) teaching the right to refuse to be touched and to tell trusting caregivers if touched inappropriately; and (e) discussing pleasure and affection.

Barriers to Sexuality Education

In general, barriers to sexuality education include the individual's views on sexuality, parents or caregiver attitudes toward sexuality, and the low priority that sexuality education may receive within school systems or communities. In order for sexuality education to be effective, these barriers must be addressed. Similarly, the barriers to sexuality education for individuals with developmental disabilities must be investigated in order to develop and implement effective programs. Specific barriers to sexuality education for this population may involve family members, other caregivers, and societal pressures.

Family. Research on various types of programs that serve different populations has indicated that time-related factors are important barriers for families (Spoth & Molgaard, 1993; Spoth, Redmond, Hockaday, & Shin, 1996). Previous research (Spoth & Redmond, 1993) has shown that some parents do not participate in prevention programs because they do not perceive their child to be at risk for problems or that the program will be useful. In addition, there is a decreased likelihood of the individual participating in a prevention program if relatives have negative attitudes toward the program (Stefl & Prosper, 1985).

Other caregivers. The conflict between caregivers and researchers regarding the sexuality of individuals with developmental disabilities is a potential barrier for program development and implementation (Rowitz, 1987). Research on caretakers' attitudes of sexual expression among this population has been inconsistent (McCabe, 1993). Some caretakers approve of sexual behaviors and relationships, while others do not approve of any form of sexual expression. In addition, caregivers may lack the confidence that is needed in order for sexuality programs to be implemented.

It has been long noted that preparation and support of institutional staff members is essential in providing effective sexuality education (Huntley & Benner, 1993). McCabe (1993) identified areas to which agencies should attend in order to appropriately equip staff members for sexuality-related programs and avoid potential problems when developing and implementing these programs. First, agency policy must (a) dictate the appropriate individuals for being involved in the programs (e.g., direct caregivers, supervisors, administration, community professionals), (b) clarify the values of the program, and (c) clearly define appropriate guiding principles to protect clients' rights. Second, an orientation concerning agency policy and client sexuality should be provided to better equip staff members as sexuality educators and counselors. Lastly, on-going training should be provided to ensure that staff members are continuing to develop professionally in the area of sexuality and have the opportunity to discuss matters of concern.

Society. Society may be a barrier to sexuality education in that members of society tend to feel uncomfortable with the notion that individuals with developmental disabilities are sexual beings and have the same sexual rights as other human beings. This social stigma may prevent families or caregivers from consenting to the implementation of sexuality programs and becomes a barrier when service providers or organizations attempt to educate this population of individuals. Society must accept the need for sexuality education programs so that individuals with developmental disabilities can be educated, protected, and ensured a high-quality life (McCabe, 1993). In addition, policymakers and program sponsors are often critical to the development, implementation, and evaluation of sexuality education programming in order to decide whether a program should be continued or discontinued (Rossi & Freeman, 1989).

Need for Sexuality Education among Individuals with Developmental Disabilities

As detailed in Chapter 1, there is a national trend toward community-based support programs for individuals with developmental disabilities. Researchers report that many sexuality education programs are not concerned with assessing (a) the individual's needs or (b) the reliability and validity of the effectiveness of the programs (Lindsay et al., 1992; McCabe, 1993). Given the newness of this field, service delivery for individuals with developmental disabilities does not have a history of effective programming supported by evaluation. More specifically, the community service providers often design programs that only have face validity (i.e., the programs only appear to appropriately address issues specific to individuals with developmental disabilities). Agencies and states that provide services to individuals with developmental disabilities need professionals with experience in program evaluation to establish the criteria for high-quality programming. Therefore, it is imperative that professionals (e.g., those in academic institutions) take an active role to ensure empirically validated quality programming by serving as the bridge between service providers and consumers.

Entrance into sexuality education programs for individuals with developmental disabilities could occur because the individual (a) needs general sexuality education, (b) has a vulnerability

to sexual abuse, (c) has been sexually abused, (d) is sexually abusing, (e) needs relationship support, (f) needs to learn methods of safer sex, or (g) needs information on same-sex relationships (McCarthy, 1996).

Sexuality education programs in general have shown to be successful if they increase the knowledge of sexual activity, birth control procedures, and reproduction (Abramson, Parker, & Weisberg, 1988). The overall goals of sexuality education for individuals with developmental disabilities are to (a) give these individuals a sense of being attractive members of their genders with expectations of having satisfying adult relationships, (b) teach these individuals to be assertive in protecting their own bodies and reporting sexual violations to trusting adults, and (c) provide education regarding conception, contraception, and protection from sexually transmitted diseases (Committee on Children with Disabilities, 1996). The major challenge in sexuality education programs is to assist individuals with developmental disabilities in gaining a sense of sexual identity (Whitehouse & McCabe, 1997). This could mean learning how to become a part of a heterosexual or homosexual relationship, or learning how to be a sexual being without a partner. For this to be successful, parents, caregivers and educators must define the sexual needs of the involved individual(s).

Current Sexuality Programs

There are a variety of sexuality education programs for individuals with developmental disabilities. For example, instruction and informational videos have been developed to teach about menstruation, masturbation, venereal diseases, puberty and reproduction, prenatal care, marriage and relationships, or related issues. Two available programs include *EASE*, a sexuality education curriculum, and *On Being Sexual*, provided to individuals with developmental disabilities as a workshop (Rowe & Savage, 1987).

Programs are also available to facilitate educators in the instruction of sexuality education to individuals with developmental disabilities. For example, *The ABC's of Sexuality Education for Trainable Persons* and *The How and What of Sex Education for Educable Persons* were

developed for teachers and health care professionals to learn how to appropriately teach about issues such as body functions, reproduction, social behavior and responsibilities (Rowe & Savage, 1987). Lastly, programs have recently evolved to teach parenting skills, networking, and appropriate parenting behaviors to individuals with developmental disabilities (Whitman et al., 1998), as a recent concern has involved individuals with developmental disabilities becoming parents.

Over time, educators are identifying better techniques and strategies for providing sexuality education to individuals with developmental disabilities. However, the program materials, techniques, and attitudes used by the educators to provide this information may be equally as important as the information itself. For example, educators are beginning to incorporate visual, auditory, and tactile methods into their instruction to provide greater opportunity for learning (McCabe, 1993).

However, there are still problems to overcome when providing sexuality education to individuals with developmental disabilities. First, some public education programs or community members view the discussion of sexuality as immoral, and any sexuality components are simply left out of the curriculum (Ludlow, 1991). Second, many programs are based solely on teaching sexual abuse prevention skills (Lumley & Scott, 2001), as opposed to providing information regarding multiple aspects of sexuality (e.g., social skills, anatomy, reproduction, diseases).

Need for Advancements in Sexuality Programs

The justification for empirically validated comprehensive sexuality education programs for individuals with developmental disabilities is clear, because most existing programs only target one aspect of sexuality (e.g., abuse prevention, pregnancy prevention). Traditionally, programs offering sexuality education to individuals with developmental disabilities focus on the physical nature of sexuality. However, little instruction is provided regarding psychological or social components of sexuality (e.g., appropriate sexual behavior). Comprehensive programs are needed (Garwood & McCabe, 2000), including biological information as well as how to incorporate

knowledge and skills on a daily basis (Lumley & Scott, 2001). For example, how can individuals with developmental disabilities understand issues revolving around pregnancy and abuse if they do not understand multiple aspects of sexuality (McCabe, 1993)? As another illustration, in addition to knowing that condoms can prevent pregnancy and sexually transmitted diseases, individuals with developmental disabilities also need to know where condoms can be purchased and how to use them properly. The concern is that a lack of socio-sexual training may lead to inappropriate sexual practices or expressions (Furey & Niesen, 1994). According to McCabe (1993), many programs focus on some of these issues, yet disregard others.

There are high rates of victimization within the population of individuals with developmental disabilities, and the abuse is often long-term. Therefore, experts constantly reiterate the need for sexuality education for individuals with developmental disabilities. Many programs are based solely on teaching adults sexual abuse prevention skills (Lumley & Scott, 2001). However, sexual exploitation of individuals with developmental disabilities is not limited to only adults. The problem of sexual abuse among children with developmental disabilities is increasing, and few programs focus on self-protection skills.

Monat-Haller (1992) states that all areas of sexuality have to be acknowledged in order for a sexuality education program for individuals with developmental disabilities to be considered comprehensive. This author proposes that components of the program should incorporate information on (a) social skills (e.g., differentiating between public and private information, dating, establishing relationships, eye contact, social distance); (b) reproduction (e.g., anatomy, biological function, menstruation, birth control); sexually transmitted diseases (e.g., how they are transmitted, how to avoid them, safer sex, abstinence); (c) prevention of sexual abuse (e.g., running away, reporting instances); and (d) evaluation of one's actions.

Many public education systems consider the discussion of sensitive topics (e.g., contraception, masturbation) as infringing on moral beliefs and may leave such topics out of the program curriculum (Ludlow, 1991). These negative attitudes are also often found within the

community of individuals with developmental disabilities. In addition, sexuality within the population of individuals with developmental disabilities is often seen as problem-causing by the general public instead of being a positive human attribute (McCabe, 1993). Therefore, through family life education, it is the duty of the educator to change attitudes and provide sexuality education to the entire community, including individuals with developmental disabilities and their support networks.

Importance of Contextual Factors in Sexuality Education

Incorporating contextual factors (e.g., support persons, peers, community) into the learning process of sexual development for individuals with developmental disabilities is extremely important. Sexuality is a constant process involving the dynamics of the beliefs of support persons and peers, mutual satisfaction, education, developmental readiness, social networks, and cultural/religious beliefs (Maddock, 1989). In addition, the significant people within the support structure shape a person's sexual identity so that the individual learns what is acceptable within the social context of the support network (Furey & Niesen, 1994). Therefore, a systemic approach should be taken in providing sexuality education to individuals with developmental disabilities and their support networks.

The perceptions of parents, caregivers, or other support persons of individuals with developmental disabilities have an influence on the education provided to this population, and this provides greater support for the incorporation of contextual factors in sexuality education programs. Caregivers often regard sexuality as hazardous, therefore inhibiting or restricting their learning environment. Many do not believe individuals with developmental disabilities have sexual needs (Heyman & Huckle, 1995), or believe the community would not accept the onset of a relationship.

Since individuals with developmental disabilities often have significant others that live with them (e.g., at home or assisted living), it is very important that caregivers receive an overview of the curriculum, have any myths dispelled, and are taught the resources and skills of how to

communicate about these issues with individuals with developmental disabilities. Specifically, there is a great need for the support persons of individuals with developmental disabilities to have appropriate expectations and information in order to facilitate and provide support for those with developmental disabilities. Support persons need to understand the role of sexuality in the lives of the individuals with developmental disabilities and learn the rights of these individuals and how to help them maintain healthy and stable relationships. In addition, given the life-span perspective of systems and the socio-cultural view of sexuality it makes sense to start parental education early, before the child reaches adolescence. Therefore, sexuality education programs should be extended to families with infants and children with developmental disabilities.

Socio-cultural changes are also important contextual factors. For example, individuals with developmental disabilities were commonly restricted of any sexual expression by confinement, sterilization, and castration (Rowe & Savage, 1986). However, there have been socio-cultural changes in policies, societal attitudes, and community norms regarding sexuality, sexuality education, and sexuality in relation to individuals with developmental disabilities. Fortunately, there has been recognition that these individuals are sexual beings, and can benefit from sexuality education. If not for socio-cultural changes, these programs would not exist.

Demographic Considerations

Certain demographic characteristics may relate to sexuality education for individuals with developmental disabilities (e.g., gender, cognitive functioning, age). For example, cognitive functioning has been found to relate to the amount of sexuality knowledge and knowledge of sexual expression for individuals with developmental disabilities (Konstantareas & Lunsky, 1997). However, Hall and Morris (1976) reported that mental age is a better predictor of sexuality knowledge than an actual IQ score for individuals with developmental disabilities.

In regard to gender, no differences have been identified regarding sexuality knowledge and attitudes (Konstantareas & Lunsky, 1997; Lunsky & Konstantareas, 1998). Yet, there have been differences identified between genders concerning sexual activity. Specifically, Timmers,

DuCharme, and Jacob (1981) reported that females with developmental disabilities are more likely than males to have experience with sexual intercourse and be pressured into this activity. However, Konstantareas and Lunsky (1997) reported that females with developmental disabilities actually report fewer sexual experiences than males. Lastly, men with developmental disabilities are more likely than females to be sexual perpetrators, and females with developmental disabilities are the typical victims of sexual abuse within this population (Furey & Niesen, 1994). Therefore, these demographic characteristics (gender, cognitive functioning, and age) seem to be important factors in the area of sexuality for individuals with developmental disabilities, and are examined as a part of this study.

Summary

Chapter 2 begins with an overview of how family systems perspectives guide the understanding of one family life education program, a sexuality education program for individuals with developmental disabilities. In addition, a description is provided of the *Responsible Choices for Sexuality* program. Chapter 2 also includes a comprehensive literature review that covers several aspects concerning sexuality and sexuality education for individuals with developmental disabilities and their support persons. Specifically, issues important to this area of research include (a) sexuality knowledge, attitudes, and behaviors of individuals with developmental disabilities, (b) support person knowledge and attitudes regarding the sexuality of individuals with developmental disabilities, and (c) sexuality education for individuals with developmental disabilities. These issues have been discussed to set the stage for examining selected aspects of a community-based, comprehensive sexuality education program for individuals with developmental disabilities and their support persons. Specifically, this study examines whether the (a) sexuality knowledge and inappropriate sexual behaviors of consumers and (b) sexuality knowledge of support persons, vary before and after participating in *Responsible Choices for Sexuality*. Further, this study examines how consumers' sexuality knowledge relates to support persons' reports of consumers' inappropriate sexual behaviors.

CHAPTER III

METHODOLOGY

Introduction

This chapter describes the methodology for examining the research questions relating to the *Responsible Choices for Sexuality* program. Specifically, the research design and model, sample and procedures, measurements, operational hypotheses, and an overview of statistical analyses are presented. In addition, the methodological limitations of this study are provided.

Research Design

The purpose of this study is to examine selected aspects of *Responsible Choices for Sexuality,* a community-based, comprehensive sexuality education program for adults with developmental disabilities and their support persons. A pre-test/post-test design is used to examine data collected twice from participants (i.e., both before and after participation in the *Responsible Choices for Sexuality* program; Isaac & Michael, 1995). This design allows the researcher to infer causal relationships between the independent and dependent variables (Miller, 1986). In other words, the inference of a pre- and post-test design is that changes in the variables of interest occur over the course of the treatment or program. This design allows the researcher to punctuate the sexuality education process from before to after the program, and to assess the change that occurs from pre-test to post-test. Significant changes suggest positive program outcomes. No significant change suggests that areas of the program may need refinement. In family systems perspectives, the change occurs within the context of a broader environment and time frame.

Because one goal of the present study (Hypotheses 1, 2, and 3) was to examine the differences from pre-test to post-test in (a) consumers' knowledge of sexuality, (b) support persons' knowledge of sexuality and developmental disabilities, and (c) frequency of consumers' inappropriate sexual behaviors exhibited by consumers as reported by support persons, a pre-test/post-test design was utilized to test whether there are significant changes from before to after receiving the treatment, *Responsible Choices for Sexuality.*

Another research goal of this study (Hypothesis 4) was to examine how consumers' sexuality knowledge relates to support persons' reports of the consumers' inappropriate sexual behaviors. To accomplish this goal, consumers' scores on sexuality knowledge were compared with the support person's reports of consumers' inappropriate sexual behaviors at both pre-test and post-test. In addition, specific dimensions of sexuality knowledge showing the strongest negative relationships with inappropriate sexual behaviors were identified at both pre-test and post-test. Because the goal was to examine the relationship between consumers' sexuality knowledge and inappropriate sexual behaviors, a correlational research design using survey methods was utilized in that it examines the relationships between the identified variables based on correlation coefficients (Isaac & Michael, 1995; Miller, 1986).

Research Model

This study uses a pre-test/post-test experimental design to examine differences in consumers' knowledge of sexuality, support person's knowledge of sexuality and developmental disabilities, and support persons' reports of consumers' inappropriate sexual behaviors from before to after participating in the program, *Responsible Choices for Sexuality* (see Figure 3 in Appendix C; Isaac & Michael, 1995). This model should not be confused with a mediating model. This model is drawn consistent with how pre-test/post-test experimental designs are typically demonstrated. For the program of interest, three different pre-tests and post-tests were administered as shown in Figure 4 (see Appendix C). In addition, correlational analysis of consumers' knowledge of sexuality and consumers' inappropriate sexual behaviors are examined as shown in Figure 5.

Archival data was examined for this study so that the researcher had no direct contact with participants.

Sample and Procedure

Hypotheses 1, 2, and 3

A total of 316 consumers (with support persons) attended the program over five years (1999 to 2003) since evaluation methods were implemented. The program administrator reported an estimated 90% of consumers as adults diagnosed with mental retardation (Sanchez, 2003). According to the American Association on Mental Retardation (www.aamr.org), "mental retardation is generally thought to be present if an individual has an IQ test score of approximately 70 or below." Therefore, to analyze Hypotheses 1, 2, and 3, a subsample was selected consisting of 139 consumers with an IQ of less than 70 (i.e., consumers with IQ scores representing mental retardation) and an age of 16 years and older. In addition, the subsample consists of only those consumers that completed the entire program. This allows the results of Hypotheses 1, 2, and 3 to be generalized to adults with mental retardation who complete the entire *Responsible Choices for Sexuality* program.

The subsample consisted of 72 (51.8%) males and 67 (48.2%) females. The mean age of consumers was 34.9 years (median age = 34 years; range = 16 to 68 years), with a mean IQ score (measured by a range of instruments selected by the counselor/psychologist who conducted the psychological evaluation) of 54.6 (range = 30 to 69). The ethnic composition of the subsample follows: 113 (81.3%) Caucasian, 10 (7.2%) African American, 7 (5.0%) Native American, 1 (.7%) Asian American, and 8 (5.7%) other or not indicated.

The living arrangement of the consumers in the subsample of 139, as reported by their support persons, was as follows: 37.4% supported living (i.e., living independently with hired agency staff for additional support, such as transportation or gaining employment), 33.8% group home, 12.2% family home, 8.6% independent living, 2.9% foster home, and 5.1% other or missing. Thus, the greatest number of consumers was reported to reside in supported living

contexts. Therefore, it is possible that the consumers may not be representative of the larger population of individuals with developmental disabilities, since Fujiura and Braddock (1992) assert that families are the single largest providers of support to those with developmental disabilities.

Eight (5.8%) consumers in the subsample were reported to have received psychiatric care in the past. In addition, 77 (55.4%) consumers in the subsample were reported to have medical concerns. Support persons also reported that 18 (12.9%) consumers had exhibited inappropriate sexual behaviors, and 9 (6.5%) consumers had been sexually violated in the past. Demographic characteristics of the subsample are presented in Table 1 (see Appendix B).

In regard to support persons, 3 consumers in the subsample completed the program with more than one support person. Therefore, there are more support persons represented in the subsample than consumers. In other words, 143 support persons are included in the subsample as having completed *Responsible Choices for Sexuality* with a consumer, as compared to 139 consumers.

Hypothesis 4

A separate subsample was selected in order to conduct a factor analysis as part of analyzing Hypothesis 4. Due to the low number of cases in the original subsample (n=139), a broader selection-criteria was needed to appropriately conduct the factor analysis by approximating five cases per item as recommended by Stevens (2002). Therefore, a new subsample was selected consisting of all completed pre- and post-test data for the Inappropriate Sexual Expression Scale. Specifically, the subsample for the factor analysis necessary for Hypothesis 4 consists of 155 support persons who reported at both pre- and post-test on consumers' inappropriate sexual behaviors.

Responsible Choices for Sexuality

Responsible Choices for Sexuality is a family life education program developed by Marla Sanchez, PhD, LPC. The program is offered to individuals and their families and/or support persons within a Midwestern state who are interested in increasing their human sexuality knowledge. The staff of *Responsible Choices for Sexuality* market their services and recruit their clients by attending state and national conferences targeting sexuality and/or developmental disabilities, as well as contacting case managers and social service agencies. The program is not a professionally prescribed service (i.e., ordered by professionals). Many who attend *Responsible Choices for Sexuality* are referred to the program by an interdisciplinary team of professionals. According to the program administrator, some consumers are referred to the program because of specific sexuality issues or experiences (e.g., sexual abuse or perpetration, inappropriate sexual behavior, desire to date or marry, court appointees), whereas some consumers simply wish to participate to learn how to have a healthy relationship (Sanchez, 2003). Although referrals may originate from the interdisciplinary teams, the decision to submit an application and participate in the program after they are accepted is that of the individual and his/her family or support staff.

The staff of *Responsible Choices for Sexuality* consists of two program administrators, one training coordinator, and three training educators. The training educators have educational backgrounds in helping professions and are required to complete 1000 hours of supervised internship (by the program administrator) before delivering the program. The head office of *Responsible Choices for Sexuality* is located in a major city of a Midwestern state. However, services are provided throughout the state according to demand.

Responsible Choices for Sexuality is funded by federal Medicaid funds that were allocated specifically for the state in which the program is delivered. Therefore, consumers may directly bill Medicaid for services rendered by *Responsible Choices for Sexuality*. Every year, the State Department of Human Services – Developmental Disabilities Services Division (DHS-DDSD) selects "family training" programs for individuals with developmental disabilities and their

families to receive funds from the state allocation, based on submitted program proposals from various agencies and developers across the state. In 1998, *Responsible Choices for Sexuality* was the first "family training" program chosen by DHS-DDSD to receive Medicaid funding for program delivery. In addition to paying for services by Medicaid, consumers may also pay for services by "private pay" (utilizing a sliding scale method) or may receive services "pro bono" if consumers do not have the financial resources to pay for services. In response, the program administrator stated, "We believe that consumers' needs are not determined by financial status. Therefore, the services they receive should not be determined by financial status" (Sanchez, 2003).

Pre-program assessment. Before being accepted into the program, support persons must submit a completed application (see Appendix A) which includes the following information: (a) consumer's birth date, gender, and race, (b) legal guardians and caregivers, (c) professional support staff, (d) place of residence, (e) current medications and medical history, (f) sexual history, and (g) support persons' expectations of the program. Consumers applying to the program are required to participate in a psychological evaluation administered by a licensed counselor or psychologist before the pre-program assessment. As part of the psychological evaluation, the intellectual ability of the consumer is identified by the licensed counselor or psychologist using the IQ assessment preferred by the specific counselor/psychologist (e.g., WEISS-V, VIPER).

Next, consumers participate in a 3-hour, pre-program screening consisting of a one-on-one interview with one of the two program administrators. The program trainers use the following records from the psychological evaluation to determine if the consumer is eligible for the *Responsible Choices for Sexuality* program: (a) adaptive functioning (i.e., ability to adapt to one's environment, such as communication and self-care), (b) behavior support plan/behavior strategy (i.e., written by psychologist; methods for working with a consumer with specific behavior problems), and (c) intellectual functioning (i.e., ability to solve problems, usually

estimated by an IQ test). The program trainer collects the following information to further assess whether the program is appropriate for the consumer: (a) completed application for admission to the program, (b) the consumer's and/or family's request and specific need for the training (i.e., purpose of attending the program), (c) informed consent and information release agreement, (d) knowledge base pre-test (i.e. sexuality knowledge at the time of pre-program assessment), (e) participation and confidentiality agreement, (f) reason for referral (e.g., exhibiting inappropriate sexual behavior, sexual perpetration), and (g) sexual history (e.g., intercourse, abuse).

The program trainers verbally administer a 20-item pre-test for sexuality knowledge that was developed specifically for the program (see Appendix A). The information obtained in the pre-program assessment is used to (a) assess the sexuality knowledge of consumers in order to tailor the program to meet the needs of the consumers and (b) make individual placements into appropriate groups based on developmental level of the consumer, sexual experience, and sexuality knowledge.

Orientation for support persons. At least one support person (e.g., residential staff or family caregiver) per consumer is required to attend a 4-hour group orientation before consumers may begin the educational sessions. This orientation addresses (a) program requirements, (b) an overview of the curriculum, (c) appropriate expectations of consumers, and (d) expectations of support persons and their role in the promotion of consumers' positive sexual development.

Educational group sessions for consumers. Consumers are assigned to a training track (i.e., Training Track 1 or Training Track 2, described below) most appropriate for their needs (e.g., preventing sexual abuse or perpetration, reducing inappropriate sexual behavior). The track is selected with the assistance of program administrators, consumers, and their support persons by discussing the objectives of each track and the needs of the consumer. Each track is offered in a co-gender, group setting with 6 to 8 participants and their accompanying support person(s).

Training Track 1 is divided into eight, 2-hour sessions, totaling 16 hours of family life education in sexuality. The sessions of Training Track 1 consist of the following content areas: (a) parts of the body (i.e., public vs. private parts), (b) personal care (i.e., general hygiene and physical examinations), (c) social etiquette (i.e., appearance and behavior in public), (d) feelings (i.e., identifying and expressing), (e) relationships (i.e., self, family, friends, professional helpers, acquaintances), and (f) safety awareness (i.e., strangers, abuse prevention, personal safety skills).

Training Track 2 is available to consumers who complete Training Track 1 and are divided into eight, 2-hour sessions, totaling 16 hours of family life education in sexuality. The sessions consist of the following content areas: (a) individual sexual expression (i.e., romantic feelings, abstinence, masturbation), (b) dating (i.e., selecting a partner, safe ways to meet others, starting a relationship, dating etiquette, resolving conflict), (c) expressing sexual feelings in a relationship (i.e., consensual sexual expression, levels of intimacy), (d) inappropriate sexual expression (i.e., sex in public, public masturbation, rape, sex for payment, sex with a minor/child, flashing, peeping, urinating in public), and (e) pregnancy and sexual diseases (i.e., signs and symptoms, prevention). All consumers proceed through Training Track 1 before they are able to begin Training Track 2. However, there are very few consumers who do not proceed to Training Track 2. Therefore, this study will examine consumers and support persons who complete the entire program (i.e., Training Track 1 and Training Track 2).

Educational group sessions for support persons. In addition to attending the group sessions with their consumers, educational group sessions for support persons consist of 8 hours of human sexuality education and were designed to enable support persons to understand the role of sexuality in the life of the consumer and facilitate continued support of the consumer in his/her social-sexual development. The curriculum for consumers in Training Track 2 serves as the foundation for this training. Assessments of support persons' knowledge of sexuality and developmental disabilities (developed specifically for this project) are administered before beginning and after completing the educational group sessions.

Program instruction. A variety of instructional techniques are utilized consistently throughout the program units to promote consumers' comprehension of the subject matter. Program trainers lecture while utilizing slides, large laminated pictures, role-playing, problem-solving activities, group discussions, and concrete items throughout every program.

Absentee policy. Each session of the curriculum builds on the knowledge gained from preceding sessions. Therefore, consumers are required to complete any unattended sessions before continuing with the program. Specifically, if a consumer is absent from a session, then he/she is required to arrive at the following session an hour early for one-on-one instruction on the missed material. Two consecutive, or three total absences, from their group sessions constitute a dismissal from the group. Participants may join the next scheduled group. However, dismissal from two groups requires reapplication to the program. Many who have dropped from a specific group have reapplied and completed the program (Sanchez, 2003). To date, 53 consumers over 5 years dropped the program without completion.

Follow-up sessions. After completing the program, each consumer receives up to three, 1-hour individual follow-up sessions by the training educator that address the following: (a) learning reinforcement (i.e., reviewing actions being taken to reinforce the information obtained from the program, such as discussions with support persons), (b) incorporation and consolidation of learned subject matter into the home environment (i.e., how information from the program can be utilized in the life of the consumer), (c) post-test assessment of consumer sexuality knowledge and inappropriate sexual behaviors (i.e., measurement of the amount of sexuality knowledge and frequency of inappropriate sexual behaviors conducted at the last follow-up session), and (d) provision of the appropriate referrals (from the training educator) to support groups and/or treatment if further needed (e.g., counseling for sexual perpetration, further program consultation, referral to interdisciplinary team).

Measurement

An important feature of the *Responsible Choices for Sexuality* family life education program is that the program developer collected basic demographic information on the consumers and developed survey instruments to assess both consumers' and support persons' sexuality knowledge, and support persons' reports of consumers' inappropriate sexual behaviors. The surveys were administered both before and after the consumers and support persons completed the program. The following sections describe the survey instruments and procedures that were used to consider the reliability and validity of the instruments.

Consumer Knowledge of Sexuality

Consumers' knowledge of sexuality is measured using the Consumer Knowledge Base Pre- and Post-Test, a 49-question survey (see Appendix A) developed by Marla Sanchez, PhD, LPC (the program developer and one of two program administrators). This survey is administered orally by one of three program trainers. The pre-test is administered before the program at the initial assessment of the consumer, and the post-test is administered approximately 6 to 8 weeks after the completion of the program.

The data collected from this instrument is used in program administration (a) for the initial assessment of participants (the pre-test), (b) to assess the knowledge of consumers to tailor the training sessions to the needs of the consumers (the pre-test), (c) to make individual placements into the appropriate classroom groups based on sexuality knowledge, sexual experience, and developmental level (the pre-test), and (d) to assess sexuality knowledge after participation in the *Responsible Choices for Sexuality* program (the post-test). In the present study, the pre-test and post-test data was used to determine (a) what specific significant changes are present in sexuality knowledge of consumers after participating in the program, and (b) the areas of sexuality knowledge that are significantly related to inappropriate sexual behaviors.

The survey consists of nine subscales conceptually corresponding to the nine content areas that compose the curriculum of the program. The nine subscales and sample items follow: (a)

Personal Care (e.g., "Identify location of private body parts of male"), (b) Social Etiquette (e.g., "Identify some behaviors that would be rude to do in front of other people"), (c) Expressing Feelings in Relationships (e.g., "Identify appropriate behaviors to express feelings for family"), (d) Safety Awareness (e.g., "Identify appropriate behavior toward unfamiliar adults"), (e) Individual Sexual Expression (e.g., "Identify individual sexual expression choices"), (f) Dating (e.g., "Identify positive attributes in a potential partner"), (g) Sexual Expression in a Relationship (e.g., "Identify ways to get to know someone better and build a positive relationship"), (h) Inappropriate Sexual Expression (e.g., "Identify illegal sexual acts"), and (i) Pregnancy and Sexual Diseases (e.g., "Identify methods of birth control"). See Appendix A for a detailed listing of items in each subscale.

Since each question may have several possible correct responses, each response is entered as a specific item into the data file as "0" for unknown or "1" for known. The list of possible correct responses is provided on the instrument. In addition, the score of "-1" is given to represent that an inappropriate response was given by the consumer. Finally, the scores are summed for each of the nine subscales and for an overall scale score.

Since reliabilities had not previously been established, a Cronbach's coefficient alpha (an internal consistency reliability coefficient) was established for each of the nine subscales and for the overall scale using the current data at both pre-test and post-test on the subsample of 139 consumers. Since five items in the first subscale (personal care) differ for males and females, reliability coefficients for the subscale and the overall scale were calculated for both males and females. The current data yielded internal consistency reliability coefficients for the overall scale for females of .94 at pre-test and .97 at post-test. Similarly, internal consistency reliability coefficients for the overall scale for males was .93 at pre-test and .96 at post-test. In regard to the nine subscales, the current data yielded internal consistency reliability coefficients as follows: (a) Personal Care: pre-test = .76, post-test = .71 (females), pre-test = .83, post-test = .74 (males), (b) Social Etiquette: pre-test = .42, post-test = .62, (c) Expressing Feelings in Relationships: pre-test

= .78, post-test = .88, (d) Safety Awareness: pre-test = .18, post-test = .59, (e) Individual Sexual Expression: pre-test = .71, post-test = .82, (f) Dating: pre-test = .61, post-test = .80, (g) Sexual Expression in a Relationship: pre-test = .49, post-test = .73, (h) Inappropriate Sexual Expression: pre-test = .73, post-test = .78, (i) Pregnancy and Sexual Diseases: pre-test = .88, post-test = .89. See Table 5 (Appendix B) for a detailed summary of variables, measures, and reliabilities.

To examine the content validity of each subscale, five experts (faculty, doctoral graduates, or doctoral candidates) in Human Development and Family Science rated each item's appropriateness for measuring the objective for each subscale (see Appendix A). For example, each expert rated the item, "Identify location of 'private' body parts of male," on a Likert-type scale (1 = not appropriate, 2 = slightly appropriate, 3 = somewhat appropriate, 4 = appropriate, 5 = very appropriate) for the item's appropriateness of measuring the subscale concept of "personal care." Means and standard deviations were calculated to determine the rated appropriateness for each item as well as for the overall scale. The analyses for the overall scale resulted in a mean score of 4.13 for appropriateness. Forty-five items (80%) resulted in mean scores between 4.00 (appropriate) and 5.00 (very appropriate), while 11 items (20%) resulted in a mean score between 3.00 (somewhat appropriate) and 4.00 (appropriate). All items in the instrument were retained since means for all items were greater than 3.00. Frequencies, means, and standard deviations for each item in the validity assessment for the Consumer Knowledge Base Pre/Post-Test are presented in Table 2 (see Appendix B).

In addition, concurrent criterion-related validity of this instrument was assessed by examining the relationship between consumers' sexuality knowledge and the frequency of consumers' inappropriate sexual behaviors. Bivariate correlations resulted in a non-significant relationship between the overall scores of consumer sexuality knowledge and inappropriate sexual expression. However, analyses for Hypothesis 4 resulted in several significant relationships between dimensions of consumers' sexuality knowledge and inappropriate sexual expression, which may provide partial support for concurrent criterion-related validity.

Support Person Knowledge of Sexuality and Developmental Disabilities

Support persons' knowledge of sexuality and developmental disabilities is measured using the Support Person Sexuality and Disabilities Knowledge Pre- and Post-Test, a 20-item, true/false questionnaire that was developed by the program developer (see Appendix A). The development of this instrument was based on literature regarding myths and misconceptions about individuals with developmental disabilities and sexuality (Sanchez, 2003). The self-report pre-test is completed at the first session of the educational groups sessions for support persons, and the self-report post-test is completed at the last session of the group sessions. Items in the questionnaire cover common misperceptions regarding sexuality and individuals with developmental disabilities that were identified in scholarly literature by the program administrator (Sanchez, 2003). Sample items include: (a) "The more disabled a person is the lower his/her sex drive," (b) "People with developmental disabilities do not desire as much physical touch as does a non-disabled person," and (c) "Individuals with developmental disabilities are able to love and care at the same emotional depth as non-disabled people." Incorrect items were coded as "0" and correct items are coded as "1." Finally, the scores are summed for an overall scale score.

Since reliabilities had not previously been established, a Cronbach's coefficient alpha was established for the Support Person Sexuality and Disabilities Knowledge Pre- and Post-Tests using the current data. The current data yielded internal consistency reliability coefficients (Cronbach's alpha) of .62 for the pre-test instrument and .43 for the post-test instrument. See Table 5 (Appendix B) for a detailed summary of variables, measures, and reliabilities.

In order to establish content validity, five experts (faculty, doctoral graduates, or doctoral candidates) in Human Development and Family Science rated each item's appropriateness for measuring support persons' knowledge of sexuality and developmental disabilities. For example, each expert rated the item, "The onset of puberty is delayed for individuals with developmental disabilities," on a Likert-type scale (1 = not appropriate, 2 = slightly appropriate, 3 = somewhat

appropriate, 4 = appropriate, 5 = very appropriate) for the item's appropriateness of measuring support persons' knowledge of sexuality and developmental disabilities (see Appendix A). Means were conducted to determine the rated appropriateness for each item as well as for the overall scale. The analyses for the overall scale resulted in mean scores of 4.69 for appropriateness. All 20 items (100%) resulted in mean scores between 4.00 (appropriate) and 5.00 (very appropriate). Therefore, all items in the instrument were retained since means for all items were greater than 3.00. Frequencies, means, and standard deviations for each item in the validity assessment of the Support Person Sexuality and Disabilities Pre/Post-Test are presented in Table 3 (see Appendix B).

Support Persons' Reports of Consumers' Inappropriate Sexual Behaviors

Support persons' reports of the frequency of inappropriate sexual behaviors exhibited by consumers is measured using the Inappropriate Sexual Expression Scale, a 36-item Likert-type scale that was developed by the program administrator (see Appendix A). The process for the development of this instrument was based on literature about social norms and health and safety issues regarding sexuality and individuals with developmental disabilities (Sanchez, 2003). Support persons report the frequency of specific behaviors in which they have observed the consumer engage within the previous two months. The instrument is completed before the program begins and again approximately 6 to 8 weeks after the program ends. The response range is as follows: 0 = "never," 1 = "once," 2 = "a few times," 3 = "a lot of times." Sample items include: (a) "masturbating in public," (b) "asking non-intimate peers, staff, or acquaintances to engage in sexual acts," (c) "touching another adult's private body parts in public," and (d) "hurting others to become sexually stimulated."

For exploratory purposes and to contribute to establishing validity, an exploratory factor analysis (i.e., principal axis factor extraction procedure) was conducted to determine factors within the instrument. Exploratory factor analysis is used when the researcher wishes (a) to determine how many factors exist and if they are correlated or uncorrelated, and (b) to name the

factors. Principal component analysis was utilized since there is a single group of subjects (i.e., support persons) who responded to this instrument. Specifically, principal component analysis is a mathematical maximization procedure that is used to transform correlated variables into uncorrelated components that can be meaningfully interpreted (Stevens, 2002). For the current study, a direct oblimin rotation was conducted since no initial assumptions were made regarding the nature of the correlation between factors (Stevens, 2002). Examination of the items, eigenvalues (using the Kaiser criteria), scree plots, factor structure matrices, rotated factor matrices, and pattern matrices were used to determine the number of factors resulting from the above extraction procedure. The factors were also examined for conceptual coherence. The detailed results of the factoring procedures are discussed in Chapter 4, under Hypothesis 4.

Since reliabilities were not previously established for this measure, upon completion of the factoring procedure, Cronbach's coefficient alphas of internal reliability were established for the overall measure and for each factor that emerged from the factoring procedure at both pre-test and post-test. The current data yielded internal consistency reliability coefficients (Cronbach's alpha) of .80 for the overall pre-test instrument and .62 for the overall post-test instrument. See Table 5 (Appendix B) for a detailed summary of variables, measures, and reliabilities.

In order to establish content validity, five experts (faculty, doctoral graduates, or doctoral candidates) in Human Development and Family Science rated each item's appropriateness for measuring the frequency of consumers' inappropriate sexual behaviors as reported by support persons. For example, each expert rated the item, "Touching his/her own private parts in public," on a Likert-type scale (1 = not appropriate, 2 = slightly appropriate, 3 = somewhat appropriate, 4 = appropriate, 5 = very appropriate) for the item's appropriateness of measuring the frequency of consumers' inappropriate sexual behaviors as reported by support persons (see Appendix A). Means were conducted to determine the rated appropriateness for each item as well as for the overall scale. The analyses for the overall scale resulted in a mean score of 4.78 for appropriateness. All 36 items (100%) resulted in mean scores between 4.00 (appropriate) and

5.00 (very appropriate). Therefore, all items in the instrument were retained since means for all items were greater than 3.00. Frequencies, means, and standard deviations for each item in the validity assessment of the Inappropriate Sexual Expression Scale are presented in Table 4 (see Appendix B).

Operational Hypotheses

1. Consumer knowledge of sexuality, as measured by each of the nine subscales on the Consumer Knowledge Base Pre- and Post-Tests, will be significantly higher at post-test than at pre-test.
2. Support person knowledge of sexuality and developmental disabilities, as measured by the Support Person Sexuality and Disabilities Knowledge Pre- and Post-Tests, will be significantly higher at post-test than pre-test.
3. Support person reports of consumers' inappropriate sexual behaviors, as measured by the Inappropriate Sexual Expression Scale, will be significantly less at post-test than at pre-test.
4. Consumer knowledge of sexuality in the nine content areas, as measured by the subscales of the Consumer Knowledge Base Pre- and Post-Tests, will be negatively related to inappropriate sexual behaviors, as measured by the Inappropriate Sexual Expression Scale.

Analyses

Prior to testing the hypotheses, bivariate correlations were examined using both pre-test and post-test data to determine whether significant relationships exist between selected demographic variables (age, gender, and IQ of consumer) and the dimensions of consumers' sexuality knowledge, support persons' knowledge of sexuality and developmental disabilities, and support persons' reports of consumers' inappropriate sexual behaviors.

Next, Hypotheses 1, 2, and 3 were examined using repeated measures analyses of variance (ANOVA). When bivariate correlations demonstrated significant relationships between the demographic variables and dimensions of consumers' sexuality knowledge, support persons'

knowledge of sexuality and developmental disabilities, and dimensions of support persons' reports of consumers' inappropriate sexual behaviors, repeated measures analysis of covariance (ANCOVA) was used as an additional form of analysis. Finally, Hypothesis 4 was examined using a set of multiple regression analyses.

Analyses for Hypotheses 1, 2, and 3

The analyses testing Hypotheses 1, 2, and 3 included repeated measures ANOVA and repeated measures ANCOVA (Stevens, 2002). Repeated measures ANOVA is a statistical technique that is designed to examine the differences in means between groups from pre-test to post-test (Isaac & Michael, 1995). This technique is used for within-subjects designs when all subjects receive all of the levels of each treatment and are assessed before and after the treatment. Repeated measures ANOVA is based on the following assumptions: (a) independence – the scores for any particular subject are independent of the scores of other subjects, (b) normality – the observations on the dependent variables follow a multivariate normal distribution in each group, (c) sphericity – the covariance matrices for the dependent variables are equal (Stevens, 2002).

The strengths of ANOVA are the ability to examine (a) more than two groups, (b) more than one independent variable, and (c) differences between groups from pre-test to post-test. Limitations of ANOVA include using only categorical independent variables, examining only one dependent variable, and examining only within-subjects designs. A specific strength of utilizing repeated measures ANOVA is the reduction in error as compared to running separate analyses.

The SPSS Data Analysis System Release 11.0 (2001) was utilized to conduct the separate repeated measures ANOVAs to determine if the following three major variables vary significantly from pre-test to post-test: consumers' sexuality knowledge, support persons knowledge of sexuality and developmental disabilities, and consumers' inappropriate sexual behaviors as reported by support persons. Then, the demographic variables (age, gender, and IQ

of consumer) that were significantly related to the major variables in the bivariate correlations were entered into separate repeated measures ANCOVAs to determine if the major variables varied significantly from pre-test to post-test while controlling for the demographic variables.

Analyses for Hypothesis 4

Exploratory factor analyses (see *Support Persons' Reports of Consumers' Inappropriate Sexual Behaviors* above) was conducted to identify factors (subscales) on the Inappropriate Sexual Expression Scale at pre-test. Using the emergent factors, multiple regression equations were conducted to examine the extent to which dimensions of consumers' sexuality knowledge relates to support persons' reports of dimensions of inappropriate sexual behaviors at both pre-test and post-test.

Methodological Limitations

Although the results of this study have important implications for prevention and intervention programs, certain methodological limitations exist. A primary limitation of this design is that there is no assurance that the treatment is the only or even the major factor in a difference between pre- and post-test scores (Isaac & Michael, 1995). For example, maturation and history may affect post-test scores independently from the treatment (Miller, 1986). Two additional limitations in regard to using this design for this particular study are the (a) lack of a control group and (b) lack of random assignment. Specifically, there is no control group due to the ethical considerations of depriving consumers of sexuality education. Therefore, since there are no control groups, then there is no random assignment. In addition, generalizability and external validity may also be limited since the sample is a homogeneous sample of convenience.

In regard to program delivery, the three program trainers may not be consistent in their methods of administering the program. In addition, delivery of the program may differ from class to class since consumers are placed into groups based on similarity and need (e.g., sexual abuse,

inappropriate sexual behaviors). However, current data collection procedures do not allow for examining group differences.

Two limitations exist in regard to attendance and the absentee policy. Specifically, there is no current record of (a) how many consumers reapplied to the program after being dismissed, and (b) the specific details of an attendance policy for support persons.

A limitation exists in regard to support persons reporting the frequency of consumers' inappropriate sexual behaviors, in that there is no indication of how much time each support person spends with his/her consumer. For example, a support person who lives with a consumer is likely to give a more accurate assessment of the frequency of inappropriate sexual behaviors, as compared to a support person who spends only a few days a week with a consumer.

Finally, there are often limitations in regard to the evaluation of previously established programs. For example, previously established programs often do not have a detailed program design, such as clearly described objectives, rationale, appropriateness for procedures, delivery methods, or efforts to measure outcomes (Rossi & Freeman, 1989). For the current study, the administrative staff of *Responsible Choices for Sexuality* did not have clearly written objectives for every measurement utilized throughout the program. Therefore, the researcher worked with program administration to identify those objectives, so that the validity of the instruments is based on more than face value.

Summary

The methods previously described were utilized so as to examine the program, *Responsible Choices for Sexuality*. Specifically, a pre-test/post-test design was utilized, as well as three instruments to measure the differences from before to after completing the program in regard to (a) consumer knowledge of sexuality, (b) support person knowledge of sexuality and developmental disabilities, and (c) frequency of consumers' inappropriate sexual behaviors as reported by support persons.

CHAPTER IV

RESULTS

This chapter describes the results of the statistical analyses on the hypotheses relating to the *Responsible Choices for Sexuality* program. Specifically, the results of bivariate correlations, repeated measures analyses of variance (ANOVA), factor analyses, and multiple regression analyses are presented according to the four hypotheses. In addition, the mean scores for each instrument are presented by gender, age, and IQ at both pre-test and post-test in Table 5.

Results for Hypotheses 1, 2, and 3

Overview of Analyses

Bivariate correlations were calculated using the subsample of *Responsible Choices for Sexuality* consumers (aged 16 or above and with IQ scores reported to be 70 or less) and support persons who participated in both Track 1 and Track 2 of the program. Specifically, bivariate correlations were established on each pair of variables at both pre-test and post-test data collection points to examine the relationships between (a) age of consumer, (b) gender of consumer, (c) IQ of consumer, (d) consumers' sexuality knowledge, (e) support persons' knowledge of sexuality and individuals with developmental disabilities, and (f) support persons' reports of consumers' inappropriate sexual expression. Results of the bivariate correlations indicated no significant differences in knowledge or behavior between male and female consumers (see Table 7). The means, standard deviations, and bivariate correlations between the variables are presented in Table 7 (see Appendix B).

Three separate repeated measures ANOVAs were conducted to determine if the three variables of sexuality knowledge and behavior (consumers' sexuality knowledge, support

persons' knowledge of sexuality and individuals with developmental disabilities, and support persons' reports of consumers' inappropriate sexual behaviors) varied significantly from pre-test to post-test. Next, the demographic variables (age, IQ of consumer) that were significantly related in the bivariate correlations to the three aforementioned variables were used in separate repeated measures analyses of covariance (ANCOVA) as an additional form of analysis to determine if the three major variables varied significantly from pre-test to post-test while controlling for the demographic variables. A detailed summary of the repeated measures ANOVAs is reported in Tables 8 and 9, and the summary of the repeated measures ANCOVA is reported in Table 10 (see Appendix B).

Hypothesis 1

Hypothesis 1 states, "Consumer knowledge of sexuality, as measured by each of the nine subscales on the Consumer Knowledge Base Pre- and Post-Tests, will be significantly higher at post-test than at pre-test." Results of the statistical analyses (described below) supported this hypothesis.

Factor analysis. In order to determine the independence between the nine subscales of the Consumer Knowledge Base Scale, a principal component analysis (Stevens, 2002) was conducted on the nine subscales using pre-test data. Principal axis factor extraction procedures with direct oblimin rotation resulted in a one-factor solution with five loadings between .70 and .90, accounting for 52% of the variance. In addition, the bivariate correlations indicated a low level of independence between the nine subscales. Therefore, the decision was made to use the overall scale score for primary analysis of Hypothesis 1. However, additional analyses were conducted on Hypotheses 1 and 4 to provide information to assist the program developer in program refinement.

Repeated measures ANOVA. A repeated measures ANOVA was conducted to determine if there was a significant difference in consumer knowledge of sexuality from before to after

completing *Responsible Choices for Sexuality.* As hypothesized, the repeated measures ANOVA resulted in a significant difference from pre-test to post-test in consumer knowledge of sexuality, $F(1,138) = 774.34, p < .01$ (see Table 8). However, the previous bivariate correlations revealed that the age and IQ of consumers were each significantly correlated with consumers' knowledge of sexuality at both pre- and post-test data collection points. Specifically, age ($r =$ -.26 and -.33, $p < .01$) was significantly negatively related and IQ ($r = .50$ and $r = .58, p < .01$) was significantly positively related to consumers' knowledge of sexuality at both pre-test and post-test, respectively (see Table 8). Therefore, these demographic variables were used as covariates in a repeated measures ANCOVA for consumers' knowledge of sexuality.

Repeated measures ANCOVA. Since bivariate correlations resulted in a significant relationship between demographic variables (age and IQ of consumer) and consumer knowledge of sexuality, a repeated measures ANCOVA was conducted to determine if there was a significant difference in consumer knowledge of sexuality from before to after completing *Responsible Choices for Sexuality*, while controlling for age and IQ. The repeated measures ANCOVA resulted in a significant increase in consumer knowledge of sexuality from pre-test to post-test while controlling for consumer age and IQ, $F(1, 136) = 8.72, p < .01$ (see Table 10).

Additional Analyses. Since initial analyses indicated a significant gain in overall knowledge scores from pre-test to post-test, additional repeated measures ANOVAs were conducted on each of the nine subscales of the Consumer Knowledge Base Scale in order to provide the program administrator with further details of knowledge gain for each component of the program. The additional repeated measures ANOVAs resulted in significant increases in each of the nine dimensions of consumer knowledge from pre-test to post-test as follows (also see Table 9): personal care, $F(1, 138) = 489.41, p < .01$; social etiquette, $F(1, 138) = 152.00, p < .01$; expressing feelings in relationships, $F(1, 138) = 338.65, p < .01$; safety awareness, $F(1, 138) = 255.93, p < .01$; individual sexual expression, $F(1, 138) = 299.38, p < .01$; dating, $F(1, 137) =$

227.61, $p < .01$; sexual expression in a relationship, $F(1, 136) = 131.98$, $p < .01$; inappropriate sexual expression, $F(1, 132) = 144.38$, $p < .01$; pregnancy and STDs, $F(1, 124) = 124.21$, $p < .01$. Thus, not only do the results of the repeated measures ANOVAs show significant increases in consumer knowledge about sexuality for the overall scale significant increases were evident for each subscale.

Hypothesis 2

Hypothesis 2 states, "Support-person knowledge of sexuality and developmental disabilities, as measured by the Support Person Sexuality and Disabilities Knowledge Pre- and Post-Tests, will be significantly higher at post-test than pre-test." This hypothesis was supported showing a significant increase from pre-test to post-test in support person's knowledge about sexuality and adults with developmental disabilities. A detailed report of the statistical analyses for this hypothesis is presented below.

Repeated measures ANOVA. A repeated measures ANOVA was conducted to determine if there was a significant increase in support person knowledge of sexuality and developmental disabilities from before to after completing *Responsible Choices for Sexuality.* As hypothesized, the repeated measures ANOVA resulted in a significant increase in support person knowledge from pre-test to post-test, $F(1, 115) = 439.11$, $p < .01$ (see Table 8).

Hypothesis 3

Hypothesis 3 states, "Support person reports of consumers' inappropriate sexual behaviors, as measured by the Inappropriate Sexual Expression Scale, will be significantly less at post-test than at pre-test." Results of the statistical analyses (described below) provided support for this hypothesis.

Repeated measures ANOVA. A repeated measures ANOVA was conducted to determine if there was a significant difference in support persons' reports of consumers' inappropriate sexual expression from before to after completing *Responsible Choices for Sexuality.* As hypothesized,

the repeated measures ANOVA resulted in a significant decrease in support persons' reports of consumers' inappropriate sexual expression from pre-test to post-test, $F(1, 96) = 44.00, p < .01$ (see Table 8).

Hypothesis 4

Hypothesis 4 states, "Consumer knowledge of sexuality in the nine content areas, as measured by the subscales of the Consumer Knowledge Base Pre- and Post-Tests, will be negatively related to inappropriate sexual behaviors, as measured by the Inappropriate Sexual Expression Scale." Results of the statistical analyses (described below) provided partial support for this hypothesis. Although the previous factor analysis on the Consumer Knowledge Base Pre- and Post-Tests (see above) resulted in only one factor, the researcher proceeded to use the subscale scores in order to examine the relationship between each dimension (subscale) of the Consumer Knowledge Base and dimensions of the Inappropriate Sexual Expression Scale at both pre- and post-test, and to assist with the refinement of the program. A factor analysis procedure was also necessary to determine the dimensions of inappropriate sexual behaviors.

Factor analysis. An exploratory principal component analysis (i.e., principal axis factor extraction procedure) was conducted using pre-test data in order to determine possible dimensions (subscales) of the Inappropriate Sexual Expression Scale. This allowed the researcher to examine the extent to which dimensions of consumers' sexuality knowledge related to support persons' reports of dimensions of inappropriate sexual behaviors before consumers began the program. The factors that emerged from the factoring procedures were entered into multiple regression equations to examine the relationships between specific dimensions of inappropriate sexual behavior and dimensions of consumers' sexuality knowledge.

Four items (i.e., "Receiving money to engage in sexual acts," "Verbally threatening others to engage in sexual acts," "Hurting others to become sexually stimulated," and "Having sex with an animal") from the Inappropriate Sexual Expression Scale at pre-test were eliminated from

factoring procedures due to no variance in item scores (i.e., no consumers were identified as exhibiting those behaviors). Therefore, the factoring procedures were conducted on the remaining 32 items.

Principal axis factor extraction procedures with direct oblimin rotation resulted in a two-factor solution with loadings of .50 and above accounting for 33% of the variance (see Table 11 and Figure 5). The first factor (sexual behavior involving others) consisted of five items from the Inappropriate Sexual Expression Scale (i.e., "Showing his/her private parts to adults without consent," "Asking non-intimate peers, staff, or acquaintances to engage in sexual acts," "Rubbing his/her body against others without consent," "Touching another adult's private body parts without permission," "Tying up and/or spanking others for sexual pleasure"). Internal consistency reliability (Cronbach's alpha) for the factor scale was .64 at pre-test.

The second factor (sexual behaviors involving the use of objects on oneself) was comprised of two items from the Inappropriate Sexual Expression Scale (i.e., "Masturbating with sharp or unsafe objects," "Putting objects in his/her own vagina, penis, or rectum"). Scales were created consisting of the aforementioned items to reflect the two emerged factors. Internal consistency reliability (Cronbach's alpha) for the factor scale of "sexual behavior involving others" was .64 at pre-test. Internal consistency reliability (Cronbach's alpha) for the factor scale of "sexual behaviors involving the use of objects on oneself" was .89 at pre-test. The new scale scores for each factor were then entered into multiple regression equations.

Multiple Regression Analyses. To examine the extent to which the nine subscales of consumers' knowledge of sexuality explained the variance in the specific factors of inappropriate sexual behavior (from the factor analysis procedure), the nine subscale scores of consumer sexuality knowledge and the new scale scores of "sexual behavior involving others" and "sexual behaviors involving the use of objects on oneself" were entered into separate regression equations for both pre-test and post-test data. Therefore, four forward multiple regression analyses were conducted. Results of the multiple regression analyses are presented in Table 12.

In regard to "sexual behavior involving others," no significant relationships were found between any dimensions of consumer knowledge of sexuality and sexual behaviors that involved others at pre-test (see Table 12). However, a significant negative beta coefficient was found for the relationships between "sexual behavior involving others" and consumers' knowledge of dating at post-test. Specifically, consumers' knowledge of dating explained a small (2%) but significant amount of variance in consumers' sexual behaviors that involved others (see Table 12). This result provides partial support for Hypothesis 4.

In regard to "sexual behaviors involving the use of objects on oneself," no significant relationships were found at pre-test or post-test between any dimensions of consumer knowledge of sexuality and sexual behaviors that involved the use of objects on oneself (see Table 12). These results provided no support for Hypothesis 4.

Additional analyses. Further analyses were conducted to examine the relationships between the dimensions of consumer sexuality knowledge and inappropriate sexual behaviors. Specifically, bivariate correlations were conducted using both pre-test and post-test data to examine how each dimension (subscale) of the Consumer Knowledge Base Pre/Post-Test related to each of the 36 behaviors addressed in the Inappropriate Sexual Expression Scale. Results of the significant findings in the bivariate correlations for both pre-test and post-test data are presented in Tables 13 and 14 (see Appendix B), respectively.

Pre-test data. In regard to the pre-test data, significant results of the bivariate correlations are as follows: (a) knowledge of personal care was positively related to being involved with the legal system due to inappropriate sexual behaviors ($r = .21, p < .05$); (b) knowledge of social etiquette was positively related to drawing pictures of private parts or sexual acts ($r = .20, p < .05$), touching his/her own private parts in public ($r = .18, p < .05$), and engaging in sexual behavior with family members (non-spouse) ($r = .20, p < .05$); (c) knowledge of safety awareness was negatively related ($r = -.22, p < .05$) to touching his/her own private parts in public; (d) knowledge of individual sexual expression was positively related to putting objects in his/her

own vagina, penis, or rectum ($r = .22, p < .05$), touching another adult's private body parts in public ($r = .24, p < .05$), being involved with the legal system due to inappropriate sexual behaviors ($r = .21, p < .05$), and urinating or defecating on others or requesting to be urinated or defecated on by another ($r = .22, p < .05$); (e) knowledge of dating was positively related to putting objects in his/her own vagina, penis, or rectum ($r = .25, p < .05$), masturbating with sharp or unsafe objects ($r = .19, p < .05$), and urinating or defecating on others or requesting to be urinated or defecated on by another ($r = .18, p < .05$), and negatively related to touching another adult's private body parts without permission ($r = -.25, p < .05$); and (f) knowledge of pregnancy and STDs was positively related to putting objects in his/her own vagina, penis, or rectum ($r = .20, p < .05$).

Post-test data. In regard to the post-test data, significant results of the bivariate correlations are as follows: (a) knowledge of safety awareness was negatively related to touching his/her own private parts in public ($r = -.21, p < .05$) and masturbating in public ($r = -.25, p < .05$); (b) knowledge of individual sexual expression was negatively related to showing his/her private parts to adults without consent ($r = -.24, p < .05$); (c) knowledge of dating was negatively related to showing his/her private parts to adults without consent ($r = -.22, p < .05$) and touching another adult's private body parts without permission ($r = -.20, p < .05$); (d) knowledge of sexual expression in a relationship was negatively related to touching his/her own private parts in public ($r = -.22, p < .05$); (e) knowledge of illegal sexual activity was negatively related to showing his/her private parts to adults without consent ($r = -.22, p < .05$).

Summary

Results of the statistical analyses support Hypotheses 1, 2, and 3, indicating significant (a) gains in overall consumers' knowledge of sexuality and support persons' knowledge of sexuality and developmental disabilities and (b) decreases in support persons' reports of consumers' inappropriate sexual behavior. Further, significant increases in consumers' knowledge of

sexuality were evident on each of the nine subscales that represent the content areas of the *Responsible Choices for Sexuality* program.

Regarding Hypothesis 4, principal components factor analyses yielded two factors for support persons' reports of consumers' inappropriate sexual behavior. However, results of the multiple regression analyses relating the dimensions of consumer knowledge to each of the two factors provided limited support for Hypothesis 4.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Using systems perspectives as applied to families, this study examined the effectiveness of the *Responsible Choices for Sexuality* program, a comprehensive community-based sexuality education program for individuals with developmental disabilities. Specifically, the study investigated two areas of the program: (a) the differences in consumers' knowledge of sexuality, support persons' knowledge of sexuality and developmental disabilities, and support persons' reports of consumers' inappropriate sexual behaviors from before to after completing *Responsible Choices for Sexuality* and (b) the relationships between consumers' sexuality knowledge and support person's reports of consumers' inappropriate sexual behaviors before and after completing the program.

Consistent with family systems perspectives (Whitchurch & Constantine, 1993), the results of this study provide support for the delivery of a sexuality education program to adults with developmental disabilities that is designed to incorporate members of their support systems (including family members or service providers). Specifically, support systems may be inherent components of the sexual socialization processes for adults with developmental disabilities.

Knowledge of sexuality for both consumers and their support persons increased significantly after attending *Responsible Choices for Sexuality*. In addition, support persons' reports of inappropriate sexual behaviors exhibited by consumers decreased significantly after attending the program. When comparing knowledge gained by consumers to frequency of inappropriate sexual behaviors, five dimensions of sexuality knowledge (safety awareness, individual sexual expression, dating, sexual expression in a relationship, and inappropriate sexual expression) were

related to a lower frequency of specific inappropriate sexual behaviors after attending *Responsible Choices for Sexuality*. Implications of the findings for the *Responsible Choices for Sexuality* program and future research are presented.

Consumer Knowledge of Sexuality

As hypothesized, repeated measures analysis of variance (ANOVA) indicated a significant increase in consumers' knowledge of sexuality from before to after completing *Responsible Choices for Sexuality*. In addition, repeated measures analysis of covariance (ANCOVA) indicated a significant increase in consumers' knowledge of sexuality regardless of the age and IQ of the consumer. Interestingly, even though there were significant gains in knowledge regardless of the age and IQ of the consumer, the bivariate correlations indicated that younger consumers gained more overall knowledge than older consumers. One possible explanation for this finding may be that older consumers already have higher levels of sexuality knowledge (due to exposure and experience) than younger consumers before beginning the program. Likewise, younger consumers may have less sexuality knowledge before beginning the program, which may lead to greater gains in knowledge from before to after completing the program.

In addition, consumers with higher IQs gained more overall knowledge than those with lower IQs. This finding is consistent with Konstantareas and Lunsky (1997) who stated that sexuality knowledge gained by individuals with developmental disabilities varies depending both on exposure to sexuality education and the level of cognitive functioning. This may indicate that additional programming efforts may be needed for creating delivery methods that are more developmentally appropriate for those with lower IQs.

Consumer knowledge in each of the nine dimensions of consumers' knowledge of sexuality also increased significantly from before to after completing the program. Specifically, consumers gained significant knowledge in the areas of personal care, social etiquette, expressing feelings in relationships, safety awareness, individual sexual expression, dating, sexual expression in a

relationship, inappropriate sexual expression, and pregnancy and STDs. This finding indicates that *Responsible Choices for Sexuality* may be related to various aspects of sexuality knowledge for consumers, and may provide support for existing scholarship that indicates (a) sexuality education is beneficial and (b) gaining sexual knowledge is important in making healthy sexual decisions, dispelling any myths or doubts about sexuality, resolving any traumatic sexual experiences, and/or understanding one's own feelings and beliefs about sexuality (Lindsay et al., 1992; Reiss, 1990). In addition, McCabe and Cummins (1996) stated that those with developmental disabilities had little or no knowledge of appropriate sexual expression (or behavior). However, the findings from this study provide support for *Responsible Choices for Sexuality* in that consumers experienced significant gains in knowledge regarding appropriate sexual expression, whether individually or toward others.

In regard to sexual abuse, Kupper (1995) stated that a lack of information about how to respond to sexual exploitation or unwanted sexual advances is one factor that may increase the risk for sexual abuse of individuals with developmental disabilities. In addition, sexual perpetrators with developmental disabilities may behave so because of a deficiency in sexual and sociosexual knowledge and a lack of sexuality education programs (Demetral, 1994; Hayes, 1991; Hingsburger, 1987). Again, the findings from this study provide support for *Responsible Choices for Sexuality* in that consumers' significant gains in sexuality knowledge may reduce the risk for sexual abuse or perpetration.

In summary, the significant gains in sexuality knowledge for the adults with developmental disabilities who completed *Responsible Choices for Sexuality* provide support for how sexuality education may promote sexual health, including avoiding exploitative relationships, taking responsibility for one's own behavior, practicing effective decision making, expressing sexuality while respecting the rights of others, and preventing sexual abuse (SIECUS, 2000).

Support Person Knowledge of Sexuality and Developmental Disabilities

As hypothesized, there was a significant increase in support persons' knowledge of sexuality and developmental disabilities from before to after completing *Responsible Choices for Sexuality*. This finding provides support for *Responsible Choices for Sexuality* and family systems perspective, since one approach to preparing parents or other support persons to address sexually-related issues (e.g., sexual abuse) is to provide empirically validated comprehensive sexuality education programs that incorporate parents and/or support persons (Ruble & Dalrymple, 1993).

Heyman and Huckle (1995) state the importance of caregivers having any myths dispelled and knowing the resources and skills of how to communicate about sexuality issues with individuals with developmental disabilities. The results of this study demonstrate that support persons can learn a significant amount of information regarding the sexuality of individuals with developmental disabilities. Therefore, support persons can have appropriate expectations and understand the role of sexuality in the lives of the individuals with developmental disabilities, so as to help facilitate and provide support for these individuals to maintain healthy and stable relationships.

Support Persons' Reports of Consumers' Inappropriate Sexual Behaviors

As hypothesized, there was a significant decrease in the frequency of consumers' inappropriate sexual behaviors (as reported by support persons) from before to after completing *Responsible Choices for Sexuality*. This finding supports *Responsible Choices for Sexuality* since assisting individuals with developmental disabilities in developing healthy sexuality may minimize the risk for problematic sexual attitudes or behavior (Grimes, 1998).

In the current study, the most frequently reported inappropriate sexual behaviors exhibited by consumers involved others and involved the use of objects on oneself. This finding is somewhat consistent with Ward, Trigler, and Pfeiffer (2001) who reported that the most common

inappropriate sexual behaviors are those that (a) occur in public places, (b) inappropriately involve others, and (c) involve minors.

Partial support was provided for the hypothesis regarding the relationship between consumers' knowledge of sexuality and inappropriate sexual behaviors at either pre-test or post-test. No relationship was found between consumers' overall sexuality knowledge and overall frequency of inappropriate sexual behaviors. However, further examination of the specific dimensions of consumer knowledge and specific inappropriate sexual behaviors resulted in several findings worth discussing.

Before beginning *Responsible Choices for Sexuality*, only two relationships were found between dimensions of consumers' sexuality knowledge and inappropriate sexual behaviors. Specifically, consumers' with more knowledge of safety awareness were less likely to touch his/her own private parts in public, and consumers' with more knowledge of dating were less likely to touch another adult's private body parts without permission. These two relationships were also identified after participants completed the program. Although these were the only significant negative relationships between consumers' sexuality knowledge and frequency of inappropriate sexual behaviors before the program, there were several significant negative relationships between consumers' sexuality knowledge and frequency of inappropriate sexual behaviors after the program.

After completing *Responsible Choices for Sexuality*, five dimensions of consumers' knowledge of sexuality (safety awareness, individual sexual expression, dating, sexual expression in a relationship, and inappropriate sexual expression) were related to support person's reports of specific inappropriate sexual behaviors exhibited by the consumer. Specifically, (a) as knowledge of safety awareness increased, the frequency of touching his/her own private parts in public and masturbating in public decreased; (b) as knowledge of individual sexual expression increased, the frequency of showing his/her private parts to adults without consent decreased; (c) as knowledge of dating increased, the frequency of showing his/her private parts to adults without consent and

touching another adult's private body parts without permission decreased; (d) as knowledge of sexual expression increased, the frequency of touching his/her own private parts in public decreased; and (e) as knowledge of inappropriate sexual expression increased, the frequency of showing his/her private parts to adults without consent decreased. These outcomes provide support for the effectiveness of *Responsible Choices for Sexuality* in that as certain dimensions of consumers' knowledge of sexuality increases, the frequency of specific inappropriate sexual behaviors decreases.

Recommendations for *Responsible Choices for Sexuality*

Although this study resulted in substantial support for the effectiveness of the delivery of *Responsible Choices for Sexuality*, several recommendations are suggested to further enhance the effectiveness of the program.

First, more demographic data of the consumers should be collected. Specifically, information regarding the diagnoses and severity of the developmental disability is needed in order to address the issue of comorbidity and making assumptions regarding the effectiveness of programming. In addition, more information regarding consumers' experience with sexual victimization and perpetration (e.g., specific behaviors, involvement with the legal system) is needed in order to determine the effectiveness of the program for those who have experienced sexual violence.

Second, demographic data of the support persons should be collected. Specifically, support persons should be asked for the following demographic information: level of education, gender, age, ethnicity, relationship to consumer, and the number of years working with the consumer. Other information from support persons may include (a) if they learned from the orientation session, (b) if they learned from the specific classes, (c) if they have discussed the program topics with their consumer, and (d) if they have shared the information learned from the class with others. This information will allow for further examination of the effectiveness of the program. Specifically, there would be an increased ability to better generalize the effectiveness of the

program to specific individuals and to determine if *Responsible Choices for Sexuality* is more or less effective for specific relationships between consumers and support persons.

Third, record should be kept of the specific types of classes to which consumers are assigned so that group differences can be examined. Currently, delivery of the program may differ from class to class since consumers are placed into groups based on similarity and need (e.g., sexual abuse, inappropriate sexual behaviors). This information will allow for better examination of the effectiveness of the program for specific groups of consumers. In addition, the three program trainers may not be consistent in their methods of delivering the program. Consistency across delivery of the program for specific groups may enhance the effectiveness of the program. Therefore, more attention to various teaching methods is needed in order to analyze the effectiveness of those methods.

Fourth, detailed record should be kept in regard to attendance and the absentee policy. Specifically, developing a record of (a) how many consumers reapplied to the program after being dismissed, and (b) the specific details of an attendance policy for support persons would allow for the examination of retention, and may provide information regarding the types of individuals that are more likely to complete the program.

Fifth, extensive examination of the measurement of consumers' inappropriate sexual behaviors is needed. While initial analyses support the decrease of consumers' inappropriate sexual behaviors, the information gathered by the Inappropriate Sexual Expression Scale is questionable in regard to its validity. For example, few of the 36 inappropriate behaviors were reported as being observed by support persons before consumers attended *Responsible Choices for Sexuality*. This may be related to varying environments and the inconsistent amounts of time that many support persons spend with consumers. Therefore, in order to improve the reliability and validity of the assessment of consumers' inappropriate sexual behaviors, it is recommended that this information be collected from multiple respondents (e.g., family, support staff) and from clinical interviews with the consumers.

Future Research

Although sexuality for individuals with developmental disabilities received increased attention in recent decades, there is still much to be discovered. Specifically, areas such as sexual attitudes, knowledge, behavior, and abuse of individuals with developmental disabilities need to be further investigated. For example, sexual attitudes of those with developmental disabilities should be examined in relationship to caregivers' sexual attitudes. Also, further research should identify distinct relationships between knowledge of sexuality and sexual behaviors. The role of support persons within the development and education of sexuality for individuals with developmental disabilities also needs to continue to be examined, as well as how support persons (e.g., agency staff), family systems, and other social systems can work together to promote healthy sexual development for individuals with developmental disabilities.

Future research on sexuality education for individuals with developmental disabilities could benefit from a variety of research designs. For example, researchers should utilize multiple methods of assessing sexuality knowledge and behavior of individuals with developmental disabilities, such as observational designs and using both qualitative and quantitative data in one research study. Also, researchers need to continue to examine how individuals with developmental disabilities from various contexts and with various experiences respond to sexuality education. Lastly, experimental designs utilizing control groups are needed to advance the understanding of how specific dimensions of sexuality knowledge and behaviors change due to programming.

Those with developmental disabilities have been found to have a great interest in sex and are considerably experienced in sexual behavior (Ousley & Mesibov, 1991). Therefore, extensive research is needed to identify the relationship between sexual behavior and cognitive functioning, as well as contextual factors that influence the sexual behavior and knowledge of individuals with developmental disabilities (e.g., living arrangement, support network). In addition, the general public's difficulty of understanding sexuality (including sexual knowledge) for this population is

due to a lack of instruments to assess sexuality knowledge of individuals with developmental disabilities (McCabe et al., 1999). Gathering information regarding the diagnosis and severity of the developmental disability, if the consumer has had psychiatric care, if the consumer has medical concerns, and if the consumer has been sexually violated may hold potential in identifying the effectiveness of future programs. Therefore, researchers should work to develop sound instrumentation to accurately assess sexuality knowledge and attitudes in order to better inform the general public regarding this issue.

It is also important for future research to further define the characteristics of support persons' beliefs concerning sexuality of individuals with developmental disabilities. These characteristics may relate to the opportunities for the individual to participate in sexual relationships and sexuality education programs. Defining these characteristics can also facilitate the development of sexuality education programs and the involvement of parents, caregivers, or other support persons.

In regard to family life education, the need for theoretically sound, developmentally appropriate, and empirically validated comprehensive sexuality education programs for adults with developmental disabilities and their support persons holds great potential. Therefore, researchers and family life educators need to utilize systemic perspectives as a guide for developing new programs or modifying current programs.

Lastly, there is a need for further research on the outcomes of sexuality knowledge for individuals with developmental disabilities. The results of this study provide evidence that specific areas of sexuality knowledge relate to variation in sexual behaviors. However, more refinement is needed in the measures of those constructs.

Conclusions

The results of this study provide insights for family life educators and researchers examining sexuality of adults with developmental disabilities. The current results emphasize the importance

of systemically-based approaches to sexuality education for adults with developmental disabilities (primarily mental retardation) and their support persons. Specifically, the results found that sexuality knowledge for both adults with developmental disabilities and their support persons increased significantly after attending *Responsible Choices for Sexuality*. Next, the results indicated that inappropriate sexual behaviors exhibited by adults with developmental disabilities decreased significantly after attending *Responsible Choices for Sexuality*. Finally, the current research study indicated that as specific dimensions of sexuality knowledge increase, the frequency of specific inappropriate sexual behaviors exhibited by adults with developmental disabilities decrease.

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APPENDIXES

APPENDIX A

FORMS

RESPONSIBLE CHOICES, LLC

APPLICATION

NAME:	DATE OF APPLICATION:
DDSD#:	CURRENT PLAN OF CARE DATES:
BIRTH DATE:	GENDER: ☐ Male ☐ Female RACE: ☐ White ☐ Indian ☐ Black ☐ Hispanic ☐ Other
PHONE NUMBER:	ADDRESS:
RESIDENTIAL PROVIDER: PHONE:	VOCATIONAL PROVIDER: PHONE:
PROGRAM COORDINATOR: PHONE: PAGER:	HOUSE SUPERVISOR: PHONE: PAGER:
CASE MANAGER: PHONE: PAGER:	LEGAL GUARDIAN: PHONE: PAGER:
Please check the box that indicates the current living situation: ☐ Independent ☐ Companion ☐ Supported ☐ Family Home ☐ Foster Home ☐ Group Home ☐ Institution ☐ Other	
Has the client ever resided in an institution? ☐ Yes ☐ No If yes, when/where:	
Has the client received inpatient psychiatric care during the past two years? ☐ Yes ☐ No If yes, why/when/where/how long:	
Does the client have a history of medical concerns? ☐ Yes ☐ No If yes, please explain:	
Current Medication & Dosages:	

How has the client's treatment team addressed sexuality issues?
To your knowledge has the client ever been sexually violated? ☐ Yes ☐ No If yes, please explain.
To your knowledge has the client ever engaged in sexually inappropriate behavior? ☐ Yes ☐ No If yes, please explain.
How do you hope the client will benefit from this program? (please be specific)
We are requesting the following educational services: ☐ Track 1 **OR** ☐ Track 2

By completing and signing this application, we the Interdisciplinary Team are formally requesting that the identified client participate in a pre-program screening and be considered for inclusion in a Responsible Choices educational group.

If the client is accepted into the program, we understand and agree to the make the following commitments:

1. A support person must be selected to attend a four-hour staff-orientation to Responsible Choices and to attend all educational group sessions with the client.

2. Together, the client and support person attend 16 hours of group educational sessions (Track 1)
   or
   32 hours of group educational sessions (Track 2)

3. The client attends three 1-hour individual follow-up sessions.

4. All personal information regarding other group members will <u>not</u> be discussed outside of group sessions.

______________________________ ______________________________
Name Title

______________________________ ______________________________
Name Title

______________________________ ______________________________
Name Title

______________________________ ______________________________
Name Title

A COPY OF THE MOST RECENT PSYCHOLOGICAL EVALUATION MUST BE SUBMITTED WITH THIS APPLICATION

INFORMED CONSENT AND INFORMATION RELEASE
RESPONSIBLE CHOICES FOR SEXUALITY®

By signing this document, I give my consent for the results of my initial assessment packet and my follow-up assessment results to be utilized for normative data collection and reporting on the effectiveness of Responsible Choices for Sexuality®. I understand that all information will be handled in strict conformance with American Psychological Association Guidelines. For example, my individual responses to questionnaires will only be used to address my specific situation and will not be identified in the program results. Instead, my responses will be combined with those of other people to develop conclusions about the Responsible Choices for Sexuality® program. I further understand that if I decide that I no longer want my results to be included, I am to notify Marla G. Sanchez, Ph.D. in writing so that my responses can be withdrawn.

By signing below, I also give my consent for the exchange of information between Responsible Choices for Sexuality® and some or all of the members of my Interdisciplinary Team. The information exchanged may include my social, family, psychological, medical, and sexual history, my current needs in each of those areas, my assessment results, my progress or lack of progress, and any recommendations.

_________________________________ _______________
Client Date

_________________________________ _______________
Parent/Legal Guardian Date

_________________________________ _______________
Family Member/Support Person Date

_________________________________ _______________
Marla G. Sanchez, Ph.D. Date
Program Director

CONSUMER KNOWLEDGE BASE PRE/POST-TEST

Pre-Test Date: ____________ **Score:** __________ **Examiner:** _________________

SESSION 1 – PERSONAL CARE

_______ 1.Identify location of "private" body parts of male

☐ penis ☐ butt ☐ IR________________________

_______ 2.Identify location of "private" body parts of female

☐ vagina ☐ breast ☐ butt ☐ IR________________________

_______ 3.Identify proper name of "private" body parts of male

☐ penis ☐ butt

_______ 4.Identify proper name of "private" body parts of female

☐ vagina ☐ breast ☐ butt

_______ 5.Identify appropriate tasks performed during daily hygiene

☐ brush teeth ☐ comb hair ☐ shower ☐ wash hair ☐ wear deodorant

☐ shave ☐ IR________________________

_______ 6. Identify the first and last body part to clean when bathing

☐ face/hair ☐ butt

_______ **Personal Care Total (18)**

Female Participants Only:

_______ 7. Identify appropriate sanitary products used during menstrual cycle

☐ tampon ☐ pad ☐ IR________________________

_______ 8. Identify how often to change sanitary products

☐ every time you go to the bathroom or when you see blood on the pad

_______ 9. Identify the appropriate direction for wiping

☐ front to back

_______ 10.Identify procedures of a routine gynecological exam

☐ internal vaginal ☐ breast

_______ 11. Identify two pre-requisites of receiving a gynecological exam

☐ gloves ☐ nurse ☐ IR________________________

_______ **Female Care Total (8)**

Male Participants Only:

_______ 7. Identify form of own penis
☐ circumcised or ☐ uncircumcised

_______ 8. Identify appropriate method of cleaning own penis
☐ Yes

_______ 9. Identify appropriate hygiene procedure for urinating
☐ lift lid ☐ flush ☐ wash hands

_______ 10. Identify procedures of a routine male physical exam
☐ scrotum ☐ rectum

_______ 11. Identify the pre-requisite of receiving a routine male physical exam
☐ gloves ☐ IR____________________

_______ **Male Care Total (8)**

SESSION 2 – SOCIAL ETIQUETTE

_______ 12. Identify some things you can do to help you look good
☐ posture ☐ clothing ☐ manners ☐ eating ☐ IR____________________

_______ 13. Identify some behaviors that would be rude to do in front of other people
☐ body fluids & germs ☐ touching self ☐ gas ☐ IR____________________

_______ **Etiquette Total (7)**

SESSIONS 3 & 4– EXPRESSING FEELINGS IN RELATIONSHIPS

_______ 14. Identify feelings of others
☐ happy ☐ sad ☐ scared ☐ mad

_______ 15. Identify things that show self-respect
☐ appearance ☐ behavior ☐ activities ☐ IR____________________

_______ 16. Identify different types of families
☐ birth ☐ adopt ☐ foster ☐ step-family

_______ 17. Identify appropriate behaviors to express feelings for family
☐ hug ☐ kiss ☐ shake hands ☐ acts of kindness ☐ tell them
☐ IR____________________

_______ 18. Identify things that describe a friend

☐ do things ☐ known for long time ☐ talk/ trust ☐ help

☐ IR_______________________

_______ 19. Identify appropriate behaviors to express feelings for friends

☐ hug ☐ kiss ☐ tell them ☐ acts of kindness ☐ IR_______________________

_______ 20. Identify professional helpers

☐ case manager ☐ professional service ☐ staff ☐ IR_______________________

_______ 21. Identify appropriate behavior to express feelings for professional helpers

☐ shake hands ☐ side hug ☐ tell them ☐ IR_______________________

_______ 22. Identify acquaintances

☐ neighbor ☐ coworker ☐ boss ☐ community helpers

☐ IR_______________________

_______ 23. Identify appropriate behavior to express feelings for acquaintances

☐ shake hands ☐ IR_______________________

_______ **Expressing Feelings in Relationships Total (35)**

SESSION 5 – SAFETY AWARENESS

_______ 24. Identify who is a stranger

☐ someone you don't know

_______ 25. Identify appropriate behavior toward unfamiliar children

☐ wave ☐ hello ☐ IR_______________________

_______ 26. Identify appropriate behavior toward unfamiliar adults

☐ wave ☐ hello ☐ IR_______________________

_______ 27. Identify response to abusive situations

☐ no ☐ go ☐ tell someone ☐ IR_______________________

_______ **Safety Awareness Total (8)**

SESSION 6 – INDIVIDUAL SEXUAL EXPRESSION

_______ 28. Identify responses to romantic feelings

☐ psychological ☐ physiological

_______ 29. Identify appropriate response to romantic feelings in public

☐ make them go away ☐ IR_______________________

_______ 30. Identify individual sexual expression choices

☐ abstinence ☐ masturbation

_______ 31. Identify responsibilities of masturbating

☐ private ☐ safe ☐ hygiene

_______ **Individual Sexual Expression Total (8)**

SESSIONS 7 & 8 – DATING

_______ 32. Identify positive attributes in a potential partner

☐ ______________________

☐ ______________________

☐ ______________________

☐ IR______________________

_______ 33. Identify safe place to meet someone

☐ friend ☐ party ☐ work ☐ church ☐ IR__________________

_______ 34. Identify details involved in planning dates

☐ day ☐ where ☐ money ☐ transportation ☐ time

_______ **Dating Total (12)**

SESSION 9 – SEXUAL EXPRESSION IN A RELATIONSHIP

_______ 35. Identify ways to build a positive relationship

☐ activities ☐ acts of kindness ☐ time apart ☐ communication

☐ IR______________________

_______ 36. Identify public progressive intimacy levels

☐ Yes

_______ 37. Identify private progressive intimacy levels

☐ Yes

_______ 38. Identify who in a relationship decides how sexual feelings are expressed

☐ both individuals

_______ 39. Identify response to one person saying "no" to a level of intimacy

☐ stop

_______ **Sexual Expression in a Relationship Total (8)**

SESSION 10 – ILLEGAL SEXUAL ACTS

_______ 40. Identify illegal sexual acts

☐ sex in public ☐ public masturbation ☐ rape ☐ paid sex ☐ minor/child

☐ flashing ☐ peeping ☐ urinating in public ☐ IR_______________

_______ **Illegal Sexual Acts Total (8)**

SESSIONS 11 & 12 – PREGNANCY AND SEXUAL DISEASES

_______ 41. Identify conception process

☐ penis in vagina

_______ 42. Identify proper name of penis-vagina penetration

☐ intercourse

_______ 43. Identify methods of birth control

☐ condom ☐ oral contraceptive ☐ IR_______________

_______ 44. Identify how each birth control method is used

☐ penis ☐ female oral

_______ 45. Identify how often a condom should be used

☐ every act of intercourse

_______ 46. Identify how many times the same condom should be used

☐ one time

_______ 47. Identify potential consequences of having sexual intercourse

☐ pregnancy ☐ HIV/STD ☐ IR_______________

_______ 48. Identify HIV modes of transmission

☐ blood ☐ sex ☐ IR_______________

_______ 49. Identify proper HIV/std prevention

☐ condom ☐ IR_______________

_______ **Pregnancy & STD Total (13)**

_______ **POST-TEST TOTAL (125)**

DEMOGRAPHICS

Age__________

IQ__________

Gender
0. Male   1. Female

Race
0. White   1. American Indian   2. Black   3. Hispanic   4. Asian   5. Other

Current Living Situation
0. Independent   1. Companion   2. Supported   3. Family Home
4. Foster Home   5. Group Home   6. Institution   7. Other

Past Residential Institution
0. Yes   1. No

Program Schedule
0. Biweekly   1. Weekly

Support Person
0. Family member   1. Professional Staff

Date of Last Group Session__________________

Post Assessment Date________________

CONSUMER KNOWLEDGE OF SEXUALITY: VALIDITY ASSESSMENT

Please mark each item's level of appropriateness based on the goal for each subscale.

1 = not appropriate 2 = slightly appropriate 3 = somewhat appropriate 4 = appropriate 5 = very appropriate

Subscale: **Personal Care**
Goal: **To know proper names and locations of body parts and understand proper hygiene**

	Item	Appropriateness of item				
1.	Identify location of "private" body parts of male (0-2) penis butt	1	2	3	4	5
2.	Identify location of "private" body parts of female (0-3) vagina breast butt	1	2	3	4	5
3.	Identify proper name of "private" body parts of male (0-2) penis butt	1	2	3	4	5
4.	Identify proper name of "private" body parts of female (0-3) vagina breast butt	1	2	3	4	5
5.	Identify appropriate items used for daily hygiene (0-6) toothbrush toothpaste soap shampoo deodorant razor	1	2	3	4	5
6.	Identify the first and last body part to clean when bathing (0-2) face/hair butt	1	2	3	4	5

Female Participants Only:

	Item	Appropriateness of item				
7.	Identify appropriate sanitary products used during menstrual cycle (0-2) tampon pad	1	2	3	4	5

8. Identify how often to change sanitary products (0-1) — 1 2 3 4 5
every time you go to the bathroom or when you see blood on the pad

9. Identify the appropriate direction for wiping (0-1) — 1 2 3 4 5
front to back

10. Identify procedures of a routine gynecological exam (0-2) — 1 2 3 4 5
internal vaginal breast

11. Identify two pre-requisites of receiving a gynecological exam (0-2) — 1 2 3 4 5
gloves nurse

Male Participants Only:

Appropriateness of item

7. Identify appropriate method of cleaning own penis (0-1) — 1 2 3 4 5
circumcised – external soap & water on shaft and under scrotum
uncircumcised – pull back foreskin, external soap & water on shaft and under scrotum

8. Identify appropriate hygiene procedure for urinating (0-3) — 1 2 3 4 5
lift lid flush wash hands

9. Identify the appropriate direction for wiping (0-1) — 1 2 3 4 5
front to back

10. Identify procedures of a routine male physical exam (0-2) — 1 2 3 4 5
scrotum rectum

11. Identify the pre-requisite of receiving a routine male physical exam (0-1) — 1 2 3 4 5
gloves

Subscale: **Social Etiquette**
Goal: **To understand proper social etiquette**

		Appropriateness of item				
12.	Identify some things you can do to help you look good (0-2) posture clothing manners	1	2	3	4	5
13.	Identify some behaviors that would be rude to do in front of other people (0-2) body fluids & germs touching self personal hygiene	1	2	3	4	5
14.	Identify illegal social-sexual behaviors (0-4) urinating in publicpeeping flashing touching child	1	2	3	4	5

Subscale: **Expressing Feelings in Relationships**
Goal: **To understand types of relationships and appropriate and inappropriate expressions of feelings**

		Appropriateness of item				
15.	Identify feelings of others (0-4) happy sad scared mad	1	2	3	4	5
16.	Identify things that show self-respect (0-2) appearance behavior activities	1	2	3	4	5
17.	Identify different types of families (0-2) birth adopt foster acknowledge	1	2	3	4	5
18.	Identify appropriate behaviors to express feelings for family (0-2) hug kiss shake hands acts of kindness	1	2	3	4	5
19.	Identify things that describe a friend (0-3) do things time/trust like for self talk personally help	1	2	3	4	5
20.	Identify appropriate behaviors to express feelings for friends (0-4) hug kiss shake hands acts of kindness	1	2	3	4	5

21.	Identify professional helpers (0-3) case manager doctor professional service residential vocational	1	2	3	4	5
22.	Identify appropriate behavior to express feelings for professional helpers (0-1) shake hands	1	2	3	4	5
23.	Identify acquaintances (0-3) neighbor coworker boss store clerk community helpers	1	2	3	4	5
24.	Identify appropriate behavior to express feelings for acquaintances (0-1) shake hands	1	2	3	4	5

Subscale: **Safety Awareness**
Goal: **To know personal safety skills**

		Appropriateness of item				
25.	Identify who is a stranger (0-1) someone you don't know	1	2	3	4	5
26.	Identify appropriate behavior toward unfamiliar children (0-1) wave	1	2	3	4	5
27.	Identify appropriate behavior toward unfamiliar adults (0-1) wave	1	2	3	4	5
28.	Identify response to abusive situations (0-3) no go tell someone	1	2	3	4	5
29.	Identify home safety skills (0-3) lock door close curtains telephone door procedure	1	2	3	4	5
30.	Identify community safety skills (0-2) companion lock car doors secure personal belongings address/telephone #	1	2	3	4	5

Subscale: **Individual Sexual Expression**
Goal: **Understanding and responding to romantic feelings**

No.	Item	Appropriateness of item				
31.	Identify responses to romantic feelings (0-2) psychological physiological	1	2	3	4	5
32.	Identify appropriate response to romantic feelings in public (0-1) make them go away	1	2	3	4	5
33.	Identify individual sexual expression choices (0-2) abstinence masturbation	1	2	3	4	5
34.	Identify responsibilities of masturbating (0-4) wash hands private safe hygiene	1	2	3	4	5

Subscale: **Dating**
Goal: **To know what to look for in a partner and how to plan a date**

No.	Item	Appropriateness of item				
35.	Identify positive attributes in a potential partner (0-3) (note: document positive attributes) ____________________	1	2	3	4	5
36.	Identify safe place to meet someone (0-2) friend party work	1	2	3	4	5
37.	Identify details involved in planning dates (0-3) when where money transportation staff support	1	2	3	4	5

Subscale: **Sexual Expression in a Relationship**
Goal: **To understand proper displays of affection**

		Appropriateness of item				
38.	Identify ways to get to know someone better and build a positive relationship (0-3) activities acts of kindness time apart supportive communication	1	2	3	4	5
39.	Identify progressive intimacy levels (0-1) yes	1	2	3	4	5
40.	Identify who in a relationship decides how sexual feelings are expressed (0-1) both individuals	1	2	3	4	5

Subscale: **Inappropriate Sexual Expression**
Goal: **To identify which sexual acts are against the law**

		Appropriateness of item				
41.	Identify response to one person saying "no" to a level of intimacy (0-1) stop	1	2	3	4	5
42.	Identify illegal sexual acts (0-5) sex in public public masturbation rape paid sex minor/child	1	2	3	4	5

Subscale: **Pregnancy and Sexual Diseases**
Goal: **To understand risks of sexual intercourse and proper prevention**

		Appropriateness of item				
43.	Identify conception process (0-1) penis in vagina	1	2	3	4	5
44.	Identify proper name of penis-vagina penetration (0-1) intercourse	1	2	3	4	5

45.	Identify methods of birth control (0-2) condom oral contraceptive	1	2	3	4	5
46.	Identify how each birth control method is used (0-2) penis female oral	1	2	3	4	5
47.	Identify how often a condom should be used (0-1) every act of intercourse	1	2	3	4	5
48.	Identify how many times the same condom should be used (0-1) one time	1	2	3	4	5
49.	Identify potential consequences of having sexual intercourse (0-2) pregnancy HIV/std	1	2	3	4	5
50.	Identify HIV modes of transmission (0-2) blood sex	1	2	3	4	5
51.	Identify proper HIV/std prevention (0-1) condom	1	2	3	4	5

SUPPORT PERSON SEXUALITY AND DISABILITIES KNOWLEDGE PRE/POST-TEST

Mark each of the following questions True (T) or False (F):

______ 1. Heredity is the leading cause of mental retardation.

______ 2. In general, the more seriously disabled a person is, the less he or she will seek intimate relations with others.

______ 3. Most developmentally disabled adults living in the U.S. suffer from loneliness and depression.

______ 4. Masturbation to orgasm has been known to decrease behaviors such as head banging and physical aggression of low functioning individuals.

______ 5. The more disabled a person is the lower his/her sex drive.

______ 6. The onset of puberty is delayed for individuals with developmental disabilities.

______ 7. Most developmentally disabled couples who are sexually active suffer from some form of sexual dysfunction.

______ 8. Individuals with disabilities generally have higher sex drives than non-disabled individuals.

______ 9. The divorce rate for disabled couples is higher than it is for non-disabled couples.

______ 10. A female with Down's Syndrome is almost certain to give birth to Down's Syndrome children.

______ 11. Most parents of children with developmental disabilities are in favor of schools offering sexuality information to their children.

______ 12. People with developmental disabilities do not desire as much physical touch as does a non-disabled person.

______ 13. Preventing pregnancy and sexually transmitted diseases should be the primary focus when providing sexuality education to individuals with developmental disabilities.

______ 14. A person who receives sexuality education usually becomes more sexually active.

______ 15. Individuals with developmental disabilities and individuals without disabilities are equally likely to be sexually violated.

______ 16. Limiting a person's opportunities for privacy will help reduce sexual behavior.

______ 17. Individuals with developmental disabilities are able to love and care at the same emotional depth as non-disabled people.

______ 18. Most individuals with developmental disabilities like themselves and believe that they have something to offer to others.

______ 19. A male child has his first erection around age three.

______ 20. Generally, victims of sexual abuse are abused by people that they know.

SUPPORT PERSON SEXUALITY AND DISABILITIES KNOWLEDGE: VALIDITY ASSESSMENT

Please mark each true/false item's level of appropriateness for measuring support persons' knowledge of sexuality and individuals with developmental disabilities.

1 = not appropriate 2 = slightly appropriate 3 = somewhat appropriate 4 = appropriate 5 = very appropriate

		Appropriateness of item				
1.	Heredity is the leading cause of mental retardation.	1	2	3	4	5
2.	In general, the more seriously disabled a person is, the less he or she will seek intimate relations with others.	1	2	3	4	5
3.	Most developmentally disabled adults living in the U.S. suffer from loneliness and depression.	1	2	3	4	5
4.	Masturbation to orgasm has been known to decrease behaviors such as head banging and physical aggression of low functioning individuals.	1	2	3	4	5
5.	The more disabled a person is the lower his/her sex drive.	1	2	3	4	5
6.	The onset of puberty is delayed for individuals with developmental disabilities.	1	2	3	4	5
7.	Most developmentally disabled couples who are sexually active suffer from some form of sexual dysfunction.	1	2	3	4	5
8.	Individuals with disabilities generally have higher sex drives than non-disabled individuals.	1	2	3	4	5
9.	The divorce rate for disabled couples is higher than it is for non-disabled couples.	1	2	3	4	5
10.	A female with Down's Syndrome is almost certain to give birth to Down's Syndrome children.	1	2	3	4	5
11.	Most parents of children with developmental disabilities are in favor of schools offering sexuality information to their children.	1	2	3	4	5
12.	People with developmental disabilities do not desire as much physical touch as does a non-disabled person.	1	2	3	4	5
13.	Preventing pregnancy and sexually transmitted diseases should be the primary focus when providing sexuality education to individuals with developmental disabilities.	1	2	3	4	5
14.	A person who receives sexuality education usually becomes more sexually active.	1	2	3	4	5
15.	Individuals with developmental disabilities and individuals without disabilities are equally likely to be sexually violated.	1	2	3	4	5

16.	Limiting a person's opportunities for privacy will help reduce sexual behavior.	1	2	3	4	5
17.	Individuals with developmental disabilities are able to love and care at the same emotional depth as non-disabled people.	1	2	3	4	5
18.	Most individuals with developmental disabilities like themselves and believe that they have something to offer to others.	1	2	3	4	5
19.	A male child has his first erection around age three.	1	2	3	4	5
20.	Generally, victims of sexual abuse are abused by people that they know.	1	2	3	4	5

INAPPROPRIATE SEXUAL EXPRESSION SCALE PRE/POST-TEST
Support Staff Observation Form

Please answer whether you have observed or seen evidence of the following behaviors in the last 2 months by the consumer you work with. Circle your answer using the following scale:

0 = never **1 = once** **2 = a few times** **3 = a lot of times**

In the last 2 months, I have observed (or seen evidence of) the consumer...

0	1	2	3	1.	Invading other's private space (e.g., standing too close to others, sitting on another's lap)
0	1	2	3	2.	Drawing pictures of private parts or sexual acts
0	1	2	3	3.	Talking about sexual acts in a public setting
0	1	2	3	4.	Touching his/her own private parts in public
0	1	2	3	5.	Showing his/her private parts to adults without consent
0	1	2	3	6.	Rubbing his/her body against objects (i.e., furniture, walls, etc.)
0	1	2	3	7.	Masturbating in public
0	1	2	3	8.	Masturbating with sharp or unsafe objects
0	1	2	3	9.	Putting objects in his/her own vagina, penis, or rectum
0	1	2	3	10.	Asking strangers to engage in sexual acts
0	1	2	3	11.	Asking non-intimate peers, staff, or acquaintances to engage in sexual acts
0	1	2	3	12.	Receiving money to engage in sexual acts
0	1	2	3	13.	Bribing or paying others to engage in sexual acts
0	1	2	3	14.	Verbally threatening others to engage in sexual acts
0	1	2	3	15.	Physically forcing others to engage in sexual acts
0	1	2	3	16.	Kissing and/or hugging other people who are <u>not</u> family, friends, or significant others
0	1	2	3	17.	Rubbing his/her body against others without consent
0	1	2	3	18.	Touching another adult's private body parts in public
0	1	2	3	19.	Touching another adult's private body parts without permission
0	1	2	3	20.	Watching people when they are nude or undressing
0	1	2	3	21.	Attempting to undress adults without consent
0	1	2	3	22.	Putting objects in another person's vagina, penis, or rectum
0	1	2	3	23.	Fixating on children
0	1	2	3	24.	Showing his/her private parts to children without consent
0	1	2	3	25.	Attempting to undress children
0	1	2	3	26.	Touching children's private parts
0	1	2	3	27.	Engaging in sexual behavior with family members (non-spouse)
0	1	2	3	28.	Being involved with the legal system due to inappropriate sexual behaviors
0	1	2	3	29.	Using self-mutilation to become sexually stimulated
0	1	2	3	30.	Tying up and/or spanking others for sexual pleasure
0	1	2	3	31.	Requesting to be tied up and/or spanked for sexual pleasure
0	1	2	3	32.	Hurting others to become sexually stimulated
0	1	2	3	33.	Touching an animal's sex parts
0	1	2	3	34.	Having sex with an animal
0	1	2	3	35.	Urinating or defecating on others or requesting to be urinated or defecated on by another
0	1	2	3	36.	Engaging in cross-dressing (i.e., dressing like the opposite sex)

INAPPROPRIATE SEXUAL EXPRESSION SCALE FOR PERSONS WITH DEVELOPMENTAL DISABILITIES: VALIDITY ASSESSMENT

Support Staff Observation Form (Pre/Post-Test)

Evaluator: Please mark each item's level of appropriateness for measuring support persons' perceptions of consumers' inappropriate sexual behaviors.

1 = not appropriate   2 = slightly appropriate   3 = somewhat appropriate   4 = appropriate   5 = very appropriate

Support Person: Please answer whether you have observed or seen evidence of the following behaviors in the last 2 months by the consumer you work with. Circle your answer using the following scale:

0 = never   1 = once   2 = a few times   3 = a lot of times

In the last 2 months, I have observed (or seen evidence of) the consumer...		Appropriateness of item
0 1 2 3	1. Invading other's private space (e.g., standing too close to others, sitting on another's lap)	1 2 3 4 5
0 1 2 3	2. Drawing pictures of private parts or sexual acts	1 2 3 4 5
0 1 2 3	3. Talking about sexual acts in a public setting	1 2 3 4 5
0 1 2 3	4. Touching his/her own private parts in public	1 2 3 4 5
0 1 2 3	5. Showing his/her private parts to adults without consent	1 2 3 4 5
0 1 2 3	6. Rubbing his/her body against objects (i.e., furniture, walls, etc.)	1 2 3 4 5
0 1 2 3	7. Masturbating in public	1 2 3 4 5
0 1 2 3	8. Masturbating with sharp or unsafe objects	1 2 3 4 5
0 1 2 3	9. Putting objects in his/her own vagina, penis, or rectum	1 2 3 4 5
0 1 2 3	10. Asking strangers to engage in sexual acts	1 2 3 4 5
0 1 2 3	11. Asking non-intimate peers, staff, or acquaintances to engage in sexual acts	1 2 3 4 5
0 1 2 3	12. Receiving money to engage in sexual acts	1 2 3 4 5
0 1 2 3	13. Bribing or paying others to engage in sexual acts	1 2 3 4 5
0 1 2 3	14. Verbally threatening others to engage in sexual acts	1 2 3 4 5
0 1 2 3	15. Physically forcing others to engage in sexual acts	1 2 3 4 5
0 1 2 3	16. Kissing and/or hugging other people who are <u>not</u> family, friends, or significant others	1 2 3 4 5
0 1 2 3	17. Rubbing his/her body against others without consent	1 2 3 4 5
0 1 2 3	18. Touching another adult's private body parts in public	1 2 3 4 5
0 1 2 3	19. Touching another adult's private body parts without permission	1 2 3 4 5

0	1	2	3	20.	Watching people when they are nude or undressing	1	2	3	4	5
0	1	2	3	21.	Attempting to undress adults without consent	1	2	3	4	5
0	1	2	3	22.	Putting objects in another person's vagina, penis, or rectum	1	2	3	4	5
0	1	2	3	23.	Fixating on children	1	2	3	4	5
0	1	2	3	24.	Showing his/her private parts to children without consent	1	2	3	4	5
0	1	2	3	25.	Attempting to undress children	1	2	3	4	5
0	1	2	3	26.	Touching children's private parts	1	2	3	4	5
0	1	2	3	27.	Engaging in sexual behavior with family members (non-spouse)	1	2	3	4	5
0	1	2	3	28.	Being involved with the legal system due to inappropriate sexual behaviors	1	2	3	4	5
0	1	2	3	29.	Using self-mutilation to become sexually stimulated	1	2	3	4	5
0	1	2	3	30.	Tying up and/or spanking others for sexual pleasure	1	2	3	4	5
0	1	2	3	31.	Requesting to be tied up and/or spanked for sexual pleasure	1	2	3	4	5
0	1	2	3	32.	Hurting others to become sexually stimulated	1	2	3	4	5
0	1	2	3	33.	Touching an animal's sex parts	1	2	3	4	5
0	1	2	3	34.	Having sex with an animal	1	2	3	4	5
0	1	2	3	35.	Urinating or defecating on others or requesting to be urinated or defecated on by another	1	2	3	4	5
0	1	2	3	36.	Engaging in cross-dressing (i.e., dressing like the opposite sex)	1	2	3	4	5

APPENDIX B

TABLES

Table 1

Demographic Characteristics of the Subsample (n = 139)

Characteristics of Consumers	*n*	Percent
Age		
16 – 20	10	7.2
21 – 25	24	17.3
26 – 30	21	15.0
31 – 35	24	17.3
36 – 40	19	13.7
41 – 45	18	12.9
46 – 50	8	5.7
51 – 55	8	5.7
56 – 60	5	3.5
62	1	.7
68	1	.7
IQ		
30	1	.7
32	4	2.9
33	5	3.6
35	2	1.4
36	6	4.3
39	1	.7
40	4	2.9
42	2	1.4
43	1	.7
44	1	.7
45	1	.7
46	3	2.2
47	2	1.4
48	2	1.4
49	2	1.4
50	3	2.2
51	2	1.4
52	2	1.4
53	6	4.3
54	6	4.3
55	7	5.0
56	7	5.0
57	4	2.9
58	2	1.4
59	8	5.8
60	4	2.9
61	5	3.6
62	7	5.0
63	8	5.8
64	6	4.3
65	3	2.2
66	5	3.6
67	5	3.6
68	8	5.8
69	4	2.9

(Table 1 continued on the next page)

Table 1 continued

Demographic Characteristics of the Sample (n = 139)

Characteristics of Consumers	*n*	Percent
Gender		
Male	72	51.8
Female	67	48.2
Living Arrangement		
Foster home	4	2.9
Independent living	12	8.6
Family home	17	12.2
Group home	47	33.8
Supported living	52	37.4
Other	4	2.9
Ethnic Background		
Caucasian	113	81.3
African American	10	7.2
Native American	7	5.0
Asian American	1	.7
Other	1	.7
Received Psychiatric Care in the Past		
Yes	8	5.8
No	125	89.9
Missing	6	4.3
Has Medical Concerns		
Yes	77	55.4
No	57	41.0
Missing	5	3.6
Exhibited Inappropriate Sexual Behaviors		
Yes	18	12.9
No	22	15.8
Missing	99	71.2
Has Been Sexually Violated		
Yes	9	6.5
No	30	21.6
Missing	100	71.9

Table 2

Validity Assessment: Consumer Knowledge Base Pre/Post-Test (N=5)

Item Content	Frequency of Appropriateness Rating						
	1	2	3	4	5	*M*	*SD*
1 Identify location of "private" body parts of male	-	-	1	3	1	4.00	.71
2 Identify location of "private" body parts of female	-	-	1	3	1	4.00	.71
3 Identify proper name of "private" body parts of male	-	-	-	4	1	4.20	.45
4 Identify proper name of "private" body parts of female	-	-	-	4	1	4.20	.45
5 Identify appropriate items used for daily hygiene	-	-	-	2	3	4.60	.55
6 Identify the first and last body part to clean when bathing	-	-	1	1	3	4.40	.89
Female Participants Only:							
7f Identify appropriate sanitary products used during menstrual cycle	-	-	1	2	2	4.20	.84
8f Identify how often to change sanitary products	-	-	1	2	2	4.20	.84
9f Identify the appropriate direction for wiping	-	-	2	1	2	4.00	1.00
10f Identify procedures of a routine gynecological exam	1	-	1	3	-	3.20	1.30
11f Identify two pre-requisites of receiving a gynecological exam	1	1	1	1	1	3.00	1.58
Male Participants Only:							
7m Identify appropriate method of cleaning own penis	-	-	-	2	3	4.60	.55
8m Identify appropriate hygiene procedure for urinating	-	-	-	3	2	4.40	.55
9m Identify the appropriate direction for wiping	-	-	2	1	2	4.00	1.00
10m Identify procedures of a routine male physical exam	1	-	1	3	-	3.20	1.30
11m Identify the pre-requisite of receiving a routine male physical exam	1	1	1	1	1	3.00	1.58
12 Identify some things you can do to help you look good	-	-	2	3	-	3.60	.55
13 Identify some behaviors that would be rude to do in front of other people	-	-	1	2	2	4.20	.84
14 Identify illegal social-sexual behaviors	-	-	1	1	3	4.40	.89
15 Identify feelings of others	-	-	1	2	2	4.20	.84
16 Identify things that show self-respect	-	-	1	1	3	4.40	.89
17 Identify different types of families	-	1	-	2	2	4.00	1.23
18 Identify appropriate behaviors to express feelings for family	-	-	-	3	2	4.40	.55
19 Identify things that describe a friend	-	-	1	2	2	4.20	.84
20 Identify appropriate behaviors to express feelings for friends	-	-	-	3	2	4.40	.55
21 Identify professional helpers	-	-	1	1	3	4.40	.89
22 Identify appropriate behavior to express feelings for professional helpers	-	-	-	2	3	4.60	.55
23 Identify acquaintances	-	-	1	2	2	4.20	.84

(Table 2 continued on the next page)

Table 2 continued

Validity Assessment: Consumer Knowledge Base Pre/Post-Test (N=5)

	Item Content	Frequency of Appropriateness Rating						
		1	2	3	4	5	*M*	*SD*
24	Identify appropriate behavior to express feelings for acquaintances	-	-	-	2	3	4.60	.55
25	Identify who is a stranger	-	-	2	2	1	3.80	.84
26	Identify appropriate behavior toward unfamiliar children	-	-	1	2	2	4.20	.84
27	Identify appropriate behavior toward unfamiliar adults	-	-	1	2	2	4.20	.84
28	Identify response to abusive situations	-	-	-	2	3	4.60	.55
29	Identify home safety skills	-	-	-	2	3	4.60	.55
30	Identify community safety skills	-	-	-	2	3	4.60	.55
31	Identify responses to romantic feelings	-	-	1	2	2	4.20	.84
32	Identify appropriate response to romantic feelings in public	-	1	2	1	1	3.40	1.14
33	Identify individual sexual expression choices	1	-	-	4	-	3.40	1.34
34	Identify responsibilities of masturbating	1	-	-	2	2	3.80	1.64
35	Identify positive attributes in a potential partner	-	-	-	2	3	4.60	.55
36	Identify safe place to meet someone	-	-	-	4	1	4.20	.45
37	Identify details involved in planning dates	-	-	-	3	2	4.40	.55
38	Identify ways to get to know someone better and build a positive relationship	-	-	1	2	2	4.20	.84
39	Identify progressive intimacy levels	-	-	2	-	3	4.20	1.10
40	Identify who in a relationship decides how sexual feelings are expressed	-	-	-	2	3	4.60	.55
41	Identify response to one person saying "no" to a level of intimacy	-	-	-	3	2	4.40	.55
42	Identify illegal sexual acts	-	-	-	2	3	4.60	.55
43	Identify conception process	1	-	1	2	1	3.40	1.52
44	Identify proper name of penis-vagina penetration	1	-	-	2	2	3.80	1.64
45	Identify methods of birth control	-	-	1	2	2	4.20	.84
46	Identify how each birth control method is used	-	-	2	1	1	4.00	1.00
47	Identify how often a condom should be used	-	-	1	3	1	4.00	.71
48	Identify how many times the same condom should be used	-	-	-	3	2	4.40	.55
49	Identify potential consequences of having sexual intercourse	-	-	-	2	3	4.60	.55
50	Identify HIV modes of transmission	-	-	2	1	2	4.00	1.00
51	Identify proper HIV/std prevention	-	-	2	1	2	4.00	1.00
Overall							4.13	.40

Table 3

Validity Assessment: Support Person Sexuality and Disabilities Knowledge Pre/Post-Test (N=5)

	Item Content	Frequency of Appropriateness Rating					*M*	*SD*
		1	2	3	4	5		
1	Heredity is the leading cause of mental retardation.	-	1	-	1	3	4.20	1.30
2	In general, the more seriously disabled a person is, the less he or she will seek intimate relations with others.	-	-	-	1	4	4.80	.45
3	Most developmentally disabled adults living in the U.S. suffer from loneliness and depression.	-	-	1	1	3	4.40	.89
4	Masturbation to orgasm has been known to decrease behaviors such as head banging and physical aggression of low functioning individuals.	-	-	-	2	3	4.60	.55
5	The more disabled a person is the lower his/her sex drive.	-	-	-	1	4	4.80	.45
6	The onset of puberty is delayed for individuals with developmental disabilities.	-	-	-	1	4	4.80	.45
7	Most developmentally disabled couples who are sexually active suffer from some form of sexual dysfunction.	-	-	-	1	4	4.80	.45
8	Individuals with disabilities generally have higher sex drives than non-disabled individuals.	-	-	-	1	4	4.80	.45
9	The divorce rate for disabled couples is higher than it is for non-disabled couples.	-	-	1	1	3	4.40	.89
10	A female with Down's Syndrome is almost certain to give birth to Down's Syndrome children.	-	-	-	1	4	4.80	.45
11	Most parents of children with developmental disabilities are in favor of schools offering sexuality information to their children.	-	-	-	1	4	4.80	.45
12	People with developmental disabilities do not desire as much physical touch as does a non- disabled person.	-	-	-	1	4	4.80	.45
13	Preventing pregnancy and sexually transmitted diseases should be the primary focus when providing sexuality education to individuals with developmental disabilities.	-	-	-	1	4	4.80	.45
14	A person who receives sexuality education usually becomes more sexually active.	-	-	-	1	4	4.80	.45
15	Individuals with developmental disabilities and individuals without disabilities are equally likely to be sexually violated.	-	-	-	1	4	4.80	.45
16	Limiting a person's opportunities for privacy will help reduce sexual behavior.	-	-	-	1	4	4.80	.45
17	Individuals with developmental disabilities are able to love and care at the same emotional depth as non-disabled people.	-	-	-	1	4	4.80	.45
18	Most individuals with developmental disabilities like themselves and believe that they have something to offer to others.	-	-	1	2	2	4.20	.84
19	A male child has his first erection around age three.	-	-	-	1	4	4.80	.45
20	Generally, victims of sexual abuse are abused by people that they know.	-	-	-	1	4	4.80	.45
Overall							4.69	.44

Table 4

Validity Assessment: Inappropriate Sexual Expression Scale (N=5)

	Item Content	Frequency of Appropriateness Rating					*M*	*SD*
		1	2	3	4	5		
1	Invading other's private space (e.g., standing too close to others, sitting on another's lap	-	-	-	1	4	4.80	.45
2	Drawing pictures of private parts or sexual acts	-	-	-	1	4	4.80	.45
3	Talking about sexual acts in a public setting	-	-	-	1	4	4.80	.45
4	Touching his/her own private parts in public	-	-	-	1	4	4.80	.45
5	Showing his/her private parts to adults without consent	-	-	-	1	4	4.80	.45
6	Rubbing his/her body against objects (i.e., furniture, walls, etc.)	-	-	-	1	4	4.80	.45
7	Masturbating in public	-	-	-	1	4	4.80	.45
8	Masturbating with sharp or unsafe objects	-	-	-	1	4	4.80	.45
9	Putting objects in his/her own vagina, penis, or rectum	-	-	-	1	4	4.80	.45
10	Asking strangers to engage in sexual acts	-	-	-	1	4	4.80	.45
11	Asking non-intimate peers, staff, or acquaintances to engage in sexual acts	-	-	-	1	4	4.80	.45
12	Receiving money to engage in sexual acts	-	-	-	1	4	4.80	.45
13	Bribing or paying others to engage in sexual acts	-	-	-	1	4	4.80	.45
14	Verbally threatening others to engage in sexual acts	-	-	-	1	4	4.80	.45
15	Physically forcing others to engage in sexual acts	-	-	-	1	4	4.80	.45
16	Kissing and/or hugging other people who are <u>not</u> family, friends, or significant others	-	-	-	2	3	4.60	.55
17	Rubbing his/her body against others without consent	-	-	-	1	4	4.80	.45
18	Touching another adult's private body parts in public	-	-	-	1	4	4.80	.45
19	Touching another adult's private body parts without permission	-	-	-	1	4	4.80	.45
20	Watching people when they are nude or undressing	-	-	-	2	3	4.60	.55
21	Attempting to undress adults without consent	-	-	-	1	4	4.80	.45
22	Putting objects in another person's vagina, penis, or rectum	-	-	-	1	4	4.80	.45
23	Fixating on children	-	-	-	1	4	4.80	.45
24	Showing his/her private parts to children without consent	-	-	-	1	4	4.80	.45
25	Attempting to undress children	-	-	-	1	4	4.80	.45
26	Touching children's private parts	-	-	-	1	4	4.80	.45
27	Engaging in sexual behavior with family members (non-spouse)	-	-	-	1	4	4.80	.45
28	Being involved with the legal system due to inappropriate sexual behaviors	-	-	-	1	4	4.80	.45
29	Using self-mutilation to become sexually stimulated	-	-	-	1	4	4.80	.45
30	Tying up and/or spanking others for sexual pleasure	-	-	-	1	4	4.80	.45
31	Requesting to be tied up and/or spanked for sexual pleasure	-	-	-	1	4	4.80	.45
32	Hurting others to become sexually stimulated	-	-	-	1	4	4.80	.45
33	Touching an animal's sex parts	-	-	-	1	4	4.80	.45
34	Having sex with an animal	-	-	-	1	4	4.80	.45
35	Urinating or defecating on others or requesting to be urinated or defecated on by another	-	-	-	1	4	4.80	.45
36	Engaging in cross-dressing (i.e., dressing like the opposite sex)	-	-	-	2	3	4.60	.55
Overall							4.78	.44

Table 5

Variables, Measures, and Reliabilities

Variable	Measure	Reliabilities (Cronbach's Alpha) P*	C	F	M
Consumer Sexuality Knowledge					
Overall sexuality knowledge	Consumer Knowledge Base Pre-test	...	...	.94	.93
	Consumer Knowledge Base Post-test	...	...	.97	.96
Knowledge of:	Subscale:				
Personal care	Personal Care Pre-test	...		.76	.83
	Personal Care Post-test	...		.71	.74
Social etiquette	Social Etiquette Pre-test	...	.42	...	...
	Social Etiquette Post-test	...	.62	...	...
Expressing feelings in relationships	Expressing Feelings in Relationships – Pre-test	...	.78	...	...
	Expressing Feelings in Relationships – Post-test	...	.88	...	...
Safety awareness	Safety Awareness Pre-test	...	.18	...	...
	Safety Awareness Post-test	...	.59	...	...
Individual sexual expression	Individual Sexual Expression Pre-test	...	.71	...	...
	Individual Sexual Expression Post-test	...	.82	...	...
Dating	Dating Subscale Pre-test	...	.61	...	...
	Dating Subscale Post-test	...	.80	...	...
Sexual expression in a relationship	Sexual Expression in a Relationship – Pre-test	...	.49	...	...
	Sexual Expression in a Relationship – Post-test	...	.73	...	...
Inappropriate sexual expression	Inappropriate Sexual Expression – Pre-test	...	.73	...	...
	Inappropriate Sexual Expression – Post-test	...	.78	...	...
Pregnancy and STDs	Pregnancy and STDs Pre-test	...	.88	...	...
	Pregnancy and STDs Post-test	...	.89	...	...
Demographics					
Age of consumer	Standard fact sheet item	...	...	...	...
Gender of consumer	Standard fact sheet item	...	...	...	...
IQ of consumer	Standard fact sheet item	...	...	...	...
Support Person Knowledge of Sexuality and Disabilities	Support Person Sexuality and Disabilities Knowledge Pre-test	...	.62	...	...
	Support Person Sexuality and Disabilities Knowledge Post-test	...	.43	...	...
Inappropriate Sexual Expression	Inappropriate Sexual Expression Pre-test	...	.80	...	...
	Inappropriate Sexual Expression Post-test	...	.62	...	...
Factor 1	Sexual Behaviors Involving Others – Pre-test	...	.64	...	...
Factor 2	Sexual Behaviors Involving the use of Objects On Oneself – Pre-test	...	.89	...	...

* Note: P = Previously established reliability (reliabilities have not previously been calculated)
C = Reliability for combined female and male subsample (n = 139)
F = Reliability for female subsample (n = 67)
M = Reliability for male subsample (n = 72)

Table 6

Mean Variable Scores of the Subsample by Gender, Age, and IQ at Pre-Test and Post-Test (n = 139)

	Variables					
	Consumer Sexuality Knowledge		Inappropriate Sexual Behaviors		Support Person Sexuality Knowledge	
Characteristics of Consumers	Pre	Post	Pre	Post	Pre	Post
Males						
Age						
16 – 20	46.73	82.01	5.50	2.74	18.00	11.22
21 – 25	41.05	85.53	5.71	2.00	11.94	17.19
26 – 30	37.73	76.30	5.13	2.29	11.43	16.69
31 – 35	43.10	72.72	6.65	2.38	11.30	18.38
36 – 40	45.62	77.49	8.87	3.09	11.67	17.50
41 – 45	37.31	68.06	9.23	4.34	12.65	17.22
46 – 50	52.18	81.83	8.63	1.44	12.44	17.88
51 – 55	34.37	62.43	4.00	2.06	11.86	17.57
56 – 60	37.50	82.94	10.50	2.57	12.00	18.00
62	37.00	64.00	-	-	10.00	16.00
68	-	-	-	-	-	-
IQ						
30 – 39	25.26	52.02	12.19	1.95	11.74	18.56
40 – 49	31.64	65.21	7.67	3.43	11.08	17.82
50 – 59	39.13	73.45	6.32	3.23	11.67	17.10
60 – 69	50.64	84.37	5.95	1.92	11.81	17.35

(Table 6 continued on the next page)

Table 6 continued

Mean Variable Scores of the Subsample by Gender, Age, and IQ at Pre-Test and Post-Test (n = 139)

	Variables					
	Consumer Sexuality Knowledge		Inappropriate Sexual Behaviors		Support Person Sexuality Knowledge	
Characteristics of Consumers	Pre	Post	Pre	Post	Pre	Post
Females						
Age						
16 – 20	43.86	75.85	5.83	1.32	12.7	18.00
21 – 25	51.23	82.90	3.02	1.87	18.31	18.55
26 – 30	44.43	71.67	6.07	1.74	12.62	17.67
31 – 35	37.04	62.40	3.54	1.93	12.15	17.23
36 – 40	41.22	70.70	3.88	1.29	11.57	18.50
41 – 45	42.94	67.84	5.65	1.96	12.00	18.81
46 – 50	34.91	58.96	3.56	1.67	11.00	16.88
51 – 55	31.27	49.69	8.22	1.03	13.20	16.20
56 – 60	31.93	50.58	2.67	1.03	12.00	17.60
62	39.08	110.16	1.00	0.00	14.00	18.00
68	48.55	79.23	12.00	4.11	10.00	17.00
IQ						
30 – 39	23.11	44.10	3.19	1.37	10.00	16.73
40 – 49	37.97	57.83	4.81	1.23	13.08	18.00
50 – 59	41.32	71.58	4.36	0.99	12.51	17.73
60 – 69	50.18	81.68	5.21	2.14	12.57	18.00

Table 7

Correlations Among Variables, Means, and Standard Deviations for Hypotheses 1, 2, and 3 (n=139)

	Variables	1	2	3	4	5	6	7	8	9
1	Age of Consumer	1.00								
2	Gender of Consumer[a]	.04	1.00							
3	IQ of Consumer	-.07	-.10	1.00						
4	Consumer Knowledge (pre)	-.26**	-.03	.50**	1.00					
5	Consumer Knowledge (post)	-.33**	-.15	.58**	.82**	1.00				
6	Support Person Knowledge (pre)	-.19*	.04	.07	.20**	.17	1.00			
7	Support Person Knowledge (post)	-.08	.09	.12	.06	.14	.34**	1.00		
8	Inappropriate Expression (pre)	.08	-.15	.02	.02	-.08	-.05	-.03	1.00	
9	Inappropriate Expression (post)	.10	-.18	.04	-.09	-.14	-.14	.04	.43**	1.00
Mean		34.85	.48	54.59	44.82	75.76	12.03	17.68	5.79	1.93
Standard Deviation		11.19	.50	10.84	18.76	23.06	3.00	1.79	6.50	2.84

*$p \leq .05$; **$p \leq .01$

[a] Dummy coding was used (0=male, 1=female)

Table 8

Summary of Repeated Measures ANOVAs of Consumer Sexuality Knowledge, Support Person Knowledge of Sexuality and Disabilities, and Inappropriate Sexual Expression from Pre-Test to Post-Test (n = 139)

Construct	Pre-Test *M* (*SD*)	Post-Test *M* (*SD*)	*F*	*df*	Significance
Consumer Sexuality Knowledge	44.82 (18.8)	75.76 (23.1)	744.34*	1, 138	$p < .01$
Support Person Knowledge of Sexuality and Disabilities	11.91 (3.0)	17.61 (1.8)	439.11*	1, 115	$p < .01$
Inappropriate Sexual Expression Relationships	6.19 (6.9)	1.97 (2.9)	44.00*	1, 96	$p < .01$

* $p < .01$

Table 9

Summary of Repeated Measures ANOVAs of Nine Dimensions of Consumer Sexuality Knowledge from Pre-Test to Post-Test (n = 139)

Dimension of Knowledge	Pre-Test *M* (*SD*)	Post-Test *M* (*SD*)	*F*	*df*	Significance
Personal Care	16.58 (4.4)	22.97 (2.7)	489.41*	1, 138	$p < .01$
Social Etiquette	1.12 (1.2)	2.67 (1.7)	152.00*	1, 138	$p < .01$
Expressing Feelings in Relationships	8.40 (4.8)	15.83 (6.8)	338.65*	1, 138	$p < .01$
Safety Awareness	2.11 (1.6)	4.87 (2.0)	255.93*	1, 138	$p < .01$
Individual Sexual Expression	2.31 (1.9)	5.12 (2.5)	299.38*	1, 138	$p < .01$
Dating	3.16 (2.2)	6.22 (3.0)	227.61*	1, 137	$p < .01$
Sexual Expression in a Relationship	1.97 (1.4)	3.71 (2.0)	131.98*	1, 136	$p < .01$
Inappropriate Sexual Expression	3.97 (2.4)	6.25 (2.0)	144.38*	1, 132	$p < .01$
Pregnancy and STDs	6.01 (4.3)	9.31 (3.9)	124.21*	1, 124	$p < .01$

* $p < .01$

Table 10

Summary of Repeated Measures ANCOVA of Consumer Sexuality Knowledge from Pre-Test to Post-Test, Controlling for Age and IQ ($n = 139$)

Construct	Pre-Test *M* (*SD*)	Post-Test *M* (*SD*)	*F*	*df*	Significance
Consumer Sexuality Knowledge	44.82 (18.8)	75.76 (23.1)	8.72*	1, 138	$p < .01$

* $p < .01$

Table 11

Principal Axis Factoring for the Inappropriate Sexual Expression Scale at Pre-Test (n=139)

Item Content	*M*	*SD*	Structure Matrix Factor 1	Structure Matrix Factor 2
1 – Invading other's private space (e.g., standing too close to others, sitting on another's lap	1.59	1.24	.49	.07
2 – Drawing pictures of private parts or sexual acts	.06	.37	.06	-.08
3 – Talking about sexual acts in a public setting	.50	.96	.59	.05
4 – Touching his/her own private parts in public	.42	.88	.49	.04
5 – Showing his/her private parts to adults without consent	.17	.61	.57	.03
6 – Rubbing his/her body against objects (i.e., furniture, walls, etc.)	.16	.56	.08	-.07
7 – Masturbating in public	.10	.05	.48	.31
8 – Masturbating with sharp or unsafe objects	.05	.38	.07	.94
9 – Putting objects in his/her own vagina, penis, or rectum	.07	.40	.08	.89
10 – Asking strangers to engage in sexual acts	.19	.60	.58	.19
11 – Asking non-intimate peers, staff, or acquaintances to engage in sexual acts	.28	.75	.68	-.03
13 – Bribing or paying others to engage in sexual acts	.03	.29	.06	.00
15 – Physically forcing others to engage in sexual acts	.06	.36	.21	-.08
16 – Kissing and/or hugging other people who are not family, friends, or significant others	.91	1.24	.45	.14
17 – Rubbing his/her body against others without consent	.26	.76	.63	.10
18 – Touching another adult's private body parts in public	.23	.65	.64	.14
19 – Touching another adult's private body parts without permission	.21	.66	.66	-.03
20 – Watching people when they are nude or undressing	.31	.80	.42	.35
21 – Attempting to undress adults without consent	.03	.23	.26	-.01
22 – Putting objects in another person's vagina, penis, or rectum	.03	.23	.16	.38
23 – Fixating on children	.24	.77	.37	-.03
24 – Showing his/her private parts to children without consent	.03	.24	.23	-.02
25 – Attempting to undress children	.01	.16	.05	-.03
26 – Touching children's private parts	.01	.08	.05	-.03
27 – Engaging in sexual behavior with family members (non-spouse)	.03	.21	.34	-.01
28 – Being involved with the legal system due to inappropriate sexual behaviors	.04	.19	.11	-.05
29 – Using self-mutilation to become sexually stimulated	.08	.48	.34	.43
30 – Tying up and/or spanking others for sexual pleasure	.05	.29	.62	.22
31 – Requesting to be tied up and/or spanked for sexual pleasure	.02	.18	.57	.37
33 – Touching an animal's sex parts	.04	.30	.23	.02
35 – Urinating or defecating on others or requesting to be urinated or defecated on by another	.03	.25	.00	.92
36–Engaging in cross-dressing (i.e., dressing like the opposite sex)	.04	.34	.34	.64
Eigenvalue			6.75	3.81
% of Variance			21.10	11.89
Cumulative Percent			21.10	32.99
Cronbach's alpha			.64	.89

Note. The correlation between factor 1 and factor 2 was .06. Items 12, 14, 32, and 34 were omitted since no consumers were reported to display those behaviors.

Table 12

Multiple Regression Analyses of Dimensions of Consumer Sexuality Knowledge and Inappropriate Sexual Behavior at Pre-test and Post-test (n = 139)

	Sexual Behaviors Involving Others			Sexual Behaviors Involving the Use of Objects on Oneself		
Predictor Variables	*b*	SE	ß	*b*	SE	ß
Consumer Knowledge at Pre-Test (n = 139)						
Personal Care	-.03	.06	.07	-.03	.02	-.02
Social Etiquette	.04	.22	.02	-.03	.07	-.06
Expressing Feelings in Relationships	.02	.07	.06	-.02	.02	-.14
Safety Awareness	.05	.13	.04	-.04	.04	-.12
Individual Sexual Expression	.12	.13	.12	.04	.04	.14
Dating	-.11	.12	-.12	.08	.04	.27
Sexual Expression in a Relationship	-.12	.17	-.09	-.02	.05	-.05
Inappropriate Sexual Expression	.07	.10	.09	.02	.03	.07
Pregnancy and STDs	-.14	.07	-.28	.01	.02	.08
Multiple R	.26			.32		
R^2	.07			.10		
Adjusted R^2	-.01			.03		
F Value	.82			1.36		

(Table 12 continued on the next page)

Table 12 continued

Multiple Regression Analyses of Dimensions of Consumer Sexuality Knowledge and Inappropriate Sexual Behavior at Pre-test and Post-test (n = 139)

	Sexual Behaviors Involving Others			Sexual Behaviors Involving the Use of Objects on Oneself		
Predictor Variables	*b*	SE	ß	*b*	SE	ß
Consumer Knowledge at Post-Test (n = 139)						
Personal Care	.19	.09	.28	-.01	.03	-.06
Social Etiquette	.10	.16	.09	.03	.06	.07
Expressing Feelings in Relationships	-.07	.05	-.25	.01	.02	.16
Safety Awareness	-.09	.12	-.10	-.07	.04	-.23
Individual Sexual Expression	.22	.14	.27	.05	.05	.19
Dating	-.27	.10	-.42*	-.01	.04	-.05
Sexual Expression in a Relationship	.15	.15	.15	-.04	.05	-.12
Inappropriate Sexual Expression	.04	.12	.05	.03	.04	.01
Pregnancy and STDs	-.09	.08	-.20	.02	.03	.13
Multiple R	.43			.25		
R^2	.19			.06		
Adjusted R^2	.12			-.02		
F Value	2.77*			.81		

Note. b = unstandardized betas; β = standardized betas; both the standardized and unstandardized betas were derived from the regression equation.

* $p < .05$

Table 13

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Pre-Test (n=139)

	Dimensions of Consumer Knowledge								
	Personal Care	Social Etiquette	Exp. Feelings in Relationships	Safety Awareness	Ind. Sexual Expression	Dating	Sexual Exp. in Relaitonship	Inappropriate Sexual Exp.	Pregnancy & STDs
Inappropriate Sexual Behaviors									
ISE1	.03	-.08	-.09	-.11	.09	-.04	.01	-.05	.05
ISE2	.08	.20*	.17	-.06	.10	.08	.02	.10	.16
ISE3	.17	.12	.04	.00	.26	.13	.15	.10	.11
ISE4	-.09	.18*	-.10	-.22*	.01	-.09	-.08	-.12	-.05
ISE5	-.11	.03	-.03	-.10	-.08	-.11	-.16	-.13	-.07
ISE6	-.02	.13	.02	-.05	.08	-.00	-.02	.02	-.06
ISE7	-.07	.04	-.03	-.16	.05	.05	-.07	-.07	.04
ISE8	.07	.00	.06	.01	.17	.19*	.05	.12	.15
ISE9	.13	.10	.08	-.07	.22*	.25*	.06	.15	.20*
ISE10	-.05	.01	-.04	-.07	.02	.01	-.06	.03	-.05
ISE11	.01	.10	.05	-.06	-.01	-.00	-.04	.02	-.03
ISE12									
ISE13	.14	-.01	.12	.05	.13	.16	.13	.05	.06
ISE14									
ISE15	.01	-.09	-.01	.04	.07	.01	-.10	.08	.02

(Table 13 continued on the next page)

Table 13 continued

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Pre-Test (n=139)

	Dimensions of Consumer Knowledge								
	Personal Care	Social Etiquette	Exp. Feelings in Relationships	Safety Awareness	Ind. Sexual Expression	Dating	Sexual Exp. in Relaitonship	Inappropriate Sexual Exp.	Pregnancy & STDs
Inappropriate Sexual Behaviors									
ISE16	-.02	-.15	-.19	-.01	.02	-.07	.01	-.18	.03
ISE17	-.01	-.10	-.08	.02	.04	-.05	-.03	.02	-.08
ISE18	.06	-.02	-.05	.00	.24*	-.04	.01	.08	.01
ISE19	-.07	-.05	-.16	-.02	-.04	-.25*	-.11	-.07	-.13
ISE20	-.03	.03	-.04	-.12	.02	-.02	.02	-.01	-.00
ISE21	-.01	.01	.02	.09	-.01	-.04	-.05	.09	.07
ISE22	.04	.01	.06	.08	.14	.10	.03	.15	.17
ISE23	.02	.02	-.12	-.05	.07	-.05	-.01	.06	.04
ISE24	.05	-.01	.07	.05	.02	-.02	.01	.10	.11
ISE25	-.01	.00	.02	.09	-.01	-.04	-.05	.09	.08
ISE26	-.01	.00	.02	.09	-.01	-.04	-.05	.09	.07
ISE27	.07	.20*	.13	.03	.14	.05	-.03	.16	.11
ISE28	.21*	.04	.12	.05	.21*	.02	.12	.10	.08
ISE29	.12	.15	-.01	-.00	.08	.04	.00	-.07	.12
ISE30	.08	-.01	.05	.06	.13	.04	.05	.10	.16

(Table 13 continued on the next page)

Table 13 continued

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Pre-Test (n=139)

	Dimensions of Consumer Knowledge								
	Personal Care	Social Etiquette	Exp. Feelings in Relationships	Safety Awareness	Ind. Sexual Expression	Dating	Sexual Exp. in Relaitonship	Inappropriate Sexual Exp.	Pregnancy & STDs
Inappropriate Sexual Behaviors									
ISE31	.08	-.01	.05	.06	.13	.04	.05	.10	.16
ISE32									
ISE33	.04	.07	.07	-.17	.03	.04	-.06	.16	.14
ISE34									
ISE35	.06	.00	.06	.02	.22*	.18*	.09	.12	.16
ISE36	.06	-.01	.03	.05	.03	-.05	.01	.05	.09

*$p \leq .05$

Item Content:

ISE1 – Invading other's private space (e.g., standing too close to others, sitting on another's lap
ISE2 – Drawing pictures of private parts or sexual acts
ISE3 – Talking about sexual acts in a public setting
ISE4 – Touching his/her own private parts in public
ISE5 – Showing his/her private parts to adults without consent
ISE6 – Rubbing his/her body against objects (i.e., furniture, walls, etc.)
ISE7 – Masturbating in public
ISE8 – Masturbating with sharp or unsafe objects
ISE9 – Putting objects in his/her own vagina, penis, or rectum

(Table 13 continued on the next page)

Table 13 continued

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Pre-Test (n=139)

ISE10 –Asking strangers to engage in sexual acts
ISE11 –Asking non-intimate peers, staff, or acquaintances to engage in sexual acts
ISE12 –Receiving money to engage in sexual acts
ISE13 –Bribing or paying others to engage in sexual acts
ISE14 –Verbally threatening others to engage in sexual acts
ISE15 –Physically forcing others to engage in sexual acts
ISE16 –Kissing and/or hugging other people who are not family, friends, or significant others
ISE17 –Rubbing his/her body against others without consent
ISE18 –Touching another adult's private body parts in public
ISE19 –Touching another adult's private body parts without permission
ISE20 –Watching people when they are nude or undressing
ISE21 –Attempting to undress adults without consent
ISE22 –Putting objects in another person's vagina, penis, or rectum
ISE23 –Fixating on children
ISE24 –Showing his/her private parts to children without consent
ISE25 –Attempting to undress children
ISE26 –Touching children's private parts
ISE27 –Engaging in sexual behavior with family members (non-spouse)
ISE28 –Being involved with the legal system due to inappropriate sexual behaviors
ISE29 –Using self-mutilation to become sexually stimulated
ISE30 –Tying up and/or spanking others for sexual pleasure
ISE31 –Requesting to be tied up and/or spanked for sexual pleasure
ISE32 –Hurting others to become sexually stimulated
ISE33 –Touching an animal's sex parts
ISE34 –Having sex with an animal
ISE35 –Urinating or defecating on others or requesting to be urinated or defecated on by another
ISE36 –Engaging in cross-dressing (i.e., dressing like the opposite sex)

Table 14

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Post-Test (n=139)

	Dimensions of Consumer Knowledge								
	Personal Care	Social Etiquette	Exp. Feelings in Relationships	Safety Awareness	Ind. Sexual Expression	Dating	Sexual Exp. in Relaitonship	Inappropriate Sexual Exp.	Pregnancy & STDs
Inappropriate Sexual Behaviors									
ISE1	-.08	-.12	-.13	-.19	.00	-.17	-.15	-.11	-.08
ISE2	.07	.01	.13	.15	.07	.05	.12	.09	.07
ISE3	-.02	.03	.04	-.03	.04	.04	-.03	.03	.05
ISE4	-.09	.07	-.11	-.21*	.04	-.12	-.22*	.11	-.12
ISE5	-.08	-.05	-.17	-.10	-.24*	-.22*	-.04	-.22*	-.19
ISE6	.11	.03	.04	-.07	.07	.06	-.02	.04	.07
ISE7	.07	.07	.04	-.25*	.02	-.14	-.16	.10	-.02
ISE8	.08	.03	.08	-.13	.12	..02	-.02	.04	.10
ISE9	.08	.03	.08	-.13	.12	.02	-.02	.04	.10
ISE10	.03	-.05	.02	-.16	.08	-.01	-.04	-.04	.12
ISE11	-.09	.03	-.04	-.03	.06	-.12	.00	-.01	.04
ISE12									
ISE13									
ISE14									
ISE15									

(Table 14 continued on the next page)

Table 14 continued

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Post-Test (n=139)

	Dimensions of Consumer Knowledge								
	Personal Care	Social Etiquette	Exp. Feelings in Relationships	Safety Awareness	Ind. Sexual Expression	Dating	Sexual Exp. in Relaitonship	Inappropriate Sexual Exp.	Pregnancy & STDs
Inappropriate Sexual Behaviors									
ISE16	-.14	-.10	-.13	-.07	-.03	-.08	-.10	-.07	-.02
ISE17	.11	-.11	-.08	-.07	.03	.02	-.08	-.06	.02
ISE18	.11	-.01	.05	-.09	.13	.00	-.06	.06	.10
ISE19	-.14	-.06	-.17	-.00	-.16	-.20*	.07	.05	-.03
ISE20	-.05	.03	.02	.10	-.05	.05	.18	.08	-.01
ISE21									
ISE22									
ISE23	-.06	-.08	-.04	-.11	.00	-.11	-.06	.04	.05
ISE24	.11	-.11	-.08	-.07	.03	.02	-.08	-.06	.02
ISE25									
ISE26									
ISE27									
ISE28	.03	-.18	-.10	-.05	-.02	-.09	-.10	-.06	-.06
ISE29	.07	.13	.05	.00	.12	.12	.12	.04	.07
ISE30									

(Table 14 continued on the next page)

Table 14 continued

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Post-Test (n=139)

	Dimensions of Consumer Knowledge								
	Personal Care	Social Etiquette	Exp. Feelings in Relationships	Safety Awareness	Ind. Sexual Expression	Dating	Sexual Exp. in Relaitonship	Inappropriate Sexual Exp.	Pregnancy & STDs
Inappropriate Sexual Behaviors									
ISE31	.07	-.05	-.11	.05	.07	.01	.01	-.06	-.01
ISE32									
ISE33									
ISE34									
ISE35									
ISE36									

*p ≤ .05

Item Content:

ISE1 – Invading other's private space (e.g., standing too close to others, sitting on another's lap
ISE2 – Drawing pictures of private parts or sexual acts
ISE3 – Talking about sexual acts in a public setting
ISE4 – Touching his/her own private parts in public
ISE5 – Showing his/her private parts to adults without consent
ISE6 – Rubbing his/her body against objects (i.e., furniture, walls, etc.)
ISE7 – Masturbating in public
ISE8 – Masturbating with sharp or unsafe objects
ISE9 – Putting objects in his/her own vagina, penis, or rectum

(Table 14 continued on the next page)

Table 14 continued

Correlations Between Dimensions of Consumer Knowledge and Inappropriate Sexual Expression (ISE) Scale Items at Post-Test (n=139)

ISE10 –Asking strangers to engage in sexual acts
ISE11 –Asking non-intimate peers, staff, or acquaintances to engage in sexual acts
ISE12 –Receiving money to engage in sexual acts
ISE13 –Bribing or paying others to engage in sexual acts
ISE14 –Verbally threatening others to engage in sexual acts
ISE15 –Physically forcing others to engage in sexual acts
ISE16 –Kissing and/or hugging other people who are not family, friends, or significant others
ISE17 –Rubbing his/her body against others without consent
ISE18 –Touching another adult's private body parts in public
ISE19 –Touching another adult's private body parts without permission
ISE20 –Watching people when they are nude or undressing
ISE21 –Attempting to undress adults without consent
ISE22 –Putting objects in another person's vagina, penis, or rectum
ISE23 –Fixating on children
ISE24 –Showing his/her private parts to children without consent
ISE25 –Attempting to undress children
ISE26 –Touching children's private parts
ISE27 –Engaging in sexual behavior with family members (non-spouse)
ISE28 –Being involved with the legal system due to inappropriate sexual behaviors
ISE29 –Using self-mutilation to become sexually stimulated
ISE30 –Tying up and/or spanking others for sexual pleasure
ISE31 –Requesting to be tied up and/or spanked for sexual pleasure
ISE32 –Hurting others to become sexually stimulated
ISE33 –Touching an animal's sex parts
ISE34 –Having sex with an animal
ISE35 –Urinating or defecating on others or requesting to be urinated or defecated on by another
ISE36 –Engaging in cross-dressing (i.e., dressing like the opposite sex)

APPENDIX C

FIGURES

Figure 1. Feedback model: Influence of positive and negative feedback on first-order change

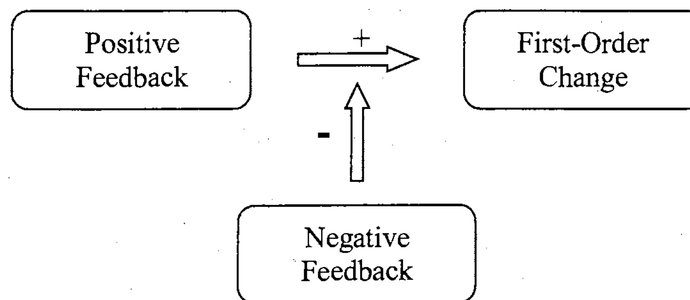


Figure 2. Positive feedback model: Influence of *Responsible Choices for Sexuality* on changes in knowledge and inappropriate sexual behaviors

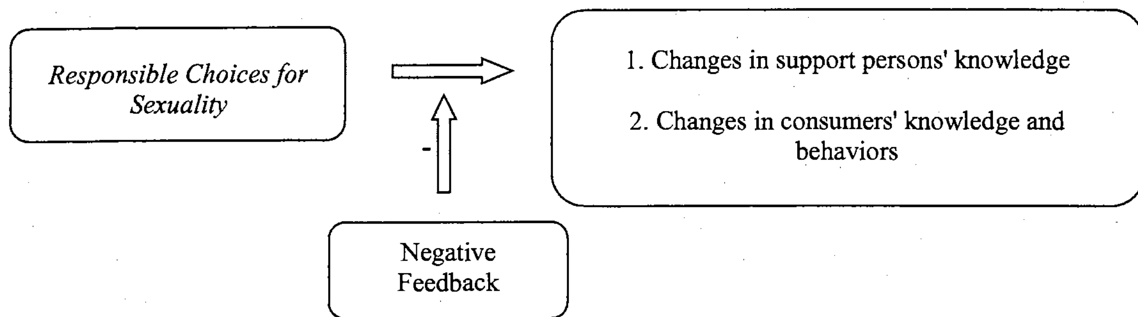


Figure 3. Pre-test/Post-test experimental design model

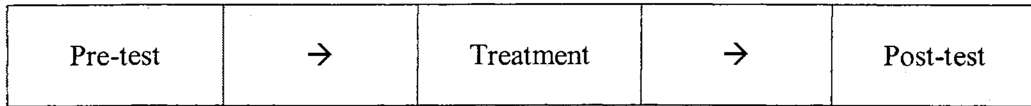
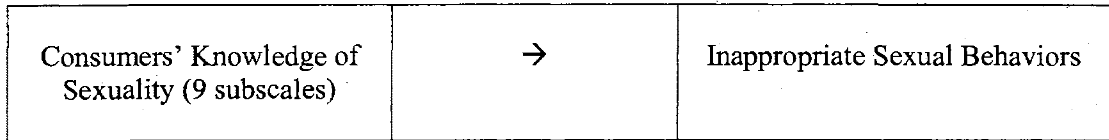


Figure 4. Pre-test/Post-test experimental design model applied to study

Pre-test	→	**Treatment**	→	**Post-test**
Consumer Knowledge of Sexuality Pre-test (9 subscales)	→	*Responsible Choices for Sexuality*	→	Consumer Knowledge of Sexuality Post-test (9 subscales)
Support Person Knowledge of Sexuality Pre-test (1 scale)	→		→	Support Person Knowledge of Sexuality Post-Test (1 scale)
Support Person Observations of Consumer's Inappropriate Sexual Expression Pre-test (1 scale)	→		→	Support Person Observations of Consumer's Inappropriate Sexual Expression Post-Test (1scale)

Figure 5. Correlational design for consumers' knowledge of sexuality and inappropriate sexual behaviors



VITA 2

Rachel Aelene Neal

Candidate for the Degree of

Doctor of Philosophy

Thesis: EVALUATION OF A COMMUNITY-BASED SEX EDUCATION PROGRAM FOR ADULTS WITH DEVELOPMENTAL DISABILITIES

Major Field: Human Environmental Sciences

Biographical:

Education: Received Bachelor of Arts Degree in Psychology from Oklahoma State University, Stillwater, Oklahoma in July 1997; received Master of Science Degree in Child Development at Oklahoma State University in May 1999. Completed the requirements for the Doctor of Philosophy degree with a major in Human Environmental Sciences at Oklahoma State University in August 2003.

Experience: Personal and Family Relationships - Assistant State Specialist, Oklahoma Cooperative Extension Service, 2002 to present; Graduate research/teaching assistant, Department of Human Development and Family Studies, Oklahoma State University, 2000 to 2002; Infant-Family Specialist, Foundation for the Junior Blind, Los Angeles, CA, 1999 to 2000.

Professional Memberships: National Council on Family Relations, Oklahoma Council on Family Relations, American Association of Family and Consumer Sciences, Oklahoma Association of Family and Consumer Sciences.