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Utilizing Social Norms Theory to Delay the Sexual Debut of Early Adolescents: An Intervention Strategy

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Utilizing Social Norms Theory to Delay the Sexual Debut of Early Adolescents: An Intervention Strategy

Abstract

ABSTRACT

UTILIZING SOCIAL NORMS THEORY TO DELAY THE SEXUAL DEBUT OF EARLY ADOLESCENTS: AN INTERVENTION STRATEGY

Anna M. Gerard, MSW, LCSW
Dr. Jeffrey Applegate, Ph.D.

Background and Significance: Numerous programs have been developed in the last twenty years aimed at reducing the prevalence and consequences of risky sexual behavior among adolescents. Despite these efforts, the United States is second highest of industrialized nations in unintended pregnancy rates and sexually transmitted infections among its youth, with a disproportionately high incidence among African-American and Hispanic populations (CDC, 2012). Research suggests that an early sexual debut, defined as having occurred prior to an adolescent reaching the age of 15, significantly increases the risk for unintended pregnancy, sexually transmitted infections (STIs) and future risky sexual behavior (Houlihan et al., 2008; Waller & DuBois, 2004). Additional intervention models aimed at delaying an adolescent’s sexual debut might be successful in decreasing the future incidence of these negative outcomes. When considering interventions with adolescents, attention to peer influence is critical.

Social Norms Theory contends that an individual makes decisions to engage in a particular behavior based on the perceived prevalence of that behavior among his or her peers (Berkowitz, 2002). The overestimation of the prevalence of a negative behavior is common and can lead to a marked increase in an individual’s decision to engage in that behavior. Interventions grounded in Social Norms Theory aim to correct the misperception or overestimation of the negative behavior by providing accurate information through the implementation of social marketing campaigns. Correcting the misperception is believed to reduce the overall prevalence of the targeted behavior, as individuals may be more likely to delay or avoid engagement in a socially undesirable activity. Despite the need for continued research efforts to determine its efficacy in addressing additional negative health behaviors, Social Norms Theory is believed to serve as a useful conceptual framework for the development of interventions seeking to delay the sexual debut of adolescents.

Method: Given the current trend of adolescents receiving a significant amount of information through social media websites, capitalizing on this platform to disseminate corrective material promises to be highly relevant and accessible to the target population. Thus, a social media website was developed as a core aspect of the intervention model employed for this study. In addition, supplemental materials to be used in schools and/or psychotherapy settings were developed to provide the information for those who may not have access to the Facebook page that was created.

Implications for Clinical Social Work: Clinical social workers have access to early adolescents in many settings and are uniquely positioned to promote healthier sexual behavior and impact the timing of their sexual debut. Despite this presence, not all settings provide access to individual or group psychotherapy, and many adolescents may not receive direct clinical care or education surrounding the risks of an early sexual debut. In
response, macro-level interventions such as the model developed for this project can enhance direct clinical care and increase access to information an adolescent might not otherwise seek out or receive.

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Utilizing Social Norms Theory to Delay the Sexual Debut of Early Adolescents: An Intervention Strategy

Anna M. Gerard

University of Pennsylvania
DEDICATION

I dedicate this dissertation to the many adolescents who have allowed me to walk alongside them during their journey to wholeness. It is because of them that I am inspired to challenge professionals to better protect, support and teach our youth.
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I owe a debt of gratitude to Dr. Jeffrey Applegate for his unwavering support throughout the writing of this dissertation. His steady encouragement, guidance and humor along the way were timed at moments when frustration and fatigue were setting in. Dr. Applegate is a blessing and a true teacher, as his gift for fostering the growth of his students is unmatched.

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Harlan, who I am blessed to have as my partner, rock and best friend, thank you for showing me love and encouragement when I needed it most. Finally, I am eternally grateful for the extended family of friends that I have been blessed to keep by my side throughout this journey.
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Social Norms Theory contends that an individual makes decisions to engage in a particular behavior based on the perceived prevalence of that behavior among his or her peers (Berkowitz, 2002). The overestimation of the prevalence of a negative behavior is common and can lead to a marked increase in an individual’s decision to engage in that behavior. Interventions grounded in Social Norms Theory aim to correct the misperception or overestimation of the negative behavior by providing accurate information through the implementation of social marketing campaigns. Correcting the misperception is believed to reduce the overall prevalence of the targeted behavior, as individuals may be more likely to delay
or avoid engagement in a socially undesirable activity. Despite the need for continued research efforts to determine its efficacy in addressing additional negative health behaviors, Social Norms Theory is believed to serve as a useful conceptual framework for the development of interventions seeking to delay the sexual debut of adolescents.

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Chapter One

Introduction: The Impact of an Early Sexual Debut and Rationale for Intervention

Introduction

Risky sexual activity among adolescents is an unhealthy behavior that has received considerable attention over the last several years, resulting in the development of a number of evidence-based models aimed at reducing its negative outcomes (HHS, 2012). The purpose of this intervention model is to explore the use of Social Norms Theory-based interventions as a supplement to existing behavior change models. Norms will be the primary focus of the intervention model while establishing social media as a timely format to disseminate information to adolescents.

The Tendency to Overestimate: Are Misperceptions Problematic? Misperceptions about norms are a primary focus of this dissertation project and believed to be a powerful factor in the decision making of an individual to engage in unhealthy behaviors. There is a rich body of research considering the impact of perception on behavior. Misperceptions have found to be a powerful factor in contributing to a wide spectrum of behaviors such as binge drinking, gambling and sexual assault (Abbey, McAuslan & Thomson-Ross, 1998; Larimer & Neighbors, 2003; Perkins & Berkowitz, 1986).

Notably, it has been established that adolescents have a tendency to overestimate the frequency of unhealthy behaviors among their peers and underestimate protective factors associated with these actions (Berkowitz, 2004). Students in 8th-9th grades have been found to hold greater misperceptions than those in 11-12th grades (Ott & Doyle, 2005). In research exploring the prevalence of sexual behaviors among adolescents, a significantly higher response...
rate to survey questions was found in middle school versus high school aged students (Messer et al., 2011).

An early sexual debut is defined as having occurred prior to an adolescent reaching the age of 15 (Houlihan et al., 2008; Waller & DuBois, 2004). The above findings suggest a need to begin implementation at earlier ages, possibly before sexual debut, when the receptivity of such prevention programs might be higher. More specifically, the “early initiation of social norm modification may reduce the amount of social norm correction required at older ages” (Messer et al., 2011, p. 54). The aim of intervention models grounded in Social Norms Theory is to delay the initiation of a particular behavior, as this is believed to impact the future prevalence of negative outcomes. Recognizing that the tendency to overestimate is high, adolescents are particularly fitting for interventions focused on delay.

**Project Organization and Focus.** The primary objective of this intervention model is to address adolescents’ tendency to overestimate the sexual activity of their peers by providing accurate data. Such corrective information was disseminated through the use of social media in conjunction with the development of materials for use in both educational and psychotherapy settings. It is believed that these corrective statements will in turn delay an adolescent’s sexual debut. The introductory chapter describes the problems associated with an early sexual debut, the political and social influences on current interventions models and defines concepts necessary for a thorough understanding of the relevance of Social Norms Theory (SNT) in targeting this issue. The literature review examines adolescent development in accordance with designing effective intervention models. The history and tenets of SNT, including several studies that justify the use of SNT and rationale for its expansion into the development of interventions targeting both adolescents and an early sexual debut is also described. A
discussion of the use of social media and its relevance to the target population will also ensue. Moreover, the methodology for the development of the intervention model details the two components: a social marketing campaign utilizing the popular website Facebook along with curricular materials designed for use in psychotherapy and educational settings. Data supporting the validity of the Facebook component are reported, including the number of followers to the page and interactions with the site. Finally, the implications for this intervention model for Clinical Social Work are discussed along with recommendations for future research to further substantiate the value of SNT when intervening with adolescents.

**Relevance to Clinical Social Work.** Given their commitment to considering an individual’s environment and context, clinical social workers are uniquely equipped to implement interventions grounded in Social Norms Theory. Clinical social work has many facets, with the potential to address individuals from both a direct practice and macro level. Effective clinical social work need not operate on the assumption that these two facets are dichotomous. Adopting intervention models that target social and cultural norms allows for enhancement of direct practice. This intervention model is also cost effective in that a greater number of individuals can be reached at one time. Interventions aimed at delaying the onset of unhealthy behaviors may also provide protective potential in reducing the prevalence of a target behavior, decreasing the future economic and societal impact of such behaviors. The field of clinical social work has the potential to emerge into effective policy and intervention development by advocating for a more norms focused strategy when seeking to reduce unhealthy behaviors.
An Early Sexual Debut: Definition and Prevalence

An early sexual debut is when a first consensual sexual experience for an adolescent has occurred prior to age 15 (Baumgartner et al., 2009; Guttmacher Institute, 2012; Houlihan et al., 2008). Current statistics show that approximately 13% of all adolescents have engaged in sexual activity by the age of 15 years old (Guttmacher Institute, 2012). Before age 13, only 6.1% of youth report having engaged in sexual intercourse (CDC, 2012). By age 19, approximately 85% of all adolescents are sexually active (CDC, 2012). These numbers indicate that an important point of intervention among adolescents with respect to sexual behavior is during the span of 13-15 years of age.

The prevalence of an early sexual debut is significantly higher among African-American and Hispanic populations, particularly males (CDC, 2012). Approximately 7% of African-American females and only 3% of Hispanic females report having sexual intercourse prior to the age of 13 years old; however, 21% of Black males and 11% of Hispanic males report having sexual intercourse before the age of thirteen, making them that much more at risk for the negative outcomes associated with an early debut. Recent data suggest that the percentage of African-American teens aged 15 – 16 years old that have had sexual intercourse increases to 45%, however, more recent data specific only to males was not found in conducting my review of the available literature (Cooksey, Mott & Neubauer, 2002). These data indicate that adolescents, particularly African-American and Hispanic adolescents, may be more susceptible to the numerous outcomes associated with early sexual debut.

Problems Associated with an Early Sexual Debut

Early sexual debut is linked to negative personal and societal consequences. The number of partners an adolescent has had by age 19 directly correlates with earlier initiation of sexual
activity (CDC, 2012; Zimmer-Gembeck, Siebenbruner & Collins, 2004). Adolescents under age 19 account for 9.1 million, or 50% of all new cases of STIs in the United States (CDC, 2012). The prevalence of STIs and unintended pregnancy rates are significantly higher among both African-American and Hispanic youth (CDC, 2012). In 2010, 367,752 infants were born to teenagers between 15-19 years old (CDC, 2012). It is estimated that 82%, of pregnancies among this age group are unintended (Guttmacher Institute, 2012; Santelli et al., 2003). The consequences of these trends are troublesome for both the teen parents and the child.

Teen pregnancy is the leading cause of adolescents dropping out of high school. Approximately 38% of teen mothers complete their high school diploma and only 2% receive their college degree by age 30 (NCPTP, 2010). Children of teen mothers are also more likely to drop out of school and have poorer overall educational outcomes long term (NCPTP, 2010). Educational outcomes are linked to employability, income and other factors that impact overall functioning. These data suggest the large impact that early sexual debut has on individuals and offspring. Additional data display the impact on the larger society.

Financial and societal detriment increases significantly when the initiation of sexual activity begins prior to the age of 15 years old (Houlihan et al., 2008; Waller & DuBois, 2004). Current estimates suggest an $11 billion yearly cost in the United States as a result of unintended pregnancies among adolescents in the form of healthcare, foster care, incarceration among children of teen parents and lost tax revenue due to poorer educational outcomes (CDC, 2012). These numbers suggest the potential long-term impact of an early sexual debut, indicating its reach into future generations of adolescents and likely perpetuating this problem and other problems down the road.
Individual circumstances and societal outcomes do not demonstrate the entire picture for those who have early sexual debuts. The psychological implications for individuals are also critical. Lapinski & Rimal (2005) suggest that because sexual behavior requires a high level of ego involvement, the extent to which an individual’s self-concept is connected to his or her beliefs about sex may be more significant. Houlihan et al. (2008) suggest that engaging in sexual activity at an earlier age can negatively impact the development of one’s sense of self leading to future unhealthy behaviors such as risky sex, substance abuse and other conduct disordered behaviors. Additional ramifications might include a pattern of negative relationships among adolescents who have engaged in mature sexual activity at an earlier age than their peers (Levin & Kilbourne, 2008). Recognizing that a negative self-concept is an important outcome of early sexual debut can impact program development in clinical social work practice in efforts to offset associated problems such as low self-esteem, depression, and other risky behaviors as described above.

The consequences associated with teenage sexual behaviors have long standing impact on those teenagers, their families, and society at large. Despite the known impact, a barrier remains in disseminating sexual education to adolescents due to the varying political, social, religious and moral backgrounds held by the numerous stakeholders in this issue. Therefore, a contextual exploration of access to sexual education is indicated.

The Politics of Adolescent Access to Sexual Education

Reproductive health and sexual behavior has long been a socially charged issue in the United States, one fraught with arguments often based on ideologies grounded in religious and moral beliefs. These strongly held belief systems significantly influence the social policies that dictate how effectively issues of unintended pregnancy and Sexually Transmitted Infections
(STIs) are addressed. In fact, despite research that suggests access to contraception and reproductive health care is successful in reducing the prevalence of both, arguments to cut funding for such programs remain ever present in current political debates (CDC, 2012; Planned Parenthood, 2011). Title X legislation in the 1970s was designed to provide access to family planning resources irrespective of economic status. The primary function of Title X is to appropriate funds to local clinics that provide reproductive health services to low income and uninsured patients, largely women (Bassett, 2011). Providing access to contraception, screening for and treatment of STIs, has reduced unintended pregnancies and STIs since Title X’s inception (Cohen, 2011). Since the enactment of Title X during the Nixon administration, the funding has consistently been at the forefront of political controversy (Miles, 2011). Removing these preventive programs could compound the issue, making the need for creative and cost effective intervention models that much more vital. Other than access to services, access to education has also been a polarizing topic in this country.

Debates over whether sexual behavior was an appropriate topic for educational settings subsided only within the last thirty years. Arguments regarding which material should be discussed within a sexual education curriculum continue to present day (Boonstra, 2009; HHS, 2012). By allowing sexual education into the schools, in conjunction with increased access to contraceptive and family planning services due to Title X, the rates of unintended pregnancy and STIs enjoyed a steady decline until 1995-6 (Saul, 1999). Despite the evidence to support its impact, efforts to limit the information provided to adolescents have been a longstanding campaign for many socially conservative politicians (Boonstra, 2009; Saul, 1999).

Some political groups have advocated for abstinence-only programs. In 1981, the Adolescent Family Life Act (AFLA) sought to limit sexual education to abstinence-only
programs. The AFLA sought to emphasize morality, which in their view meant complete abstinence from pre-marital sex (Saul, 1999). Included in the programs supported by AFLA were fear tactics about pre-marital sex and messages that contraceptive use was often ineffective in preventing pregnancy or STIs (Saul, 1999). While undermining the known positive benefit of Title X, increased funding for abstinence-only programming was enacted in 1996 via Title V of the Social Security Act. The implementation of Title V resulted in a $50 million allocation to programs aimed at promoting abstinence outside of marital relationships (Guttmacher, 2010). The legislation was passed in spite of the lack of evidence that abstinence-only education was effective in reducing unintended pregnancy and STIs among adolescents (Saul, 1998). In 2007, a systematic review was conducted by Douglas Kirby who again concluded that “there does not exist any strong evidence that any abstinence program delays the initiation of sex, hastens the return to abstinence, or reduces the number of sexual partners (Boonstra, 2009, pp. 5; Kirby, 2007).”

Kirby’s (2007) results and the expiration of Title V in 2009, did not keep it from being quietly revived in March 2010 for five additional years of support (Guttmacher, 2010). In direct opposition to the sentiments of Title V, is the Obama Teen Pregnancy Prevention Initiative launched in 2008 (Boonstra, 2009). The Obama administration pushed for the use of a “common sense” approach, meaning that sexual education should combine messages about abstinence with information regarding safe sex practices and contraceptive use (Boonstra, 2009). As a result, many states declined funds from Title V and are providing more comprehensive sexual education programming in their schools. The shift continued in 2009 when $11.4 million was reallocated from the Community-Based Abstinence Education Program to support only evidence-based interventions (Guttmacher, 2013). Social progressives remain hopeful that the Obama
administration will continue to impact the development of more responsible policies in response to the growing body of research that supports these comprehensive approaches (Boonstra, 2009; Boonstra, 2010).

**Responding to the Politics: A Review of the Evidence**

These political debates impact adolescents’ access to effective family planning services and access to comprehensive, effective sexual education. A Cochrane systematic review of 13 abstinence-only programs found them to be ineffective in reducing “unprotected vaginal sex, frequency of vaginal sex, number of sex partners, sexual initiation, or condom use (Underhill, Operario & Montgomery, 2007, pp. 1).” These programs also tend to alienate LGBTQ youth, further contributing to their social isolation and other problems (Guttmacher, 2010; CDC, 2012). Statistics suggest that, despite a decrease in unintended pregnancy and STIs since 2009, the number of adolescents engaging in sexual behavior has not significantly changed (HHS, 2012). This is especially important, in that many arguments against providing comprehensive sexual education focus on the belief that adolescents are more likely to engage in sexual activity if it is discussed openly or conveyed as an option other than abstinence (Boonstra, 2010). In reality, the research suggests that adolescents are no more likely to engage in sexual behavior as a result of these discussions but do in fact practice safer sex when effective sexual education and family planning services are available (Boonstra, 2010).

**Comprehensive Sexual Education Curricula: An Absence of Norms**

Frequently absent from the longstanding debate surrounding the appropriate content to include in sexual education curricula is an emphasis on norms as a point of consideration. The purpose of the model advanced in this dissertation is to emphasize norms as the primary focus of intervention while introducing social media as the chief format for doing so. While the
consideration of norms as relevant when designing interventions is not new, the idea of solely focusing on this aspect is a varied approach from the current models available. In considering effective comprehensive sexual education curricula, Kirby et al. (1994) conducted a systematic review of 23 programs intended for use in educational settings. Of those reviewed, only one specifically targeted norms. An additional two of the curricula drew upon social learning theory and considered external influences or peer pressure when addressing choices surrounding sexual behavior (Kirby et al., 1994).

Of the 31 programs found to be effective and worthy of federal funding by the Department of Health and Human Services, six considered norms. Of those six, three refer to limit setting as the identified peer norm. Of the three remaining programs, none are intended for use in middle schools (HHS, 2012), thus not targeting the age window for adolescents that I am suggesting could have great impact. The age window is just one gap in current sexual education programming.

Research on educational programs targeted toward sexual behaviors of adolescents’ highlights clear gaps. All of the programs reviewed were intended for use within a school, community program or clinic setting (HHS, 2012). There were no curricula that used social media or alternative avenues for disseminating information to adolescents. Social norms and peer normative behavior were also missing from the psycho-educational programming. The following chapters introduce an intervention model that focuses on norms as the primary point of intervention, rather than as a supplemental component to the educational information provided. Further, whereas previous programming used mainly educational curricula, the model utilizes social media as a primary avenue for intervening with adolescents.
Chapter Two

Theoretical Foundations and Literature Review

Introduction

To establish the relevance of norms and Social Norms Theory (SNT), the following literature review covers a variety of topics. The social construction of adolescence and an understanding of relevant adolescent developmental theory are detailed. Concepts of SNT are defined, including the role of misperceptions, as well as the types of norms that should be considered as a point of intervention. The literature review discusses the history of SNT, including its utilization for previous intervention models and use for delaying the sexual debut of adolescents. Evidence supporting and exploring the possible limitations of its use is discussed. The literature search utilized electronic databases found through the University of Pennsylvania, in addition to numerous documents stored through the Guttmacher Institute, Centers for Disease Control and Prevention and Department of Health and Human Services. Search terms included Social Norms Theory, Sexual Education, Early Adolescence, Sexual Debut, Social Marketing, Norms, Misperceptions, Unintended Pregnancy Rates, Adolescent Sexual Behavior, Sexually Transmitted Infections, Safe Sex Practices, Social Media Use and Peer Influence.

The Social Construction of Adolescence and the Societal impact on Adolescent Sexual Development

At the turn of the 20th century, the recognition of the impact that western, civilized society had on psychological development paved the way for the introduction of G. Stanley Hall’s concept of adolescence (Hall, 1904). Hall (1904) described the depth of societal influence on the changes that occur between the stages of childhood and adulthood. Biologically, adolescence is marked by the onset of puberty, or the time period when sexual maturation is
occurring, resulting in significant physiological changes in the human body (Muuss, 1975). Puberty is often associated with the beginning of menstruation and breast development for females, along with the growth of the penis and testicles in males (de Anda, Franke & Hussey, 2008; Hall, 1904; Muuss, 1975). As an adolescent experiences these physiological changes, the developmental release of sexual hormones results in an increased sexual arousal. This influences sexual functioning and the likelihood for experimentation. Thus, the onset of puberty is highly relevant to one’s sexual debut (Nemours, 2013).

Data suggest that the onset of puberty for both females and males has been earlier in recent years, starting at approximately 9-10 years of age. Formerly, puberty began at the age of 11-12 (Belluck, 2012). Notably, African-American males are thought to enter puberty at an earlier age than both White and Hispanic males, perhaps accounting for the disparity indicated above pertaining to sexual debut (Belluck, 2012; Herman-Giddens, 2012). While the reasons for an earlier onset of puberty are not yet clear, the possible connection with an increasingly earlier sexual debut among adolescents warrants further investigation.

As described above, sexual maturation is the end goal of puberty, creating a heightened awareness of the genitalia, increased libido and sexual curiosity during adolescence (de Anda, Franke & Hussey, 2008; Nemours, 2013). According to Hall (1904), civilization itself disrupts these normal physiological and psychological processes, leading to precocity among youth. Rapid growth in physical size and sexual maturation during adolescence occurs before cognitive abilities are fully developed, resulting in a greater dependence on and susceptibility to environmental influences (Hall, 1904). In modern terms, this indicates that the environment and ever changing societal norms impact the way an individual responds to the physiological changes occurring during the onset of puberty, potentially leading to maladjustment or deviant behavior.
Civilized society has resulted in the creation of norms and ideals that often dictate the social definition for acceptable expressions of sexuality. In his original writings, Hall (1904) claimed it a sin to repress healthy thoughts of sex, advocating strongly for adults as teachers or mentors to offer guidance to adolescents in this regard. He further suggested that the development of sexuality is a critical piece to healthy mental growth and functioning and urged the teaching of reverence for sexual maturation rather than fostering unnecessary shame (Hall, 1904). Despite the notable difference in societal expectations between the turn of the 20th century and now, the importance of Hall’s initial urgings remains.

**Peer Influence and Adolescent Development**

The changes and developmental functions that are occurring during adolescence can leave adolescents vulnerable to making life altering decisions. G.S. Hall (1904) suggested that imitation becomes significantly heightened during adolescence due to the lack of certainty surrounding one’s identity and sense of self. Erikson (1959) contended that identity formation is the primary focus for an adolescent, resulting in the tension between identity and role confusion as the central crisis of adolescence. It is this dissonance created by an adolescent’s need for inner continuity and his or her need for acceptance by others that would arguably lead to susceptibility to the influence of perceived social norms due to the over-identification with one’s peers.

Erikson (1959) further contends that adolescents are known for the tentative and episodic abandonment of their own value system for the sake of gaining group acceptance. Therefore, adolescents may be particularly vulnerable to basing their decisions on the perceived behavior of a larger peer group to gain acceptance or justify their own behavior. This phenomenon is in accordance with Kohlberg’s theories of moral reasoning, which suggest that adolescents are
shifting from an egocentric to socio-centric worldview. As a result, the tendency to base behavioral choices on the larger societal response or value system is heightened (Kohlberg, 1976; Kohlberg & Gilligan, 1975). As discussed above, individuals often misperceive the morals or behaviors of others, thereby setting the stage for a socio-centric worldview to become problematic. This is especially true during adolescence when peer influence increases.

According to Blos (1966), there is a shift from family to group life during adolescence whereby individuals begin to prioritize peers. A separation from familial love objects during early adolescence results in a drive for new accommodations via peer relationships. In other words, adolescents individuating from family members seek new objects with whom to place their affections. Boys tend to idealize their peers, arguably leading to greater vulnerability toward using perceptions of peers’ behavior to influence their own behavior. Girls tend to be devastated at the possible loss of a best girlfriend. This can result in a greater vulnerability to do whatever it takes to maintain this alliance, even engaging in behaviors that one may otherwise deem as undesirable (Blos, 1966).

Peer alliances are critical during this time. Blos (1966) argued that adolescents view group life as exclusive in nature, meaning that peers are held in higher regard than any other figures, including family members or school authority personnel. As a result, adolescents institute a transactional social system the purpose of which is to change themselves rather than their environment. Essentially, adolescents use the peer environment to develop their sense of self. This is seen as a normative process. However, this process arguably fosters greater vulnerability for acting in accordance to perceived behaviors embraced by the larger environment. According to Blos (1966), a child may be immunized against antisocial and self-destructive behavior based on his or her internal standards or belief systems, but this can easily
be lowered by social influences. Therefore, in accordance with the tenets of Social Norms Theory, the perception of peers’ behaviors has the potential for great influence on an adolescent's choices.

**Social Norms Theory: The Role of Misperceptions on Behavior**

Social norms have a significant impact on an individual’s perceptions and attitudes regarding acceptable behavior (Berkowitz, 2004; Kirby, 2001; Martens et al., 2006; Messer et al., 2011; Ott & Doyle, 2005; Stephenson & Sullivan, 2009; Stewart et al., 2002). These perceptions and attitudes in turn influence an individual’s decision to engage in that behavior (Ajzen & Fishbein, 1969). Social Norms Theory is based on the principle that people are usually more responsible than they are given credit for (National On-Campus Report, 2005). A misperception about the prevalence of a particular behavior may lead individuals to believe that they are engaging in normative behaviors when in fact they are not. The misperception and likely overestimation of the prevalence of a behavior may be a causal factor in the increase of a behavior being considered. A theoretical understanding of this phenomenon has been established with Social Norms Theory, which claims that individuals, in response to these misperceptions, tend to adopt behaviors that they perceive as norms within their immediate environment in order to be accepted (Ott & Doyle, 2005; Perkins & Berkowitz, 1986).

Understanding the basic tenets and terminology used to describe the facets of Social Norms Theory is necessary to establish a basis for the utilization of the model. Behaviors can have social value or act as a personal preference without being classified as social norms (Scales et al., 2001). Social norms differ from values in that they have two important features: (1) they must be shared among a group of individuals and (2) there are social consequences if they are not followed (Scales et al., 2001). More specifically, “social norms are the rules indicating how
individuals are expected to behave in specific situations” (Hagman, Clifford & Noel, 2007, p. 293).

Cultural and social expectations only function as norms if they are shared by the majority of an individual’s primary reference group. Enough members of that group must have the power to reward and punish in order for an individual to be motivated by compliance (Scales et al., 2001). In the case of early adolescents, peers are most often this primary reference group; thus, the perceived norms of an adolescent’s peers are of high relevance to their decisions about whether to engage in a behavior.

The regulatory potential for norms in society is significant. In fact, legal theorists observe that norms often regulate behavior at least as effectively as the law (Waldeck, 2003). Thus, influencing social norms could have a greater impact on the desired result of reducing a negative behavior than enacting laws to punish or discourage a behavior. There is also a psychological association with following or not following social norms of behavior. Individuals who deviate from a norm may suffer from self-imposed guilt, shame or loss of esteem when among their peers (Waldeck, 2003). It seems logical, therefore, that many individuals, go along with perceived norms irrespective of personal preference or social values to avoid negative repercussions.

**Differentiation between Types of Norms**

A basic comprehension of the difference between descriptive and injunctive norms is also important in understanding Social Norms Theory. A descriptive norm is the perceived prevalence of a behavior or the assumption of what others do in a particular situation (Bertholet et al., 2011; Cialdini, Reno & Kallgren, 1990). Injunctive norms are behaviors that are perceived as acceptable, in other words approved or disapproved of one’s immediate group (Cialdini, Reno
Kallgren, 1990). For example, many early adolescents might be raised to believe in the injunctive norm of abstinence before marriage based on their religious upbringing that sexual intercourse outside of marriage is not acceptable behavior. However, with exposure to peers who may not share this belief, they might ascribe to the descriptive norm that, irrespective of its acceptability, most individuals do engage in sexual activity before marriage.

**The Power of Perception**

Individuals interact with the world and make assessments about their surroundings based on an interpretation of those experiences, resulting in the development of a perception about what behaviors are acceptable or normative. A perception is defined as the way a particular event or behavior is regarded or interpreted by that individual (Oxford University Press, 2013). Our interpretation of events is influenced by a variety of factors. A misperception then, by definition, is an incorrect assessment or misinterpretation of an experience (Oxford University Press, 2013). A misperception can be the overestimation of risky behaviors and underestimation of protective behaviors, both of which may cause an individual to change his or her behavior (Dunleavy, 2008). If individuals base decisions about whether to engage in particular behaviors on the perceived social norms of their primary reference group, the possibility of making a choice based on false information becomes likely.

Social Norms Theory states that misperceptions are likely and individuals tend toward overestimating the negative behavior of their peers (Dunleavy, 2008; Perkins & Berkowitz, 1986). These perceptions and resulting beliefs of what is deemed to be normal behavior will in turn influence one’s own actions (Bertholet et al., 2011). There are multiple factors that may account for this overestimation and a large body of literature exists describing such phenomena. The exaggeration of negative health behaviors may be constructed from limited information or a
tendency to select friends based on preference for a particular behavior (Bertholet et al., 2011).

Two additional concepts, as discussed below, are of particular relevance to the topic of adolescent sexual behaviors.

One explanation of overestimation of behaviors is the concept of a false consensus. False consensus is the phenomenon of incorrectly believing that others are like themselves (Dunleavy, 2008). A false consensus occurs when there is a positive correlation between an individual’s own support for a particular behavior and their assumption of a higher prevalence than is accurate of others engaging in that behavior among their primary reference group (Dawes, 1989). Essentially, a false consensus describes an individual’s bias that predicts an overestimated prevalence of others behaving similarly to themselves. As a result of this egoistic concept, there is incentive for individuals to assume that their primary reference group engages in particular behaviors in order to justify their own decision to behave similarly (Dawes, 1989). False consensus may allow one to feel like an integrated part of the social group.

On the other hand, the concept of pluralistic ignorance, assumes separateness from the group. Pluralistic ignorance occurs when an individual falsely assumes that their peers act or think differently than themselves when in fact they are thinking and behaving similarly (Berkowitz, 2002). More specifically, pluralistic ignorance refers to the idea that individuals are commonly ignorant about or inaccurate when considering others’ opinions (Breed & Ktsanes, 1961). As noted above, adolescents are highly susceptible to peer opinions. With the influence of perception and misperception on behaviors established, the following section explores the research efforts to influence perceptions and correct misperceptions among potential problem behaviors.
Perceptions in Adolescence around Sexual Behaviors

The proximity and salience of a group is an important factor in establishing the level of influence norms may have on individuals and their behavior (Campo et al., 2003; Dunleavy, 2008). Research indicates that a weak affinity toward a particular reference group results in the social norms for that group having a relatively small impact on the behavior of an individual (Rimal, 2008). With respect to adolescents, it has been established that particular consideration is placed on the makeup of the group they are referencing (Marshall, Scherer & Real, 1998). In other words, if adolescents do not closely identify with the individuals in their immediate surroundings, the norms may have less impact on their intention and subsequent decision to engage in a particular behavior. Everyday experience within one’s own social circle can influence behavioral norms, which in turn influences an individual’s interpretation of his or her experience (Stewart et al., 2002).

Peer norms appeared to directly affect the individual sexual and contraceptive behavior of teens. Specific findings suggest that, “when teenagers believe that their peers have permissive attitudes toward premarital sex or actually engage in sex, and then they themselves are more likely to engage in sex, have sex more frequently and have sex with more … partners” (Kirby, 2001, p. 277). When youth believe that their peers favor condom use they are more likely to use condoms and contraceptives (Kirby, 2001). The implications of these findings suggest that when adolescents are connected to groups that express a clear value or norm against engaging in sex or unprotected sex, they were less likely to do so themselves. In addition, when adolescents are connected to groups that have permissive attitudes toward sex, they are more likely to engage in sex (Kirby, 2001). The perception of peers’ sexual behavior appears to be a strong predictor of
an early adolescent’s intention to experience an earlier sexual debut (Gillmore et al., 2002; Hollander, 2001; Prinstein, Meade & Cohen, 2003; Sieving et al., 2006).

Linkenbach (1998) found that adolescents are more concerned with what they perceive as normative than with what is discerned to be an unhealthy behavior. When identification with the individual or group engaging in the behavior is strong, those behaviors will have a larger influence on the observers’ social norms (Gino, Ayal & Ariely, 2009). Increased pressure toward peer conformity can result in a strong desire for adolescents to adopt the expectations and norms of their peers (Hagman, Clifford & Noel, 2007). Adolescents tend to capitulate when the unpleasantness of standing alone becomes too great, fostering a tendency to adopt behaviors that they think are norms in their environment in order to be accepted (Cialdini & Goldstein, 2004; Ott & Doyle, 2005). The argument for focusing on altering an adolescent’s immediate environment and perceived norms becomes that much more relevant. One can have significant awareness that a behavior is unhealthy and detrimental while still engaging in that behavior. Providing information to adolescents about the risks is not enough to discourage them from engaging in the behavior, indicating a need for a considerable shift in conceptualizing intervention models for this population.

**Evidence Supporting Social Norms Theory Based Interventions**

Social Norms Theory-based interventions have been highly successful for campaigns targeting negative behaviors such as alcohol consumption, tobacco use and sexual assault (Messer et al., 2011). The large majority of studies seeking to validate the use of Social Norms Theory have linked misperceptions associated with an overestimation of the prevalence of a behavior to an increased frequency of the negative behavior (Messer et al., 2011). While there are limited studies available to directly consider the use of Social Norms Theory based
interventions in reducing risky sexual behavior, substantial evidence supports the use of the theory itself as discussed below.

The research suggests a strong correlation between a students’ tendency to overestimate the frequency of peers’ negative behavior and their subsequent decision to engage in that particular activity. Findings of one of the first studies using Social Norms Theory reported that 71% of students at 130 schools overestimated the alcohol consumption of their peers (Berkowitz & Perkins, 1986; National On-Campus Report, 2005). Numerous studies add support for this phenomenon, arguing that it is the overestimation itself that drives an individual’s decision to engage in a particular behavior (Berkowitz & Perkins, 1986; Berkowitz, 2002; Berkowitz, 2004; Bertholet et al., 2011; Dunnagan et al., 2007; Far & Miller, 2003; Haines & Spear, 1996; Hollander, 2001; Marshall, Sherer & Real, 1998; Perkins & Berkowitz, 1986; Martens et al., 2006; Messer et al., 2011; Prinstein, Meade and Cohen, 2003; Scholly et al., 2005; Stephenson & Sullivan, 2009; Stewart et al., 2002). Researchers concluded that interventions seeking to correct the misperceptions and resulting overestimation of the behavior decreased the likelihood that individuals engaged in that specific activity. In turn, the overall prevalence of the targeted negative behavior was reduced (Berkowitz, 2002; Berkowitz, 2004; Berkowitz & Perkins, 1986).

Stewart et al. (2002) determined that “students who perceive excessive alcohol use as normative are more likely to abuse alcohol themselves” (p. 382). The researchers observed that “students who engage in risky sexual behavior while drinking do not perceive themselves as outcasts in their social circle since their everyday experience allows for them to believe that this behavior is the norm” (p. 386). In actuality, risky sexual behavior increases among adolescents who consume alcohol, further contributing to this perception (SASC, 2013). These results are consistent with the previous findings regarding the importance of one’s primary reference group.
on perception of the acceptability of negative behaviors and support the argument for intervention models targeting the social circle that holds the closest proximity to an individual.

In a study considering effectiveness of a social norms approach in targeting alcohol consumption among pregnant women, results showed that actual drinking increased in direct correlation to perceived drinking (Dunnagan et al., 2007). The study also found that none of the participants underestimated alcohol consumption in relation to their comparison group. The marked lack of underestimation is significant when considering the type of corrective information that must be provided to target a misperception of behavior. Specifically, simply viewing a factual statement and subsequently shifting perceptions may be rare.

A study of 20-year old men further establishes the overestimation in perception of drinking behaviors. Results indicated that an overestimation of drinking by others increased as self-reported alcohol use increased (Bertholet et al., 2011). The authors concluded that “if an individual perceives heavy alcohol drinking as typical, that individual is more likely to engage in heavy drinking” (Bertholet et al., 2011, p. 86). These findings suggest that normative feedback interventions, or those that aim to correct the overestimation about the prevalence of a behavior, will reduce an individual’s engagement in the behavior itself (Bertholet et al., 2011). The phenomenon of overestimating the prevalence of alcohol consumption among one’s peers appears to be universal, based on findings that “individuals who drink the most tend to overestimate the amount of drinking by others, regardless of their education level, occupation or living environment” (p. 85). It seems reasonable to conclude that the universality of a tendency to overestimate also translates to the assumption that individuals of all ages would do so. Thus, the relevance to early adolescents exists.
Additional research on college students established that perceived discrepancies between an individual’s behavior and that of his or her peers can result in lower sexual satisfaction based on the belief that one is more different from the norm than he or she actually is (Stephenson & Sullivan, 2009). The results of this study put the concept of pluralistic ignorance into real world context. Participants immediately assumed that their peers were dissimilar to themselves despite actually being quite similar. Specifically, participants reported beliefs that they had lower levels of sexual experience compared to their same-gendered peers. This finding demonstrated that college students tend to overestimate the sexual behavior and permissiveness of their peers (Stephenson & Sullivan, 2009). Given what is known about the relationship between this concept of pluralistic ignorance and its impact on behavior, it is possible, that the overestimation itself may influence an individual’s decision to engage in more permissive behavior in a misguided effort to seek greater personal sexual satisfaction.

Some findings suggest that changes in perceptions occurred irrespective of whether participants were exposed to national norm or campus data (Hagman, Clifford & Noel, 2007). Specifically, early adolescents might benefit equally from nationwide data that is routinely collected by the CDC and HHS, and information from within their specific environment. This information is particularly important given the sensitivity of the topic and the possibility that an adolescent’s access to sexual education may be inhibited.

**Social Norms Theory as a Framework for Reducing Early Risky Sexual Behavior**

Despite it being well documented that perceptions of peers’ behavior strongly influence personal beliefs about sexual activity, only in recent years has Social Norms Theory gained consideration as a possible approach for addressing risky sexual behavior (Kirby, 2001; Martens et al., 2006; Messer et al., 2011; Scholly et al., 2005). Even fewer studies draw on Social Norms
Theory when considering adolescents in general, in spite of overwhelming literature identifying the importance placed on peers during this stage of development (Kirby, 2001; Ott & Doyle, 2005). These research deficits hinder any extensive use of Social Norms Theory for intervention development, noting that the “limited information regarding a possible relationship between peer norms and personal behavior in terms of sexual behavior is a void in the social norms literature” (Martens et al., 2006, p. 295).

Four studies between 2006 and 2009 specifically considered the application of Social Norms Theory with respect to sexual behavior, two of which focused on adolescents (Martens et al., 2006; Messer et al., 2011; Scholly et al., 2005; Stephenson & Sullivan, 2009). In spite of the relative dearth of research focused on SNT and adolescents, it has been suggested that prevention efforts grounded in Social Norms Theory are ideal for targeting sexual behavior. Citing the belief that adolescents learn indirectly about peers’ behavior based on peer reports rather than direct observation, this information is highly susceptible to distortions and misperceptions (Buhi & Goodson, 2007; Messer et al., 2011). In response to such claims, while further research to substantiate its value will be useful, Social Norms Theory seems an appropriate theoretical foundation for effective intervention development targeting risky sexual behavior among early adolescents due in part to proven misperceptions.

It is substantiated in the literature that adolescents tend to misperceive the frequency of which their peers engage in sexual activity. This misperception strongly suggests that interventions grounded in a Social Norms Theory perspective could be useful in reducing the prevalence of risky sexual behavior among early adolescents. According to the Theory of Reasoned Action, an individual’s intentions are a strong predictor of his or her behavior, and these intentions are a function of perceived social norms as well as their attitude about the
behavior itself (Fishbein & Ajzen, 1975). Therefore, if the intention of the behavior is to align with peers, then providing accurate information about peer behavior could influence choices.

Binge drinking is one behavior susceptible to peer influence. Social Norms Theory has been well established as a framework for designing interventions that target binge-drinking behavior on college campuses. Numerous researchers have called for research to assess whether this theoretical model could be effectively utilized for reducing additional negative health behaviors in populations other than college students (Berkowitz & Perkins, 1986; Berkowitz, 2002; Berkowitz, 2004; Bertholet et al., 2011; Far & Miller, 2003; Glassman & Braun, 2010; Haines & Spear, 1996; Martens et al., 2006; Perkins & Berkowitz, 1986; Scholly et al., 2005; Stewart et al., 2002; Wechsler et al., 2003). Sexual behaviors among adolescents may be considered a negative health behavior that could benefit from SNT based interventions.

Buhi & Goodson (2007) argue that sexual risk taking is particularly susceptible to misperceptions and distortions of reality among peers. Adolescents tend to overestimate the proportion of their peers who are having sex (Messer et al., 2011; Robinson, Telijohann & Price, 1999). In addition, the youth who perceived the greatest overestimations were much more likely to initiate sex in the subsequent year (Robinson, Telijohann & Price, 1999). Thus, misperceptions regarding sexual risk taking have particular potential to be corrected utilizing social norms marketing strategies (Haines et al., 2005).

An additional examination of college students’ perceived norms regarding drug use and risky sexual behavior indicated the presence of considerable misperceptions regarding normative behaviors, resulting in an overestimation of alcohol use, drug use and sexual behavior (Martens et al., 2006). The study demonstrated a significant relationship between students’ own behavior and these misperceptions of behavioral norms (Martens et al., 2006). Messer et al. (2011) found
that positive attitudes about drug and alcohol use were associated with decreased likelihood of valuing abstinence and increased likelihood of viewing teen sexual activity positively (Messer et al., 2011). Additional research found “when accurate sexual norm information was provided to college students, it not only increased the accuracy of their norm perceptions, but also led them to feel more satisfied with their overall sex lives” (Stephenson & Sullivan, 2009, p. 101). While college students were the sample in this particular research, the study’s conclusions support the idea that normative campaigns could be beneficial for targeting sexual behaviors and perhaps utilized for additional populations (Stephenson & Sullivan, 2009). The conclusions highlight the potential effectiveness of normative campaigns to target misperceptions as well as what types of campaigns can be used.

It appears that parent education is not necessarily a useful campaign. Messer et al. (2011) found that increased amount of parent-child communication did not translate into more accurate perceptions about sexual norms (Messer et al., 2011). While parent-child communication has historically been viewed as a protective factor in reducing an adolescent’s likelihood for engaging in risky sexual activity, this study suggests that peer influence may be an even stronger predictor for the decision to do so (Messer et al., 2011). When exploring effectiveness of a social marketing campaign to correct youth misperceptions, an inverse relationship between sex norms and attitudes was established. The results demonstrated that perceptions about sex-related norms were associated with the sexual behavior outcomes of those interviewed (Messer et al., 2011). This study represents a small step toward exploring social marketing campaigns to target misperceptions around adolescent sexual behaviors.

While the research about Social Norms Theory is not particularly robust, there is certainly adequate literature supporting the importance of both social norms and the presence of
misperceptions among adolescents when it comes to designing interventions targeting risky sexual behavior. The implications of this work suggest that development of interventions aimed at correcting adolescents’ overestimation of the sexual behavior of their peers are more likely than interventions focused on parent-child communication to reduce incidence rates of early sexual debut. This dissertation project is a step in exploring such an intervention.

**Criticism of Social Norms Theory Based Interventions**

While there is substantial evidence supporting the use of Social Norms Theory, criticism exists as to whether interventions grounded in SNT tenets are effective in reducing a targeted negative behavior. Wechsler et al. (2003) found that Social Norms Theory based interventions did not effectively decrease alcohol consumption among college students. Clapp et al. (2003) suggest that social norms marketing campaigns corrected misperceptions about the prevalence of behavior but did not decrease the actual drinking behavior itself.

While the results of Wechler et al. (2003) and Clapp et al. (2003) are considered valid, the assertion that the interventions utilized in these studies were grounded in Social Norms Theory is debatable. The basis for this controversy is the tendency to confuse Social Marketing Campaigns with true Social Norms Theory interventions. Glassman and Bruan (2010) encourage researchers to take greater care in distinguishing between the two. One can have a social marketing campaign that does not aim to provide corrective information regarding the targeted behavior. Thus, while the same format might be used, the tenets of Social Norms Theory are not actually applied.
Chapter Three
Methods for Intervention Development

The Role of Clinical Social Workers and Intervention Development

Given the political climate of the United States and the potential impact that changing policies likely have on adolescents’ access to comprehensive sexual education, it is vital that interventions exist to supplement the lack of effective available programming. By ensuring that impressionable adolescents have access to factual information, a shift toward healthier decision making regarding their sexual behavior may occur. The changing political climate has allowed for more comprehensive sexual education and intervention models in schools. In addition, access to information via internet-based social media allows for macro-level interventions that might be cost effective and be further reaching than direct practice or educational settings. The model developed in this project is one proposed solution, in that it combines micro-and macro elements by utilizing social media outlets in conjunction with group based materials that foster healthy dialogue among early adolescents regarding social norms and the sexual behavior of their peers.

Intervention Development: Key Considerations

An intervention model that considers the influence of norms and misperceptions on intention will help to establish Social Norms Theory as a useful framework for delaying an adolescent’s sexual debut. By altering adolescents’ misperceptions about the prevalence of a particular behavior while fostering dialogue that allows for better understanding the beliefs of their primary reference group, adolescents might be better equipped to make decisions based on fact rather than assumptions. While the primary objective of this intervention model is to establish Social Norms Theory as useful in reducing risky sexual behavior, a secondary objective
lies in laying a foundation from which to develop future, more effective intervention models targeting a variety of negative behaviors among early adolescents.

Social Norms Theory-based interventions exist to lessen dissonance between desired behaviors and perceptions of others’ behaviors. Moral norms are personal codes of conduct. Perceptions about what others do may differ from moral norms. This can lead to dissonance regarding how one should behave (Dunleavy, 2008). Less dissonance might then result in an individual’s confidence that her or his decision to avoid a negative behavior is in fact in line with the expectations or norms of her or his peers. It is believed that by designing interventions aimed at reshaping descriptive norms within a group, an overall reduction in the prevalence of a negative behavior might occur.

The environmental influence of peers on adolescents’ behavior is often overlooked when designing interventions designed to alter behavior. In order to develop an effective intervention that targets a perceived norm, identifying the pre-dominant negative consequence among the target population must also be a consideration. When targeting early adolescents and their decision to engage in sexual activity, for example, lack of acceptance by the larger peer group as a perceived negative consequence might be more powerful than the possible consequence of unintended pregnancy or contracting a STI. It is with this concept in mind that the intervention model developed here is believed to have particular relevance to adolescents.

**Additional Considerations**

Glassman and Braun (2010) argue that not all social marketing campaigns are in fact grounded in Social Norms Theory and that particular items need to be considered when designing such interventions. Thus, when designing the intervention model, four key factors were considered. (1) *The product*, in this case interventions designed to reduce early risky sexual
activity among adolescents, in terms of what is was currently being marketed, including the behavior and associated benefits of that behavior (Glassman & Braun, 2010). A thorough understanding of the current programming available, the number of intervention models that have previously addressed norms and the venue in which adolescents are most likely to receive this information was necessary prior to conceptualizing the intervention model.

(2) **The price** to implementing the intervention. In other words, optimizing the success of the intervention relies on assessing the cost and possible barriers when designing a model (Glassman & Braun, 2010). The cost of advertising a marketing campaign through Facebook was determined to be a cost-effective means for disseminating the corrective statements. Research also substantiated a high prevalence of adolescents using social media websites, reducing barriers to the number of individuals that would have access to the information being provided (Brenner, 2012).

(3) **Having a strong knowledge base regarding the context most conducive to fostering a behavior change** can determine where an intervention will be most beneficial (Glassman & Braun, 2010). In this case, focusing specifically on peers and the perception of norms was used as the context most able to foster change. (4) Finally, **deciding the best means to promote an intervention** is critical for optimizing whether it is utilized and can ultimately influence the target behavior and population (Glassman & Braun, 2010). Considering adolescents’ comfort with identifying with the intervention model was a key component to the vernacular used in developing the Facebook site and impacted the focus of the corrective statements disseminated.

Additional research suggests that prevention efforts should focus on social, cultural and economic determinants of behavior rather than just knowledge, attitudes and behaviors of individuals (Glassman & Braun, 2010). Increasing the likelihood of the target audience recalling
the information regarding a health behavior is also a factor to consider when developing interventions. Viswanath, Steele and Finnegan (2006) suggest that disseminating knowledge itself is not enough to evoke change, but rather change is impacted by the surrounding social capital of the individual receiving a health message. For this intervention model, factoring in peers and using social media to foster an online community attempts to assist with increasing the recall of the corrective messages provided. Kirby (2001, p. 280) suggests that, “developers of programs should be aware of the importance of giving a clear message of trying to get youth to adopt responsible norms, of increasing connectedness between staff and youth, and of increasing connectedness between youth and other youth or adults who express clear, responsible norms.”

This intervention model relied on a combination of both a social marketing campaign along with an educational/psychotherapy curriculum in order to ensure that clear norms-focused statements were provided in conjunction with fostering dialogue among peers and the adults facilitating the curriculum.

**Evaluating Current Intervention Models**

It should be noted that there have been several structured attempts at targeting the issue of unintended pregnancy and STIs among adolescents in the United States. In fact, many sexual education curricula and intervention models have been successful in recent years at raising awareness and decreasing prevalence rates of both (Kirby, 2007). These efforts notwithstanding, it is important to avoid complacency from the positive strides that of the last few years. Stakeholders should not settle for what remains as high incidence rates comparative to other nations.

There are numerous approaches, with considerable research backing, that target risky sexual behavior among adolescents, 31 of which are currently funded by the United States
government (OAH, 2013). Of the 31 programs, only five were designed for implementation in a middle school setting and only one for elementary schools (OAH, 2013). Despite the existence of such programs, a high incidence of unintended teen pregnancy and STI’s among adolescents persists (CDC, 2012). It seems plausible that many programs deemed effective may still be missing the mark altogether by not targeting early adolescents prior to their sexual debut, or, alternatively, offering supplemental materials to enhance their current results. To reiterate the data presented above, despite Kirby’s (2007) finding that norms are a key factor in the efficacy of such programs, only six of the 31 include norms as a point of discussion (HHS, 2012).

Substantial research has explored why certain programs are effective in reducing the targeted behaviors, in this case early risky sexual activity. For example, programs aimed solely at increasing the awareness of risks associated with negative behaviors are not always shown to be effective in reducing the frequency of the targeted behavior (Martens et al., 2006). In fact, it is possible that the education programs focusing only on negative behavior may send a message that students are engaging in risky behavior at higher rates than they actually are (Scholly et al., 2005). One common approach, termed “Health Terrorism,” incorporates scare tactics into programs to encourage fear of engagement and decrease the prevalence. These interventions are shown to be largely ineffective, even counterproductive, in reducing negative behaviors (Scholly et al., 2005). One explanation for their lack of efficacy is that there may be a disparity between interventions centered on a fear appeal model and those combining a strong fear appeal with high-efficacy messages. However, pairing strong fear appeals with low-efficacy messages appears to produce a defensive response from individuals (Witte & Allen, 2000). Perhaps we are lowering the receptivity of individuals by focusing too much on the negative aspects of behavior, thus minimizing their receptivity to the educational portions of the curriculum being provided.
Drawing on the tenets of Social Norms Theory, fear-based programs to raise awareness about risky sexual activity may backfire by inadvertently increasing an individual’s tendency to overestimate the unhealthy behaviors of their peers.

Research has also suggested that programs laying out the pros and cons of different behaviors, with the intention of allowing youth to decide which is right for them, are also ineffective in reducing incidence rates (Kirby, 2001). While the intention of these models might be to remain objective and non-judgmental in order for adolescents to formulate decisions on their own, these programs operate on the assumption that youth are able to weigh the information being presented without the outside influence of social norms (Kirby, 2001). By incorporating discussions that allow for adolescents to gain a better understanding of the belief systems of their peers and the expectations of their primary reference group, they could be better equipped to weigh the pros and cons of a particular behavior. Given that much time and effort has already gone into these attempts at effective programming, it seems prudent to design interventions that account for the deficits that have already been determined. An evident solution is capitalizing on the body of research that has substantiated the use of interventions that target social norms and perceptions. Many current models are proven effective but target only the behaviors.

There is substantial research supporting the use of several current prevention models. In particular, it has been established that interventions expressing a clear norm of avoiding unprotected sex are more successful than education-only approaches (Kirby, 2001). Campaigns focusing on anti-dangerous behavior, or harm reduction strategies, rather than discouraging the behavior altogether, are shown to be more effective in reducing the frequency of the targeted behavior (Stewart et al., 2002). Messages emphasizing the positive behaviors of the majority may create cognitive dissonance for an individual, in turn allowing for greater reflection on one’s
own behaviors (Ott & Doyle, 2005). Arguably, these findings are consistent with the tenets of Social Norms Theory, in that macro-level interventions aimed at both addressing misperceptions and offering discussions about normative behavior could further enhance current programming. Despite the lack of specific research support for interventions being grounded in Social Norms Theory, the inclusion of and consideration for the influence of norms and perception on behavior does exist.

Given the infrequency with which norms are included in sexual education curricula, this intervention model seeks to focus solely on norms as the primary target for influencing behavior. Providing an alternative format by which this information is disseminated is also a key component to the model and believed to be an innovative design relevant to adolescents. While there are successful models available, the ability to provide an additional construct for influencing unhealthy sexual behavior has the potential to increase the already positive gains being made.

**Methodology: Introduction**

As discussed above, numerous programs have been developed in the last twenty years aimed at reducing the prevalence and subsequent consequences of risky sexual behavior among adolescents. The primary objective of this intervention is to supplement the existing materials using a theoretical perspective that has not yet been adequately utilized. The secondary objective is to ensure that the intervention is easily accessible on a large scale across socioeconomic factors. The goal is to increase adolescents’ access to accurate data in the hopes that they are able to make a more informed decision about their readiness for sexual activity.

The intervention model contains two primary components: a social marketing campaign and supplemental classroom materials for middle school educators working with adolescents.
between the ages of 13 – 14 years old. The social marketing campaign consisted of the original creation of a Facebook page, entitled *Teen Sex Facts* which is accessible to all users of Facebook. A secondary portion of the intervention was the development of original curriculum materials oriented toward middle school educational and psychotherapy settings. Classroom activities and lesson plans were written to provide middle school educators or counselors with an additional resource that might foster discussions and assist early adolescents in correcting misperceptions about the behavior of their peers. A poster with a QR code, or image that when scanned by a smart phone will direct students to the Facebook page, was also created as part of the group curriculum.

The remainder of this chapter outlines the process used to develop the Facebook page. Included is an overview of how it was determined that Facebook was the best venue for disseminating the corrective statements to adolescents. The steps taken to ensure that appropriate protective measures were in place with respect to the human subjects who would interact with the site will also be described. Finally, a discussion of the process used to disseminate information via this Facebook page is detailed.

The chapter goes on to describe the methodology used in developing the curriculum materials developed for intended use in educational and psychotherapy settings with adolescents. The discussion consists largely of the rationale for the materials created. The chapter concludes with a description of how the curriculum can be used to supplement the corrective information disseminated via Facebook.

**Social Marketing Campaign: Utilizing Facebook for Intervention Design**

Social Marketing campaigns have historically been used when drawing on Social Norms Theory. Examples include banners, brochures and billboards that can easily be viewed by the
target population. This project attempts to establish the use of Social Norms Theory as a useful theoretical base for intervention development when targeting adolescents. To develop an effective intervention for adolescents, the information disseminated via a social marketing campaign must be placed where it is most likely to be viewed.

According to data collected by the Pew Internet and American Life Project 95% of adolescents between the ages of 12-17 use the internet, 80% of whom use social media websites on a regular basis, a higher percentage than any other age group in terms of internet usage (Brenner, 2012). Further data support the use of Facebook as the preferred modality for disseminating this information, given that 93% of adolescent social media users visit the site (Brenner, 2012). In fact, despite other social media sites that are seemingly popular among the target age group, recent data found that only 24% use MySpace, 12% use Twitter, 6% use YouTube and 2% use Tumblr (Brenner, 2012). Capitalizing on this trend provides an opportunity to reach adolescents on a much larger scale than that offered by educational or psychotherapy settings.

Once it was determined that Facebook provides the greatest likelihood for an adolescent to view the social marketing materials, the page Teen Sex Facts was designed based on the basic tenets of Social Norms Theory. The primary function of the page was to provide corrective information about the sexual behavior of early adolescents based on data sets published by reports conducted by the Centers for Disease Control and Prevention (CDC) and the United States Department of Health and Human Services (HHS). A further description of the Facebook page, including status updates and content, is found in the procedures section below.
Social Marketing Campaign: Design and Procedures

Design. The design for this portion of the intervention was submitted for review and approved by the University of Pennsylvania Institutional Review Board. Upon receipt of this approval, the Facebook page *Teen Sex Facts* was published into the public domain and viewable to any user of the website. The page *Teen Sex Facts* will remain accessible indefinitely. Thus, the ongoing addition of followers is both the intention and acts as a measure of success for this component of the intervention model.

Recruitment. Gaining a following of the Facebook page is a relevant part of establishing the legitimacy of this intervention model. To make internet users aware of the existence of the page, an advertisement was placed on the Facebook website. The advertisement targeted early adolescents between the ages of 13-15 years old and was placed on the pages representing other interests likely to be followed by this age group (see Appendix A). Once individuals clicked on the advertisement and were directed to the webpage, a disclaimer was prominently displayed with the intention that users would review this statement prior to making a decision to become a follower of the page. Upon “liking” the page named *Teen Sex Facts* an individual user was considered a follower of the page and automatically received the corrective information that was disseminated via a status update. It should be noted that all users of Facebook have the option to maintain anonymity in that one does not need to be a follower of the page *Teen Sex Facts* in order to view its contents.

Target Population. The intervention model targeted early adolescents between the ages of 13-15 years old. It should be noted that there is no way to control the ages of those following the Facebook page. Thus, while early adolescents were the target population and the basis for the
statistical data collected about the intervention, any user with access to the internet was able to view the page.

**Key Inclusion Criteria.** The Facebook page was made accessible to all users, which, based on website requirements, is a minimum of 13 years old. Given that this page was in the public domain and no identifying information about age, race, etc. were collected there were no specific inclusion criteria required.

**Key Exclusion Criteria.** There were no specific exclusion criteria designated, as any user with a Facebook account could access the page. Given the nature of this intervention model, adolescents without a Facebook account or access to the internet were automatically excluded.

**Considerations for Vulnerable Populations.** While adolescents are considered a vulnerable population, it should be noted that there was no active subject recruitment beyond the consideration of whether Facebook users might access the page. The advertisement placed through Facebook could easily be ignored and individuals choosing to follow the page did so of their own accord. There is no policy through Facebook itself to verify that parental permission has been given to set up an account other than a statement in their terms of use specifying that members must be a minimum of 13 years old; however, parents are able to monitor the activity of their child’s account should they choose to do so (Facebook, 2013). One safeguard enacted in response was that the ability to send a message to the administrator of the site was disabled for this page in order to remove the ability of an adolescent to communicate directly without parental consent. It should be noted that followers to the site are represented by a quantitative number whereas only the administrator of the page has direct access to names of those following the site. The administrator is able to view new users when they first choose to follow a page;
however, as the number of followers to the site expands, the administrator is no longer able to see these names as they are replaced by more recent users and simply quantified.

**Procedures.** Once followers began to interact with the website, I, as the site administrator, had the ability to monitor the page and delete inappropriate posts or comments. Given that the intention of the page was to allow the factual statements themselves to function as the point of intervention, I imposed minimal interaction with users of the page.

Along with one unchanging statement viewable on the homepage for all users upon accessing the site, status updates were posted every three days with factual statements using these statistics and formulating statements that focused on the positive side of a behavior. For example, rather than simply relaying the statistic that 13% of adolescents have sex prior to the age of 15 years old, a statement reflecting the positive behavior instead stated that 87% of teens wait to have sex until they are at least 15 years old. Sources of the statistical data used when formulating these statements were appropriately cited on the website. For a full listing of the status updates that were posted as part of the *Teen Sex Facts* Facebook page, see Appendix B.

There were no direct interactions with the investigator during this process. In order to substantiate the success of the intervention model, the number of followers of the page, as well as the frequency of comments and “likes” to status updates, were collected. Individuals who chose to follow the page had the option to remove themselves at any time. This was true during the intervention period and remains true ongoing.

**Privacy.** *Teen Sex Facts* was designed to be in the public domain; thus, reasonable expectation of privacy does not exist. Users of the Facebook page had the option either to follow the site, directly linking their name, or to simply view the information posted. Followers were also able to remove themselves from the page at any time, an ongoing feature of the site. Despite
the option for anonymity, engaging with the Facebook page can involve an individual deciding to “like” or post a comment in response to a status update, to which the reasonable expectation of privacy no longer exists. It should be emphasized that administrative privacy settings on the webpage dictate that only those choosing to post on the page were visible.

As an added precaution, given the nature of the intervention and age of targeted population, a disclaimer serving as a reminder about the possible negative impact of posting personal information in the public domain was clearly stated on the page. The disclaimer also informed followers that the Facebook page was created for purposes of a dissertation project and that, therefore, data on the popularity of the site were intended to be published. The information was written in language suitable for a 5th grade reading level (see Appendix C).

Facebook itself has additional privacy protections automatically in place for minors, in this case those users between the ages of 13-17 years old. The maximum audience that can view any posts made by a minor is designated as “friends of friends”, meaning that only individuals who are directly accepted into minors’ networking circle may view their posts, which are not made public. Similarly, the privacy settings for minors dictate that they cannot receive messages from public users of Facebook, but only friends of friends, or again those in their immediate networking circle. These privacy settings already in place assisted in ensuring that enhanced measures were taken to protect the users of this page, despite information being in the public domain. Notably, Facebook do not have reasonable expectation of privacy due to the materials being in the public domain, and interaction with an administrator is assumed when using any webpage through this site.

**Data Collection.** Quantitative data were collected regarding the number of followers of the Facebook page in order to determine the level of interest and effectiveness of the intervention
model. The names of the followers of the Facebook page are not visible to the general public, only the number of followers. All data collected via the social media component were viewable and monitored only by the administrator of the Facebook page (investigator).

The administrators of all Facebook pages are provided with anonymous aggregated data regarding the activity of the page. Facebook users give permission for this data to be collected upon creating an account, as outlined in the site’s Data Use Policy (Facebook, 2013). The primary outcome variable was the number of followers to the Facebook page, an indicator of the relevance to the target population. The secondary outcome variables were the number of comments, private messages, “likes” and posts by followers of the Facebook page, an indicator to the level of engagement and therefore potential impact of the intervention.

**Subject Confidentiality.** Materials placed in the public domain are not confidential, a disclaimer clearly stated on the Facebook page. Once an individual became a follower of the page, anonymity remained unless that user willingly decided to “like” a status update or post a comment on the page. When new users accessed the Facebook page, they could not see the names of followers, but simply the number of individuals accessing the page. As an additional safeguard, despite information being in the public domain, no individual names or identifiers were used when reporting on the results of this intervention.

**Waiver of Consent.** The efficacy of the intervention model relies on its ability to provide easily accessible information to adolescents. When parents permit their adolescents to create a Facebook profile they are essentially consenting to the standard use of the site. The *Teen Sex Facts* page falls into a wide spectrum of many websites that address teen sex that are regularly accessed by adolescents. Adolescents have access to various forms of information regarding safe sex practices and health education via the internet. Therefore, the introduction of
this intervention model posed no additional risk to that already present through regular use of the internet. It was deemed logistically infeasible and of possible harm to the theoretical basis of the intervention to require that both parental permission and child assent be provided when an individual user decided to follow the Facebook page. Even if it were possible to require parental consent for each user, doing so would likely have obviated the goal of the intervention by hindering adolescents’ willingness to inform their parents that they wished to visit the page.

**Considerations for Potential Study Risks.** Minimal risks were associated with this intervention model and no additional risk beyond those associated with typical Facebook usage was likely. Because data were portrayed as corrective to a misperception that an adolescent might otherwise have, there was some potential for psychological risk. For example, if an adolescent had already engaged in sexual activity and later read the content on the Facebook page and learned that the majority of his or her peers had not, there was the potential for a lowered sense of esteem or confidence in their own decision. While the goal of the intervention was to arm adolescents with additional content to make more informed decisions about their sexual relationships, there was a mild possibility of an adverse effect. To offset this risk, the Facebook page included posts with suggestions for additional resources such as one’s school counselor, parents, etc. (see Appendix D)

Social risk for adolescents was also present with the potential to disclose their beliefs about sexual activity through their decision to follow the Facebook page. While they had autonomy over whether to do so, rendering the risk minimal, it existed nonetheless. It was determined that the provision of factual information to support adolescents in deciding upon their own individual beliefs about sexual activity and relationships outweighed this risk.
The risk of loss of confidentiality also existed, given that the name of the Facebook page does show up on an individual account as being followed by that user. Given that this information is in the public domain, reasonable expectation for privacy does not exist.

**Data Analysis.** Facebook automatically collects aggregated data on the use of any page affiliated with their site. A report of the number of followers and individuals interacting with the site was provided in association with this page, which will be discussed in the following chapter.

**Educational and Psychotherapy Curriculum: Design and Procedure**

**Background.** To develop an age-appropriate curriculum, I, the investigator, consulted informally with middle school educators and clinicians working with early adolescents. Emphasized in these preliminary conversations was the recommendation for designing activities that would allow for interactive engagement (Schreiber, 2013; Terpak, 2012). I reviewed concepts related to curriculum development, focusing on philosophical approaches to classroom instruction and group psychotherapy with adolescents.

**Educational Considerations.** In designing instructional materials for adolescents, it is believed that a critical thinking taxonomy should be used (Schreiber, 2013; Wagoner, n.d.). A popular construct is Marzano’s (1998) seven levels of critical thinking for use when designing instructional materials: knowing, organizing, analyzing, generating, applying, integrating, evaluating. When drawing on this taxonomy, materials should progress from the lowest level, which focuses on the initial delivery of information, to the highest, which requires critical analysis (Marzano, 1998; Wagoner, n.d.). The order in which the curriculum materials should be delivered by a facilitator follows this progression. In addition, the discussion questions and activities in my model utilize the Marzano question stems that are suggested in fostering this progression (Appendix E).
**Group Process Considerations.** When designing a group curriculum, it is important to consider the type of group that is most appropriate for the content (Furman, Rowan & Bender, 2009). For purposes of this intervention model, an Educational Group format was the intended format to increase the universality of the group curriculum. An Educational Group provides new information to participants, and its primary goal is the acquisition of knowledge (Furman, Rowan & Bender, 2009). Given the nature of the materials, the curriculum itself could be adapted to psychotherapy groups as well; those that intend to impart knowledge while fostering individual growth among its members (Furman, Rowan & Bender, 2009).

**Organization of Curriculum.** A series of four lesson plans were created to be used in sequence during consecutive meetings with an already formed group of early adolescents. I created the materials with the assumption that group cohesion has already been established prior to its use. The initial lesson begins with a focus on imparting knowledge while assessing the presence of misperceptions among adolescent group members. The second lesson builds upon this content by giving group members an opportunity to organize and analyze the information through direct interaction with their peers. The third lesson fosters the application of the knowledge that has been gained in the previous two lessons by asking adolescents to differentiate between fact and myth. The final lesson plan seeks to foster evaluative processing by asking adolescents to assess the presence of misperceptions in various media sources.

**Introduction to Curriculum.** In addition to the four lesson plans, an introductory letter offers direction to facilitators and/or educators delivering the group content (see Appendix F). Group facilitators and/or instructors were provided with suggestions for continued discussion with adolescents as well as resources for ensuring that statistical statements are current should the curriculum be used in future years when new data reports become available. I also included
my contact information as the creator of the curriculum and cautionary statements about the possible limitations of its use.

**Group Lesson Plan #1.** The primary objective of this activity is to assess the presence of misperceptions among students in preparation for the teaching of sexual health educational content. The secondary objective is to challenge students’ possible misperceptions that their peers are engaging in sexual activity more frequently than statistical data would indicate. The title of the lesson is “Anonymous Survey and Human Graph.” Students begin by taking an anonymous survey consisting of twenty questions related to the sexual behavior of adolescents. The facilitator then processes the survey results through an interactive activity, the Human Graph while providing corrective information related to any identified misperceptions (Melin, 2013). The lesson plan concludes with suggested questions for discussion to foster an additional opportunity for group members to hear the perspectives of their peers. (see Appendix G)

**Group Lesson Plan #2.** The primary objective of this activity is to expand upon the misperceptions identified in the first lesson and explore common myths that might contribute to an adolescent’s beliefs about the sexual activity of her or his peers. The secondary objective of this activity is to foster group processing among peers and to allow for instructors/group facilitators to provide corrective information to adolescents. For this lesson, students begin in small groups and are asked to brainstorm everything they believe to be true about the sexual behavior of adolescents. A comprehensive list of statements is then collated among the larger group, with the facilitator or instructor circling the statements that are believed to by myths by the students. Processing of this exercise focuses on providing corrective information as it pertains to the myths and working to challenge any misperceptions apparent among the group members. (see Appendix H)
**Group Lesson Plan #3.** The primary objective of this activity is to expand upon the misperceptions identified in previous lessons and continue exploring common myths driving adolescents’ beliefs about the sexual activity of their peers. The secondary objective of this activity is to foster group processing among peers and to allow for instructors/group facilitators to provide corrective information to adolescents. Moving toward assisting students in the application process of learning, the activity again divides members into small groups. Students are given a sheet of cards with statements about the sexual behavior of adolescents with which they must work to differentiate into the two categories: Myth vs. Fact. Once students have organized the cards into two sections, large group processing occurs to assist group members in correcting any statements placed in the incorrect category. The focus of the subsequent discussion should work to reinforce the previously provided corrective information and continue clarifying any identifiable misperceptions. (see Appendix I).

**Group Lesson Plan #4.** The primary objective of this activity is to expand upon the content that was delivered in the previous lessons and provide an opportunity for group members to evaluate the information provided. The secondary objective is to continue to foster group processing among peers and to allow for the provision of corrective information to group members. The activity begins with adolescents divided into small groups of four members. Each individual in the group is given a copy of a predetermined article related to sexual behavior of adolescents. Upon reading the article, each individual must write his or her impressions in one part of a large piece of paper divided into four sections. A discussion about the differences and similarities among group members is then followed by a larger group discussion among all members. The facilitator/instructor should shift the discussion to questions surrounding whether
the group members believe that messages in the media alter their perception of the sexual behavior of their peers. (see Appendix J)

**Supplemental Materials.** The primary social marketing aspect of this intervention model is utilizing Facebook as the modality for disseminating the corrective statements; however, providing group facilitators and instructors with a visual aid allows an additional avenue for adolescents to access this information. A supplemental poster was designed, the purpose of which was twofold: 1) as a visual aid in the classroom or group setting reinforcing the corrective information delivered through the lesson plan materials 2) as a marketing tool for the social media component by inclusion of the web address and a QR code directing group members to the *Teen Sex Facts* Facebook page (see Appendix K).
Chapter Four: Results

Introduction

The primary purpose of this project is to draw upon the use of Social Norms Theory as a useful theoretical framework for intervention development when targeting early adolescents. The intervention included a social media component and a psycho-educational component to be used in educational/psychotherapy settings. These interventions are intended to complement each other and can also be used independently, but always in conjunction with the other evidence based sexual educational materials for adolescents. For the purpose of reviewing the results of this project, the focus is on the social media component as there are data about the use of the Facebook page. No data currently exist to assess the use and impact of the psycho-educational materials this is an area of future exploration.

In an effort to establish its utility for effective intervention development, this chapter reviews data from the social media campaign. The quantitative data seek to substantiate the validity of using social media to disseminate information to the target population. In order to understand the data presented, each section begins with a definition of the terminology used by the social media site, Facebook. An explanation of the quantitative data collected and its implications are provided. Included also are the corrective statements that were disseminated and the impact each had in engaging a follower of the page.

Data Collection

All Facebook pages automatically generate quantitative data that have been de-identified and is therefore anonymous as part of its Data Use Policy which users agree to upon creating an account with Facebook. The primary categories of data collected are as follows: “Total likes” refers to the number of followers to a page. “Friends of fans” refers to how many additional
users might see the site based on its followers. “People talking about this” refers to the engagement of followers of the page in response to the information disseminated. “Weekly total reach” refers to how many individual users had access to the site, either by viewing the content directly or seeing the information in their newsfeed (Facebook 2013). Definitions and explanations of the significance of these data are detailed below, along with table representation of the data collected for *Teen Sex Facts*.

**Establishing a Following and Assessing its Reach**

Creating a Facebook page does not guarantee that it will be viewed by users of the site. As described in the previous chapter, an advertisement was circulated through the Facebook Ads feature in order to make users aware of its existence. The number of individuals who have viewed the information on the Facebook page was determined through two data: the number of followers of the page and the reach of each individual status update posted through the page.

**Followers.** The number of followers enumerates individuals who have elected to “like” *Teen Sex Facts* in order to receive the information disseminated through its page. When a Facebook user chooses to follow a page, any information posted by that particular page will be sent directly to her or his newsfeed. In Facebook terms, one’s newsfeed is a collation of updates for a user based on information disseminated by any other individuals, companies or pages with which they have chosen to maintain a connection. The Facebook page *Teen Sex Facts* was active for four weeks, in which time a total of 3,377 followers was established. This number is significant in that, according to data assessing the popularity of Facebook pages, only 23% of all pages have more than 1,000 followers (Sysomos, 2009). Further, only 4% of pages have more than 10,000 followers (Sysomos, 2009), a number this intervention is likely to reach in the future given how quickly its following has been established.
In addition to the overall numbers of individuals viewing the page, Facebook also collects data about the demographic breakdown of users who have accessed the site. Based on the profile information submitted for each individual following the *Teen Sex Facts* page, the target population (here categorized as users 13-17 years old) is the second most common demographic in accessing demographic the site.
Reach. In Facebook terminology, the “reach” is the number of individuals that have seen the information posted on a page (Facebook, 2013). The reach is factored into two categories: the number of users that are viewing the page as a whole and the number of users who have viewed each individual piece of information disseminated through the site (termed a “post”). Based on data exported from the page insights for Teen Sex Facts generated by Facebook, the following chart represents the number of users viewing the page as a whole:
A status update in Facebook terms is a specific piece of information disseminated through a page to be viewed by any followers or users of the site (Facebook, 2013). The reach for an individual status update is defined as the number of individuals who viewed that specific content (Facebook, 2013). In accordance with the methodology utilized for this intervention model, a status update was posted to the page *Teen Sex Facts* every two days consisting of a corrective statement based on secondary data sets as reported by the CDC, HHS and YRBSS. The number of users that both viewed and interacted with these statements is depicted below:
<table>
<thead>
<tr>
<th>Date</th>
<th>Corrective Statement</th>
<th>Total Reach</th>
<th>Engaged Users</th>
<th>Talking about This</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/7/13</td>
<td>The SNT based statement providing statistical information about teen sexual behavior</td>
<td>2110</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>5/9/13</td>
<td>76% of teens say they are NOT currently sexually active.</td>
<td>2536</td>
<td>104</td>
<td>34</td>
</tr>
<tr>
<td>5/11/13</td>
<td>52% of high school students say that they have never had sex.</td>
<td>2657</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>5/13/13</td>
<td>85% of teens that are sexually active have had sex with fewer than five partners.</td>
<td>2904</td>
<td>49</td>
<td>25</td>
</tr>
<tr>
<td>5/15/13</td>
<td>60% of teens report using a condom the last time they had sex.</td>
<td>3608</td>
<td>129</td>
<td>64</td>
</tr>
<tr>
<td>5/17/13</td>
<td>94% of teens WAIT to have sex until they are at least 13 years old.</td>
<td>2988</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>5/19/13</td>
<td>47% of Gay and Lesbian teens say that they are NOT currently sexually active.</td>
<td>3304</td>
<td>62</td>
<td>44</td>
</tr>
<tr>
<td>5/21/13</td>
<td>67% of 9th graders report that they are virgins and have never had sex.</td>
<td>3422</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>5/23/13</td>
<td>47% of teen girls say that they are NOT currently sexually active.</td>
<td>3716</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>5/25/13</td>
<td>The percentage of teens that report ever having sex has decreased in the last twenty years.</td>
<td>3572</td>
<td>40</td>
<td>21</td>
</tr>
<tr>
<td>5/27/13</td>
<td>58% of teens that identify as LGBT used a condom the last time they had sex.</td>
<td>3544</td>
<td>41</td>
<td>23</td>
</tr>
<tr>
<td>5/29/13</td>
<td>54% of high school girls have never had sex.</td>
<td>3724</td>
<td>111</td>
<td>60</td>
</tr>
<tr>
<td>5/31/13</td>
<td>82% of teen boys have had sex with fewer than five partners.</td>
<td>3274</td>
<td>62</td>
<td>29</td>
</tr>
<tr>
<td>6/2/13</td>
<td>67% of teen boys report using a condom the last time they had sex.</td>
<td>2934</td>
<td>63</td>
<td>27</td>
</tr>
<tr>
<td>6/4/13</td>
<td>54% of teen girls report using a condom the last time they had sex.</td>
<td>2648</td>
<td>52</td>
<td>33</td>
</tr>
</tbody>
</table>

Note: Data was retrieved from the following sources for each statement as indicated above: 1) CDC, 2012; 2) YRBSS, 2012; 3) HHS, 2012.

In addition to the above status updates posted throughout the four week period, a cover photo was included on the site that stated, “87% of teens WAIT to have sex until they are at least 15 years old.” Given that this corrective statement was visible to all users accessing the page, it is
reasonable to deduce that it too was viewed by a significant number of followers; however, specific data were not collected regarding its reach.

**Further Considerations of the Data.** Based on the data reported by Facebook, the number of individuals viewing the statistics disseminated was significant. Fifteen status updates were posted during the four week intervention period with a total reach of 46,951 views. While it is likely that some users are accounted for more than once in this data, the mean number of times a user viewed each corrective statement was 1,677 per day. Beyond viewing each specific status update, the number of Facebook users who had access to the information provided by *Teen Sex Facts* was also significant. Over the course of four weeks, a total of 153,535 individuals viewed some content associated with the page. This includes those seeing the ad placed, viewing the home page, clicking a status update or engaging in any other type of interaction with the site. The mean number of users viewing some content associated with *Teen Sex Facts* was 5,477 per day.

Given the percentage of users who fell into the target age population, 13-17 years old, the estimated number of adolescents who might have viewed information associated with the site during the course of four weeks was 49,822, a mean of 1,779 per day. The number of adolescents who viewed each corrective statement was overall 15,259, a mean of 545 per day. The data support the relevance of the site as a viable method for disseminating information to adolescents and has the potential to increase its reach and therefore impact the longer the site remains available to Facebook users.
Chapter Five: Discussion

Introduction

The following chapter discusses findings and interpretations of the above results. Additional insights gained while developing this intervention model are discussed. The implications of this intervention model for clinical social work and recommendations for future applications of this work follow.

General Findings

Based on the above data, it is clear that the use of social media was a successful method of disseminating information to adolescents. Not only was it cost effective, a significant number of individuals were reached with minimal time and effort put forth by the investigator. The amount of engagement from users of the site further supports the interest of adolescents in accessing the statistical information provided.

As I sought to determine whether sexual education is disseminated through the use of Facebook, many existing pages found were associated with a non-profit or community based program. However, the number of followers to these pages was quite minimal, indicating a possible lack of interest in the topic. Given how quickly a following was established for Teen Sex Facts, the use of an advertisement targeting adolescents is recommended. Social Marketing campaigns cannot be utilized if the targeted population is unaware of its existence. Researchers and clinicians must be willing to invest financially into these types of intervention models in order for them to be effective.

The demographic data provided indicate that the targeted population is in fact the primary user of the page. Providing a format for teens to seek information on their own accord was viewed as a vital component of the intervention model. Allowing for uninterrupted conversation
to occur in response to the facts presented by the site was also important in that teens were engaging with peers in a format familiar to their cohort. Many users felt comfortable sharing their own experiences with sexual activity, often supporting the statements provided by the site or at times questioning the accuracy of the statistics stated. Consistent with the findings that demographic proximity and salience of a group is a factor in the level of influence norms have on behavior, users would often reference their location or immediate environment as a rationale for why the statistic might not be true or universal (Campo et al., 2003; Dunleavy, 2008). Conversely, users would also comment with surprise and report feeling encouraged by the statistics, an indicator that their misperception was being challenged. These instances support the basic tenets of Social Norms Theory, which state that misperceptions are likely and individuals tend toward overestimating the negative behavior of their peers (Dunleavy, 2008; Perkins & Berkowitz, 1986). Reports of surprise at the factual statements presented suggest that these overestimations likely existed and were thus being challenged.

The method by which information was disseminated to adolescents was through a “post” to the Facebook page, sharing a corrective statement based on existing data as reported by the CDC, HHS and YRBSS. The frequency of “posts” to the site was challenging in that the number of corrective statements provided requires a robust amount of data in order to avoid being redundant or boring to the users of the site. In order to ensure that the page remains active, continually seeking new data sources will be necessary. Including statements specific to sub-groups of the target population (i.e. LGBT, females, males, etc.) was not only useful for increasing the amount of data disseminated, but also an important aspect of this intervention model being viewed as inclusive. In order to support the longevity of this style of intervention, the corrective statements will likely need to be cycled through repetitively. While redundant, the
repetition of information could prove useful in that it both reinforces the corrective messages and permits new users of the site to take advantage of previously posted information. Such repetition also increases the likelihood for retention among users.

The use of social media seems to be a useful and relevant format for disseminating information to adolescents. It allows for shared information on a large scale, and it ensures that corrective statements remain available to users in perpetuity. Grounding the statements provided to adolescents in SNT might have contributed to the ease of which a following was created. When compared to other social media sites, Teen Sex Facts reported similar information (i.e. information about safe sex practices, contraceptive use, etc.). But by focusing on the statistical information, users simply agreed or disagreed with each post. If users were offended, bored or uninterested in the information being shared, they would likely discontinue use of the site. In fact, according to the data aggregated by Facebook, only five users stopped following the site over the course of the four weeks. Instead, the number of followers consistently increased throughout the month, arguing for the continued interest of those reading the content. While there are no data associated with the curriculum developed for this intervention model, the positive reception of the social media site fosters hope that it too will be well-received by adolescents.

**Implications for Clinical Social Work**

Interventions that employ Social Norms Theory to effectively address potentially risky behaviors among adolescents—in this instance a too-early sexual debut-- have the potential to advance the knowledge base and practice of clinical social work. As demonstrated in this dissertation, the employment of social media allows social workers to reach a large number of individuals at once. Not only does this increased access allow for more time-and cost-effective
interventions, it can support the case for increased allocation of resources for prevention programming.

Given their commitment to considering environment and context when developing programs, clinical social workers are uniquely equipped to implement interventions grounded in Social Norms Theory. Interventions like the ones described in this dissertation can be adapted for program development in a variety of educational and clinical settings. Additional implications therefore include the need for Social Norms Theory literature to be discussed in clinical social work educational curricula. In particular, courses aimed at understanding human behavior could benefit by including the literature on peer perceptions and the demonstrated impact on decision making. Given that clinical social work curricula traditionally incorporate coursework in Human Behavior and the Social Environment, a more focused discussion of norms and associated concepts would challenge social workers to consider culture and diversity from a different perspective. In my experience, the discussion in these courses often focuses on culturally sensitive approaches to direct practice rather than how an individual’s decision to engage in a particular behavior is determined. A more substantial consideration of norms would allow for social workers to not only better understand the nature of environment as an influence, but how to intervene in a more effective way. Correcting a misperception can occur in a variety of settings, and I myself have found this to be a useful method for working with clients in both an individual and group format. With a greater understanding of how this corrective information can impact treatment outcomes, clinical social workers will be equipped with an additional tool to draw upon when providing direct care.

The inclusion of the theoretical underpinnings of SNT in clinical social work curricula could also result in conversations about the impact social marketing campaigns could have on
reducing unhealthy behaviors. Relevant to both program development and direct practice courses, considering alternative methods for disseminating information to clients would better equip clinical social workers to advocate on a macro level for policies that would support these types of interventions. Designing programs that are relevant to the population being targeted is a critical component to their overall efficacy. Social media itself has been embraced by many other fields and as seen here is both timely and relevant to adolescents in particular. Providing clinical social workers with the knowledge of how these types of interventions can be utilized is challenging the field to step into a more modern version of its practice.

Challenging the notion that clinical social work only refers to direct client contact is an important aspect of the evolution of the field. Many adolescents do not have direct access to a clinical social worker. As discussed in this dissertation, funding for many effective programs is never guaranteed as a result of the political arguments that impact such decisions. By increasing the reach of information that could be disseminated to our clients through the use of cost effective intervention models such as the one presented here, the field has the potential for not only increasing its influence, but credibility as well.

Limitations

The most obvious limitation to this project is the lack of research evidence to support the curriculum materials developed. An additional limitation is that employing the suggested curriculum requires a basic knowledge of sexual health education and/or adolescent development. While it is likely that clinical social workers in educational and psychotherapy settings have this knowledge, it is a prerequisite that may limit the comfort level of some professionals in using the materials.
The primary method for the social marketing campaign requires an adolescent have access to the internet. While the number of adolescents who are able to do so is quite high, adolescents coming from low-income families may not have ready access to the internet. Given this limitation, the use of the suggested curricular materials becomes that much more vital in that it increases the likelihood that adolescents receive the corrective statements irrespective of their ability to access the internet.

Norms differ widely based on race and socioeconomic status; thus, it is difficult to develop one comprehensive intervention that can account for these differences. Notably, African-American males may not in fact be overestimating the sexual behavior of their peers given the significantly higher prevalence among this population. Accounting for this variance is highlighted in the instructional component of the curriculum cautioning facilitators to consider the demographics of their population when using the materials. Alternatively, the potential exists for such subgroups to compare their immediate experience with the larger population, still allowing for the possibility to challenge misperceptions.

As alluded to above, the amount of statistical information available from which to derive corrective statements is limited. The social marketing campaign could therefore become limited in providing new information until more recent data sets become available. A further limitation specific to the Facebook site is that while the number of individuals who viewed the corrective statements was significant, knowledge about whether the intervention itself had an impact on their choices surrounding sexual behavior does not yet exist. Thus, given the research supporting the use of comprehensive sexual education programming referenced above, the intervention model developed here is intended for use as a *supplement* to existing programs and not likely to be effective on its own accord.
Future Recommendations

Research considering the impact of incorporating corrective statements into sexual education curricula is the next step in establishing the effectiveness of SNT-based intervention models. In order to do so, assessing whether efficacy increases with the addition of the proposed materials to already substantiated programs would be beneficial. Future efforts to substantiate the use of this curriculum should include conducting a series of separate focus groups with health educators, clinicians and adolescents exposed to the materials. Research considering the variance of adolescents’ sexual behavior both prior to and after receiving the curriculum would also be valuable in establishing its relevance.

Conducting an additional focus group to determine whether adolescents find the social media component relevant would assist in determining whether the materials should be adapted to increase interest in accessing this aspect of the intervention model. Due to the variance of norms among different groups, the development of social media sites providing information specific to gender, race and/or sexual orientation might provide an additional resource for adolescents based on their particular group. For example, one Facebook page might post corrective statements based only on statistical data regarding African-American males, while another might focus on LGBTQ youth. In response to the possibility that not all adolescents can access the Facebook page, future creation of materials that could be distributed using a different format might also be considered in order to expand the reach of this intervention model.

Conclusion

Delaying the sexual debut of adolescents can result in the overall reduction of STIs and unintended pregnancy rates and is a critical point of intervention when considering unhealthy sexual behaviors among youth. SNT has the potential to influence the development of
intervention models that focus primarily on norms. Utilizing corrective statements based on factual data to alter an adolescents’ misperception about the sexual behavior of their peers could supplement existing programs already found to be effective. Removing value based content and focusing on norms might seem less threatening to adolescents and professionals alike. Providing corrective information through such a visible format as Facebook has the potential for bringing clinical social work interventions into a modern format that might be more readily received by adolescents. Capitalizing on the accessibility of adolescents through the use of social media is a relevant, timely and cost-effective approach to expanding the scope of clinical social work practice.
Appendix A

Teen Sex Facts

Know the facts about teen sex. Who is doing it and how can you stay informed?
Appendix B

1. 76% of teens say they are NOT currently sexually active (CDC, 2011).
2. 52% of high school students say that they have never had sex (CDC, 2011).
3. 85% of teens that are sexually active have had sex with fewer than five partners (CDC, 2011).
4. 60% of teens report using a condom the last time they had sex (CDC, 2011).
5. 94% of teens WAIT to have sex until they are at least 13 years old (CDC, 2011).
6. 47% of Gay and Lesbian teens say that they are NOT currently sexually active (YRBSS, 2011).
7. 67% of 9th graders report that they are virgins and have never had sex (CDC, 2011).
8. 76% of teen girls say that they are NOT currently sexually active (CDC, 2011).
9. 87% of teens report using some form of birth control the last time they had sex (CDC, 2011).
10. The percentage of teens that report ever having sex has decreased in the last twenty years (Guttmacher, 2013).
11. 58% of teens that identify as LGBT used a condom the last time they had sex (YRBSS, 2011).
12. 54% of high school girls have never had sex (CDC, 2011).
13. 82% of teen boys have had sex with fewer than five partners (CDC, 2011).
14. 67% of teen boys report using a condom the last time they had sex (CDC, 2011).
15. 54% of teen girls report using a condom the last time they had sex (CDC, 2011).
Appendix C

Teen Sex Info is part of a dissertation research project at the University of Pennsylvania. This page offers facts about teens and sex.

- No names will be used in the report of this project.
- Only the number of “likes” will be counted for the report.
- When you “like” or post, it can be seen by the public and cannot be kept private.
- To remove a comment or post, private message the site administrator.
- No private messages will be used in the report.
- You can view this page without “liking” it.
Appendix D

Posted as a Status Update periodically throughout the four week period:

*For support in making choices about sex, talk to your parents, school counselor, teachers, therapist, doctor or other trusted adults.*
## Marzano Questioning Fact Sheet

<table>
<thead>
<tr>
<th>Level of Thinking Skill</th>
<th>Processes Involved</th>
<th>Verbs Involved</th>
<th>Question Stems to Use</th>
</tr>
</thead>
</table>
| Knowing                 | • focusing on needed information  
                         • defining the problem  
                         • setting goals for solving problems  
                         • obtaining information through the senses  
                         • formulating questions for inquiry  
                         • storing information in long-term memory  
                         • recalling information from long-term memory  | • categorize  
                         • group  
                         • classify  
                         • compare  
                         • contrast  | • Who did ___?  
                         • When was ___?  
                         • What is ___?  
                         • Identify the ___ in the ____.  
                         • Describe  
                         • Which ___ best defines ___?  
                         • Which ___ is characteristic of ___?  
                         • Which ___ is an example of ___?  |
| Organizing              | • comparison – noting similarities and differences  
                         • classifying – grouping and labeling entities  
                         • ordering – sequencing entities by a criterion  
                         • representing – changing the form but not the substance of information  | • categorize  
                         • group  
                         • classify  
                         • compare  
                         • contrast  | • Categorize ___ according to ____.  
                         • Classify ___ according to ____.  
                         • How is ___ alike or different from ___?  
                         • What is most (or least) important about ___?  
                         • In your own words, tell ____.  |
| Applying                | • using information for practical purposes  
                         • demonstrating prior knowledge within a new situation  
                         • bringing together appropriate information for problems  
                         • using generalizations to solve problems  | • apply  
                         • make  
                         • show  
                         • record  
                         • construct  
                         • demonstrate  
                         • illustrate  | • Give some instance which ____?  
                         • How is ___ related to ____?  
                         • How is ___ an example of ____?  
                         • How would you use this information?  
                         • What do you need to solve this problem?  
                         • What are possible solutions to ____?  |
| Analyzing               | • clarifying information by studying parts and relationships  
                         • identifying attributes and components  
                         • determining the characteristics of an entity  
                         • identifying relationships and patterns  
                         • identify the main idea or central element  
                         • establishing the hierarchy of key ideas  
                         • identifying errors and logical fallacies  | • outline  
                         • diagram  
                         • differentiate  
                         • analyze  | • What are the attributes of ____?  
                         • What evidence can you list for ____?  
                         • What are the components, parts or features of ____?  
                         • What patterns or relationships do you see in ____?  
                         • Outline, web, or diagram ____?  
                         • What are the main ideas ____?  
                         • What can be concluded about ____?  |
| Generating          | • producing new information, meaning, or ideas  
|                    | • inferring – going beyond available information 
|                    | • predicting – anticipating next events or outcomes  
|                    | • elaborating – explaining by adding additional details, examples, or other relevant information  
|                    | • conclude  
|                    | • predict  
|                    | • infer  
|                    | • explain  
|                    | • elaborate  
|                    | • How many ways can you think of to ___?  
|                    | • What would happen if ___?  
|                    | • Predict what would be true if ___.  
|                    | • How can you explain ____?  
|                    | • Elaborate about ____?  
|                    | • What would you predict/infer from ____?  
|                    | • What solutions would you suggest for ____?  
|                    | • If you were ___, how would you have ____?  
| Integrating        | • connecting and combining information  
|                    | • summarizing – restructuring information efficiently  
|                    | • restructuring – changing existing knowledge structures to incorporate new information  
|                    | • combine  
|                    | • summarize  
|                    | • design  
|                    | • imagine  
|                    | • generalize  
|                    | • Devise a plan ___.  
|                    | • Summarize ___.  
|                    | • How many ways can you think of to ____?  
|                    | • Conclude what the result would be if ___.  
|                    | • What generalizations can you make?  
|                    | • If you could pull this all together in 3-4 sentences, what you would say?  
| Evaluating         | • assessing the reasonableness and quality of ideas  
|                    | • establishing criteria for judging  
|                    | • verifying the accuracy of claims  
|                    | • judge  
|                    | • evaluate  
|                    | • rate  
|                    | • verify  
|                    | • assess  
|                    | • define criteria  
|                    | • What do you think about ____? Why?  
|                    | • Which ____ is most significant and why?  
|                    | • What are your sources? How do you know they are credible?  
|                    | • Did you detect any biases?  
|                    | • Judge what would be the best way to ____  
|                    | • What criteria did you use?  
|                    | • What is your point of view about this?  
|                    | • Are there other points of view about this?  
|                    | • How effective was ____?  
|
Appendix F

For the Instructor or Facilitator:

The following curriculum is designed for use with adolescents aged 13-15 years old. The purpose of these materials is to provide supplemental instruction to an already existing sexual education curriculum. The group and classroom activities are grounded in the tenets of Social Norms Theory, and are intended to provide information that might correct adolescents’ misperceptions about the sexual activity of their peers.

Please note that adolescent sexual behavior varies by culture, race, gender and sexual orientation. While the activities take these variances into consideration, some sub-groups may not in fact overestimate the sexual behavior of their immediate peer group. In particular, African-American and Hispanic males are reported to engage in sexual activity at a younger age at higher rates than their counterparts. The use of this curriculum is believed to remain relevant to these sub-groups; however, facilitators should consider whether the participants are comparing themselves to the larger cultural norm or their immediate reference group when processing these activities. All data used to support these materials can be found by accessing reports from the CDC, HHS, YRBSS and NHRS. As new reports become available, the most recent statistical information should be considered to ensure information provided to adolescents is based on current trends.

Please contact the creator of this curriculum for additional guidance for its use:

Anna M Gerard, LCSW
annagerard@carlbrook.org

References:


Teen Sexual Health: Correcting Misperceptions of Behavior

Classroom/Psychotherapy Group Activity: Lesson 1 - Anonymous Survey and Human Graph (Melin, 2013)

Target Population: Adolescents aged 13-15 years old
Time Needed: ~50 minutes
Recommended Number of Group Participants: 8-12 (note: for classroom use, large group processing may be difficult to manage with more students and may be omitted if deemed appropriate by the facilitator/instructor).

INTRODUCTION

Objectives

The primary objective of this activity is to assess the presence of misperceptions among students in preparation for the teaching of sexual health educational content.

The secondary objective of this activity is to challenge students’ possible misperceptions that their peers are engaging in sexual activity more frequently than statistical data would indicate.

TASK(S)

Students will participate in an anonymous survey, where they will be asked questions regarding the behavior of their peers either through an online resource (surveymonkey) or printed format.

Upon completion of the survey, students’ perceptions will be compared with accurate data regarding the sexual behavior of early adolescents based on the answer key provided.

Instructors will facilitate a processing discussion about whether students held misperceptions and if present, how this might influence their decision to engage in sexual activity.

ACTIVITY/PROCESS

Introduction: Introduce the topic of sexual health and behavior as today’s lesson. The activities should be suggested as helping students determine whether they fit in with their peers regarding choices to engage in a variety of sexual behaviors.

Survey: Students will individually answer questions about sexual activity and what behaviors they perceive their peers to be engaging in. These surveys should be anonymous, so that students do not feel self-conscious and will be more likely to provide honest answers. This can be facilitated in two ways:

- Internet Access: For educational environments where students have individual access to the internet via iPads, laptop computers, etc., students can fill out an anonymous survey through survey monkey. The result of the survey can be immediately collated by the instructor, who will be able to compare student answers with the accurate data provided.
Teen Sexual Health: Correcting Misperceptions of Behavior

Classroom/Psychotherapy Group Activity: Lesson 1 - Anonymous Survey and Human Graph (Melin, 2013)

Target Population: Adolescents aged 13-15 years old
Time Needed: ~50 minutes
Recommended Number of Group Participants: 8-12 (note: for classroom use, large group processing may be difficult to manage with more students and may be omitted if deemed appropriate by the facilitator/instructor).

- Paper Method: For educational environments without individual access to the internet, students can take the paper survey included in this lesson plan. To foster anonymity, the following suggested exercise should be used: Each student crumples up their survey once it has been completed and throws it into a pile in the center of the room. Once all members of the class have completed their survey, each student is invited to randomly select a survey to share with the class ensuring that students do not need to disclose their own answers.

Human Graph (Melin, 2013): The instructor should write the letters A, B, C, D somewhere prominently in the front of the room, forming four sections in front of one of which students will stand. The instructor will read each question from the survey, and students will stand in front of the letter that corresponds with the answer provided on their survey. Note: for instructors using survey monkey an alternative method for facilitating the human graph exercise might be to print off the anonymous surveys, randomly distribute them to the class, and have students use this as the basis for where they position themselves. After students place themselves into their respective letters, the instructor will read the accurate answer and take time to notice how many students responded correctly. Note: Instructors should take care after each statement is read to point out to students how many of their peers were incorrect or overestimated the sexual behavior of their peers. The instructor will proceed through all questions from the survey in this manner.

Discussion: Students should return to their seats after all survey answers have been given to discuss their reactions. The instructor should encourage students to share whether they were surprised, don't believe the statistics, etc. Some possible discussion questions might include:

1. How confident were you in knowing whether your peers have had sex?
2. Were there any answers in particular that surprised you?
3. Did today's exercise change your belief about whether your friends have had sex?
4. How likely is it that you might wait to have sex knowing your friends are also waiting?

RESOURCES

Survey – see attached

Reference:
The Human Graph activity was adapted from:

Statistical Statements were adapted from reports provided by the CDC, HHS, YRBSS and NHSR.
Teen Sex Survey: Please answer the following questions based on what you believe your peers are doing when it comes to sex.

1. What percentage of teens have not already had sexual intercourse by the time they are 15 years old?
   a. 50%
   b. 60%
   c. 70%
   d. 87%

2. Among teenage girls in high school, how many have not yet had sexual intercourse by the time they are 17 years old?
   a. 10%
   b. 27%
   c. 40%
   d. 73%

3. True or False: Most teens that are sexually active say they have had sexual intercourse with at least six partners.
   a. True
   b. False

4. How many teens are virgins when they enter 9th grade?
   a. 50%
   b. 65%
   c. 73%
   d. 67%

5. What percentage of teen boys have not had oral sex until they are at least 17 years old?
   a. 40%
   b. 54%
   c. 62%
   d. 75%

6. Of teens who identify as Gay or Lesbian, what percentage report using a condom the last time they had sexual intercourse?
   a. 20%
   b. 25%
   c. 30%
   d. 36%
7. Among teen girls, what percentage have had no sexual contact (oral, anal or vaginal) by the age of 17 years old?
   a. 50%
   b. 60%
   c. 74%
   d. 80%

8. True or False: Most teens do not use condoms when they have sexual intercourse.
   a. True
   b. False

9. The percentage of teen girls that have not had oral sex by the time they are 17 years old is:
   a. 40%
   b. 54%
   c. 60%
   d. 68%

10. The number of teens in high school that are waiting to have sexual intercourse is:
    a. 40%
    b. 47%
    c. 52%
    d. 70%

11. The percentage of Gay and Lesbian teens that report being sexually active in high school (having sexual intercourse) is:
    a. 23%
    b. 36%
    c. 39%
    d. 47%

12. True or False: The number of teens that have had sexual intercourse has increased in recent years.
    a. True
    b. False
13. The percentage of teen girls that report their first sexual intercourse was with a steady partner is:
   a. 40%
   b. 55%
   c. 60%
   d. 70%

14. If a teen does not use any protection during sexual intercourse, how likely is it that they will become pregnant (or get their partner pregnant) within one year?
   a. 50%
   b. 75%
   c. 80%
   d. 90%

15. What percentage of teens report using a condom the last time they had sexual intercourse?
   a. 40%
   b. 55%
   c. 60%
   d. 65%

16. What percentage of Bi-Sexual teens report using a condom the last time they had sexual intercourse?
   a. 30%
   b. 45%
   c. 50%
   d. 54%

17. True or False: The majority of teenage African-American girls used some kind of protection against pregnancy the last time they had sexual intercourse.
   a. True
   b. False

18. Of teens that have had sexual intercourse, 80% say they have had fewer than how many partners?
   a. 10
   b. 12
   c. 6
   d. 5
19. Among teenage Hispanic girls that have had sexual intercourse, how many used some kind of protection against pregnancy the last time they had sex?
   a. 40%
   b. 55%
   c. 76%
   d. 80%

20. By the age of 17 years old, what percentage of teen boys have not yet had vaginal intercourse?
   a. 52%
   b. 65%
   c. 70%
   d. 85%
Teen Sex Survey – Answer Code

1. What percentage of teens have not already had sexual intercourse by the time they are 15 years old?
   
   Answer: d) 87%

2. Among teenage girls in high school, how many say they are waiting to have sexual intercourse until they are at least 17 years old?
   
   Answer: d) 73%

3. True or False: Most teens that are sexually active say they have had at least six partners.

   Answer: False

   Among teens that have had sexual intercourse, 80% have had fewer than 5 partners. 84% of teens have had sexual intercourse with fewer than four partners in their lifetime.

4. How many teens are virgins when they enter 9th grade?

   Answer: d) 67%

5. What percentage of teen boys have not had oral sex until they are at least 17 years old?

   Answer: c) 62%

6. Of teens who identify as Gay or Lesbian, what percentage report using a condom the last time they had sexual intercourse?

   Answer: d) 36%

7. Among teen girls, what percentage have had no sexual contact (oral, anal or vaginal) by the age of 17 years old?

   Answer: b) 60%
8. True or False: Most teens do not use condoms when they have sexual intercourse.

   **Answer:** False

   60% of teens used a condom the last time they had sexual intercourse

9. The percentage of teen girls that have not had oral sex by the time they are 17 years old is:

   **Answer:** d) 68%

10. The number of teens in high school that say they are waiting to have sexual intercourse is:

    **Answer:** c) 52%

11. The percentage of Gay and Lesbian teens that report being sexually active in high school (having sexual intercourse) is:

    **Answer:** d) 47%

12. True or False: The number of teens that have had sexual intercourse has increased in recent years.

    **Answer:** False

    The proportion of teens that have never had sexual intercourse has increased by 16% across all racial groups from 1995 to 2010.

13. The percentage of teen girls that report their first sexual intercourse was with a steady partner is:

    **Answer:** d) 70%

14. If a teen does not use any protection during sexual intercourse, how likely is it that they will become pregnant (or get their partner pregnant) within one year?

    **Answer:** d) 90%

15. What percentage of teens report using a condom the last time they had sexual intercourse?

    **Answer:** c) 60%
16. What percentage of Bi-Sexual teens report using a condom the last time they had sexual intercourse?

Answer: d) 54%

17. True or False: The majority of teenage African-American girls used some kind of protection against pregnancy the last time they had sexual intercourse.

Answer: True

82% of sexually active girls used some form of contraceptive the last time they had intercourse. 74% of African-American girls used some form of contraceptive the last time they had intercourse.

18. Of teens that have had sexual intercourse, 80% say they have had fewer than how many partners?

Answer: d) 5

19. Among teenage Hispanic girls that have had sexual intercourse, how many used some kind of protection against pregnancy the last time they had sexual intercourse?

Answer: c) 76%

20. By the age of 17 years old, what percentage of teen boys have not yet had vaginal intercourse?

Answer: c) 70%
Appendix H

Teen Sexual Health: Correcting Misperceptions of Behavior

Classroom Activity/Psychotherapy Group: Lesson 2 - Brainstorming and Processing
Target Population: Adolescents aged 13-15 years old
Time Needed: ~50 minutes
Recommended Number of Group Participants: 8-12 (note: for classroom use, large group processing may be difficult to manage with more students and may be omitted if deemed appropriate by the facilitator/instructor).

INTRODUCTION

Objectives:

The primary objective of this activity is to expand upon the misperceptions identified in lesson #1 and explore common myths driving adolescents' beliefs about the sexual activity of their peers.

The secondary objective of this activity is to foster group processing among peers and to allow for instructors/group facilitators to provide corrective information to adolescents.

TASK(S)

Students will be divided into small groups of 2-3 to brainstorm and discuss common myths or beliefs about the sexual activity of their peers.

Students will share brainstorm with larger group/classroom to further discuss these possible misperceptions.

Instructors/Facilitators will offer corrective information in a didactic format to challenge these misperceptions.

ACTIVITY/PROCESS

Introduction: Introduce the topic of sexual health and behavior as today’s lesson as a follow up to the previous class/group session. Students should be reminded that the activities are designed to help students determine whether they fit in with their peers regarding choices to engage in a variety of sexual behaviors and to further explore some of the common misperceptions associated with this topic.

Establish Group Expectations and Norms: Explain that students will be randomly paired into groups of 2-3 and should work together to brainstorm everything they “know” about or have heard about teen sexual behavior. The importance of mutual respect among peers should be emphasized, including a discussion about the sensitivity of this topic and protecting each other’s privacy. (See attached for suggested group agreements that may be altered to ensure appropriateness for the group or classroom context).

Group Assignment: Divide students into small groups of 2-3 using a randomized process (i.e. high tech environments can use an “app” like Team Shake that will do this, or low tech methods can simply have students count off).
Teen Sexual Health: Correcting Misperceptions of Behavior

Classroom Activity/Psychotherapy Group: Lesson 2 - Brainstorming and Processing

Target Population: Adolescents aged 13-15 years old

Time Needed: ~50 minutes

Recommended Number of Group Participants: 8-12 (note: for classroom use, large group processing may be difficult to manage with more students and may be omitted if deemed appropriate by the facilitator/instructor).

**Small Group Brainstorm:** Provide each group with one large white sheet of paper and each student with a different colored marker (note: the different colors ensure that all group members participate by making sure their color is seen on the paper). Ask the group to begin brainstorming what they believe to know about teen sexual behavior/what their peers are commonly doing when it comes to sex. Emphasize that each student is expected to contribute to the list. After approximately 3 minutes of brainstorming, announce that each group can send one “spy” around the room to read what other groups have written (this tends to be fun for adolescents).

**Large Group Discussions:** Once everyone has completed their list, each small group will share with the larger class/group their ideas. These are listed in the front of the room by the instructor/facilitator, noting any trends or commonalities between groups.

**Identification of Misperceptions and Provision of Corrective Information:** Once all of the ideas have been collated and are at the front of the room, the instructor/facilitator asks students to identify which items might be myths vs. facts. The myths are circled (the instructor/facilitator will need to be informed ahead of time to ensure they are versed in directing students during this portion of the exercise. See attached information sheet). Once the myths have been identified, the instructor/facilitator engages in a didactic discussion with the class/group to correct these misperceptions (again, drawing on information provided in the attached fact sheet).

**RESOURCES**

- Suggested Group Agreements
- Attached fact sheet

Basic understanding of sexual education (i.e. many students might include myths about whether they can get pregnant, be infected with an STI, etc. that might reach beyond the statistical data provided in this lesson).
Group Agreements:

- Everything said in the group is confidential and should not be shared outside of class/group
- Be respectful of your peers
- Everyone should contribute to the best of their ability
- No discouraging or judging remarks should occur
- Caring feedback to your group peers is encouraged

Corrective Information Facts (all data provided are based on findings as reported by the CDC, HHS and YRBSS)

- 94% of teens wait to have sexual intercourse until they are at least 13 years old
- 87% of teens wait to have sexual intercourse until they are at least 15 years old
- 90% of teens will get pregnant within 1 year if they do not use condoms or birth control during sexual intercourse
- 52% of current high school students say that they are waiting to have sexual intercourse and have never had sexual intercourse
- 67% of 9th graders have never had sexual intercourse
- 73% of girls between the ages of 15-17 years old have never had sexual intercourse
- Among teenage girls that have had sexual intercourse, 60% use highly effective contraceptive methods such as IUDs and hormonal birth control
- 60% of teens used a condom the last time they had sexual intercourse
- Among teens that have had sexual intercourse, 85% have had fewer than 5 partners
- The proportion of teens that have never had sexual intercourse has increased by 16% across all racial groups from 1995 to 2010
- 82% of sexually active girls used some form of contraceptive the last time they had intercourse
- 74% of African-American girls used some form of contraceptive the last time they had intercourse
- 76% of Hispanic girls used some form of contraceptive the last time they had intercourse
- 85% of White teens used some form of contraceptive the last time they had intercourse
- 84% of teens have had sexual intercourse with fewer than four partners in their lifetime
- 47% of LGBT teens report that they are not currently sexually active; 68% of Questioning teens are not currently sexually active
- 36% of Lesbian and Gay teens used a condom during last intercourse; 46% of Bi-sexual teens used a condom during last intercourse
- 80% of Lesbian and Gay teens wait until they are at least 13 years old to have sexual intercourse.
- 85% of Bi-sexual teens wait until they are at least 13 years old to have sexual intercourse
- 87% of Questioning teens wait until they are at least 13 years old to have sexual intercourse
- 70% of Lesbian and Gay teens have sexual intercourse with less than five sexual partners; 72% of Bi-Sexual teens and 81% of Questioning teens have had sexual intercourse with fewer than five partners

Reference:

The small group activity was adapted from:

Statistical Statements were adapted from reports provided by the CDC, HHS, YRBSS and NHSR.
## Teen Sexual Health: Correcting Misperceptions of Behavior

### Classroom Activity/Psychotherapy Group: Lesson 3 - Brainstorm and Processing

**Target Population:** Adolescents aged 13-14 years old  
**Time Needed:** ~50 minutes  
**Recommended Number of Group Participants:** 8-12 *(note: for classroom use, large group processing may be difficult to manage with more students and may be omitted if deemed appropriate by the facilitator/instructor).*

### INTRODUCTION

**Objectives:**

- The primary objective of this activity is to expand upon the misperceptions identified in previous lessons and explore common myths driving adolescents’ beliefs about the sexual activity of their peers.
- The secondary objective of this activity is to foster group processing among peers and to allow for instructors/group facilitators to provide corrective information to adolescents.

### TASK(S)

- Students will be divided into small groups of 2-3 to brainstorm and discuss common myths or beliefs about the sexual activity of their peers.
- Students will work together to separate myths from facts regarding the sexual behavior of their peers.
- Instructors/Facilitators will offer corrective information in a didactic format to challenge these misperceptions.

### ACTIVITY/PROCESS

**Introduction:** Introduce the topic of sexual health and behavior as today’s lesson as a follow up to the previous class/group session. Students should be reminded that the activities are designed to help students determine whether they fit in with their peers regarding choices to engage in a variety of sexual behaviors and to further explore some of the common misperceptions associated with this topic.

**Establish Group Expectations and Norms:** Explain that students will be randomly paired into groups of 2-3 and should work together to brainstorm everything they “know” about or have heard about teen sexual behavior. The importance of mutual respect among peers should be emphasized, including a discussion about the sensitivity of this topic and protecting each other’s privacy. (see attached for suggested group agreements that may be altered to ensure appropriateness for the group or classroom context).

**Group Assignment:** Divide students into small groups of 2-3 using a randomized process (i.e. high tech environments can use an “app” like Team Shake that will do this, or low tech methods can simply have students count off).
**Teen Sexual Health: Correcting Misperceptions of Behavior**

**Classroom Activity/Psychotherapy Group: Lesson 3 - Brainstorm and Processing**  
**Target Population:** Adolescents aged 13-14 years old  
**Time Needed:** ~50 minutes  
**Recommended Number of Group Participants:** 8-12 *(note: for classroom use, large group processing may be difficult to manage with more students and may be omitted if deemed appropriate by the facilitator/instructor).*

**Small Group Activity:** Provide each group with one set of Myth vs. Fact cards, one large piece of paper and adhesive (glue sticks or tape will work well). Ask students to create three columns on their piece of paper, with the categories: Myth, Fact or Unsure listed at the top. Students should then separate their stack of cards into three columns based on whether they believe the statement is a Myth, Fact or are Unsure.

**Large Group Discussions:** Once all groups have separated their cards into the respective columns, provide each group with a sheet of stickers. The instructor/facilitator goes through each statement and discusses with the students whether it is a fact or myth. Students place a sticker on the cards that they answered correctly, and may move any from the unsure column to its correct column.

**Identification of Misperceptions and Provision of Corrective Information:** Once all of the statements have been discussed (which should be done in a didactic way encouraging questions and clarification as needed), the answer key (see attached) should be distributed.

**RESOURCES/MATERIALS**

- Suggested Group Agreements
- Myth vs. Fact Cards Template (one copy for each group + scissors if not pre-cut)
- Large Sheets of Paper (one for each group)
- Attached answer key/handout

Basic understanding of sexual education (i.e. many students might include myths about whether they can get pregnant, be infected with an STI, etc. that might reach beyond the statistical data provided in this lesson).
Group Agreements:

- Everything said in the group is confidential and should not be shared outside of class/group
- Be respectful of your peers
- Everyone should contribute to the best of their ability
- No discouraging or judging remarks should occur
- Caring feedback to your peers is encouraged.

Corrective Information Facts (all data provided are based on findings as reported by the CDC, HHS and YRBSS)

- 94% of teens wait to have sexual intercourse until they are at least 13 years old
- 87% of teens wait to have sexual intercourse until they are at least 15 years old
- 90% of teens will get pregnant within 1 year if they do not use condoms or birth control during sexual intercourse
- 52% of current high school students say that they are waiting to have sexual intercourse and have never had sexual intercourse
- 67% of 9th graders have never had sexual intercourse
- 73% of girls between the ages of 15-17 years old have never had sexual intercourse
- Among teenage girls that have had sexual intercourse, 60% use highly effective contraceptive methods such as IUDs and hormonal birth control
- 60% of teens used a condom the last time they had sexual intercourse
- Among teens that have had sexual intercourse, 85% have had fewer than 5 partners
- The proportion of teens that have never had sexual intercourse has increased by 16% across all racial groups from 1995 to 2010
- 82% of sexually active girls used some form of contraceptive the last time they had intercourse
- 74% of African-American girls used some form of contraceptive the last time they had intercourse
- 76% of Hispanic girls used some form of contraceptive the last time they had intercourse
- 85% of White teens used some form of contraceptive the last time they had intercourse
- 84% of teens have had sexual intercourse with fewer than four partners in their lifetime
- 47% of LGBT teens report that they are not currently sexually active; 68% of Questioning teens are not currently sexually active
- 36% of Lesbian and Gay teens used a condom during last intercourse; 46% of Bi-sexual teens used a condom during last intercourse
• 80% of Lesbian and Gay teens wait until they are at least 13 years old to have sexual intercourse.
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• 87% of Questioning teens wait until they are at least 13 years old to have sexual intercourse
• 70% of Lesbian and Gay teens have sexual intercourse with less than five sexual partners; 72% of Bi-Sexual teens and 81% of Questioning teens have had sexual intercourse with fewer than five partners
The majority of teens have already had sex by the time they are 15 years old (MYTH): Sometimes it can seem like a lot of teens have already had sex at a pretty young age, but most actually wait until they are older. In fact, 87% of teens say that they have not yet had sex by the age of 15 years old.

The number of teens having sex is different across race and culture (FACT): It’s true that some teens are having sex at a younger age than others, but despite these differences, the majority (94%) wait until they are at least 13 years old. In fact, 79% of African-American males and 91% of Hispanic males have not yet had sex by the time they are 13 years old.

If a teen waits to have sex until after high school, they are pretty different from their friends (MYTH): A lot of teenagers wait to have sex, in fact 52% of all high school students are waiting to have sex. It seems that by not having sex, you are actually more like your friends than you probably thought!

Teens that wait to have sex until they are older than 15 years old are less likely to have unintended pregnancies (FACT): Research shows teens that have sex at a young age and especially if they have sex before they are 15 years old, have a much higher risk for unintended pregnancies and being infected with a sexually transmitted disease. The longer you wait, the more likely you are to learn how to make informed decisions that better protect yourself from these unintended consequences of unsafe and risky sex.

The number of teens that have had oral sex is much greater than the number of teens that have had sexual intercourse (MYTH): It’s actually pretty similar – about 55% of teens in high school have had oral sex just a few more than the 48% that have had intercourse.

Most teenage girls wait until they are at least 17 years old before having sex (FACT): Teenage girls report that 73% have still not had sex by the time they turn 17 years old. Waiting to have sex is way more common than having sex in high school, who knew?

The number of teens that have had sex has increased in recent years (MYTH): Teens having sex gets a lot of hype on TV and in the media but the truth is that the number of teens that are having sex has actually decreased over the last six years.

Most teens that have had sex tend to have a lot of different sexual partners (MYTH): The majority of teens that are sexually active have had fewer than four partners in their lifetime. It sounds like monogamy is more popular than you may have thought!

Teens typically do not use a condom when they have sex (MYTH): It is actually more common for teens to use a condom than to have unprotected sex. While there is still a lot of room for improvement, and hopefully one day all teens will use a condom every time they have sex, currently 60% say they used a condom the last time that they had sex.
Very few teens have had sex by the time they are 13 years old (FACT): The media tells us that the number of teens having sex at a young age is growing, but the truth is that less than 6% of teens have had sex by the time they are 13 years old. That means 94% are waiting until they are much older to have sex. That’s almost everybody!

A large majority of teens have not had sex by the time they reach high school (FACT): Because teens are waiting until they are a little older to have sex, most are still virgins when they enter high school in the 9th grade. In fact, 67% percent of 9th graders have never had sex.

Teens that have sex without using a condom or birth control are VERY likely to have an unintended pregnancy (FACT): IT’S TRUE!! If teens do not use any form of contraceptive (as in NO condom and NO birth control) they have a 90% chance of getting pregnancy within one year.

Using contraceptives (birth control, condoms, etc.) is a common practice for teens that have sex (FACT): The good news is that many teens are now using condoms, or other forms of birth control to prevent unintended pregnancy when having sex. In fact, recently it was found that 82% of all teenage girls used some form of contraceptive (this can include condoms) when having sex.

There are more teens in high school waiting to have sex than have had sex (FACT): Yup, it’s true! Most high school teen say that they are waiting to have sex (52%), which is even higher for girls (73%).

It would be uncommon for a teen to have sex before they are 15 years old (FACT): 87% of teens wait to have sex until they are at least 15 years old, which is great! If a teen waits to have sex until have they are a bit older they are much less likely to get pregnant or contract a sexually transmitted infection. Waiting can help protect teens from a lot of unintended consequences that can come from having sex.
# Myth vs. Fact Card Template

<table>
<thead>
<tr>
<th>Myth</th>
<th>Fact</th>
<th>Myth</th>
<th>Fact</th>
</tr>
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<tbody>
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</table>
# Teen Sexual Health: Correcting Misperceptions of Behavior

<table>
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<tr>
<th>Classroom Activity/Psychotherapy Group: Lesson 4 - Challenging Misperceptions in the Media</th>
</tr>
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<tbody>
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## INTRODUCTION

Objectives:

The primary objective of this activity is to expand upon the misperceptions identified in previous lessons and explore common myths driving adolescents’ beliefs about the sexual activity of their peers.

The secondary objective of this activity is to foster group processing among peers and to allow for instructors/group facilitators to provide corrective information to adolescents.

## TASK(S)

Students will be divided into small groups of 4 to read an article and consider how its content might contribute to a misperception about sexual behavior among adolescents.

Students will share their findings with larger group/classroom to further discuss these possible misperceptions.

Instructors/Facilitators will process the presence of misperceptions resultant of mainstream media outlets.

## ACTIVITY/PROCESS

**Introduction:** Introduce the topic of sexual health and behavior as today’s lesson as a follow up to the previous class/group session. Students should be reminded that the activities are designed to help them determine whether they fit in with their peers regarding choices to engage in a variety of sexual behaviors and to further explore some of the common misperceptions associated with this topic.

**Establish Group Expectations and Norms:** Explain that students will be randomly paired into groups of 4 and will be provided with 4 copies of a pre-determined article that addresses sexual behavior among early adolescents (see Resources). The importance of mutual respect among peers should be emphasized, including a discussion about the sensitivity of this topic and protecting each other’s privacy. (see attached for suggested group agreements that may be altered to ensure appropriateness for the group or classroom context).
Teen Sexual Health: Correcting Misperceptions of Behavior

Classroom Activity/Psychotherapy Group: Lesson 4 - Challenging Misperceptions in the Media

Target Population: Adolescents aged 13-15 years old

Time Needed: ~50 minutes

Recommended Number of Group Participants: 8-12 (note: for classroom use, large group processing may be difficult to manage with more students and may be omitted if deemed appropriate by the facilitator/instructor).

**Group Assignment:** Divide students into small groups of 4 using a randomized process (i.e. high tech environments can use an “app” like Team Shake that will do this, or low tech methods can simply have students count off).

**Small Group Brainstorm:** Provide each group with four copies of a predetermined article and one piece of a blank sheet of paper that is folded into four equal sections. Ask that each student take a few minutes to read the article individually. Once all group members have finished, they will write their impressions or what they took away from the article in one of the four sections of the white paper. After all group members have contributed, there should be four sections filled in on the paper. Emphasize that each student is expected to contribute to the list. Once completed, the group should compare answers and discuss how their perception about the article might vary from that of their peers.

**Large Group Discussions:** Once everyone has completed their list, each small group will share with the larger class/group their ideas. These are to be listed in the front of the room by the instructor/facilitator, noting any trends or commonalities between groups.

**Processing of the Presence of Misperceptions and Sexual Content in Media:** Once all of the ideas have been collated and are at the front of the room, the instructor/facilitator allows for further discussion about the presence of sexual content in the media and how this might impact the misperception that teens are engaging in sexual activity more frequently than they are in reality.

**RESOURCES**

Suggested Group Agreements

Attached fact sheet

Suggested Articles: These are suggested articles only, and many pop culture stories about teens and sex are appropriate for this activity. Articles should be selected based on the appropriateness for each individual group of teens at the discretion of the instructor/facilitator.

http://www.nytimes.com/2009/01/27/health/27well.html?_r=0#

http://www.boston.com/bostonglobe/editorial_opinion/oped/articles/2009/01/03/the_truth_about_teens_and_sex/

http://www.psychologytoday.com/articles/200107/teens-and-sex


Basic understanding of sexual education (i.e. many students might include myths about whether they can get pregnant, be infected with an STI, etc. that might reach beyond the statistical data provided in this lesson).
**Group Agreements:**

- Everything said in the group is confidential and should not be shared outside of class/group
- Be respectful of your peers
- Everyone should contribute to the best of their ability
- No discouraging or judging remarks should occur
- Caring feedback to your group peers is encouraged

**Corrective Information Facts (all data provided are based on findings as reported by the CDC, HHS, YRBSS and NHSR)**

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Reference:
The small group activity was adapted from:

Statistical Statements were adapted from reports provided by the CDC, HHS, YRBSS and NHSR.
87% of teens WAIT to have sex until they are at least 15 years old.

Did you know that the majority of teens are not currently sexually active?

Learn what your friends are doing by following *Teen Sex Facts* on Facebook:

https://www.facebook.com/TeenSexFacts


Terpak,B., personal communication, September 26, 2012.

Trauger, H., Schick, C. Astor-Stetson, E. & Beck, B.L. (1998). Billy Joel was wrong: Relationship of attachment style, religion and alcohol use to college students’ sexual and intimacy-related beliefs, behaviors and traits. Poster session presented at the meeting of the Eastern Psychological Association, Boston, MA.


