

University of Denver

Digital Commons @ DU

Electronic Theses and Dissertations

Graduate Studies

1-1-2017

A Mixed Methods Examination of Pregnancy Attitudes and HIV Risk Behaviors Among Homeless Youth: The Role of Social Network Norms and Social Support

Stephanie J. Begun
University of Denver

Follow this and additional works at: <https://digitalcommons.du.edu/etd>



Part of the [Social Work Commons](#)

Recommended Citation

Begun, Stephanie J., "A Mixed Methods Examination of Pregnancy Attitudes and HIV Risk Behaviors Among Homeless Youth: The Role of Social Network Norms and Social Support" (2017). *Electronic Theses and Dissertations*. 1293.

<https://digitalcommons.du.edu/etd/1293>

This Dissertation is brought to you for free and open access by the Graduate Studies at Digital Commons @ DU. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons @ DU. For more information, please contact jennifer.cox@du.edu, dig-commons@du.edu.

A Mixed Methods Examination of Pregnancy Attitudes and HIV Risk Behaviors Among Homeless Youth: The Role of Social Network Norms and Social Support

Abstract

Homeless young women become pregnant at exceptionally high rates, and such pregnancies often pose serious emotional, social, and physical health concerns. Perhaps surprisingly, many homeless youth intentionally seek to become pregnant or involved in pregnancy, as pregnancy and parenthood are viewed as conduits toward accessing social services and meaningful social connections to others that this group often lacks. However, most prevention efforts focus solely on young females' pregnancy attitudes and behaviors at the individual level. Such approaches fail to acknowledge contextual factors, such as desired pregnancy and pregnancy ambivalence, the influence of youths' social networks and perceived social norms regarding pregnancy, youths' desire for social connection, and their dire needs for tangible resources, each of which may influence youths' reproductive and sexual health behaviors. This study thus drew upon theoretical perspectives pertaining to social networks, social norms, and social support, to examine how youths' broader ecological contexts may play a role in shaping homeless youths' pregnancy attitudes and, subsequently, their engagement in unprotected (condomless) vaginal sex. Using a sequential mixed methods design, this study first quantitatively examined social network data previously collected from homeless youth in Los Angeles ($N = 1,046$). A series of multivariate logistic regressions assessed the association between social norms regarding pregnancy, perceived by youth as conveyed by members of their social networks, and homeless youths' pro-pregnancy attitude endorsements. A model also examined how specific forms of social support, provided by youths' social network members, were associated with homeless youths' pro-pregnancy attitude endorsements. A final quantitative model then analyzed the association between homeless youths' endorsements of pro-pregnancy attitudes and their engagement in unprotected vaginal sex, a known risk factor for not only pregnancy, but also HIV/STI acquisition and transmission. The project then built upon findings from the quantitative study strand to develop an original qualitative interview guide. In-depth, individual interviews were conducted with homeless youth ($N = 30$) staying at a youth-serving shelter in Denver, Colorado. This qualitative strand of the study explored how homeless young people develop their pregnancy attitudes and make reproductive and sexual health decisions in the context of their social networks. Broadly, this study found that homeless youth do not appear to form their pregnancy attitudes in isolation, and rather, there are many salient influences found in their social surroundings that are associated with their reproductive and sexual attitudes and behaviors. Moreover, results showed that this population is in urgent need of accurate information on reproductive and sexual health information and services, as well as opportunities to interact with caring, non-judgmental medical and service providers. As such, this dissertation presents recommendations for how policy-makers, service providers, and medical professionals may deliver reproductive and sexual health information and services to this uniquely vulnerable population with optimal effectiveness and cultural humility.

Document Type

Dissertation

Degree Name

Ph.D.

Department

Social Work

First Advisor

Kimberly Bender, Ph.D.

Second Advisor

Jeffrey Jenson

Third Advisor

Anamika Barman-Adhikari

Keywords

Homeless youth, Pregnancy, Reproductive health, Sexual health

Subject Categories

Social Work

Publication Statement

Copyright is held by the author. User is responsible for all copyright compliance.

A Mixed Methods Examination of Pregnancy Attitudes and HIV Risk Behaviors Among Homeless
Youth: The Role of Social Network Norms and Social Support

A Dissertation

Presented to

the Faculty of the Graduate School of Social Work

University of Denver

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

Stephanie J. Begun

June 2017

Advisor: Kimberly Bender, Ph.D., M.S.W.

©Copyright by Stephanie J. Begun 2017

All Rights Reserved

Author: Stephanie J. Begun
Title: A Mixed Methods Examination of Pregnancy Attitudes and HIV Risk Behaviors Among Homeless Youth: The Role of Social Network Norms and Social Support
Advisor: Kimberly Bender, Ph.D., M.S.W.
Degree Date: June 2017

ABSTRACT

Homeless young women become pregnant at exceptionally high rates, and such pregnancies often pose serious emotional, social, and physical health concerns. Perhaps surprisingly, many homeless youth intentionally seek to become pregnant or involved in pregnancy, as pregnancy and parenthood are viewed as conduits toward accessing social services and meaningful social connections to others that this group often lacks. However, most prevention efforts focus solely on young females' pregnancy attitudes and behaviors at the individual level. Such approaches fail to acknowledge contextual factors, such as desired pregnancy and pregnancy ambivalence, the influence of youths' social networks and perceived social norms regarding pregnancy, youths' desire for social connection, and their dire needs for tangible resources, each of which may influence youths' reproductive and sexual health behaviors. This study thus drew upon theoretical perspectives pertaining to social networks, social norms, and social support, to examine how youths' broader ecological contexts may play a role in shaping homeless youths' pregnancy attitudes and, subsequently, their engagement in unprotected (condomless) vaginal sex. Using a sequential mixed methods design, this study first quantitatively examined social network data previously collected from homeless youth in Los Angeles ($N = 1,046$). A series of multivariate logistic regressions assessed the association between social norms regarding pregnancy, perceived by youth as conveyed by members of their social networks, and homeless youths' pro-pregnancy attitude endorsements. A model also examined how specific forms of social support, provided by youths' social network members, were associated with homeless youths' pro-pregnancy attitude endorsements. A final quantitative model then analyzed the association between homeless youths' endorsements of pro-pregnancy attitudes and their engagement in unprotected vaginal sex, a known risk factor for not only pregnancy, but also HIV/STI acquisition and transmission. The project then built upon findings

from the quantitative study strand to develop an original qualitative interview guide. In-depth, individual interviews were conducted with homeless youth ($N = 30$) staying at a youth-serving shelter in Denver, Colorado. This qualitative strand of the study explored how homeless young people develop their pregnancy attitudes and make reproductive and sexual health decisions in the context of their social networks. Broadly, this study found that homeless youth do not appear to form their pregnancy attitudes in isolation, and rather, there are many salient influences found in their social surroundings that are associated with their reproductive and sexual attitudes and behaviors. Moreover, results showed that this population is in urgent need of accurate information on reproductive and sexual health information and services, as well as opportunities to interact with caring, non-judgmental medical and service providers. As such, this dissertation presents recommendations for how policy-makers, service providers, and medical professionals may deliver reproductive and sexual health information and services to this uniquely vulnerable population with optimal effectiveness and cultural humility.

ACKNOWLEDGEMENTS

This work would not have been possible without the incredible generosity of time and dedication to my development as a scholar that has been provided to me by each member of my dissertation committee. Thank you for your valuable and caring mentorship, Dr. Kimberly Bender, Dr. Anamika Barman-Adhikari, and Dr. Jeffrey Jenson. Thank you, also, to Dr. Eric Rice, for generously allowing me to use such an information-rich data set for the quantitative portion of my dissertation. Special gratitude to Katie Massey Combs for helping me with the coding and analysis of my qualitative dissertation results.

Furthermore, I want to thank my many family members and friends, and especially Mitch, Blythe, and Murray, who have been so patient and helpful in accepting the many challenges undertaken to complete this work. This work is as much a product of your efforts and sacrifices as it is mine. I simply could not have done any of this without your unwavering support and belief in me, the importance of my work, and my potential for success.

The completion of my dissertation was greatly assisted by my receipt of external funding, from the Society of Family Planning Research Fund, as well as the CSWE/NASW Foundation Social Work HEALS Doctoral Fellowship, funded by the New York Community Trust. Thank you, also, to the University of Denver Office of Graduate Studies, as well as the University of Denver Graduate School of Social Work Research Committee, for providing me with university-based dissertation funding. I sincerely appreciate all of this generous support, which aided improvements to both my work as well as my quality of life.

Finally, I want to express heartfelt gratitude to the many youth and staff at Urban Peak. To the many young people experiencing homelessness with whom I have engaged, I am grateful for the many meaningful conversations to which I was invited and entrusted during my time spent at the shelter over the last five years. I will remain steadfast in my efforts to highlight your many creative ideas and bright insights in an effort to help you achieve your fullest, healthiest, amazing potential. I learned more from our conversations than I could ever learn in any class, and I look forward to continuing in my work alongside you.

TABLE OF CONTENTS

List of Tables.....	vi
Chapter One: Introduction.....	1
Study Purpose and Specific Aims.....	6
Organization of Dissertation.....	9
Chapter Two: Literature Review.....	11
Homeless Youth: Prevalence and Definitions.....	11
The Process of Becoming Homeless and Youths' Survival on the Streets.....	12
Pregnancy among Homeless Youth.....	13
Unprotected (Condomless) Sex among Homeless Youth.....	21
The Utility of Social Network Analysis.....	27
Theoretical Grounding.....	31
Chapter Three: Methodology.....	37
Overall Study Design.....	37
Quantitative Strand.....	37
Qualitative Strand.....	48
Mixed Methods Integration.....	60
Chapter Four: Results.....	61
Quantitative Results.....	61
Sample Characteristics.....	61
Inferential Statistics.....	63
Qualitative Results.....	76
Sociodemographic Characteristics.....	76
Qualitative Findings by Primary Topic Area.....	78
Pregnancy Attitudes.....	78
Pregnancy Experiences.....	88
Social Norms Regarding Pregnancy.....	90
Social Support Influences on Pregnancy Attitudes and Behaviors.....	95
Unprotected (Condomless) Sex.....	99
Other Contraceptive/Birth Control Attitudes and Use.....	102
Abortion Attitudes and Experiences.....	105
Chapter Five: Discussion.....	113
Mixed Methods Integration of Study Findings.....	113
Study Implications.....	126
Study Limitations and Recommendations for Future Research.....	135
Conclusion.....	141
Bibliography.....	143

LIST OF TABLES

Table 1: Semi-structured Qualitative Interview Guide.....51

Table 2: Sample Characteristics of Homeless Youth in Los Angeles, California.....63

Table 3: Associations between Sociodemographic Characteristics and Homeless Youths' Pro-Pregnancy Attitude Endorsements.....64

Table 4: Descriptive Statistics of Perceived Social Norms Regarding Pregnancy (Youths' Entire Networks).....65

Table 5: Associations between Perceived Social Norms Regarding Pregnancy (Youth's Entire Networks) and Homeless Youths' Pro-Pregnancy Attitude Endorsements66

Table 6: Descriptive Statistics of Perceived Social Norms Regarding Pregnancy, by Specific Referent-Group68

Table 7: Associations between Perceived Social Norms Regarding Pregnancy, by Specific Referent-Group, and Homeless Youths' Pro-Pregnancy Attitude Endorsements.....70

Table 8: Descriptive Statistics of Social Support Provided to Youth, by Specific Referent-Group.....72

Table 9: Associations between Social Support Provided, by Specific Referent-Group, and Homeless Youths' Pro-Pregnancy Attitude Endorsements.....74

Table 10: Associations between Homeless Youths' Pro-Pregnancy Attitude Endorsements and Youths' Engagement in Unprotected Vaginal Sex76

Table 11: Sample Characteristics of Homeless Youth in Denver, Colorado.....77

CHAPTER ONE: INTRODUCTION

Numbering 1.6 million individuals under the age of 21 in the United States (Hammer, Finkelhor, & Sedlak, 2002; Ringwalt, Greene, Robertson, & McPheeters, 1998), homeless youth face myriad challenging life circumstances prior to leaving home and while homeless. One such challenge is pregnancy, as homeless youth pregnancy rates are approximately four to eight times higher compared to those of their housed peers (Cauce, Stewart, Whitbeck, Paradise, & Hoyt, 2005; Crawford, Trotter, Sittner Hartshorn, & Whitbeck, 2011; Greene & Ringwalt, 1998; Haley et al., 2002; Tucker et al., 2012a; Winetrobe et al., 2013).

Regardless of housing status, pregnancies to teens and young adults pose many serious emotional, social, and physical health concerns. Such pregnancies frequently result in adverse maternal-child health outcomes and young women's loss of their child(ren) to child welfare systems (Centers for Disease Control and Prevention [CDC], 2016; Hoffman & Maynard, 2008). Compared to non-parenting teens and young adults, young parents are more likely to experience chronic poverty, due, in part, to lower attainment of education and employment goals after becoming pregnant and while parenting (Hoffman & Maynard, 2008; Perper, Peterson, & Manlove, 2010). Individuals who become parents as teens and young adults are more likely to become incarcerated, as are children born to teen mothers (Hoffman & Maynard, 2008). In addition, an estimated \$9.4 billion in annual costs are passed on to U.S. taxpayers pertaining to elevated health care, foster care, and incarceration-related expenditures attributed to teen childbearing (The National Campaign to Prevent Teen and Unplanned Pregnancy, 2010). Factoring in the harsh conditions and many additional challenges faced by individuals experiencing homelessness, the negative outcomes typically associated with pregnancies to teens and young adults are even further exacerbated (Crawford et al., 2011; Halcón & Lifson, 2004; Little et al., 2005; Milburn, Rotheram-Borus, Rice, Mallet, & Rosenthal, 2006; Oliveira &

Goldberg, 2002; Salomonsen-Sautel et al., 2008; Slesnick, Bartle-Haring, Glebova, & Glade, 2006; Stein, Lu, & Gelberg, 2000; Thompson, Bender, Lewis, & Watkins, 2008; Webb, Culhane, Metraux, Robbins, & Culhane, 2003).

Perhaps surprisingly, some homeless youth intentionally seek to become pregnant or involved in a pregnancy (Cauce et al., 2005, Tucker et al., 2012a; Winetrobe et al., 2013), and many hold ambivalent attitudes regarding pregnancy and pregnancy involvement (Tucker et al., 2012a; Winetrobe et al., 2013). Pregnancy is described by some homeless youth as a motivating factor for positive life changes, such as reducing substance use (Crawford et al., 2011; Dworksy & Meehan, 2012; Hathazi, Lankenau, Sanders, & Jackson Bloom, 2009; Ruttan, Laboucane-Benson, & Munro, 2012; Smid, Bourgois, & Auerswald, 2010), and “reinventing” themselves (Crawford et al., 2011; Ruttan et al., 2012; Smid et al., 2010). For some, pregnancies are seen as ways of creating bonds in lieu of relationship voids and feelings of abandonment that homeless youth often experience in their families of origin (Crawford et al., 2011; Dworksy & Meehan, 2012; Smid et al., 2010; Thompson et al., 2008). Youth also commonly view pregnancy as means of accessing needed services (Hathazi et al., 2009; Ruttan et al., 2012), and establishing housing (Crawford et al., 2011; Hathazi et al., 2009). Homeless youth sometimes perceive that pregnancy aids in creating a new family unit and improving existing romantic relationships (Thrane & Chen, 2012; Tucker et al., 2012a). Youth also note that having a child(ren) affords opportunities to display positive parenting skills, and represents a chance to be “better” parents compared to their own parents or caregivers (Dworksy & Meehan, 2012; Ruttan et al., 2012; Smid et al., 2010; Tucker et al., 2012a).

Logically, homeless youths’ pro-pregnancy attitudes may influence their decisions to intentionally try to become pregnant or involved in a pregnancy, and thus, their engagement in unprotected (condomless) vaginal sex, a risk factor for acquiring and transmitting human immunodeficiency virus (HIV) and other sexually transmitted infections (STIs). However, empirical investigations of links between homeless youths’ pregnancy attitudes and their engagement specifically in unprotected (condomless) sex are scarce in extant research. Whereas one study

found significant associations between homeless youths' anti-pregnancy attitude endorsements and their effective contraception use (birth control and/or condom methods) (Winetrobe et al., 2013), another study found no significant associations between homeless youths' pro-pregnancy attitudes and their non-use of any effective birth control and/or condom method at last sex (Tucker et al., 2012a).

The relationship between homeless youths' pregnancy attitudes and their use of contraceptives, especially condoms, is important to thoroughly understand, not only because of the many challenges associated with homeless youth pregnancy, but also as homeless youth experience exceptionally high acquisition and transmission rates of HIV and other STIs (Allen et al., 1994; Pfeifer & Oliver, 1997; Rew, Fouladi, & Yockey, 2002; Rotheram-Borus et al., 2003; Stricof, Kennedy, Natell, Weisfuse, & Novick, 1991). While homeless youths' usage of a full range of contraceptive methods is undeniably important to consider, most contraceptive/birth control methods, with the exception of condoms, are only effective in preventing pregnancy and do not avert the transmission of HIV and STIs (CDC, 2017). Condoms, however, if used correctly, are widely considered one of the most effective methods in preventing HIV and STIs (CDC, 2013a).

Prevention and health promotion efforts pertaining to both pregnancy and HIV/STI transmission are, thus, highly interconnected, yet most approaches to prevention too narrowly focus on one outcome versus the other (i.e., pregnancy *or* HIV/STI prevention) (Alford, 2012; Rogers, Augustine, & Alford, 2005). This "siloe" approach to prevention signifies a missed opportunity in comprehensive education across the continuum of essential reproductive and sexual health topics, particularly among a youth population that demonstrates such notable vulnerability to both pregnancy and HIV/STIs. Integrated approaches to interventions are also valuable, as they provide opportunities to facilitate youths' self-determination and fully informed decision-making. For youth who indeed desire to become pregnant or involved in pregnancy, such holistic health education models thereby aid youth in making healthier decisions, especially pertaining to HIV/STI testing, prenatal care, healthy relationships, and effective communication (Sexuality Information and Education Council of the United States, 2009).

The effectiveness of current reproductive and sexual health prevention efforts is also limited by their tendency to focus on individualistic attitudes and behaviors (Kirby & Lepore, 2007; Layzer, Rosapep, & Barr, 2014). Moreover, in the case of pregnancy prevention programs, most interventions are solely directed toward females (Manlove, Terry-Humen, Ikramullah, & Holcombe, 2008; United States Department of Health and Human Services Office of Adolescent Health, 2017). However, recent advances in homeless youth research suggest that the analysis of individual-level risk and protective factors should be expanded to broader “ecological” influences on youths’ attitudes and behaviors, including those of youths’ social networks (Melander, Tyler, & Schmitz, 2016; Rice, 2010; Young & Rice, 2011).

Social networks, or individuals and/or groups of individuals who are connected and interact with each other, influence youths’ behaviors in a variety of ways, such as via social norms (Davey-Rothwell & Latkin, 2007; Friedkin, 2001). Social norms are characterized as perceptions of what behaviors are considered prevalent and/or acceptable within a group of people (Kincaid, 2004). Prior research notes that social network norms reveal compelling associations with homeless youths’ engagement in a range of health-affecting behaviors, such as substance abuse (Barman-Adhikari, Al-Tayyib, Begun, Bowen, & Rice, 2017; Barman-Adhikari, Begun, Rice, Yoshioka-Maxwell, & Portillo, 2016; Barman-Adhikari, Rice, Winetrobe, & Petering, 2015; Melander et al., 2016), safer sex practices (Tyler, 2013), condomless sex (Barman-Adhikari, Hsu, Begun, Portillo, & Rice, 2016; Rice, Milburn, & Rotheram-Borus, 2007), and HIV testing (Rice, Monro, Barman-Adhikari, & Young, 2010), among others.

Furthermore, research has demonstrated that homeless youths’ networks are heterogeneous (Rice et al., 2007; Rice, Stein, & Milburn, 2008; Wenzel et al., 2012), and such heterogeneity impacts youths’ perceptions of social norms. Social network scholars have thus noted the importance of considering these social norms in multidimensional ways (Coleman, 1990; Latkin et al., 2009). Whereas youth may perceive that some members of their networks would encourage a certain behavior, youth may believe that other network members would discourage that same behavior. Therefore, it is crucial to determine which endorsements of, or

objections to, certain behaviors (and by which specific social network members) are most salient in influencing youths' behaviors. In doing so, analyses benefit from further dissecting social norms into youths' specific referent-groups (i.e., home-based peers, street-based peers, family members, staff members and service providers, and serious intimate partners) to see which types of social network members are most influential amidst youths' complex networks, which sometimes convey contradictory norms (Rimal, Lapinski, Cook, & Real, 2005). Figure 1 provides a visual model of youths' heterogeneous social networks and depicts youth in relationship to their specific referent-group members.

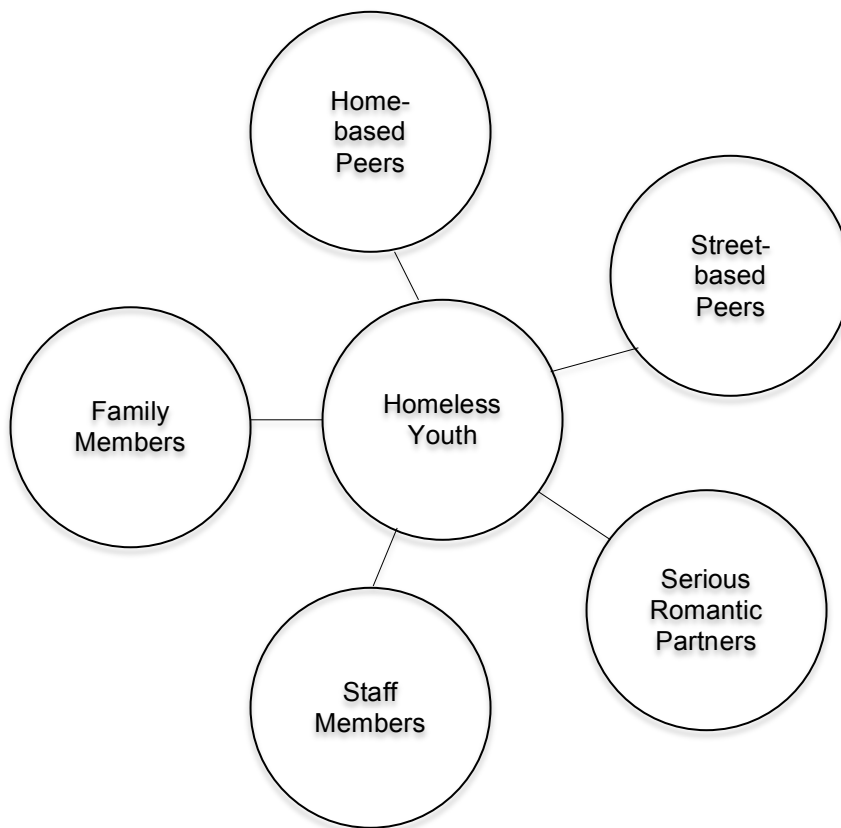


Figure 1. Homeless youth in relationship to their specific referent-group members

However, a dearth of research has examined homeless youths' social networks and norms in relationship to their attitudes and behaviors regarding pregnancy and unprotected (condomless) sex. This is a surprising gap in the evidence base, especially considering that

pregnancy and decision-making in sexual encounters are typically not individual acts, and also as prevention scientists have increasingly called for the inclusion of males, peers, intimate partners, and families in intervention activities. Also, in light of the previously-noted research on youths' motivations to become pregnant or involved in pregnancy as perceived conduits toward positively re-connecting them with family, to give them someone to love, and/or to improve bonds with an intimate partner, there appears to be utility in better understanding how youths' social networks and perceived social norms regarding pregnancy may inform their pregnancy attitudes and sexual behaviors. Moreover, as extant research has depicted homeless youths' pro-pregnancy views as a function of youth being in desperate need of resources, such as money, food, clothing, housing, and health care, knowledge of the influence of youths' sources of social support (or lack thereof) on their pregnancy attitudes and behaviors is another noteworthy deficit in the evidence base.

Therefore, despite the prevalence of, and many adverse outcomes associated with, homeless youth pregnancy, current research and intervention efforts may be failing to address the most crucial intervention targets when implemented with this uniquely vulnerable population. Contextual factors, such as desired pregnancy and pregnancy ambivalence, the influence of youths' social networks and surrounding social norms, youths' desire for social connection, and their needs for resources and social support, may influence youths' engagement in sexual behaviors linked to becoming pregnant as well as acquiring and/or transmitting HIV and other STIs. Accordingly, this dissertation seeks to examine these interconnected issues by exploring several specific aims, as follows.

Study Purpose and Specific Aims

This dissertation draws on theoretical perspectives pertaining to social networks, social norms, and social support, to examine how homeless youths' broader ecological contexts may play a role in shaping their pregnancy attitudes and engagement in unprotected vaginal sex. The study first examines two quantitative specific aims, which analyze predictors of homeless youths' pro-pregnancy attitudes and engagement in unprotected (condomless) vaginal sex, respectively. The study then investigates in greater depth, via a third and qualitative aim, youths' attitudes,

experiences, and behaviors regarding pregnancy, HIV risk behaviors, and other relevant aspects of family planning decision-making. Figure 2 provides a visual model of the current study's aims.

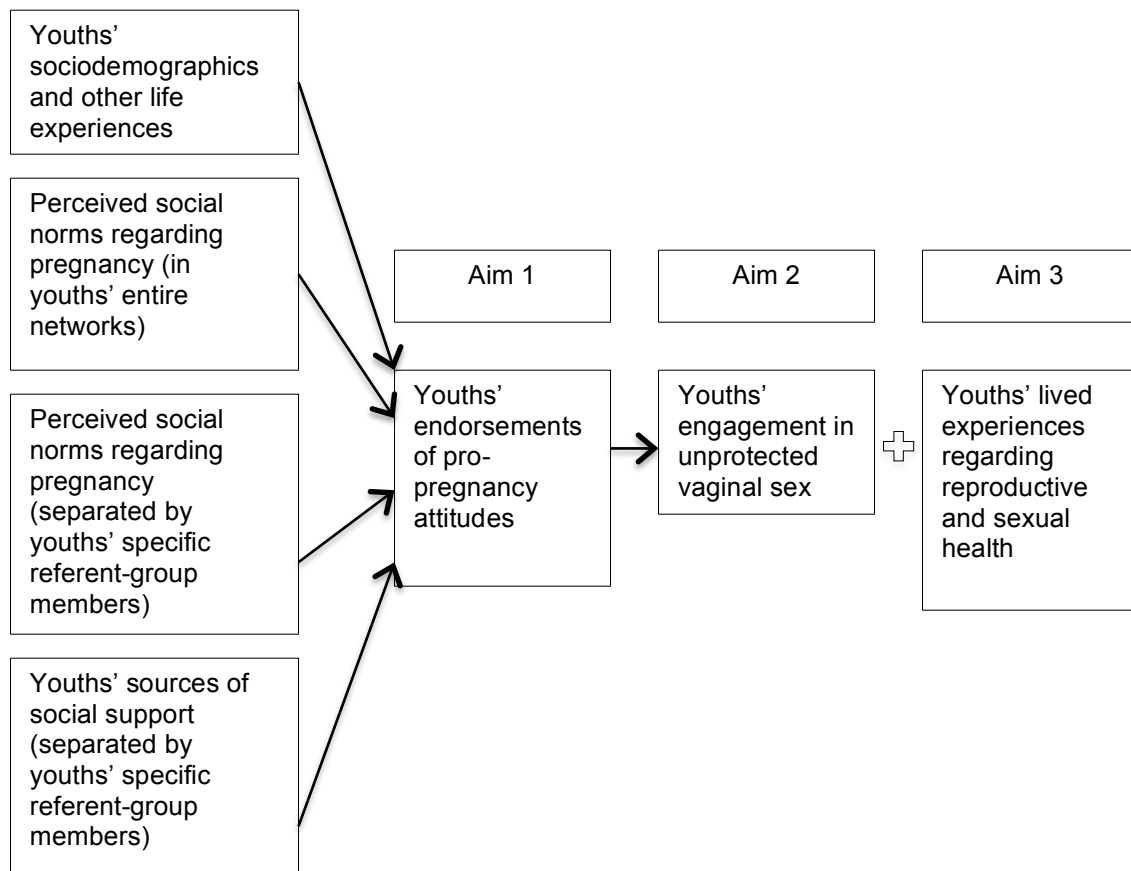


Figure 2. Conceptual model of specific aims

Aim #1: To understand predictors of homeless youths' endorsements of pro-pregnancy attitudes. This aim examines four models, assessing associations between: 1) homeless youths' sociodemographics/other life experiences and youths' pro-pregnancy attitudes; 2) youths' perceived social norms regarding pregnancy, as found in their entire social networks, and youths' pro-pregnancy attitudes; 3) youths' perceived social norms regarding pregnancy, separated by youths' specific referent-group member influences (i.e., home-based peers, street-based peers, family members, staff members, and serious partners), and youths' pro-pregnancy attitudes; and 4) youths' receipt of social support (i.e., emotional, instrumental, and informational support), separated by youths' specific referent-group member sources of support, and youths' endorsements of pro-pregnancy attitudes.

Hypotheses for Aim #1. Certain sociodemographic characteristics and life experiences, such as greater length of time homeless, will demonstrate significant relationships with youths' endorsements of pro-pregnancy attitudes, whereas most characteristics have shown unclear relationships in prior research, and thus are exploratory. As pregnancy/involvement is perceived as more common in youths' networks, and also as perceived network norms are more approving of pregnancy/pregnancy involvement, the likelihood that respondents will endorse pro-pregnancy attitudes is greater. Having network members, particularly serious partners, who encourage pregnancy/involvement, will be associated with youths' endorsements of pro-pregnancy attitudes. Conversely, having network members, particularly family, who object to pregnancy/involvement, will be negatively associated with pro-pregnancy attitude endorsements. Accessing emotional, instrumental, and/or informational support from home-based network members and staff will be associated with lower endorsements of pro-pregnancy attitudes. However, accessing any form of support from street-based peers or a serious partner will be positively associated with youths' pro-pregnancy attitude endorsements.

Aim #2: To assess the association between homeless youths' endorsements of pro-pregnancy attitudes and youths' engagement in unprotected (condomless) vaginal sex.

Hypothesis related to Aim #2. Respondents who endorse pro-pregnancy attitudes will be more likely to engage in unprotected (condomless) vaginal sex than other respondents.

Aim #3: To qualitatively explore how homeless young people develop their pregnancy attitudes and make reproductive and sexual health decisions in the context of their social networks.

To accomplish the aforementioned aims, this study analyzed quantitative social network data from a previous study of 1,046 homeless youth in Southern California (MH R01 903336; PI: Eric Rice, University of Southern California), followed by the original collection of qualitative data from 30 homeless youth in Denver, Colorado. The successful examination of these aims produced: 1) A better understanding of contextual factors associated with homeless youths' reproductive and sexual health attitudes, behaviors, and experiences; 2) Opportunities to inform the development and adaptation of sexual and reproductive health prevention and intervention efforts to better meet the needs of homeless youth, a population with unique challenges and assets; and 3) Recommendations for how policy-makers, service providers, and medical professionals may deliver health information and services with greater effectiveness and cultural humility.

Organization of Dissertation

This introductory chapter (Chapter One) provides a basic overview of the study's topic, conceptualization, and purpose. There are four subsequent chapters of the dissertation. Chapter Two provides a comprehensive review of extant literature regarding pregnancy attitudes and HIV risk behaviors among homeless youth. Further, the second chapter reviews theories that undergird the specific aims and hypotheses of this study: Social Cognitive Theory (Bandura, 1977), Social Identity Complexity (Roccas & Brewer, 2002), Social Capital Theory (Bourdieu, 1986; Lin, 1999; Putnam, 2000), and the Theory of Reasoned Action (Ajzen & Fishbein, 1980).

These theories also provide support for examining homeless youths' reproductive and sexual health attitudes and behaviors in the context of their complex social networks.

Chapter Three describes the study's methodology, including sampling, recruitment, procedures, measures, and analytic plan for the first, quantitative strand of the sequential mixed methods study design. Methods and analytic plan for the second, qualitative study strand are then explained in detail. Chapter Four presents results from quantitative and qualitative study aims, respectively. Finally, in Chapter Five, implications of the study's integrated mixed methods findings with respect to theory, policy, professionals serving homeless youth, and recommendations for future research, are discussed. Additionally, study limitations are noted.

CHAPTER TWO: LITERATURE REVIEW

Homeless Youth: Prevalence and Definitions

As previously noted, approximately 1.6 million individuals under age 21 are homeless in the United States (Hammer et al., 2002; Ringwalt et al., 1998), and adolescents and young adults comprise approximately one-fourth of all people who are experiencing homelessness (Cauce et al., 2000). However, the accurate identification of the total number of young people experiencing homelessness is difficult, and such counts are commonly thought to be under-estimated (National Alliance to End Homelessness, 2017). Members of this group are often unwilling to disclose that they are experiencing homelessness, many do not self-identify as homeless, and these individuals frequently attempt to blend in with peers who are not homeless (National Alliance to End Homelessness, 2017). The National Alliance to End Homelessness (2017) estimates that during a given year, approximately 550,000 unaccompanied youth, under the age of 24, experience homelessness for durations greater than one week, and about 50,000 youth remain homeless for periods of six months or more.

Similarly, there are several ways in which youth homelessness is defined. The broadest federal definition of homeless youth includes any “individual who is less than 21 years of age, for whom it is not possible to live in a safe environment with a relative, and who has no other safe alternative living arrangement” (42 U.S.C. § 5732). However, numerous private services and agencies, such as the United States Department of Housing and Urban Development (HUD), a large provider of funding and oversight for homeless-serving shelters and drop-in centers, further extend this definition to include persons under the age of 25 (76 Fed. Reg. 233). The current study considers homeless youth between the ages of 13 and 25, as this age range most broadly matches the parameters of service providers with whom the study collaborated, and is also most pertinent to the study’s overall aims regarding youths’ reproductive and sexual health.

The Process of Becoming Homeless and Youths' Survival on the Streets

Youth leave their family homes, or homes of origin, for numerous reasons and with varying degrees of independence. Whereas some youth identify as being motivated to seek more desirable, adventurous social situations (Lindsey, Kurtz, Jarvis, Williams, & Nackerud, 2000), a vast majority of youth cite conflict, abuse, and/or neglect within their home as the primary impetus for running away or leaving home for good (Schaffner, 1998).

Contrarily, some youth do not leave home on their own accord, as others are pushed out of their homes by parents or caregivers who force them to leave (Powers, Eckenrode, & Jaklitsch, 1990). Some youth are instead abandoned, or left on their own, by parents or other guardians (Dadds, Braddock, Cuers, Elliott, & Kelly, 1993). One study found that 17.7% of homeless youth in the sample were "doubly homeless," as these individuals were removed from their homes by child welfare authorities, and then subsequently ran away from their respective out-of-home care placements (MacLean, Embry, & Cauce, 1999). This sub-group of youth experiencing homelessness typically reports the most negative family environments, as well as the highest rates of mental health challenges and susceptibility to continued abuse and other sexual health risks (MacLean et al., 1999).

Once homeless, youth are frequently left with few options for obtaining resources, and thus, survival. Many youth experiencing homelessness become involved in high-risk survival behaviors in exchange for money and other basic necessities that they lack. Survival behaviors may include sex work or survival sex (i.e., participating in sexual acts in exchange for needed resources), theft and/or selling stolen goods, panhandling, and selling illegal drugs (Halcón & Lifson, 2004, Watson, 2011). Such survival behaviors are often perceived by youth as necessary in lieu of having few formal employment opportunities. Securing formal employment often poses a challenge for homeless youth, particularly given this group's lower likelihood of regular school attendance and/or completing high school and further education (Thompson, Safyer, & Pollio, 2001). Negative surrounding social influences may also encourage homeless youths' use of risky survival strategies, rather than obtaining and retaining formal employment (Ferguson, Bender,

Thompson, Maccio, & Pollio, 2012). While peer networks offer support in some ways (e.g., emotional support, protection, material aid) (Bao, Whitbeck, & Hoyt, 2000), loyalty to street-based peers sometimes encourages homeless youth to engage in illegal behaviors in order to obtain resources for themselves and their street families (Ferguson et al., 2012).

Pregnancy among Homeless Youth

As illustrated, homeless youth face a wide range of difficult life circumstances, both prior to leaving home as well as while homeless. Another key example of one of these major challenges is pregnancy. Pregnancy rates to adolescents and young adults in the United States have been steadily declining since the early 1990s (CDC, 2016; Ventura, Curtin, Abma, & Henshaw, 2012). However, these pregnancy rates are notably higher than in most other advanced industrialized countries, and racial, ethnic, and geographic disparities in birth rates to young people nonetheless continue (CDC, 2016). One group in which pregnancy rates remain the very highest in the U.S. is among adolescents and young adults experiencing homelessness. Although somewhat dated, a large and nationally representative study found that 48% of young women living on the streets and 33% of young women staying in shelters had ever been pregnant, compared to 7% of young women who were stably housed (Greene & Ringwalt, 1998). Other national and regional studies, most of which are more recent, have consistently reported similar findings, with 30% to 60% of female homeless youth samples indicating past or current pregnancies (Anderson, Freese, & Pennbridge, 1994; Cauce et al., 2005; Crawford et al., 2011; Halcón & Lifson, 2004; Haley et al., 2002; Wagner, Carlin, Cauce, & Tenner, 2001; Winetrobe et al., 2013).

Although less studied, 22% to 43% of young homeless male samples report impregnating someone in their lifetimes (of which they are aware) (Wagner et al., 2001; Winetrobe et al., 2013). These numbers are assumed to be higher than that of male adolescents and young adults from the at-large population; however, a paucity of accurate, empirical evidence exists regarding teen and young adult fatherhood, in general. This dearth of knowledge stems, in part, from birth certificates for children born to young mothers often containing little information on birth fathers.

The surprising scarcity of research on young men's pregnancy involvement thus limits most discussions of pregnancy to the outcomes and experiences of young women. Accordingly, research on pregnancy involvement among males, both from the general population and also among homeless youth, is greatly needed in order to refine approaches to reproductive and sexual health prevention and education.

Homeless youth pregnancy is a crucial concern for many reasons. Homeless women of any age are less likely, compared to housed women, to receive prenatal care and other important reproductive health screenings (Baggett, O'Connell, Singer, & Rigotti, 2010). Pregnancies that occur while homeless are more likely to result in increased birth complications; these newborns are more often born preterm, at low birth weights, and with neurological and physical problems, negative outcomes most commonly attributed to homeless women's prenatal nutritional deficits and/or continued substance use during pregnancy (Chapman, Tarter, Kirisci, & Cornelius, 2007; Little et al., 2005; Oliveira & Goldberg, 2002; Stein et al., 2000). However, adverse maternal-child health effects are most apparent among younger homeless women (Crawford et al., 2011). Whereas most pregnancies to adolescents and young adults are challenging, even for those who are stably housed and who have strong social support systems, evidence suggests that young homeless women and their children suffer from the very most acute and chronic health problems (Bassuk & Weinreb, 1993; Oliveira & Goldberg, 2002; Weinreb, Goldberg, & Perloff, 1998).

In addition, the mental and physical stresses of both pregnancy and raising a child(ren) have been found to make women's departures from homelessness more difficult (Webb et al., 2003). The challenges of raising a child(ren), in chaotic and privacy-lacking shelter and drop-in settings have been shown to exacerbate mothers' depressive symptoms and feelings of inadequacy as parents, escalate children's problematic behaviors, and often prompts mothers to turn to substance use as a stress-relief or escape tactic (Dworsky & Meehan, 2012; Meadows-Oliver, 2009; Ruttan et al., 2012; Swick & Williams, 2010). Homelessness duration, in general, is associated with exacerbated mental health challenges (Cauce et al., 2000), posing another serious concern, particularly for a population that already demonstrates higher than average rates

of mental health concerns (Bassuk, Buckner, Perloff, & Bassuk, 1998; Begun, Bender, Brown, Barman-Adhikari, & Ferguson, 2016; Busen & Engebretsen, 2008; Cochran, Stewart, Ginzler, & Cauce, 2002).

Further, to many homeless young people, pregnancy and parenting represents a traumatic “cycle of loss” (Smid et al., 2010). Homeless youth often lose custody of their children to child protective services systems, causing them prolonged sadness and grief (Smid et al., 2010). Some young homeless individuals note that when becoming pregnant or involved in subsequent pregnancies, the birth of another child represents a new opportunity and hope for more positive future outcomes; yet, many of these situations result in homeless youths’ re-experiences of involuntary removal of their children (Smid et al., 2010).

Homeless youths’ reactions to pregnancy. Adding further complexity, upon becoming pregnant, some homeless young women react with anxiety and denial, and some women respond by increasing their substance use, sometimes at very dangerous levels (Ruttan et al, 2012; Smid et al., 2010). Substance use is described, in such cases, as attempts at ignoring or escaping the situation, and for some, also with hopes of inducing miscarriage (Smid et al., 2010). Moreover, regardless of youths’ pregnancy views or prevention behaviors prior to becoming pregnant, abortion is a common response to pregnancies among homeless youth (Ensign, 2001; Smid et al., 2010). Many of these abortions are quite dangerous, as they are self-induced (Ensign, 2001). Self-induced abortions may be the result of homeless youths’ overall lack of resources and access to health care, although this aspect has not been well studied. Homeless youths’ abortion access may also be a function of broader geographical and political differences in the U.S. that affect abortion accessibility and cost. As Smid et al. (2010) noted, participants from a Northern California sample—who reported abortion as generally accessible—said traveling companions of theirs from other parts of the U.S. in which abortion is not as easily accessible, described and recommended self-induced abortion tactics that could alternatively be used to self-terminate pregnancies.

Additionally, in a qualitative study of 20 young female homeless youth, Ensign (2001) found that 16 participants had heard of self-induced abortion tactics and each of these 16 women knew at least one other homeless woman who had attempted such methods, with four women indicating they had also done so themselves in the past. Participants cited self-induction strategies that included planned physical abuse, either by themselves, a friend, or partner, multiple and heavy substance abuse, the use of coat hangers or other sharp objects, drinking bleach, and a range of herbal abortifacients. Accordingly, these approaches to pregnancy termination are undeniably very unsafe and pose serious health risks, including potential death. Continued research and intervention efforts are warranted in this regard, as well, as such themes may represent an outcome of homeless youth pregnancy that signifies a public health crisis.

As part of a more comprehensive understanding of homeless youth pregnancy, youths' broader social contexts are similarly important to consider in relationship to their subsequent abortion decision-making. Smid and colleagues (2010) noted that pregnancy decision-making discord among homeless youth is a particularly important factor to better understand, especially among couples and intimate partner dyads. Young homeless couples often experience profound relationship strains regarding the subject of pregnancy, as sometimes one member of the dyad desires a pregnancy while the other does not. In other cases, discrepancies appear following a positive pregnancy result. Some youth simply wish to obtain an abortion because the pregnancy was unwanted, while some youth may have a change of opinion regarding an intended or ambivalent pregnancy. In some situations, pregnancy decision-making was simply not discussed or reconciled among partners before the pregnancy occurred (Smid et al., 2010).

This discord may stem from a number of aspects; some youth do not want to have a child(ren) because they do not want to replicate negative experiences of abuse and neglect that they endured during their own childhoods (Smid et al., 2010). In addition, pregnancy decision-making discord at times results in physical violence, most often among partners who disagree regarding whether or not to terminate the pregnancy (Smid et al., 2010). In cases when abortions are obtained, many youth said they did so because they feared their partner's lifestyle (e.g.,

nomadic lifestyle and/or heavy substance abuse), or simply did not want to or did not think they could successfully change their own habits and lifestyle patterns (Smid et al., 2010). Indeed, homeless youth pregnancy, as well as abortion decision-making, is clearly quite under-researched. Yet, this line of inquiry would benefit from also considering the many possible influences pertaining to relationships that may be present as family planning decision-making among youth unfolds after youth become pregnant or involved in pregnancies.

Correlates of homeless youth pregnancy. Relatively higher rates of pregnancy and pregnancy involvement among homeless youth may, in part, be attributed to this group's greater likelihood of engaging in sexual activity when compared to their housed counterparts, as well as initiating sex at earlier ages (Greenblatt & Robertson, 1993; Solorio et al., 2008; Yates, MacKenzie, Pennbridge, & Cohen, 1988). Homeless youth also demonstrate comparatively higher rates of concurrent sexual partners, engagement in survival sex, and unprotected sex (Anderson et al., 1994; Halcón & Lifson, 2004; Haley, Roy, Leclerc, Boudreau, & Boivin, 2004a; Rabinovitz, Desai, Schneir, & Clark, 2010; Rice et al., 2010; Tevendale, Lightfoot, & Slocum, 2009; Walls & Bell, 2011; Warf et al., 2013).

Predictors of pregnancy among housed youth, such as substance use (Kirby, 2002; Zapata, Hillis, Marchbanks, Curtis, & Lowry, 2008), poverty (Mollborn & Morningstar, 2009; Waddell, Orr, Sackoff, & Santelli, 2010), mental health challenges (Crittenden, Boris, Rice, Taylor, & Olds, 2009; Mollborn & Morningstar, 2009), and childhood history of physical and/or sexual abuse (Logan, Holcombe, Ryan, Manlove, & Moore, 2007; Noll, Shenk, & Putnam, 2009), are comparatively more common phenomena among homeless youth (Bantchevska, Bartle-Haring, Dashora, Glebova, & Slesnick, 2008; Greene, Ennett, & Ringwalt, 1999; Greene & Ringwalt, 1998; Haley, Roy, Leclerc, Boudreau, & Boivin, 2004b; Hathazi et al., 2009; McCaskill, Toro, & Wolfe, 1998). Such factors perhaps thereby further amplify homeless youths' pregnancy risks. Significant relationships have also been shown between foster care history and both higher rates of homelessness (Brandford & English, 2004) as well as pregnancy (Dworsky & Courtney, 2010). Similarly, homeless youth who have ever been pregnant are more likely to indicate foster

care history (Haley et al., 2004b). Moreover, in a nationally representative sample of homeless youth, identifying as a race/ethnicity other than White, longer homelessness duration, feelings of abandonment by one's family or caregivers, and not completing high school were positively associated with pregnancy (Thompson et al., 2008). Homeless young women, who have been pregnant in the past, also frequently demonstrate high rates of subsequent pregnancies. In two large studies of homeless youth, just under one-third of both female samples had been pregnant two or more times (Halcón & Lifson, 2004; Crawford et al., 2011). Crawford and colleagues (2011) further noted that 13.5% of their study's female sample had been pregnant three or more times.

Pro-pregnancy attitudes among homeless youth. Opportunities to most effectively reduce the pregnancy rate among homeless youth hinge upon research efforts that provide a deeper understanding of factors associated with youths' pregnancy attitudes. Holding positive views pertaining to becoming pregnant or involved in pregnancy may prompt youths' non-usage of condoms and other forms of contraception/birth control, thus not only increasing their pregnancy risk, but also that regarding HIV/STI acquisition and/or transmission.

Perhaps paradoxically, extant research suggests that a sizeable proportion of homeless youth are favorably disposed to pregnancy, and some intentionally seek to become pregnant or involved in a pregnancy. Studies of homeless youth have indicated that approximately 20% to 30% of respondents agreed that they actively would like to become pregnant or involved in a pregnancy within the following year, with an additional 20 to 30% reporting ambivalence at the thought of pregnancy (Cowley & Farley, 2001; Tucker et al., 2012a; Winetrobe et al., 2013). Ambivalent attitudes regarding pregnancy are important to consider, although have not been widely studied among homeless youth. Of note, in several longitudinal studies of adolescents and young adults from the general population, both pregnancy desire and pregnancy ambivalence were similarly significant predictors of becoming pregnant within one year (Jaccard, Dodge, & Dittus, 2003; Rosengard, Phipps, Adler, & Ellen, 2004).

To many homeless youth, pregnancy and parenthood are perceived as conduits toward accessing needed health care and other social services that they often lack (Cauce et al., 2005; Haley et al., 2004b; Smid et al., 2010; Tucker et al., 2012a). Pregnancy and parenting have also been described by homeless youth as motivating factors for positive life changes, such as reducing substance use and addiction (Hathazi et al., 2009). Pregnancy is seen by some youth as an opportunity to create emotional bonds to heal the feelings of abandonment that many homeless youth have experienced in their respective families of origin (Thompson et al., 2008; Tucker et al., 2012a; Winetrobe et al., 2013). Similar pro-pregnancy sentiments have been shown among female and male foster youth, a population that frequently overlaps with that of homeless youth. Likewise, foster youth often report perceptions of pregnancy as a way by which they may positively create a new family unit, as an opportunity to improve their bond with a romantic partner, and a chance to show others their positive parenting skills (Constantine, Jerman, & Constantine, 2009; Dworsky & Courtney, 2010).

Although also limited, prior research with housed adolescents and young adults from the general population has shown that positive, or “pro-pregnancy” attitudes are associated with Hispanic/Latino ethnicity (Unger, Molina, & Teran, 2000), low educational aspirations (Unger et al., 2000), and increased age (Paikoff, 1990; Sipsma, Ickovics, Lewis, Ethier, & Kershaw, 2011). Among housed young people, depression (Horwitz, Klerman, Kuo, & Jekel, 1991), positive communication with parents or family of origin (Unger et al., 2000), and a female’s emotional reliance upon her male sexual partner (Grant et al., 2002), are also positively associated with pro-pregnancy attitude endorsements. However, little is known about whether such associations hold true for homeless youth, or whether other factors may play a role in forming homeless youths’ pregnancy attitudes. Future research is thus needed to examine correlates of pro-pregnancy attitudes more specifically among homeless youth. As noted by Tucker and colleagues (2012a), research on predictors of homeless youth’s pregnancy attitudes would benefit from not only exploring such associations with regard to youths’ sociodemographics, but also with factors unique to homeless youth (e.g., homelessness duration, transience, homelessness severity).

Emerging, while again limited, research efforts specific to homeless youth have found that certain types of interpersonal connections are associated with homeless youths' pro-pregnancy attitude endorsements, such as having contact with family members, and being in a relationship with a serious partner (Tucker et al., 2012a). Other characteristics that have shown positive associations with pro-pregnancy attitudes include identifying as male, as well as longer homelessness duration (Tucker et al., 2012a). Conversely, youth who are connected to other peers who regularly attend school are significantly less likely to endorse pro-pregnancy attitudes (Tucker et al., 2012a). Perhaps surprisingly, youths' greater frequency of alcohol consumption also showed significant negative associations with youths' pro-pregnancy attitude endorsements (Tucker et al., 2012a). Furthermore, one investigation found the most demonstrative predictor of a young woman's attitudes toward pregnancy is her perception of a serious (male) partner's desire for a baby (Cowley & Farley, 2001). However, as noted by Smid et al. (2010), adolescent males'—especially *homeless* adolescent males'—perspectives are conspicuously absent from pregnancy-related literature and interventions. Yet, their roles in, and attitudes toward, pregnancy are seemingly quite influential, suggesting that male involvement in pregnancy decision-making and attitude-formation is another important omission in research and prevention.

While extant literature has preliminarily identified certain characteristics associated with homeless youth pregnancy prevalence and pregnant attitudes, there has been little replication to verify any of such factors. In addition to a need for research that further examines sociodemographics and homelessness experiences in relationship to pregnancy attitudes and incidence, emerging literature has identified other aspects that merit further research proliferation. Homeless youths' pregnancy attitudes are seemingly not formed in isolation, or solely at the individual level. Individuals' pregnancy views are likely influenced by the attitudes and behaviors exhibited by, and social support offered from, peers, family members, service providers, and serious partners. These preliminary findings thus point to a need for continued research that emphasizes the broader “ecological,” or social network, influences on homeless youths' pregnancy attitudes and behaviors.

Unprotected (Condomless) Sex among Homeless Youth

As previously mentioned, homeless youths' pro-pregnancy attitudes may prompt their engagement in unprotected sex, but empirical evidence of this assumption is quite limited. Winetrobe and colleagues (2013) found significant associations between homeless youths' interest in preventing pregnancy and their greater likelihood of using effective forms of contraception (birth control and/or condom methods). Compared to youth who had positive attitudes regarding pregnancy, youth who were opposed to pregnancy/involvement were also more likely to report using withdrawal methods with sexual partners during the prior month (Winetrobe et al., 2013). However, Tucker and colleagues (2012a) found that even among homeless youth who were very opposed to becoming pregnant or involved in a pregnancy, 32% of males and 44% of females used either no form of effective contraceptive/birth control or condom method, or used withdrawal (only) as their pregnancy prevention method during their last sexual encounter. Among housed youth, similar disconnects between pregnancy attitudes and contraceptive/birth control and condom use have been noted (Foster et al., 2004; Frost, Singh, & Finer, 2007; Kendall et al., 2005). More research is nonetheless needed, specifically among homeless youth, regarding links between pregnancy attitudes, with additional attention paid to ambivalence, and youths' behaviors. Of note, in a review of pregnancy prevention programs, the most effective ones emphasize clear, consistent messages pertaining to the importance of using a full range of contraceptives, and the risks of using withdrawal-only methods, when pregnancy is not desired or if pregnancy attitudes are uncertain (Kirby, 2007). However, regardless of pregnancy intent, the most effective prevention strategies simultaneously highlight the importance of using condoms and seeking HIV/STI testing prior to sexual encounters, in an effort to holistically prevent against not only pregnancy, as applicable, but also HIV and STIs (Kirby, 2007).

Among homeless youth populations, prevention efforts that focus on HIV and STIs, in addition to pregnancy reduction, are of critical importance. HIV and STIs constitute a dire public health concern in general, but particularly among homeless youth, who are disproportionately

affected by HIV/AIDS. Homeless youth are 6 to 12 times more likely, compared to their housed counterparts, to become HIV-infected (Pfeifer & Oliver, 1997). Furthermore, homeless youth are seven times more likely than their housed peers to die from AIDS-related complications (Ray, 2006). One of the strongest predictors of HIV acquisition is simply having one or more STI(s) (CDC, 2015), a relevant fact when considering a study by Rew (2001), which found that 23% to 46% of homeless youth have at least one STI of which they are aware.

Decades of research have noted that condoms, if used correctly, are effective in preventing HIV and STI transmission (CDC, 2013a). Yet, among homeless youth, condom use is often met with ambivalence and inconsistency (Haley et al., 2004a; Solorio et al., 2008; Tucker et al., 2013). Youths' homelessness status, in general, has shown negative associations with condom use (Marshall et al., 2009), as well as heightened risks of HIV and STI acquisition (Kral, Molnar, Booth, & Watters, 1997). Extant research has found that 40% to 70% of homeless youth report engagement in unprotected (condomless) sex (Haley et al., 2004a; Solorio et al., 2008; Tucker et al., 2013). Some youth cite reasons for not using condoms that include negative condom beliefs, trusting that a partner would not transmit an STI, and in the context of sexual activity and pregnancy prevention goals among heterosexual or male-female dyads, because of female partners' current use of contraceptives, such as birth control pills (Tucker et al., 2013).

Indeed, some researchers and medical professionals have increasingly sought to understand the feasibility of using of PrEP (i.e., Pre-Exposure Prophylaxis), a daily medication that has shown effectiveness in HIV prevention when administered to individuals who do not currently have HIV but who are at high risk of HIV acquisition (CDC, 2014). However, no known studies have investigated the feasibility, acceptability, or accessibility of PrEP for use specifically with homeless youth (Burda, 2016). Moreover, PrEP is limited in its "comprehensive" sexual and reproductive health-related effectiveness, as PrEP prevents neither pregnancies nor STIs aside from HIV. As such, this project operationalizes the study of "unprotected vaginal sex" as synonymous with "condomless sex," given the study's aims of contributing to future research that seeks to prevent both HIV *and* STIs among homeless youth.

Of concern, many homeless youth use substances prior to sex (Solorio et al., 2008; Tucker et al., 2013). Sex while under the influence of drugs or alcohol poses serious risks regarding HIV and STI transmission and acquisition specifically among homeless youth. Such behavior is further associated with engagement in survival sex, having multiple or concurrent sex partners, and sex with high-risk or injection drug-using individuals, while negatively correlated with condom use (Solorio et al., 2008; Tucker et al., 2013; Tyler, Whitbeck, Chen, & Johnson, 2007; Whitbeck, Hoyt, Yoder, Cauce, & Paradise, 2001).

Research has also consistently shown that homeless youths' engagement in unprotected sex differs by gender, race/ethnicity, and sexual orientation. Studies indicate that female homeless youth are more likely than males to report engagement in unprotected sex (Halcón & Lifson, 2004; Slesnick & Kang, 2008). However, findings on racial differences have been overall inconsistent. For example, Halcón and Lifson (2004) found White homeless youth to be less likely than all other racial/ethnic categories to use condoms, while Black homeless youth were more likely than all other racial and ethnic groups to use condoms. However, other studies have found no differences in terms of race regarding condom use among homeless youth (Kennedy, Wenzel, Brown, Tucker, & Golinelli, 2013; Solorio et al., 2008; Tucker et al., 2013). Regarding sexual orientation, research has noted that non-heterosexual homeless youth are more likely to engage in condom use during sex (Barman-Adhikari, Hsu, Begun, Portillo, & Rice, 2016; Ream, Barnhart, & Lotz, 2012), results that have been attributed to HIV prevention education programs that specifically and effectively target this population (Ream et al., 2012).

Also, condom use has been documented as more likely among homeless youth who attend school more regularly (Kennedy et al., 2013; Tevendale et al., 2009), among homeless youth who have completed high school (Winetrobe et al., 2013), and among youth who are employed (Tevendale et al., 2009). Safer-sex behaviors among homeless youth have also been linked to younger age, less time in homelessness duration, and greater perceived social connectedness (Rew et al, 2002). Homeless youth who are connected in some way to a mentor are also less likely to engage in unprotected sex (Tevendale et al., 2009). Youth who endorse

greater future time perspective (Rew et al., 2002; Tevendale et al., 2009), and who use more assertive communication strategies (Rew et al., 2002) are also more likely to use condoms. However, unprotected sex is much more likely among homeless youth with a history of childhood abuse (Kennedy, Tucker, Green, Golinelli, & Ewing, 2012). Homeless young males with prior physical victimization experiences, and young homeless females with sexual victimization history, have been shown as less likely to use condoms (MacKellar et al., 2000).

Access to condoms may play a role in some homeless youths' engagement in unprotected sex. A majority of homeless youth report receiving condoms from shelters and service agencies, and those who received condoms reported rates of condom use, at last sexual encounter, that were significantly greater compared to youth who did not receive condoms (Barman-Adhikari, Hsu, Begun, Portillo, & Rice, 2016; Clements, Gleghorn, Garcia, Katz, & Marx, 1997). However, males who reported negative attitudes regarding condoms said that access to condoms and cost were not salient concerns, but rather, non-use was attributed to simply not wanting to use them (Liverpool, McGhee, Lollis, Beckford, & Levine, 2002).

Furthermore, as homeless youths' intimate partner relationships become more exclusive, condoms are less frequently used, as condom use with primary or longer-term partners is documented as lower when compared to their condom use with casual partners (Kennedy et al., 2012; MacKellar et al., 2000; Ream et al., 2012; Tucker et al., 2013; Wagner et al., 2001). Condom non-use with long-term partners nonetheless presents potential vulnerabilities. As noted in a qualitative study by Ream and colleagues (2012), for example, nine of 13 HIV-positive homeless youth respondents believed they had in fact acquired HIV from sex with their primary long-term partners.

Surprisingly, talking to one's sexual partner about condoms or safer sex practices is associated with a greater likelihood of engaging in unprotected sex (Barman-Adhikari, Hsu, Begun, Portillo, & Rice, 2016). Kennedy et al. (2013) concluded that for some youth, using condoms may be perceived as preventing them from developing close, committed, trust-based relationships, and thus are not used. Alternatively, studies have suggested that when partners

talk about condom use, it could instead indicate that they are discussing their sexual histories (Dilorio, Dudley, Soet, Watkins, & Maibach, 2000). However, this may pose risks of inferring inaccuracies regarding their respective HIV and/or STI statuses, thus potentially introducing more risk of transmitting and acquiring HIV and/or STIs despite communication on these subjects (Dilorio et al., 2000).

Other influences that occur in the contexts of youths' social networks have also been observed in prior research. For instance, condom use is less likely when homeless young males hold more negative attitudes toward condoms (Tucker et al., 2013). Male homeless youth have been depicted as endorsing more negative attitudes regarding condoms, in general, when compared to female homeless youth, with males noting that condoms are both uncomfortable and inconvenient (Liverpool et al., 2002). However, as previously noted, female homeless youth have been shown as more likely than males to engage in unprotected (condomless) sex (Halcón & Lifson, 2004). Such phenomena may perhaps be explained through differentials in gender-based norms and power disequilibria within heterosexual relationships that place young homeless women at risk of engaging in HIV risk behaviors in response to perceiving pressure to conform to male partners' desires to not engage in condom use (Wingood & DiClemente, 2000).

Accordingly, this study also further differentiated between youths' use of condoms and other forms of contraception/birth control. While condoms are indeed a form of contraception that aid in preventing HIV, STIs, *and* pregnancy, condoms are viewed by many family planning researchers and providers as quite different from most other forms of contraception, which are only effective in preventing pregnancy (if used correctly). The need for such conceptual differentiation is rooted in several additional reasons, as well. Condom decision-making may occur spontaneously, or specifically at the time of sexual encounters, whereas other forms of contraception/birth control typically require an appointment with a medical professional, a prescription, and/or in the cases of intrauterine devices (IUDs) and contraceptive implants, an insertion procedure. Such forms of contraception/birth control, are thus not as "real time" as that of condoms. This is an important consideration, given the gender-based power differentials as

posited by Wingood and DiClemente (2000). Decision-making and negotiation regarding condoms may differ in comparison to the usage of other contraceptive/birth control methods, as males are most often the “users” of condoms, whereas females are most often the “users” of other contraception/birth control. Thus, these gender dynamics thereby make the discussion of condoms and other contraceptive/birth control methods inherently different from each other. Moreover, condoms are limited-use and visible, whereas other forms of contraception/birth control are typically not visible, and are longer-acting. This study therefore operationalizes “contraceptive/birth control methods” as all other forms of pregnancy-preventing medications and devices, and not inclusive of condoms.

Other relationship-based dynamics are also important to consider with regard to homeless youths’ condom use. For example, research has shown that youth who have one or more street-based peer(s) who use condoms are significantly more likely to also engage in safer sex practices (Barman-Adhikari, Hsu, Begun, Portillo, & Rice, 2016). Accordingly, homeless youths’ broader social contexts are important to examine with regard to condom use behaviors. Indeed, the knowledge base pertaining to unprotected sex and condom use among homeless youth is relatively well-documented. However, pro-pregnancy attitudes have not received adequate empirical attention as a potential predictor of homeless youths’ condom use. By adding pregnancy attitudes as a factor to models that examine the many other contextual characteristics associated with unprotected vaginal sex among homeless youth, a more comprehensive picture of how findings may further contribute to future research—regarding both pregnancy as well as HIV/STI prevention—could potentially emerge.

The Utility of Social Network Analysis

As noted, research has preliminarily identified some ways by which homeless youths' pregnancy attitudes and engagement in unprotected sex may be influenced by other people in their lives. Social network analysis is an emerging and promising development in homeless youth research. This research approach extends beyond examinations of individually held attitudes and behavioral characteristics, toward analyses of broader interpersonal influences on such attitudes and behaviors that are found in youths' social networks.

Social networks are defined as individuals or groups of individuals who share connections and interactions with each other, and social network analysis is the statistical and inferential measuring and mapping of the relationships and structures that form as part of these social networks (Wasserman & Faust, 1994). Social networks form naturally, and members of these networks convey information, influence beliefs, and endorse or discourage behaviors among each other (Davey-Rothwell & Latkin, 2007; Friedkin, 2001). A primary way through which beliefs and behaviors are influenced is through the creation and maintenance of social norms (Davey-Rothwell & Latkin, 2007; Friedkin, 2001). Social norms are valuable indicators of behaviors and intentions (Barrington, 2008), and are an important concept embedded in several theories pertaining to behavioral health that inform this dissertation, which will subsequently be discussed.

Social norms are most succinctly described as beliefs regarding what behaviors are or are not considered common or acceptable within a given group (Kincaid, 2004). Social norms are typically categorized as *collective* or *perceived* (Lapinski & Rimal, 2005). Collective norms are those held at community-based or broader cultural levels, whereas perceived norms depict individuals' interpretations of such group-based norms (Lapinski & Real, 2005). Of note, research has found that perceived norms are more accurate predictors of individuals' engagement in behaviors, when compared to collective norms (Berkowitz, 2004). This study thus examined perceived norms regarding pregnancy among homeless youth.

Perceived norms have most often been classified as *descriptive* or *injunctive*; descriptive norms represent the perceived prevalence of a behavior within a group, whereas injunctive norms depict the perceived approval or disapproval of a behavior (Davey-Rothwell & Latkin, 2007). In order for norms to be established, they must be first generated and adopted by members of a given social network group (Horne, 2001). Then, individuals often respond to such norms by conforming to or engaging in the normative behavior(s) as designated, because in doing so, they gain social status within the group that established the norm (Rogers, 2003).

Descriptive and injunctive norms influence behaviors in different ways, and one type of norm is often more compelling than the other, depending upon the behavior (Davey-Rothwell & Latkin, 2007). For example, some studies have shown that behaviors, such as condomless sex among homeless youth, and also individuals' engagement in physical activity/exercise, are more likely to be influenced simply by one's perceptions of how many others are engaging in that behavior (i.e., descriptive norms), rather than doing so because they believe others would encourage or discourage them from doing so (i.e., injunctive norms) (Barman-Adhikari, Hsu, Begun, Portillo, & Rice, 2016; Okun et al., 2003). Other research, conversely, has found that individuals' perceptions of others' encouragement or discouragement of a given behavior, such as alcohol use among college students, are more salient predictors of their own engagement in that behavior when compared to the general commonality of the behavior itself (Rimal & Real, 2003). Further, some studies have noted that *both* descriptive and injunctive norms are significantly associated with engaging in or abstaining from a behavior, such as homeless youths' use of substances, such as methamphetamine, as well as their nonmedical use of prescription drugs (Barman-Adhikari, Al-Tayyib, Begun, Bowen, & Rice, 2017; Barman-Adhikari, Begun, Rice, Yoshioka-Maxwell, & Portillo; 2016). Taken together, research underlines the important, and at times differential, influence of descriptive and injunctive norms on attitudes and behaviors.

Another critically important aspect of examining homeless youths' social networks is the acknowledgement of their networks' diversity. Recent research shows that homeless youths' social network compositions are far more heterogeneous than was previously understood (Rice et

al., 2007; Rice et al., 2008; Wenzel et al., 2012). Notably, network heterogeneity creates further complexities in understanding norm formation and risk behavior engagement among homeless youth. Youth have many different types of people, or “referent-group members” (i.e., home-based peers, street-based peers, family members, staff members/service providers, and serious partners) with whom they interact. These different referent-group members convey a wider variety of norms and associated messages regarding what are, versus are not, deemed common, appropriate, and/or unacceptable behaviors. As such, there is great usefulness in understanding the differences in social norms specifically endorsed by each referent-group, as these groups may convey unique or even contradictory norms to homeless youth, respectively, particularly depending upon whom comprises such groups (Latkin et al., 2009; Rimal et al., 2005).

To better comprehend the complexities found in youths’ heterogeneous networks, one approach to social network analysis consists of *egocentric* examinations, which refers to the direct ties that the person of interest (i.e., the study participant, also referred to as the “ego” or “index” person) individually has with each of his or her network members, often referred to as “alters.” These network members, or alters, can then be categorized, into the previously mentioned “referent-groups” based on the type of relationship that each person represents to the participant, or “ego.” As noted, referent-group types, in the context of homeless youth, most often include home-based peers, street-based peers, family members, staff members and service providers, and serious (romantic) partners. Egocentric network analysis allows for the multifaceted nature of norms to be further dissected, particularly in assessing how each type of referent-group comparatively contributes to norm formation, and subsequently, how norm endorsements among specific referent-groups are differentially associated with youths’ attitude formation and engagement in behaviors. Such analyses also allow for the identification of where there may be inconsistencies conveyed regarding risk versus protective behaviors endorsed by each respective referent-group.

Egocentric analyses may also facilitate examinations of homeless youths’ support networks and how different forms of social support, provided by each referent-group, may

differentially influence youths' attitudes and behaviors. These associations are also fundamental to assess because of the potential vulnerability of youth to the influences of others who provide them with much needed—sometimes life-saving—resources. Homeless youth research has often focused on the adverse influence of peers on engaging in risky behaviors; however, far less attention has been devoted to understanding positive social support provided by pro-social individuals or groups, typically operationalized as family, home-based peers, and service providers (Johnson, Whitbeck, & Hoyt, 2005; Rice et al, 2007; Rice et al., 2008; Wenzel et al., 2012). Research shows that homeless youth have networks that extend well beyond street-based influences (Johnson et al., 2005; Rice et al., 2007; Rice et al., 2008; Rice, 2010; Wenzel et al., 2012). One study found that over 80% of homeless youth named at least one non-street relationship as comprising a part of their respective social networks (Johnson et al., 2005). Wenzel and colleagues (2012) found that a majority of youth reported reliance upon one or more family member(s) for instrumental (e.g., money or necessities) and/or emotional support. Homeless youths' connections to pro-social individuals and groups have demonstrated important links with reduced risk behavior engagement, and notably, with regard to their engagement in risky sexual behaviors (Rice et al, 2007; Rice et al., 2008; Tyler, 2008; Wenzel et al., 2010).

However, most of such egocentric analyses (e.g., those including descriptive and injunctive norms, and youths' sources of social support) have not been the central focus of any known studies regarding homeless youth pregnancy. The study that most closely resembles such line of inquiry was by Tucker and colleagues (2012a), who found that homeless youth were less likely to endorse positive attitudes regarding pregnancy if they had greater numbers of network members who regularly attend school, and also if they had fewer network members who they perceive as engaging in risky sex. Conversely, youth were more likely to hold positive attitudes regarding pregnancy if they felt greater commitment to a relationship with a serious partner, and if they listed a larger number of family members as comprising their social networks (Tucker et al., 2012a). However, descriptive and injunctive norms regarding pregnancy, nor youths' receipt of social support from their social network members, were the explicit focus of the study.

Regarding egocentric network influences on youths' engagement in unprotected sex, several studies have found that homeless youths' use of condoms was more likely in sexual encounters with "casual" partners compared to serious partners (Kennedy et al., 2012; Tucker et al., 2012b). Kennedy and colleagues (2013) similarly found associations between longer duration of homeless youths' relationships with serious partners and their lower likelihood of condom use. Youths' engagement in unprotected sex has demonstrated significant relationships with other network-based factors, such as youth feeling emotionally close to a partner, as well as receipt of tangible support from a serious partner (Kennedy et al., 2013). Moreover, positive associations were found between youths' perceptions of higher proportions of non-sex partners in their networks who engage in risky sex, and their own engagement in unprotected sex (Kennedy et al., 2013).

Accordingly, research would benefit from further replicating these compelling findings, while also extending analyses to include additional nuances of homeless youths' network influences in relationship to their reproductive and sexual health attitudes and behaviors. The examination of these largely unknown relationships is nonetheless promising in the context of homeless youth pregnancy and HIV prevention, particularly as HIV prevention efforts using social network-oriented intervention strategies have been linked to successfully encouraging condom use among participants (Wang, Brown, Shen, & Tucker, 2011). In addition, prevention research is more frequently crafting approaches to interventions that attempt to modify aspects of social network norms present within communities or groups by harnessing the power of network-based influences to promote healthier behaviors (Barrington, 2008). Given the heightened risks and grave adverse health outcomes experienced by this highly vulnerable population, an extension of this encouraging line of inquiry is urgently needed.

Theoretical Grounding

Several underlying theoretical frameworks informed the conceptualization of this dissertation. Historically, most theories guiding studies of reproductive and sexual health behaviors have focused on the attitudes, actions, and characteristics of individuals. However,

scholars have increasingly argued that such perspectives fail to consider individuals' surrounding social contexts, which are often among the most important drivers of their health-related attitudes and behaviors (Carpentier & White, 2002). Health researchers, in particular, have thus begun to focus more intently on theoretical conceptualizations that underline individuals in relationship to their social environs (Luke & Harris, 2007). To more adeptly frame this network-based investigation of homeless youths' pregnancy attitudes and engagement in HIV risk behaviors, the following theoretical perspectives were consulted: Social Cognitive Theory (Bandura, 1977); Social Identity Complexity (Roccas & Brewer, 2002); Social Capital Theory (Bourdieu, 1986; Lin, 1999; Putnam, 2000); and the Theory of Reasoned Action (Ajzen & Fishbein, 1980).

Social Cognitive Theory. Social Cognitive Theory (Bandura, 1977), which is used across a wide range of academic disciplines (e.g., health, psychology, business, education, communication), asserts that individuals are part of a broader social environment, which provides examples for behavior. Social Cognitive Theory also reinforces the utility of considering both descriptive as well as injunctive norms. Individuals acquire knowledge by observing and mirroring the actions of others' behaviors in that environment, and such behaviors are either rewarded or admonished accordingly. As people experience how common or uncommon behaviors are, and the rewards or consequences of engaging in or performing a given behavior, they thus remember this pattern of events. Their subsequent actions are then reflections of "wisdom" obtained through this process of observational learning.

However, Social Cognitive Theory (Bandura, 1977) contends that people do not merely adopt behaviors only by engaging in them and then either succeeding or failing; rather, individuals' continued observations of others engaging in the behavior may also prompt the individual to continue or cease in their engagement in a previously-learned behavior. As such, the process of observational learning is not merely "trial and error." Instead, observational learning is fluid, evolving, rooted in perceptions, and dependent upon the replication of others' actions. Depending on whether an individual perceives others as praised or penalized for their engagement in or abstinence from a given behavior, and/or for the outcome of the behavior itself,

the observing individual chooses whether or not to imitate, or continue to repeat, the behavior modeled.

Social Cognitive Theory (Bandura, 1977) has been used to conceptualize numerous studies of behavioral health. Bandura (2011) noted that Social Cognitive Theory is a useful frame for shifting medicine away from a “disease model” to a “health model.” Bandura (2011) observed that emulating healthy behaviors is more likely to promote health than merely treating and curing diseases. More specific to reproductive and sexual health, Social Cognitive Theory has been employed as the theoretical underpinning of strategies for encouraging greater contraceptive use (Bandura, 2011), engaging youth through peer-based HIV prevention models (Miller, 2005), and increasing mothers’ breastfeeding of preterm infants (Ahmed, 2009).

Social Cognitive Theory (Bandura, 1977) was thus employed in the current study to note that like all individuals, homeless youth do not form their attitudes or engage in behaviors solely on their own accord, nor at random. Instead, they do so as a replication of others’ actions, particularly in viewing which behaviors are common and/or are met with rewards versus punishment. These concepts are especially relevant to youths’ pregnancy attitudes and their engagement in sexual behaviors, which, as noted, are intertwined with youths’ perceptions of both surrounding social norms as well as their relationships with others.

Social Identity Complexity. As previously stated, homeless youths’ social networks are typically complex and heterogeneous. These networks therefore often convey multifaceted and, at times, contradictory social norms on a range of issues and behaviors. Social Identity Complexity (Roccas & Brewer, 2002) was thus also employed as a theoretical perspective to inform the current study.

Homeless youth are tasked with responding to a diversity of social norms that are differentially endorsed by the specific referent-groups with whom they interact. Social Identity Complexity (Roccas & Brewer, 2002) succinctly aids in examining how homeless youth navigate the interrelationships of their own multiple group identities (e.g., youth as peers, as family members, as romantic partners, and as recipients of social/shelter-based services) and their

perceptions of the prevailing social norms endorsed by each of these groups to which they belong. Social Identity Complexity also illustrates the degree to which these specific referent-groups are perceived by youth as overlapping versus diverging from each other. Disparities in norms regarding pregnancy that youth perceive as endorsed (or not endorsed) by their specific referent-groups may thus differently impact youths' pregnancy attitude formation, and subsequently, their associated pregnancy behaviors.

As a hypothetical example, youth may perceive their serious romantic partner(s) or their street-based peers as overall more encouraging of them becoming pregnant or involved in a pregnancy. However, youth may believe that their home-based peers, family members, and/or service provider/staff members are, conversely, opposed to them becoming pregnant or involved in a pregnancy. Social Identity Complexity (Roccas & Brewer, 2002) therefore describes the process by which youth consider and perceive the assorted attitudes, preferences, and influences of the different people in their lives. This theoretical perspective contends that youth thus engage in or abstain from behaviors based on which social influences are the most versus least salient depending on the behavior, who specifically comprises each referent-group, and youths' interpretations of their own identities as concurrent members of each of these groups.

Social Capital Theory. Additionally, to assist in examining the importance of homeless youths' network-based sources of social support, Social Capital Theory (Bourdieu, 1986; Lin, 1999; Putnam, 2000) provides a useful theoretical lens. Social capital is borne out of individuals' and groups' social interactions and relationships (Bourdieu, 1986; Lin, 1999; Putnam, 2000), and has been described as the capacity for an individual to obtain resources and other benefits simply by way of being a member of a given social network (Portes, 1998, Warschauer, 2004). Social capital, in comparison to how economic "capital" is typically characterized (e.g., wages, property), is instead described as resources, social support, and benefits that are obtained specifically via individuals' social ties to others (Lin, 1999).

Putnam (2000) more specifically conceptualized social capital as either *bonding* or *bridging* in classification. Bonding capital, in the case of homeless youth, equates to connecting

with other street-based peers (Stablein, 2011). Such bonds may play a role in developing group-based cohesion and camaraderie, and thus can be valuable, particularly in light of the challenging circumstances often collectively faced by this group. However, these relationships can also represent conflict and instability, and thus, do not typically provide opportunities for developing healthy or conventional behaviors (Whitbeck, 2009). Bridging capital, alternatively, epitomizes homeless youths' relationships to home-based and/or pro-social individuals (e.g., home-based peers, family members, and staff members/service providers). These individuals often signify an "escape" from the challenges of street life. They may also be the more likely providers of several needed forms of social support, such as emotional, informational, and/or instrumental support (Karabanow & Naylor, 2010; Mitchell & LaGory, 2002).

In the current study, Social Capital Theory frames the analysis of homeless youths' sources of social support, dissected by specific referent-group, and by type of social support provided (e.g., emotional, instrumental, and informational). Homeless youths' attitudes regarding pregnancy are hypothesized as notably influenced by their needs for greater connection to others, for information on how and where helpful resources may be obtained, and for literal necessities. As such, this dissertation further examines how receipt of these forms of social support are comparatively influential in youths' pregnancy attitude formation, particularly as they are provided by "bonding" versus "bridging" types of youths' specific referent-groups.

Theory of Reasoned Action. Drawing from the Theory of Reasoned Action (Ajzen & Fishbein, 1980), the current study also investigates how homeless youths' pro-pregnancy attitude endorsements may ultimately be associated with their engagement in unprotected sex. This theory is a widely used conceptualization in discussions of behavioral health. The Theory of Reasoned Action notes that if an individual holds positive attitudes regarding a behavior or an outcome, they are more likely to be motivated to intentionally engage in either the behavior itself, or the behavior that is required to produce the positively-endorsed outcome. The theory also acknowledges that an individual's endorsement of a given behavior or outcome is formed, at its core, based upon the individual's perception that a person to whom he or she is closely

connected specifically wants him or her to engage in that behavior and/or achieve that outcome (Ajzen & Fishbein, 1980; Davey-Rothwell & Latkin, 2007). Accordingly, this theory further supports the use of injunctive norms in the current study, although does not address the notion of descriptive norms.

Also pertinent to the current study, this theory is useful in framing how homeless youths' endorsements of pro-pregnancy attitudes may prompt them to engage in behaviors that result in pregnancy, such as unprotected vaginal sex. The Theory of Reasoned Action (Ajzen & Fishbein, 1980) posits both attitudes and norms as predictors of intentions, which in turn, predict future behaviors. Some studies specific to condom use decision-making have shown, however, that attitudes, when compared to norms, are stronger predictors of intentions and subsequent behaviors (Albarracín, Johnson, Fishbein, & Muellerleile, 2001; Eagly & Chaiken, 1993). Indeed, as surrounding social norms have been highlighted as comprising a crucial component of attitude formation, the current study therefore progressed as follows: 1) an examination of sociodemographics/life experiences, perceived social norms regarding pregnancy, and sources of social support in youths' networks as predictors of youths' pregnancy attitudes; 2) an analysis of, and informed by the Theory of Reasoned Action (Ajzen & Fishbein, 1980), youths' pregnancy attitudes as a predictor of youths' engagement in unprotected vaginal sex; and 3) a qualitative exploration of how homeless young people develop their pregnancy attitudes and make reproductive and sexual health decisions in the context of their social networks.

To reiterate, this dissertation sought to understand how homeless youths' complex surrounding social contexts may play a role in shaping their reproductive and sexual health attitudes and behaviors. Through exploring the three aforementioned study aims, the primary goal of this project was to add to a sparse, while urgently needed, literature base regarding homeless youth pregnancy and HIV risk behaviors, hopefully contributing to the future development and testing of novel prevention and intervention efforts with this vulnerable youth population.

CHAPTER THREE: METHODOLOGY

Overall Study Design

This mixed methods dissertation explored the aforementioned specific aims through analyzing secondary quantitative data (Aim #1 and Aim #2), followed by using results obtained to inform the collection and examination of original qualitative data (Aim #3). The study uses a mixed methods sequential design, a commonly used and well known mixed methods approach (Creswell & Plano Clark, 2007). Final mixed methods interpretations included direct comparisons and contrasts of quantitative and qualitative results, integrating toward a more comprehensive discussion of future prevention research and policy objectives regarding homeless youth pregnancy and HIV risk behaviors.

Quantitative Strand

Secondary social network data were analyzed from a larger multi-year panel study (MH R01 903336; Principal Investigator: Dr. Eric Rice, University of Southern California). The multi-year study's overall aim was to assess the large interconnected networks of homeless youth in Hollywood, California, and Santa Monica, California. Cross-sectional data obtained from each of the multi-year study's four waves of data collection were used in this dissertation. More specifically, variables pertaining to homeless youths' sociodemographic characteristics, homelessness and other life experiences, pregnancy attitudes, perceived pregnancy norms (descriptive and injunctive) present in youths' networks, sources of social support, and HIV risk behaviors were evaluated.

Sampling, recruitment, and procedures. Cross-sectional quantitative data were obtained from a sample of homeless youth ($N = 1,046$), aged 13 to 25 years, recruited in four separate waves of data collection. Recruitment occurred between 2011 and 2013, with all waves of data collection taking place in a drop-in center in Hollywood, CA, and another in Santa Monica,

CA. Recruitment was conducted at both agencies by research assistants from a graduate social work program. Research assistants were onsite at both locations to approach youth for the duration of service provision hours at each site. Any client older than 13 years of age receiving services at either respective agency was eligible to participate. Youth who newly arrived at either agency were first required to complete the agencies' intake processes before beginning the study to confirm they met agency-specific eligibility requirements, in addition to those of the study. A consistent pair of two research assistants was responsible for all recruitment efforts to prevent youth from participating in the study multiple times during each data collection period per site.

Signed voluntary informed consent was obtained from each youth who agreed to study participation. Informed consent was obtained from youth 18 years of age or older, and informed assent was obtained from youth under the age of 18 years. Accordingly, the institutional review board of the Principal Investigator's university waived parental consent, as homeless youth under the age of 18 are deemed unaccompanied minors and thus may not have a parent or adult guardian from whom they could obtain consent. Research assistants completed approximately 40 hours of training, including role-playing scenarios, lectures, administration of mock surveys, ethics training, and procedures to be followed in case of emergencies.

Instruments. The survey consisted of two parts: (1) an audio computer-assisted self-interview (ACASI), which included sociodemographic questions as well as items pertaining to attitudes and behaviors specific to each respondent (e.g., youths' pregnancy attitudes, unprotected sex at last sexual activity, etc.); and (2) a face-to-face social network interview (F2F-SNI), which inquired about individuals nominated by youth as comprising their social networks, including nominees' characteristics, attitudes, and behaviors. Both portions of the interview could be completed in English or Spanish. Study participation required about 60 to 90 minutes total for each participant, with each participant receiving \$20 in cash or gift cards as compensation for their time. All survey items and procedures were approved by the aforementioned university-based institutional review board.

Part 1: Audio-computer assisted self-interview (ACASI). The ACASI asked participants to enter their answers to questions privately into the computer after either silently reading questions as they appeared on the screen, and/or after listening via headphones to questions being read aloud to them. After participants entered their responses, subsequent questions were selected by the computer using a series of pre-programmed skip patterns. The ACASI approach to data collection was used because it has been shown in prior research to reduce non-response rates, particularly to sensitive questions regarding potentially stigmatized or socially undesirable topics such as substance use, illegal activities, and sexual behaviors (Ghanem, Hutton, Zenilman, Rimba, & Erbelding, 2005; Macalino, Celentano, Latkin, Strathdee, & Vlahov, 2002; Morrison-Beedy, Carey, & Tu, 2006; Turner et al., 1998).

Part 2: Face-to-face social network interview (F2F-SNI). The F2F-SNI was then used to generate all data pertaining to youths' social networks that were used in the current study. The F2F-SNI provides visual stimulus to respondents, which has been shown, in prior research, to reduce participant burden by enhancing youths' ability to focus, particularly when recalling and providing a large amount of social network data (Rice, Kurzban, & Ray, 2012).

Name generator. As part of the F2F-SNI, participants' social network data were collected by research assistants using a name generator. Participants provided information for up to 50 people with whom they had interacted during the previous 30 days. When youth finished nominating individuals in their networks, characteristics of each nominee were collected, including first name and last initial, aliases, gender, age, race/ethnicity, whether the nominee was a client of the agency, each nominee's relationship type with regard to the participant (e.g., home-based peer, street-based peer, family member, staff member, serious partner), and a series of questions about the characteristics, attitudes, and behaviors of network members nominated.

Measures: Predictors of homeless youths' pro-pregnancy attitudes (Aim #1). Several variables were selected, based on prior theoretical and empirical findings, to meet the overall goal of understanding associations between homeless youths' sociodemographics/other life experiences, youths' perceived social norms regarding pregnancy, youths' sources of social

support, and the outcome of homeless youths' endorsements of pro-pregnancy attitudes. First, associations were tested between a variety of sociodemographics/other life experiences variables and the outcome of homeless youths' pro-pregnancy attitude endorsements.

Then, two subsequent models examined associations between youths' perceived social norms regarding pregnancy and youths' endorsements of pro-pregnancy attitudes. In the first of these two models, after controlling for the previously mentioned sociodemographics/other life experiences variables, associations were analyzed between youths' perceived "descriptive" norms regarding pregnancy (i.e., youths' perceptions of how many members of their entire social networks who are currently or have been pregnant or involved in a pregnancy), youths' perceived "injunctive" norms regarding pregnancy (i.e., youths' perceptions of how many members of their entire social networks who would object to, versus encourage, them becoming pregnant or involved in a pregnancy), and the outcome variable of youths' pro-pregnancy attitude endorsements.

In the second of the two models testing associations between youths' social norms regarding pregnancy and pro-pregnancy attitudes, descriptive and injunctive norms variables were more specifically dissected into reflecting youths' social network referent-group members. Referent-group members refer to the specific "types" of people who youth named as comprising their social networks. In the current study, these types of referent-group members included home-based peers, street-based peers, family members, staff/service providers, and serious romantic partners. In this model, after controlling for the sociodemographics/life experiences variables, associations were more granularly analyzed between youths' perceived "descriptive" norms regarding pregnancy (i.e., youths' perceptions of how many of their home-based peers, and street-based peers, respectively, are currently or have been pregnant/involved in a pregnancy), youths' perceived "injunctive" norms regarding pregnancy (i.e., youths' perceptions of how many of their home-based peers, street-based peers, family members, staff/service providers, and serious partners, respectively, would object to, versus encourage, them becoming pregnant/involved in a pregnancy), and the outcome variable of youths' pro-pregnancy attitudes.

In the final model analyzing homeless youths' pro-pregnancy attitudes endorsements as the outcome variable, youths' sources of social support were then examined. After controlling for the previously mentioned sociodemographics/other life experiences variables, associations were tested between youths' receipt of emotional, instrumental, and informational support, respectively, specifically by each of the aforementioned referent-group member types (e.g., home-based peers, street-based peers, family members, staff, serious partners), and the outcome variable of youths' pro-pregnancy attitude endorsements.

Sociodemographics/other life experiences measures used in study.

Sociodemographic measures included gender (0 = male, 1 = female); race/ethnicity (0 = non-White, 1 = White); age (measured as continuous variable, in number of years); education level (0 = non-graduate of high school, 1 = high school graduate); current school attendance (0 = no, 1 = yes); current employment (0 = not currently employed, 1 = currently employed); and time spent homeless (measured as continuous variable, in number of years). Participants were also asked whether they had a series of other life experiences including: transience/"traveler" status (*"Have you ever been a 'traveler'? A traveler is someone who moves by themselves or with friends from city to city after a short period of time"*; 0 = no, 1 = yes); alcohol/drug use prior to sex (*"Did you drink alcohol or use drugs before you had sex the last time?"*; 0 = no, 1 = yes); sexual abuse history (0 = no, 1 = yes); foster care history (0 = no, 1 = yes); and prior pregnancy(ies)/involvement (0 = no, 1 = yes). All questions pertaining to sociodemographics and other life experiences were asked of each of the four waves of the full sample ($N = 1,046$).

Descriptive norms measures (from youths' entire social networks). To examine descriptive norms regarding pregnancy, after youth finished nominating their network members, they were asked: *"Out of the people you nominated, who has ever been pregnant or gotten someone pregnant?"* Descriptive norms were calculated as the proportion of people who the respondent thought had ever been pregnant or involved in a pregnancy out of the total number of network members the respondent named as comprising his or her entire network. This construct was included as a continuous variable.

Injunctive norms measures (from youths' entire social networks). Similarly, to evaluate injunctive norms regarding pregnancy, after youth finished nominating their network members, they were asked: "*Out of the people you nominated, who would object to you getting pregnant or getting someone else pregnant right now?*" This was calculated as the proportion of network members who respondents thought would object to them becoming pregnant or involved in a pregnancy, out of the total number of network members originally named. Youth were also asked, "*Out of the people you nominated, who would encourage you to get pregnant or get someone pregnant right now?*" Just as with the prior questions, this was calculated as the proportion of people who respondents thought would encourage them to become pregnant or involved in a pregnancy, out of the total number of network members originally named. To interpret the two injunctive norms questions as one predictor variable suited for the logistic regression models, the "object" and "encourage" questions were dichotomized and recoded such that 0 = the proportion of alters who would encourage the youth to become pregnant or involved in a pregnancy was greater than the proportion of alters who would object to the youth becoming pregnant or involved in a pregnancy. Conversely, 1 = the proportion of alters, who were perceived as objecting to the youth becoming pregnant or involved in a pregnancy, was greater than the proportion of alters who would encourage the youth becoming pregnant or involved in a pregnancy. Because questions about descriptive and injunctive norms regarding pregnancy were included in only Waves 3 and 4 of the panel study, analyses utilizing these variables were conducted on a smaller sub-sample of study participants ($n = 304$).

Descriptive norms measures (dissected into youths' specific referent-group members). Descriptive norms measures were also further dissected to examine youths' perceptions of specifically how many of their home-based peers, and street-based peers, respectively, had ever been pregnant or involved in pregnancy, as a proportion of their total network members named. For example, if a youth in the sample named 10 network members total, and noted that three home-based peers have ever been pregnant or involved in a pregnancy, the perceived descriptive pregnancy norm proportion for the referent-group of home-

based peers equaled $(3 / 10) = 0.3$. The same calculations were also made for the referent-group of street-based peers. However, descriptive norms regarding pregnancy for referent groups of family, staff members, and serious partners were deemed less logically pertinent to evaluate, and were not included in this referent-group specific model. Family members and staff members at the shelter/drop-in services, for instance, are typically comprised of either people from different age groups and/or life situations, and their pregnancies are thus less comparable and less likely to be influential to homeless youths' pregnancy attitudes or intention. Furthermore, the way in which data were collected did not allow for the further dissection of family into sub-groups, such as siblings; descriptive norms of siblings' pregnancies may logically be influential to homeless youths' pregnancy attitude formation, but this level of analysis was not possible in the current study.

Injunctive norms measures (dissected into youths' specific referent-group members). Similarly, with injunctive norms, "object" and "encourage" variables were combined and dichotomized in the same way as was previously noted, but here, more narrowly sorting these variables by youths' referent-group members. Each individual a youth named within a given referent-group (i.e., home-based peers, street-based peers, family, staff, and serious partners) category was summed, respectively, and examined in proportion to the total number of individuals nominated by youth as comprising their entire networks. These proportions were dichotomized and coded as '0' if the proportion of a specific referent-group member type, out of total network members named, who youth perceived would encourage them to become pregnant or involved in a pregnancy, was greater than the proportion of the same specific referent-group members who youth perceived would object to them becoming pregnant/pregnancy-involved. Conversely, variables were coded as '1' if the proportion of specific referent-group members, who youth perceived would object to the youth's pregnancy/involvement, was greater than the proportion of the same referent-group members who youth perceived would encourage the youth's pregnancy/involvement. These transformed injunctive norms variables were then used as predictor variables of interest in the model, and included: home-based peers (0 = more

encouraging, 1 = more objecting); street-based peers (0 = more encouraging, 1 = more objecting); family (0 = more encouraging of pregnancy, 1 = more objecting to pregnancy); staff (0 = more encouraging, 1 = more objecting); and serious partners (0 = more encouraging, 1 = more objecting).

Sources of social support (dissected into youths' specific referent-group members). The final model for Aim #1 assessed associations between youths' sources of social support (emotional, instrumental, and informational support) provided by specific referent-group members, and youths' pro-pregnancy attitude endorsements. To evaluate sources of emotional support, after youth finished nominating their network members, they were asked, "*Who can you count on when you need to talk, or is someone you can confide in?*" Similarly, to assess sources of instrumental support, youth were asked, "*Who could you borrow \$100 from if you needed it?*" Finally, to examine sources of informational support, youth were asked, "*Who do you talk to about where to get social services (help with housing, food, clothes, casework, etc.)?*" Each type of social support was examined specific to referent-group type (e.g., family_emotional; family_instrumental; family_informational, and so forth). Each variable was dichotomized to reflect either 0 = no support received, or 1 = receipt of support from one or more network member(s). As youth commonly reported receipt of no support across these categories, the variables were dichotomized, based on median scores, to reflect none versus any support. Each of these referent-group social support predictor variables was placed into a model to examine respective associations with youths' pro-pregnancy attitude endorsements. Unlike questions pertaining to social norms, these social support questions were asked of the full sample at baseline ($N = 1,046$).

Outcome variable (Aim #1): Pro-pregnancy attitudes. Throughout Aim #1, the outcome (dependent) variable was youths' pro-pregnancy attitudes. Youths' pregnancy attitudes were measured using three questions, which were combined to form a single pro-pregnancy attitudes scale variable (Cronbach's alpha = .71). These questions included: 1) "*Getting pregnant, or getting someone pregnant, at this time in your life is one of the worst things that could happen*

to you”; 2) “It wouldn’t be all that bad if you got, or if you got someone, pregnant at this time in your life”; and 3) “I would like to get pregnant, or get someone pregnant, within the next year.”

Response options for each question comprised: 1 = Strongly Agree; 2 = Agree; 3 = Neither Agree nor Disagree; 4 = Disagree; and 5 = Strongly Disagree. The second and third items were reverse-coded such that all questions conveyed that 1 = most anti-pregnant attitudes, and 5 = most pro-pregnant attitudes. Based on prior literature noting there are no differences in either sociodemographic characteristics or pregnancy outcomes (within the following year) among young people who endorse pregnancy-ambivalent attitudes compared to those who hold overtly pro-pregnancy attitudes (Jaccard et al., 2003; Rosengard et al., 2004), and to fit the requirements of logistic regression, participants’ responses were subsequently dichotomized. Recoded responses of “1” and “2” were combined to represent anti-pregnancy attitudes (“0”), whereas recoded responses of “3”, “4”, and “5” were combined to denote pro-pregnancy attitudes (“1”).

Measures: Predictors of homeless youths’ engagement in unprotected vaginal sex (Aim #2). The overall goal of Aim #2 was to understand associations between homeless youths’ pro-pregnancy attitude endorsements, and the outcome of homeless youths’ engagement in unprotected vaginal sex, a risky sexual behavior linked to not only pregnancy, but also HIV/STI acquisition. In this model, after controlling for the same sociodemographics/other life experiences variables previously mentioned, the association between homeless youths’ pro-pregnancy attitude endorsements and youths’ engagement in unprotected vaginal sex was analyzed. Here, the measure of homeless youths’ pro-pregnancy attitude endorsements, previously used as the outcome variable throughout Aim #1, was assessed in the same way as in prior models, except that in Aim #2, youths’ pro-pregnancy attitude endorsements was instead employed in the model as the predictor variable of greatest interest.

Outcome variable (Aim #2): Unprotected vaginal sex. Unprotected vaginal sex was assessed using the question: “The last time you had sex, what kinds of sex did you have?” Responses included “Vaginal sex, with a condom,” and “Vaginal sex, no condom,” among other choices. Analyses were restricted to youth who reported engaging in vaginal sex at last sex (with

or without a condom) to align with the pregnancy attitudes variable. Using such inclusion criteria thus limited the sub-sample of participants ($n = 730$) that could be analyzed in this model. The outcome variable was dichotomized for purposes of logistic regression, based on participants' responses (0 = did not have unprotected vaginal sex, 1 = had unprotected vaginal sex).

Data analyses. Data analyses were conducted using SAS Version 9.4 and SPSS Version 23.0. To preserve degrees of freedom and ensure statistical power, an accepted strategy (Hosmer & Lemeshow, 2004) was employed to minimize the number of variables used without weakening the comprehensive nature of the conceptual model itself. As such, all analyses predicting associations with the dependent variables progressed in two stages. First, bivariate logistic regressions were conducted to determine statistically significant (unadjusted) associations between each independent variable, respectively, and the outcome variable. Each bivariate association was examined via a pair-wise approach, which is essentially the same as assessing a correlation matrix. Any independent variable that was significantly associated with the outcome variable at a threshold of $p < .05$ was then retained in a subsequent multivariate logistic regression model to determine any statistically significant (adjusted) associations. One exception was the variable for gender, which was retained in all multivariate models. Given the gendered nature of pregnancy, this variable was deemed important to retain as a control variable in all multivariate models regardless of indications of significance in bivariate tests. Variance Inflation Factor (VIF) was also assessed to detect any potential concerns of multicollinearity among the independent variables. Each model was analyzed as follows, and findings will be presented and discussed sequentially, by study aim, in Chapter Four.

Are certain sociodemographics and other life experiences associated with homeless youths' endorsements of pro-pregnancy attitudes? To answer this research question, using one logistic regression model, the pro-pregnancy attitudes variable was regressed on gender, race/ethnicity, age, education level, current school attendance, current employment, time spent homeless, transience/"traveler" status, alcohol/drug use prior to sex, sexual abuse history, foster care history, and prior pregnancy(ies)/involvement(s).

Are perceived social norms regarding pregnancy associated with youths' endorsements of pro-pregnancy attitudes? To answer this research question, one logistic regression model was examined. After controlling for the previously mentioned sociodemographics/other life experiences variables, the pro-pregnancy attitudes variable was regressed on the descriptive norms (from youths' entire networks) variable, and the injunctive norms (from youths' entire networks) variable.

Are perceived social norms regarding pregnancy, within specific referent-group members, associated with youths' endorsements of pro-pregnancy attitudes? To answer this research question, one logistic regression model was assessed. After controlling for the previously mentioned sociodemographics/other life experiences variables, the pro-pregnancy attitudes variable was regressed on the descriptive norms variables (specific to home-based peer and street-based peer referent-groups, respectively), and the injunctive norms variables (specific to home-based peer, street-based peer, family, staff, and serious partner referent-groups, respectively).

Are various forms of perceived social support, from specific referent-group members, associated with youths' endorsements of pro-pregnancy attitudes? To answer this research question, one logistic regression model was analyzed. After controlling for the aforementioned sociodemographics/other life experiences variables, the pro-pregnancy attitudes variable was regressed on the variables indicating different types of social support (i.e., emotional, instrumental, and informational, respectively), specific to each referent-group member type (i.e., home-based peers, street-based peers, family, staff, serious partners), respectively.

Are homeless youths' endorsements of pro-pregnancy attitudes associated with youths' engagement in unprotected vaginal sex? To answer this research question, one logistic regression model was examined. After controlling for the previously mentioned sociodemographics and other life experiences variables, the unprotected vaginal sex variable was regressed on the pro-pregnancy attitudes endorsement variable.

Qualitative Strand

Specific Aim #3 qualitatively investigated how youths' diverse identities and experiences, perceived social norms regarding pregnancy, and access in their social networks to social support, played distinct roles in their reproductive and sexual health attitudes and behaviors. The qualitative strand of the study employed a phenomenological approach, which "explores the lived experience of a phenomenon" (Padgett, 2012, p. 35). The broader "phenomenon" examined by the current study was experiencing homelessness as a young person while grappling with choices regarding reproductive and sexual health. This approach was selected because topics of reproductive and sexual health among homeless youth have not been widely studied. This method is appropriate, as the study explored themes that may not yet be well understood, and sought to find deeper meaning associated with an experience that a group of individuals share in some way (Padgett, 2012).

Sampling, recruitment, and procedures. Purposive sampling was utilized to identify youth, with a diverse range of life experiences and identities, staying at a homeless youth-serving shelter in Denver, Colorado. Sampling concluded after 30 youth participated in the study, as thematic saturation was effectively achieved. The host organization serves youth under the age of 21 years. For study eligibility, participants were required to meet the agency's intake policies for shelter and services access, and per the agency's preference, only youth ages 18 and older were invited to participate. All female, male, and gender-fluid youth meeting other study eligibility requirements were invited to participate, in an effort to collect the most diverse perspectives and experiences regarding reproductive and sexual health among homeless youth as possible.

Youth were approached by the qualitative study's Principal Investigator in the shelter milieu, and were asked if they would like to participate in a research interview after being given a brief overview of the study's purpose. To identify youth who were indeed spending substantial time away from home, versus simply accessing ancillary services through the agency (e.g., drop-in services), youth were screened into the study if they indicated spending at least two weeks away from home in the month prior to the interview (Whitbeck, 2009). In order to participate, all

respondents were also required to provide written informed consent. Although study protocol excluded youth who were not capable of providing consent due to cognitive limitations or noticeable intoxication at the time of the interview (with the option of participating at a later time if capable), such circumstances did not occur during study recruitment. All youth who were approached were deemed eligible for study participation, each of whom elected to engage in a research interview. Youth were notified that study participation was voluntary and could be discontinued with no penalty at any time, and that any details regarding child abuse, suicide, or homicide would be reported if disclosed. All details pertaining to the study were approved by the Principal Investigator's university-based Institutional Review Board (IRB).

After youth provided written informed consent to participate in the study, each respondent was engaged in a one-time, individual interview, lasting approximately 45 to 60 minutes and conducted in a private office in the shelter. Upon completion of the interview, youth were compensated with a \$25 gift card to a local food or general retailer in exchange for their time. Permission to audio-record each interview was requested and obtained from all participants prior to conducting interviews. Respondents were made aware that all interview materials would be assigned non-identifiable participant codes to preserve participants' confidentiality. After completing interviews, all audio recordings and verbatim-transcribed interview transcripts were uploaded on to the Principal Investigator's secure, password-protected computer.

Measures. A semi-structured interview guide was developed to engage participants in conversation, and to explore, in greater depth, homeless youths' attitudes, experiences, and behaviors regarding topics that were analyzed in the quantitative study strand (e.g., pregnancy attitudes, social norms regarding pregnancy, influences of homeless youths' sources of social support on pregnancy views, and youths' engagement in HIV risk behaviors). Qualitative interview questions were also expanded to explore additional and related topics of reproductive and sexual health that have received little attention in social work research, including homeless youths' attitudes and experiences regarding family planning topics (e.g., contraception, abortion, and reproductive and sexual health knowledge and service utilization).

An introductory question was posed at the beginning of each interview and interview topic “section,” followed by a series of potential prompts that were utilized as relevant and dependent upon respondents’ answer trajectories. Youths’ insights largely dictated the flow of the interviews, but the semi-structured guide offered a framework for asking study participants consistent questions in order to generate relevant themes across the 30 interviews, accordingly. Table 1 shows an example of this semi-structured interview guide, and how the order of questions most typically transpired.

Table 1

Semi-structured Qualitative Interview Guide

Primary Topic	Introductory Question(s)	Frequently-used Prompts/Follow-up Question(s)
Pregnancy Attitudes	<p>“To get started, I’m going to ask you some hypothetical questions. If you were to wake up tomorrow and learn that you are pregnant/got someone pregnant, how do you think you’d react?”</p>	<p>“How do you think you’d feel?” “Why might you feel that way?” “How do you think you’d go about deciding what to do next?” “Who do you think you’d tell?” “How do you think they’d react?” “What do you think your options would include for what you could potentially do next?”</p>
Descriptive Norms Regarding Pregnancy	<p>“In thinking about this, hypothetically, what reasons can you imagine for homeless youth intentionally wanting to become pregnant or involved in a pregnancy?” “Why do you think that is the case?”</p>	<p>“How do you think homeless youths’ situations change as they become pregnant or involved in pregnancy?” “How do things change at the shelter, or with their families, or other friends, or with their partners?” “How do you think these reactions or changes influence how they feel about their pregnancy or pregnancy involvement?” “How do you think those messages influence what they end up doing in response to the pregnancy?” “What have you noticed about how these messages or influences differ, or perhaps are the same, based on the gender of the person involved in the pregnancy?” “In thinking about these things from your own perspective, how do you think such factors, or the opinions of people in your life, would influence how you would feel about a pregnancy or pregnancy involvement?” “From your experiences, how common is it for homeless or unstably housed youth to become pregnant or involved in a pregnancy, in general?” “Why do you think that is the case?” “What about on purpose? How common do you think it is for homeless youth to become pregnant or involved in a pregnancy, on purpose, or fully-intended?” “And why do you think that is the case?” “How many people can you personally think of who have been pregnant while homeless?”</p>

<p>Sources of Social Support</p>	<p>“Who in your life do you go to for emotional support, for things like advice, to talk about a problem, to confide in, or when you’re feeling sad, frustrated, angry, or other emotions like that?”</p> <p>“Who in your life do you go to for informational support, for things like how to access services, how to do something, where to find something, or things like that?”</p> <p>“Who in your life do you go to for instrumental support, for things that you need, such as money, a place to sleep, food, clothing, or other necessities like that?”</p> <p>“What kinds of social support might other homeless youth need if they became pregnant?”</p>	<p>“How do you think ____ [person(s) named] would feel about you becoming pregnant or involved in a pregnancy right now?”</p> <p>“How do you think your feelings about pregnancy or pregnancy involvement could be or could not be influenced by their opinions because of the role(s) he/she/they play(s) in your life?”</p> <p>“How do you think ____ [person(s) named] would feel about you becoming pregnant or involved in a pregnancy right now?”</p> <p>“How do you think your feelings about pregnancy or pregnancy involvement could be or could not be influenced by their opinions because of the role(s) he/she/they play(s) in your life?”</p> <p>“How do you think ____ [person(s) named] would feel about you becoming pregnant or involved in a pregnancy right now?”</p> <p>“How do you think your feelings about pregnancy or pregnancy involvement could be or could not be influenced by their opinions because of the role(s) he/she/they play(s) in your life?”</p> <p>“What struggles would homeless youth, without these kinds of support, face?”</p> <p>“If a youth is very connected to people from home, how do you think that influences their pregnancy attitudes and decision-making?”</p> <p>“How do you think this is different, or the same, for youth who are more connected to people they met while homeless or on the streets?”</p>
----------------------------------	---	--

<p>HIV Risk Behaviors (Condom use/unprotected vaginal sex)</p>	<p>“How common do you think it is for homeless youth to use condoms when they have sex?”</p>	<p>“Why do you think some homeless youth use condoms?” “On the other hand, why do some homeless youth not use condoms?” “How consistently do you think homeless youth are in their use of condoms?” “Do people always use, versus never use, condoms? Or are some people more inconsistent in their condom use, such as sometimes use, sometimes do not?” “Why do you think that is?” “Is it your perception that people who use condoms are interested in preventing pregnancy? Or is it more about HIV and STIs, or other reasons?” “What about people who seem like they might want to become pregnant or involved in a pregnancy; how do you think that factors into their condom-use decision-making?” “How easy or difficult is it to get condoms while homeless?” “Where have you heard of others, or your own experiences, and where they or you have gotten condoms in the past?” “What are your own opinions about condoms; do you always, sometimes, or never use them? Why or why not?” “What, in your perception, is positive about using a condom during sex?” “Conversely, what is negative about using a condom during sex?” “How often do you think homeless youth get HIV/STI-tested before having unprotected sex?” “What about before they try to become pregnant, for the people who want that to happen?”</p>
--	--	---

<p>Contraceptive/Birth Control Attitudes and Use</p>	<p>“What about other forms of contraception, or birth control; how common do you think it is for homeless youth to use other forms of contraception?”</p>	<p>“Which types have you heard of people using?” “Why do you think some homeless youth use contraception/birth control?” “On the other hand, why do you think some homeless youth do not use contraception?” “Is it your perception that people use these types of contraception for preventing pregnancy, or are there other reasons?” “How easy or difficult is it for homeless youth to obtain contraception?” “What about information about how contraception works?” “Where have you heard of others getting contraception in the past?” “What are your feelings about contraception?” “Are you, or have you in the past, used any forms of contraception? Or had a partner who was using contraception? If so, which types?” “What did you like or not like about using that form of contraception?” “What, in your perception, is positive about using contraception?” “What, in your perception, is negative about using contraception?” “What do you think would help more homeless youth to use condoms and other forms of contraception to prevent HIV, STIs, and unwanted pregnancy? What do you think is needed?” “Are there any other details or things you would like to know more about in terms of condoms or contraception?”</p>
--	---	---

<p>Abortion Attitudes and Experiences</p>	<p>“Now I’d like to turn to some additional questions, about abortion. There’s very little research about abortions in homeless and unstably housed youth populations. Would you tell me a bit about how common you think it is for homeless young women to have abortions?”</p> <p>“Some research has suggested that some homeless young women choose to terminate pregnancies through their own actions, without seeing a doctor or going to a clinic of any kind. Have you ever heard of this happening before?”</p> <p>“If you were to become pregnant or involved in a pregnancy today, do you think you would consider having an</p>	<p>“From what you know of pregnancies among homeless youth to have resulted in abortion, what was the primary reason(s) for proceeding with the abortion?”</p> <p>“In these cases, do you think the decision was made solely by the pregnant young woman, or do you think other people in her life influenced her decision-making in some way?”</p> <p>“Do you know in these situations if abortions were obtained early in the pregnancy, or was the decision made later in pregnancy?”</p> <p>“Are you aware of any conflicts or disagreements in decision-making that may have been present about her having an abortion?”</p> <p>“What are your personal thoughts and beliefs on abortion?”</p> <p>“In what types of situations, if any, do you think abortion is acceptable?”</p> <p>“Are there any situations in which you think abortion is the best decision that someone could make?”</p> <p>“Are there any situations in which you think abortion is absolutely unacceptable?”</p> <p>“What, or who do you think has influenced or shaped your beliefs about abortion?”</p> <p>“Approximately how many young homeless women do you know who tried this?”</p> <p>“How common do you think that is among homeless young women, in general?”</p> <p>“If this has happened, what do you know about how the young woman/women attempted to end the pregnancy?”</p> <p>“Do you know what ended up happening, or what this resulted in?”</p> <p>“Why do you think some homeless young women decide to end pregnancies, or try to do so, on their own?”</p> <p>“What kinds of resources, knowledge, or help do you think homeless young women need in order to make safe decisions about obtaining abortions?”</p> <p>“Can you imagine any scenarios in which you would consider attempting to terminate your pregnancy on your own (or encouraging your partner to do so)?”</p> <p>“If you were to have an abortion or your partner decided to have an abortion, where do you think you would probably go to obtain it?”</p> <p>“What kinds of information or resources</p>
---	--	--

	<p>abortion or encouraging your partner to have an abortion? Why/why not?"</p> <p>"Who do you think from your personal network would encourage you/your partner to have an abortion?" "Who would discourage that?"</p> <p>"Have you ever considered having, or had an abortion?" [or partner experiences]</p>	<p>would you want before having an abortion?" "What do you think would make you feel relieved about having an abortion or your partner having an abortion?" "What about scared/hesitant?" "What other emotions do you think you'd be having or dealing with?"</p> <p>"How impactful do you think others' opinions about abortion would be on your own decision-making on the issue?" "How would your decision-making whether or not to have an abortion or your partner to have an abortion be affected by the people you previously talked about as providing different kinds of support to you? [emotional/instrumental/informational]</p> <p>"If so, how many in your lifetime?" [or partner experiences] "How did you go about making your decision?" "What motivated you to have the abortion versus not have the abortion?" "Do you think you'd consider having an abortion again in the future?" "Why/why not?"</p>
General Information	"Do you have any other questions for me about any of the things we've talked about today?"	

At the close of each interview, participants were asked to complete a brief, voluntary paper-and-pencil survey to aid in characterizing the qualitative sample, and to assist in comparing aspects of the California-based quantitative sample to that of the Colorado-based qualitative sample when interpreting mixed methods results. Participants were asked to provide answers to sociodemographic questions, including their sex, gender identity, race/ethnicity, sexual orientation, and age. They were also asked if they had ever been in foster care, and if so, how many placements they had, how long they had been homeless, and how many cities they had lived in since leaving their home of origin. Participants were additionally asked to answer the same three questions that comprised the pro-pregnancy attitudes scale used in the quantitative study strand.

Data analyses. Qualitative data were analyzed using both Microsoft Word (initial/open coding) and Dedoose (holistic and focused coding), an online, secure, and password-protected qualitative data analysis program. The first step in analyses was to conduct initial, or open coding, to preliminarily examine data. Initial coding has been described as “an opportunity for you as a researcher to reflect deeply on the contents and nuances of your data and to begin taking ownership of them” (Saldaña, 2013, p. 100). While there is no pre-designated formula for initial coding, it may also utilize in vivo coding, and has been deemed appropriate for essentially all qualitative studies (Saldaña, 2013).

Many preliminary themes were identified in the open coding phase, particularly as the qualitative interview guide covered a wide range of reproductive and sexual health topics, and also as 30 young people experiencing homelessness were interviewed, thereby capturing a wide range of life experiences. As such, holistic coding, or a “preparatory approach to a unit of data before a more detailed coding or categorization process” (Saldaña, 2013, p. 142), was used as a “middle-order” approach to coding. This intermediate step allowed for the condensing of a large number of codes together, into a more organized, digestible format. This abridged group of codes was then again evaluated, and one final round of “focused coding” was conducted, whereby the broadest, most salient themes were identified and synthesized in an attempt to “tell the story” of homeless youths’ reproductive and sexual health attitudes, behaviors, and experiences. Focused coding seeks “the most frequent or significant codes to develop the most salient categories in the data corpus” (Saldaña, 2013, p. 213). Results, as presented in Chapter Four, are the product of the iterative process of open, holistic, and focused coding.

In addition to the Principal Investigator serving as a coder, a second coder was employed in the open coding stage of analyses, in order to increase rigor and reduce bias in analyses of transcript data. The second coder was a social work doctoral student whose research expertise encompasses family planning among foster care youth, a topic and population that often overlaps with the focus of the current study. The Principal Investigator and the research assistant preliminarily open-coded, independent of each another, 20 of the 30 qualitative transcripts. The

researchers convened to compare codes independently-generated and applied to these transcripts, and discussed the appropriateness of the codes and coding structure developed, respective tallies for how often and in what circumstances such codes were applied, and any discrepancies that were encountered in the researchers' independent coding efforts. After establishing consensus and resolving any disparities or questions that occurred during open coding, the Principal Investigator applied the same open coding logic and process, as agreed upon with the research assistant, to the remaining 10 qualitative transcripts. The Principal Investigator then completed the qualitative analysis process by further consolidating codes and generating a comprehensive summary of results via the holistic and focused rounds of coding.

Statement on positionality. As PI of this project, I inherently became an active “component” of the research process, and as such, the results ultimately obtained from the qualitative portion of the study, in particular. My practice-based, advocacy, and research efforts have consistently centered upon improving young people’s access to, and experiences of, obtaining reproductive health and family planning information and services. Moreover, I have years of experience interacting with young people experiencing homelessness. My active presence at the shelter in which qualitative data were collected, combined with youths’ perceptions of me as a trusted, non-judgmental person with whom they could talk—especially about reproductive and sexual health topics—facilitated transparent, convivial, and vulnerable conversations between youth and myself. Youth were accustomed to regularly seeing me at the shelter, conducting a variety of projects with aims of improving their quality of life and health; as such, youth noticed my commitment to helping them as well as my belief in their abilities to succeed and thrive. Youth were thus notably enthusiastic about engaging in this project, as they seemed to view their participation as a way to contribute to research on youth homelessness, as well as an opportunity to interact and learn alongside a researcher with whom they felt overall comfortable and understood.

Nonetheless, I believe it is of paramount importance to underline the identities and many privileges that I carry with me, particularly in relationship to the youth who participated in this

project. As a White, cisgender individual with educational, employment, and financial resources, and as a person who has never experienced homelessness, foster care, or any form of abuse or neglect by any person to whom I have been connected, I often ponder my lived experiences and privileges with regard to the youth with whom I interact. Although many of my privileges and experiences differ from those of homeless youth, I aim to help with as much cultural humility and transparency as possible.

Mixed Methods Integration

Quantitative and qualitative study findings were then interpreted through an integrated mixed methods triangulation of results, highlighting both discrepancies and similarities found across quantitative and qualitative strands. Such aspects include how the samples (California vs. Colorado), compared and contrasted geographically, sociodemographically, in pregnancy attitudes and engagement in HIV risk behaviors, and how the two samples' broader (California) versus narrower (Colorado) age ranges may have served to influence any differences or similarities in results obtained. Nuances found across quantitative and qualitative strands are discussed throughout Chapter Five, which provides a discussion of the study's implications for future research and policy efforts.

CHAPTER FOUR: RESULTS

This chapter presents findings from both the quantitative as well as the qualitative strands of the current study. On the subsequent page, an overview of sociodemographics and other life experiences of homeless and unstably housed youth who participated in the quantitative strand of the sample is provided in Table 1. Here, sample characteristics are highlighted for each of the quantitative study's aims, as sample sizes varied across these aims due to certain variables of interest being added midway through the original study. Then, sample characteristics, bivariate, and multivariate statistical results are provided, organized by each study aim. Finally, after quantitative results are presented, sample characteristics and results from the second, qualitative strand of the study are provided.

Quantitative Results

Sample Characteristics

The baseline sample of the original quantitative study was comprised of 1,046 participants. To meet the requirements of logistic regression as well as to achieve adequate statistical power, data from transgender participants were removed and results for the gender category were restricted to binary male/female categorization. Of note, the experiences and perspectives of transgender and gender-non-conforming individuals are crucially important to include in all lines of research. Accordingly, a concerted effort was made, in the qualitative strand of this study, to more authentically capture this highly underrepresented and marginalized population's important contributions.

In the quantitative analyses, after removing any remaining cases from the baseline sample that had missing or incomplete data, results were examined from a final sample of 1,003 respondents. Sample sizes, however, varied across the models examined in the current study, due to certain questions being added to later waves of the study (e.g., social norms regarding

pregnancy; $N = 304$), and because of the exclusion of cases based on responses to outcome variable criteria (e.g., cases included only if engagement in vaginal sex at last sexual encounter was indicated; $N = 730$). The following summary of sample characteristics is based off of the largest study sample analyzed ($N = 1,003$), with any pertinent differences across sub-samples noted as applicable.

As may be viewed on Table 2, the sample was comprised by a majority of males ($n = 729$, 72.7%), and Whites were the largest racial/ethnic group ($n = 393$, 39.2%). The average age of participants was 21.4 years ($SD = 2.2$), and youth had been homeless, on average, for 2.9 years ($SD = 3.2$). A majority of respondents were high school graduates ($n = 683$, 68.1%), and fewer participants were currently enrolled in school ($n = 132$, 13.2%), and/or currently employed ($n = 124$, 12.4%). Over one-third of the sample identified as “travelers” ($n = 370$, 36.9%), and 39.5% ($n = 396$) of participants noted they had used alcohol or drugs prior to sex at their last sexual encounter. Moreover, 12.9% ($n = 129$) of youth indicated sexual abuse histories, 31.7% ($n = 318$) had at some point been placed in foster care, and 41.4% ($n = 415$) had been pregnant or involved in a pregnancy one or more times. Regarding views on pregnancy, 40.4% ($n = 405$) of youth indicated endorsements of (combined) ambivalent and pro-pregnancy attitudes.

Most sample characteristics were similar across each of the models examined, with only a few slight differences. Compared to the largest sample analyzed, the Aim #1 models that included social norms variables ($N = 304$) had slightly higher percentages of White respondents (48.0% vs. 39.2%), high school graduates (74.7% vs. 68.1%), respondents who were travelers (42.1% vs. 36.9%), respondents who indicated sexual abuse history (19.4% vs. 12.9%), and slightly fewer Black respondents (20.4% vs. 24.1%) and Latino/a respondents (9.2% vs. 13.4%). In comparison to the largest sample analyzed, the Aim #2 model had a slightly higher percentage of females (30.1% vs. 27.3%), White respondents (44.9% vs. 39.2%), respondents who indicated alcohol/drug use prior to sex (44.6% vs. 39.5%), foster care history (40.3% vs. 31.7%), and prior pregnancy/involvement history (46.4% vs. 41.4%). Relevant only to the Aim #2 model, 60.5% ($n = 442$) of youth reported having unprotected (condomless) vaginal sex at last sexual encounter.

Table 2

Sample Characteristics of Homeless Youth in Los Angeles, California.

Characteristic	Aim #1 Socio-demographics, Social Support Models (N = 1,003)		Aim #1 Social Norms Models (N = 304)		Aim #2 Unprotected Sex Model (N = 730)	
	n	(%)	n	(%)	n	(%)
Gender ^a						
Male	729	(72.7)	223	(73.4)	510	(69.9)
Female	274	(27.3)	81	(26.6)	220	(30.1)
Race/ethnicity						
American Indian or Alaska Native	28	(2.8)	13	(4.3)	20	(2.7)
Asian	6	(0.6)	1	(0.3)	4	(0.5)
Black	242	(24.1)	62	(20.4)	155	(21.2)
Native Hawaiian or Pacific Islander	6	(0.6)	1	(0.3)	4	(0.5)
White	393	(39.2)	146	(48.0)	328	(44.9)
Latino/a	134	(13.4)	28	(9.2)	80	(11.0)
Bi/Multi-racial	194	(19.3)	53	(17.4)	139	(19.0)
High School Graduate	683	(68.1)	227	(74.7)	512	(70.1)
Current School Attendance	132	(13.2)	29	(9.5)	91	(12.5)
Current Employment	124	(12.4)	39	(12.8)	87	(11.9)
“Traveler” Status	370	(36.9)	128	(42.1)	294	(40.3)
Alcohol/Drug use Prior to Sex	396	(39.5)	106	(34.9)	326	(44.6)
Sexual Abuse History	129	(12.9)	59	(19.4)	96	(13.2)
Foster Care History	318	(31.7)	94	(30.9)	294	(40.3)
Prior Pregnancy/ies or Pregnancy Involvement	415	(41.4)	115	(37.8)	339	(46.4)
Pregnancy Attitudes						
Anti-pregnancy	598	(59.6)	185	(60.9)	428	(58.6)
Pro-pregnancy	405	(40.4)	119	(39.1)	302	(41.4)
Unprotected Vaginal Sex (at last sex)						
Safer Sex	-	-	-	-	288	(39.5)
Unprotected Sex	-	-	-	-	442	(60.5)
	M	SD	M	SD	M	SD
Age	21.4	2.2	21.5	2.2	21.4	2.2
Time Homeless (years)	2.9	3.2	2.7	3.4	2.9	3.1

Note. ^a Transgender individuals excluded from analyses. Some categories may not total 100% due to rounding or way in which variable was measured.

Inferential Statistics

Sociodemographic correlates of homeless youths’ pro-pregnancy attitudes. The first model within Aim #1 assessed the association between homeless youths’ sociodemographic characteristics/other life experiences and youths’ endorsements of pro-pregnancy attitudes. As

follows, results from bivariate and multivariate analyses are outlined on Table 3. Bivariate results revealed that longer homelessness duration was significantly associated with youths' endorsements of pro-pregnancy attitudes ($OR = 1.07, p < .01$). In addition, youth who had been pregnant or involved in a pregnancy one or more times in the past were significantly more likely to endorse pro-pregnancy attitudes compared to youth who had never been pregnant or involved in a pregnancy ($OR = 1.74, p < .001$).

After controlling for gender and retaining only variables that were significant in the bivariate model at a threshold of $p < .05$, in the multivariate model, longer homelessness duration was again significantly associated with youths' endorsements of pro-pregnancy attitudes ($OR = 1.06, p < .01$). Youth who had been pregnant or involved in a pregnancy one or more times in the past were 1.64 times more likely to endorse pro-pregnancy attitudes compared to youth who had never been pregnant or involved in a pregnancy ($OR = 1.64, p < .001$).

Table 3

Associations between Sociodemographic Characteristics and Homeless Youths' Pro-Pregnancy Attitude Endorsements (N = 1,003).

Characteristic	Bivariate Statistics		Multivariate Statistics	
	Unadjusted OR	95% CI	Adjusted OR	95% CI
Gender (male)	1.12	0.84-1.48	1.09	0.81-1.45
Race (non-White)	0.79	0.61-1.03		
Age	1.04	0.98-1.11		
Education Level (non-high school graduate)	0.83	0.64-1.09		
Current School Attendance (no)	1.11	0.76-1.60		
Current Employment (no)	1.00	0.68-1.47		
Time Homeless	1.07**	1.03-1.11	1.06**	1.02-1.10
Traveler Status (no)	1.08	0.83-1.41		
Alcohol/Drug Use Prior to Sex (no)	0.77	0.54-1.00		
Sexual Abuse History (no)	0.73	0.48-1.12		
Foster Care History (no)	1.30	0.99-1.70		
Prior Pregnancy/ies or Pregnancy Involvement (no)	1.74***	1.35-2.26	1.64***	1.26-2.13
Pseudo R-Square			0.13	
2-Log Likelihood			308.07	

Note. Only significant variables (in bivariate analyses) at $p < .05$ were included in the final adjusted analyses. * $p < .05$. ** $p < .01$. *** $p < .001$.

Associations between perceived social norms of pregnancy (from youths' entire networks) and homeless youths' pro-pregnancy attitude endorsements. The second model within Aim #1 examined whether social norms regarding pregnancy, that homeless youth perceived as present within their entire social networks, were associated with youths' endorsements of pro-pregnancy attitudes. Among youth in the sample, 83.6% ($n = 254$) perceived that one or more of their social network members had ever been pregnant or involved a pregnancy. Then, injunctive norms regarding pregnancy were examined. A majority of youth ($n = 231$, 75.9%) perceived that one or more of their network members would object to them becoming pregnant or involved in a pregnancy. Far fewer youth ($n = 53$, 17.4%) perceived that one or more of their social network members would encourage them to become pregnant or involved in a pregnancy.

Table 4

Descriptive Statistics of Perceived Social Norms Regarding Pregnancy (Youths' Entire Networks) (N = 304).

Descriptive Norms	<i>n</i>	(%)
Youth with perceptions that one or more member(s) of social network has ever been pregnant or involved in a pregnancy	254	(83.6)
Injunctive Norms		
Youth with perceptions that one or more member(s) of social network would object to them becoming pregnant or involved in a pregnancy	231	(75.9)
Youth with perceptions that one or more member(s) of social network would encourage them to become pregnant or involved in a pregnancy	53	(17.4)

As shown on Table 5, bivariate results revealed that White youth were significantly less likely than their non-White peers to endorse pro-pregnancy attitudes ($OR = 0.51$, $p < .01$). Youth who identified as “travelers” were significantly less likely than their non-transient peers to endorse pro-pregnancy attitudes ($OR = 0.56$, $p < .05$). However, youth who were currently enrolled in school were significantly more likely to endorse pro-pregnancy attitudes than their peers who were not currently in school ($OR = 2.91$, $p < .01$). Youth who perceived their entire social networks as overall more objecting to (versus encouraging of) them becoming pregnant or involved in pregnancy were less likely to endorse pro-pregnancy attitudes ($OR = 0.32$, $p < .001$).

Only two of the retained variables remained significant in the multivariate model. Youth who were currently enrolled in school were 2.38 times more likely to endorse pro-pregnancy attitudes than their peers who were not currently in school ($OR = 2.38, p < .05$). Additionally, youth who perceived their entire social networks as overall more objecting to (versus encouraging of) them becoming pregnant or involved in a pregnancy were 64% less likely to endorse pro-pregnancy attitudes ($OR = 0.36, p < .001$).

Table 5

Associations between Perceived Social Norms Regarding Pregnancy (Youth's Entire Networks) and Homeless Youths' Pro-Pregnancy Attitude Endorsements (N = 304).

Characteristic	Bivariate Statistics		Multivariate Statistics	
	Unadjusted OR	95% CI	Adjusted OR	95% CI
Gender (male)	1.02	0.61-1.72	0.92	0.52-1.62
Race (non-White)	0.51**	0.32-0.81	0.78	0.46-1.33
Age	0.96	0.86-1.07		
Education Level (non-high school graduate)	0.83	0.49-1.42		
Current School Attendance (no)	2.91**	1.32-6.40	2.38*	1.01-5.58
Current Employment (no)	1.43	0.73-2.82		
Time Homeless	1.00	0.93-1.07		
Traveler Status (no)	0.56*	0.35-0.90	0.74	0.43-1.28
Alcohol/Drug Use Prior to Sex (no)	0.76	0.47-1.24		
Sexual Abuse History (no)	1.40	0.79-2.49		
Foster Care History (no)	1.31	0.80-2.15		
Prior Pregnancy/ies or Pregnancy Involvement (no)	1.50	0.42-1.70		
Descriptive Norms	1.97	0.72-5.38		
Injunctive Norms	0.32***	0.19-0.53	0.36***	0.21-0.61
Pseudo R-Square			0.12	
2 Log Likelihood			373.07	

Note. Only significant variables (in bivariate analyses) at $p < .05$ were included in the final adjusted analyses. * $p < .05$. ** $p < .01$. *** $p < .001$.

Perceived social norms of pregnancy (dissected into youths' specific referent-group members) in relationship to homeless youths' pro-pregnancy attitude

endorsements. The third model within Aim #1 examined whether social norms regarding pregnancy, that homeless youth perceive as conveyed by their specific referent-group members, are associated with youths' endorsements of pro-pregnancy attitudes. Table 6 shows details regarding descriptive social norms pertaining to pregnancy that youth perceived as present in their social networks, further dissected into specific referent-group categories. Approximately two-thirds of youth ($n = 205, 67.4\%$), perceived that one or more of their home-based peers had ever been pregnant or involved in a pregnancy, whereas just under one-third of youth ($n = 92, 30.3\%$) perceived that one or more of their street-based peers had ever been pregnant or involved in a pregnancy.

Then, injunctive norms regarding pregnancy were examined, by specific referent-group type. A majority of youth ($n = 193, 63.5\%$) perceived that one or more of their home-based peers would object to them becoming pregnant or involved in a pregnancy, whereas far fewer youth ($n = 32, 10.5\%$) believed that one or more of their home-based peers would encourage them to become pregnant/involved in a pregnancy. Relatively fewer youth ($n = 139, 45.7\%$) believed that one or more of their street-based peers would object to them becoming pregnant or involved in a pregnancy, but very few youth believed that one or more of their street-based peers would encourage them to become pregnant/involved in a pregnancy ($n = 21, 6.9\%$). Just over half of youth ($n = 168, 55.3\%$) believed that one or more of their family members would object to them becoming pregnant or involved in a pregnancy, whereas only a few youth ($n = 15, 4.9\%$) thought one or more of their family members would encourage them to become pregnant/involved in a pregnancy. A notable minority of youth ($n = 27, 8.9\%$) believed that one or more staff members would object to them becoming pregnant or involved in a pregnancy, but almost no youth ($n = 3, 1.0\%$) believed that one or more staff members would encourage them to become pregnant/involved in a pregnancy. Finally, less than one-third of youth ($n = 89, 29.3\%$) believed that a serious partner would object to them becoming pregnant or involved in a pregnancy, while

8.6% ($n = 26$) of youth believed that a serious partner would encourage them to become pregnant/involved in a pregnancy.

Table 6

Descriptive Statistics of Perceived Social Norms Regarding Pregnancy, by Specific Referent-Group (N = 304).

Descriptive Norms	<i>n</i>	(%)
Youth with perceptions that one or more home-based peers have ever been pregnant or involved in a pregnancy	205	(67.4)
Youth with perceptions that one or more street-based peers have ever been pregnant or involved in a pregnancy	92	(30.3)
Injunctive Norms	<i>n</i>	(%)
Youth with perceptions that one or more home-based peers would object to them becoming pregnant or involved in a pregnancy	193	(63.5)
Youth with perceptions that one or more home-based peers would encourage them to become pregnant or involved in a pregnancy	32	(10.5)
Youth with perceptions that one or more street-based peers would object to them becoming pregnant or involved in a pregnancy	139	(45.7)
Youth with perceptions that one or more street-based peers would encourage them to become pregnant or involved in a pregnancy	21	(6.9)
Youth with perceptions that one or more family members would object to them becoming pregnant or involved in a pregnancy	168	(55.3)
Youth with perceptions that one or more family members would encourage them to become pregnant or involved in a pregnancy	15	(4.9)
Youth with perceptions that one or more staff members would object to them becoming pregnant or involved in a pregnancy	27	(8.9)
Youth with perceptions that one or more staff members would encourage them to become pregnant or involved in a pregnancy	3	(1.0)
Youth with perceptions that their serious partner would object to them becoming pregnant or involved in a pregnancy	89	(29.3)
Youth with perceptions that their serious partner would encourage them to become pregnant or involved in a pregnancy	26	(8.6)

As noted on Table 7, bivariate results found White youth were significantly less likely than their non-White peers to endorse pro-pregnancy attitudes ($OR = 0.51, p < .01$). Youth who identified as “travelers” were less likely than their non-transient peers to endorse pro-pregnancy attitudes ($OR = 0.56, p < .05$). However, youth who were currently enrolled in school were significantly more likely to endorse pro-pregnancy attitudes than their peers who were not currently in school ($OR = 2.91, p < .01$). Youth who perceived their street-based peers as overall more objecting to (versus encouraging of) them becoming pregnant or involved in a pregnancy were less likely to endorse pro-pregnancy attitudes ($OR = 0.43, p < .01$). Similarly, youth who

perceived their serious partners as overall more objecting to them becoming pregnant/involved in pregnancy were less likely to endorse pro-pregnancy attitudes ($OR = 0.24, p < .01$).

In the multivariate model, youth who perceived their street peers as overall more objecting to (versus encouraging of) them becoming pregnant or involved in a pregnancy were 51% less likely to endorse pro-pregnancy attitudes ($OR = 0.49, p < .01$). Youth who perceived their serious partners as overall more objecting to them becoming pregnant or involved in a pregnancy were 74% less likely to endorse pro-pregnancy attitudes ($OR = 0.26, p < .01$).

Table 7

Associations between Perceived Social Norms Regarding Pregnancy, by Specific Referent-Group, and Homeless Youths' Pro-Pregnancy Attitude Endorsements (N = 304).

Characteristic	Bivariate Statistics		Multivariate Statistics	
	Unadjusted OR	95% CI	Adjusted OR	95% CI
Gender (male)	1.02	0.61-1.72	0.75	0.42-1.35
Race (non-White)	0.51**	0.32-0.81	0.66	0.39-1.11
Age	0.96	0.86-1.07		
Education Level (non-high school graduate)	0.83	0.49-1.42		
Current School Attendance (no)	2.91**	1.32-6.40	2.33	0.98-5.56
Current Employment (no)	1.43	0.73-2.82		
Time Homeless	1.00	0.93-1.07		
Traveler Status (no)	0.56*	0.35-0.90	0.73	0.42-1.26
Alcohol/Drug Use Prior to Sex (no)	0.76	0.47-1.24		
Sexual Abuse History (no)	1.40	0.79-2.49		
Foster Care History (no)	1.31	0.80-2.15		
Prior Pregnancy/ies or Pregnancy Involvement (no)	1.50	0.42-1.70		
Descriptive Norms: Home-based Peers	0.44	0.11-1.78		
Descriptive Norms: Street-based Peers	6.02	0.88-41.02		
Injunctive Norms: Home-based Peers	1.45	0.60-3.53		
Injunctive Norms: Street-based Peers	0.43**	0.27-0.70	0.49**	0.30-0.81
Injunctive Norms: Family Members	1.04	0.29-3.76		
Injunctive Norms: Serious Partners	0.24**	0.10-0.59	0.26**	0.10-0.68
Pseudo R-Square			0.14	
2 Log Likelihood			369.52	

Note. Only significant variables (in bivariate analyses) at $p < .05$ were included in the final adjusted analyses. * $p < .05$. ** $p < .01$. *** $p < .001$. Bivariate tests were not conducted for staff-related network members because of the sparse nature of cell sizes.

Associations between social support provided to youth, by specific referent-groups, and homeless youths' endorsements of pro-pregnancy attitudes. The fourth, and final model within Aim #1 examined whether various forms of social support, provided to youth by specific referent-groups, were associated with youths' endorsements of pro-pregnancy attitudes.

Table 8 presents descriptive results pertaining to youths' sources and types of social support.

Youth reported varying levels of receipt of emotional, instrumental, and/or informational support from home-based peers, street-based peers, family members, staff members, and/or serious partners. Of concern, when further examining social support received, and by which specific referent-group, many youth reported receiving no social support at all from certain sources. Only 23.3% ($n = 234$) of youth said they received emotional support from a staff member, and merely 5.7% ($n = 57$) said they received instrumental support from a staff member. Just 16.7% ($n = 167$) of youth said they received informational support from a family member. The area in which youth seemed to be most broadly supported was in receiving emotional support from home-based peers. Over two-thirds ($n = 696$, 69.4%) of youth noted that they received emotional support from at least one home-based peer; this was the highest frequency of support when analyzed by type of support and referent-group.

Table 8

Descriptive Statistics of Social Support Provided to Youth, by Specific Referent-Group (N = 1,003).

Specific Referent-Group Members Providing Social Support (by Social Support Type)	Youth Has One or More Referent-Group Member Providing Social Support	(%)
Home-based Peers		
Emotional Support	696	(69.4)
Instrumental Support	555	(55.3)
Informational Support	265	(26.4)
Street-based Peers		
Emotional Support	505	(50.3)
Instrumental Support	265	(26.4)
Informational Support	324	(32.3)
Family Members		
Emotional Support	572	(57.0)
Instrumental Support	449	(44.8)
Informational Support	167	(16.7)
Staff Members		
Emotional Support	234	(23.3)
Instrumental Support	57	(5.7)
Informational Support	276	(27.5)
Serious Partners		
Has a Serious Partner who Provides		
Emotional Support		
Yes	218	(28.0)
No	722	(72.0)
Has a Serious Partner who Provides		
Instrumental Support		
Yes	238	(23.7)
No	765	(76.3)
Has a Serious Partner who Provides		
Informational Support		
Yes	337	(33.6)
No	666	(66.4)

Referring to Table 9, bivariate results revealed that longer homelessness duration was significantly associated with youths' endorsements of pro-pregnancy attitudes ($OR = 1.07, p < .01$). Youth who had been pregnant or involved in a pregnancy one or more times in the past were also significantly more likely to endorse pro-pregnancy attitudes compared to youth who had never been pregnant or involved in a pregnancy ($OR = 1.74, p < .001$). Youth who reported

receipt of informational social support from home-based peers ($OR = 0.64, p < .01$), street-based peers ($OR = 0.60, p < .01$), and/or family members ($OR = 0.66, p < .01$) were significantly less likely to endorse pro-pregnancy attitudes compared to their peers who did not receive such forms of support. Also, youth who indicated that they received instrumental social support from staff members were significantly less likely to endorse pro-pregnancy attitudes than their peers who did not receive this support from service providers and staff ($OR = 0.69, p < .01$). However, youth who reported that they received instrumental support from a serious partner were significantly more likely to endorse pro-pregnancy attitudes compared to their peers who did not receive this form of support from a serious partner ($OR = 1.46, p < .05$).

In the multivariate model, longer homelessness duration was again significantly associated with youths' endorsements of pro-pregnancy attitudes ($OR = 1.05, p < .05$). Youth who had been pregnant or involved in a pregnancy one or more times in the past were also 1.61 times more likely to endorse pro-pregnancy attitudes compared to youth who had never been pregnant or involved in a pregnancy ($OR = 1.61, p < .001$). Youth who reported receipt of instrumental support from a serious partner were 1.37 times more likely to endorse pro-pregnancy attitudes compared to their peers who did not receive this form of support from a serious partner ($OR = 1.37, p < .05$).

Table 9

Associations between Social Support Provided, by Specific Referent-Group, and Homeless Youths' Pro-Pregnancy Attitude Endorsements (N = 1,003).

Characteristic	Bivariate Statistics		Multivariate Statistics	
	Unadjusted OR	95% CI	Adjusted OR	95% CI
Gender (male)	1.12	0.84-1.48	1.00	0.74-1.34
Race (non-White)	0.79	0.61-1.03		
Age	1.04	0.98-1.11		
Education Level (non-high school graduate)	0.83	0.64-1.09		
Current School Attendance (no)	1.11	0.76-1.60		
Current Employment (no)	1.00	0.68-1.47		
Time Homeless	1.07**	1.03-1.11	1.05*	1.01-1.10
Traveler Status (no)	1.08	0.83-1.40		
Alcohol/Drug Use Prior to Sex (no)	0.77	0.54-1.00		
Sexual Abuse History (no)	0.73	0.48-1.12		
Foster Care History (no)	1.30	0.99-1.70		
Prior Pregnancy/Involvement (no)	1.74***	1.35-2.26	1.61***	1.23-2.10
Emotional Support: Home-based Peers	0.76	0.51-1.13		
Instrumental Support: Home-based Peers	0.85	0.60-1.20		
Informational Support: Home-based Peers	0.64**	0.48-0.85	0.76	0.38-1.51
Emotional Support: Street-based Peers	0.74	0.53-1.02		
Instrumental Support: Street-based Peers	0.93	0.70-1.24		
Informational Support: Street-based Peers	0.60**	0.45-0.80	0.74	0.47-1.17
Emotional Support: Family Members	0.76	0.54-1.07		
Instrumental Support: Family Members	0.91	0.66-1.24		
Informational Support: Family Members	0.66**	0.50-0.87	0.99	0.47-2.09
Emotional Support: Staff Members	0.78	0.60-1.06		
Instrumental Support: Staff Members	0.69**	0.53-0.90	1.07	0.63-1.81
Informational Support: Staff Members	0.84	0.63-1.12		
Emotional Support: Serious Partners	1.17	0.90-1.53		
Instrumental Support: Serious Partners	1.46*	1.09-1.95	1.37*	1.01-1.86
Informational Support: Serious Partners	1.14	0.86-1.50		
Pseudo R-Square			0.09	
2 Log Likelihood			310.42	

Note. Only significant variables (in bivariate analyses) at $p < .05$ were included in the final adjusted analyses. * $p < .05$. ** $p < .01$. *** $p < .001$. For all social support variables, "no support received" served as reference category.

Associations between homeless youths' pro-pregnancy attitudes and youths' engagement in unprotected vaginal sex. This Aim #2 model assessed the association between homeless youths' pro-pregnancy attitude endorsements and their engagement in unprotected vaginal sex. As follows, results from bivariate and multivariate analyses are outlined on Table 10.

Bivariate results revealed that female youth were significantly more likely than their male peers to engage in unprotected vaginal sex ($OR = 1.80, p < .01$). White youth were also significantly more likely than their non-White peers to engage in unprotected vaginal sex ($OR = 1.66, p < .01$). With each year of homelessness duration, youth were significantly more likely to engage in unprotected vaginal sex ($OR = 1.09, p < .01$). Significant associations were found among youth who indicated sexual abuse history and their engagement in unprotected vaginal sex ($OR = 1.90, p < .01$). Youth who had been pregnant or involved in a pregnancy were also significantly more likely to engage in unprotected vaginal sex compared to their peers who had never been pregnant or involved in a pregnancy ($OR = 1.80, p < .001$). Moreover, youth who endorsed pro-pregnancy attitudes were significantly more likely to engage in unprotected vaginal sex compared to their peers who did not hold pro-pregnancy attitudes ($OR = 1.51, p < .01$).

Multivariate results found that female youth were 1.86 times more likely than their male peers to engage in unprotected vaginal sex ($OR = 1.86, p < .01$). White youth were 1.89 times more likely than their non-White peers to engage in unprotected vaginal sex ($OR = 1.89, p < .001$). For each year of homelessness duration, youth were 8% more likely to engage in unprotected vaginal sex ($OR = 1.08, p < .01$). Youth who had been pregnant or involved in a pregnancy were 1.61 times more likely to engage in unprotected sex than their peers who had never been pregnant or involved in a pregnancy ($OR = 1.61, p < .01$). Finally, youth who endorsed pro-pregnancy attitudes were 1.40 times more likely to engage in unprotected vaginal sex, compared to their peers with less positive attitudes toward pregnancy ($OR = 1.40, p < .05$).

Table 10

Associations between Homeless Youths' Pro-Pregnancy Attitude Endorsements and Youths' Engagement in Unprotected (Condomless) Vaginal Sex (N = 730).

Characteristic	Bivariate Statistics		Multivariate Statistics	
	Unadjusted OR	95% CI	Adjusted OR	95% CI
Gender (male)	1.80**	1.28-2.52	1.86**	1.29-2.66
Race (non-White)	1.66**	1.23-2.25	1.89***	1.37-2.60
Age	1.02	0.95-1.09		
Education Level (non-high school graduate)	0.87	0.63-1.20		
Current School Attendance (no)	0.69	0.45-1.08		
Current Employment (no)	0.88	0.56-1.39		
Time Homeless	1.09**	1.03-1.15	1.08**	1.02-1.14
Traveler Status (no)	0.89	0.66-1.20		
Alcohol/Drug Use Prior to Sex (no)	1.28	0.95-1.73		
Sexual Abuse History (no)	1.90**	1.18-3.06	1.50	0.90-2.49
Foster Care History (no)	1.05	0.76-1.45		
Prior Pregnancy/ies or Pregnancy Involvement (no)	1.80***	1.33-2.44	1.61**	1.17-2.22
Pro-pregnancy Attitudes (not endorsed/anti-pregnancy)	1.51**	1.11-2.05	1.40*	1.01-1.93
Pseudo R-Square			0.10	
2 Log Likelihood			908.27	

Note. Only significant variables (in bivariate analyses) at $p < .05$ were included in the final adjusted analyses. * $p < .05$. ** $p < .01$. *** $p < .001$.

Qualitative Results

Sociodemographic Characteristics

A total of 30 youth experiencing homelessness were recruited and interviewed for the qualitative sample of the study. As noted on Table 11, the sample was diverse in terms of gender, with 53.3% ($n = 16$) of the respondents identifying as women, 33.3% ($n = 10$) as men, and 13.3% ($n = 4$) transgender. The demographics form included opportunities to write further information regarding youths' identities if they wanted to do so. Of the four participants who selected transgender, two wrote in "trans woman," one wrote "trans man," and one wrote "gender queer" as supplemental information. The sample was also quite diverse in terms of racial/ethnic identity and sexual orientation, although the largest groups were comprised of White (43.3%, $n = 13$) and

straight/heterosexual (60.0%, $n = 18$) youth, respectively. On average, participants were 19.1 ($SD = 0.8$) years of age, had been homeless 8.9 ($SD = 9.0$) months, and had lived in 2.5 ($SD = 2.0$) cities since leaving home. Almost one-third of youth had been in foster care at some point (30.0%, $n = 9$), and four respondents (13.3%) noted they were currently pregnant. In terms of pregnancy attitudes, a majority (60.0%, $n = 18$) of the sample endorsed pregnancy-ambivalent or pro-pregnancy attitudes.

Table 11

Sample Characteristics of Homeless Youth in Denver, Colorado (N = 30)

Characteristic	<i>n</i>	(%)
Gender		
Man/Male	10	(33.3)
Transgender or Gender-Non-Conforming (e.g., Gender queer, Trans Man, Trans Woman)	4	(13.3)
Woman/Female	16	(53.3)
Race/ethnicity		
American Indian or Alaska Native	1	(3.3)
Black	6	(20.0)
Latino/a	3	(10.0)
Multi-racial	6	(20.0)
Native Hawaiian or Pacific Islander	1	(3.3)
White	13	(43.3)
Sexual Orientation		
Bisexual	2	(6.7)
Gay	2	(6.7)
Lesbian	2	(6.7)
Pansexual	4	(13.3)
Queer	1	(3.3)
Questioning	1	(3.3)
Straight	18	(60.0)
Foster Care History (yes)	9	(30.0)
Currently Pregnant (yes)	4	(13.3)
Pregnancy Attitudes		
Anti-pregnancy	12	(40.0)
Pro-pregnancy	18	(60.0)
	M	SD
Age (years)	19.1	0.8
Time Homeless (months)	8.9	9.0
Transience (number of cities lived in since leaving home)	2.5	2.0

Qualitative Findings by Primary Topic Area

Qualitative results are presented for each of the primary topics that were discussed in the individual interviews with homeless youth, as aforementioned in the semi-structured qualitative interview guide. Major themes that emerged within each of the following general topics are discussed: 1) Pregnancy Attitudes; 2) Pregnancy Experiences; 3) Social Norms Regarding Pregnancy; 4) Social Support Influences on Pregnancy Attitudes and Behaviors; 5) Unprotected (Condomless) Sex; 6) Other Contraceptive/Birth Control Attitudes and Use; and 7) Abortion Attitudes and Experiences.

Pregnancy Attitudes

A range of attitudes regarding pregnancy and pregnancy involvement were noted throughout the sample of 30 respondents. While four youth expressed overt feelings of actively wanting and/or intending to become pregnant or involved in a pregnancy in the near future, the most common response (by 14 youth) indicated ambivalence regarding pregnancy. The remaining 12 youth indicated that they actively did not want to become pregnant or involved in a pregnancy within the next year or “near future,” although a few of these youth further stated that they never wanted to become pregnant or involved in a pregnancy. More specific rationale, expressed by respondents, for their pro-pregnant, ambivalent, and anti-pregnancy attitude views, respectively, is described, as follows.

Overtly pro-pregnant attitudes. The following sub-themes depicted the reasoning provided by youth pertaining to their endorsements of overtly pro-pregnancy attitudes. Pregnancy and parenting, to these youth, symbolized the following perspectives: 1) “I would love to be in a loving family”; 2) “If you’re pregnant it gives you better benefits”; 3) “Getting pregnant might make me seem more normal to them”; and 4) “I think there’s a lot of honor and pride in that.”

“I would love to be in a loving family.” Having a child to love unconditionally, and who would love them back, was the most common characterization of this sentiment, particularly as these youth said they had typically not experienced unconditional love in their homes of origin. As one participant recounted,

I would love to have a baby to take care of. Who would need me and I could show every day so much love to. Maybe because I didn't have that myself. I like to take care of things, people, animals, plants, whatever. Everything. Guess I like to feel needed and helpful. And babies are so cute. So innocent and loving. It's nice to be needed, yeah.

Another youth who hoped to "get pregnant sometime soon," similarly noted, "It would be nice to have a family member who kind of *has to* love you." Youth commonly said that having a child represented a way to repair negative memories experienced in their own families and upbringings. A youth expressed, "I would love to be in a loving family, where everyone gets along and cares about each other. I didn't have that growing up and I can totally say I want my own family to be a do-over."

"If you're pregnant it gives you better benefits." Youth also often perceived that pregnancy could aid them in exiting homelessness. As one youth succinctly stated, "It's like a way out of this situation." For each of the youth who endorsed pro-pregnancy attitudes, having a child represented a way of obtaining needed benefits and resources, and also in accomplishing goals pertaining to housing, employment, and education. In one example of this view, a youth noted,

If you're pregnant it gives you better benefits, like nicer housing, food, doctors, people are nicer to you. There's a lot of perks. There's a lot of money in that, actually. In getting pregnant. It helps people get jobs and finish school too, so I think that's a good thing.

"Getting pregnant might make me seem more normal to them." In addition, pregnancy and parenting was seen by some youth as a way to re-gain acceptance among their families of origin. A young woman talked about how it was unlikely for her to become pregnant, as a lesbian who only had sexual relationships with females, but that she really hoped to become pregnant near-term. For her, becoming pregnant further represented an opportunity to assuage the feelings of rejection she experienced within her family of origin, which were worsened as she came out as a lesbian to her family. She said,

People are way, like way, way nicer to the pregnant girls. Like way nicer. I mean it. So that would be a good feeling, to suddenly not be invisible to the world. People actually

paying attention to you and congratulating you for once. And I think sometimes family takes the girl back. Like in a way it sort of makes the old problems seem less important. Like the fights were not that important maybe. I could actually see that with my family. I think they would really be trying to get me to move back in if I got pregnant. And they would want the baby to be raised there, in a house, in their house. And it would probably make them forgive me a bit, or make me fit in better. Like if I got pregnant, that's something a lot of girls do, and that's something they can relate a lot more with than the me being a lesbian thing. Getting pregnant might make me seem more normal to them, like a normal girl, and things would be better. It's not like it would make me not a lesbian but I think it would make me seem more mainstream to them again.

“I think there’s a lot of honor and pride in that.” To some youth, pregnancy and parenting represented a source of pride, and youth believed that they would be seen positively by others for becoming a parent, thereby also strengthening their bonds with these other individuals. A young man, for example, saw his involvement in a pregnancy as a positive conduit to strengthening his relationship with his partner and other family members, as well as a source of pride in becoming a parent. He stated,

It's a way to make your family stronger. Like my relationship with my girlfriend. And also the rest of my family and friends. Having a child would be like a lot of pride, and something other people would see you, see good in you, for doing. It takes a lot of work to be a parent, and I think there's a lot of honor and pride in that.

Pregnancy ambivalence. A majority of respondents, however, said they were overall unsure regarding whether pregnancy or pregnancy involvement represented a potentially positive or negative life event to them. Youths' pregnancy ambivalence was represented through the following sentiments: 1) “I guess it would be a good shock”; 2) “It would be a lot less freaky if it was with my boyfriend”; and 3) “It might help me in my focus.”

“I guess it would be a good shock.” Many respondents said they would be surprised if they found out they were pregnant or involved in a pregnancy, but that such news may not be

entirely negative. One youth said, “I guess it would be a good shock. And then I guess I would embrace the challenge.” Similarly, a young woman stated, “At first I would be so surprised, but you know what? I like the idea of being a mom. I think it would be alright, actually.” Moreover, a young man’s ambivalence regarding pregnancy involvement was also compelling, although somewhat unique within the sample. To him, pregnancy involvement would be highly surprising and something he was not actively seeking, but also positive with regard to the idea of parenting a child. He noted,

I’d be like ‘Shit, girl, how did you let this queen get you pregnant?’ [laughs] So like it would be so totally hard for me to get someone pregnant now, because I am, like, the gayest of the gays at Pride, but I have been with girls before. When I was way younger. So it’s still a relevant question, you know? Even though I don’t now, I know so many people like me who are working through who they are, and their actions are not always in line with that, like not showing who they are or like how they are really feeling in their heart. I would be the best gay baby daddy in the history of the universe, though. [laughs] I mean, I actually would love to be a father, so this is probably one of the best things that could really happen, even though it’s not something I’m out trying to do.

Of note, such insights also underline the fluidity of youths’ sexuality, sexual expression, and the complex identities that youth are tasked with exploring and navigating, especially in their adolescent and young adult years. As such, this respondent’s comments also spoke to the wide range of youths’ views pertaining to pregnancy and parenting, and how the analyses of such topics are thus often too narrowly limited by prescriptive labels regarding youths’ sexual identities and experiences.

“It would be a lot less freaky if it was with my boyfriend.” Some respondents noted that their ambivalent attitudes regarding pregnancy were influenced by the status of their relationships with serious and other sexual partners. Some youth said the news of pregnancy would help them to “tie down” their current (serious) partner; as one youth noted,

I don’t think it would be a big deal, like not bad or anything. I think we’d both feel

stressed about money but happy we'd be parents together. Maybe he would propose then, you know? Well, maybe not yet but would be good for dropping hints, you know. Respondents' relationship status with their partners was also an important finding in other ways, as well. Youth often said that pregnancy with a serious or long-term partner could be deemed positive, but that pregnancy that occurred with a casual sexual partner would be negative. One youth said,

Yeah, it would be a lot less freaky if it was with my boyfriend. It might even be sort of exciting, like it might bring us even closer together and cause us to become a real family. But not so much with someone I didn't know well yet or wasn't close with on an emotional level. That would probably make me pretty anxious.

For a youth who noted engagement in transactional sex, the idea of a pregnancy that occurred with someone other than her serious partner was even more distinctly negative:

It would depend on how that happened. Like who it was with. So there's a guy I've been seeing, just for a few months. If it was with him, it wouldn't be so bad. Like I could begin to process that a little. But if it was with someone else. Hmm. That would be hard to think about. Yeah, so, well this is hard to admit. I don't think you judge, though, and people like you here. But please don't tell anyone this, but I've had to have sex with people before, for things like money and food. I did that for a few weeks for a place to stay, this past winter, too. And it's just a horrible feeling, to have to do that and not having a choice. It's hard. So I guess I'm trying to say that it would be better to find out this guy I've been talking to for a few months and I just had an 'uh oh' pregnancy, compared to if it happened from one of those other things. Like I was just trying to survive. Not cause way bigger problems, with money and for my body, you know, reasons like that.

"It might help me in my focus." Other youth noted that although the timing may not be ideal for a pregnancy or pregnancy involvement, that such an occurrence may motivate them to achieve certain goals, such as enrolling in or finishing school, obtaining more stable employment,

and/or reducing substance use. A youth simultaneously captured many of these findings,

I mean, I love kids. I would love to have three of them. Would the timing be perfect? No. Is it ever, though? It would get me into housing, for one. And it would make my recovery all the more successful, because it's not like I could even be tempted to use if I was preggers. I just couldn't be responsible for that, for, um, hurting my baby. And it would get my ass in gear to finish school and get a decent job. I think about dropping out of school all the time but that would sure as shit keep me hitting the books.

Another youth reflected a similar perspective, and said, "It might help me in my focus, too, in a big way. Finishing school. Getting a job. Finding a place to live. Like all of those things would be more of an emergency."

Anti-pregnancy attitudes. Numerous youth in the sample, however, indicated definitively negative feelings regarding pregnancy and involvement, which were depicted by the following emotional responses offered by youth: 1) "I would be furious"; and 2) "I would be scared and panicked." For youth who indicated that they would be angry about becoming pregnant/involved in a pregnancy, they expressed these views through further sub-themes, including: 1a) "I don't want to be another stereotype"; and 1b) "I would be so mad at her." For youth who expressed fear at the thought of pregnancy/involvement, such views were depicted through further sub-themes, such as: 2a) "I am just not ready for that"; 2b) "There are chances of me turning out like my parents"; 2c) "That would be a really hard interruption for me at this point"; and 2d) "It's basically a crime to let a child go into foster care."

"I would be furious." As noted, some youth said they would respond to the news of pregnancy or pregnancy involvement with feelings of anger. Anger was most commonly a function of youth wanting to be seen for achieving their goals, rather than viewed as portraying negative stereotypes. For some male youth in the sample, however, this anger was instead directed toward their relationships with women.

"I don't want to be another stereotype." Some youth said that pregnancy or involvement would anger them, as they were striving to fulfill numerous goals while avoiding "negative labels."

As one young woman said, "I would be mad. I have so many goals for myself. And I've been working so hard. I don't want to be another stereotype. Like my mom was. She was a teen mom and our life was hard."

"I would be so mad at her." Several male youth noted, rather, that they would be angry at their female partner, and would specifically blame the female partner for becoming pregnant. In one young male's words,

I would be furious. I would be so mad at her. Because I think it's a female's responsibility to be on birth control when they're not married. Condoms break, they're unreliable. And it's not like we [males] can really tell if the girl's using their birth control at all, or correctly, and so it's sort of a tough place to be in. Like we're getting tricked into staying with some girl because she got pregnant, which was probably on purpose anyway. I see that all the time. Like girls are so manipulative and they guilt their men into staying with them by getting pregnant. I, for one, would not be falling for those games. I'd be out the game. I don't need that manipulation happening in my life. Some stupid bitch. I'm sorry, apologize for the language. But I don't need someone trying to get me to commit to something just by getting pregnant.

The same youth later elaborated on how observing his mother, as well as his negative childhood experiences, contributed to the development of his attitudes regarding women and pregnancy. He added,

I mean, she should be an expert because this was her strategy throughout life. Five kids with four dads. And none of them ever stayed like she thought they would. I was in and out of foster care my whole life. So were my brother and sisters. Because she kept having kids, tryin' to keep a man, and to get stuff she needed. Like money and stuff. And that would play out for a while but then we'd always be back to being desperate. I resent this sorta person because of how tough my life's been. My mom was one of those welfare queens, as they say, and it forever fucked up my life.

"I would be scared and panicked." Many other youth, however, said they were

opposed to pregnancy because of their fears. Such fears included not feeling ready for pregnancy and parenting, being afraid of resembling their own parents, concerns pertaining to their (transgender) identities, and not wanting for their child(ren) to enter the foster care system.

“I am just not ready for that.” Some respondents noted that they feared pregnancy and parenting, for reasons pertaining to their age, not wanting to disrupt their goals, and/or due to the economic stress that they believed pregnancy and parenting would bring. One youth said, “I’d need to be at least 20 to have a kid. I would not feel ready for a baby at this age. I would be scared.” Another young man similarly stated, “I would be scared and panicked. We have dreams and goals for careers. We are too young and not ready for that yet.” A different male noted, “I’d probably be in shock, freaking out, trying to figure out how I’m supposed to sustain my pregnant wife. Especially at this age, you know. We’re still young.” An additional young man said,

I would panic. I usually always try to have safe sex and realistically, the idea of me being a father right now at this point in time of my life, at this age, is probably something I'm not ready for. I'm staying at a homeless shelter, I'm on probation, I don't have a job, I don't have enough money. I do a lot of drugs, I mean...realistically, all and all, it's not a good idea to mix a child into that.

Such fears were not limited to only male respondents, however. Young women also noted fears regarding pregnancy. One young woman, of several indicating such, similarly indicated:

I would want to die. I am just not ready for that, and at this age. Being a parent is an important responsibility. And I am not there at this point, definitely not now in my life. No. I am working on school. I have a small part-time job, trying to help get myself through to an education. I do a work-study. And I have a scholarship and financial aid. All of those things are important to me. I'm, still barely making it, I mean, I'm here at the shelter for a bit until I can get into an apartment I can afford. I am barely able to maintain my classes and my job, and all of the other stuff, and still be saving for an apartment. Having a baby would make all of that definitely, you know, way harder. Wouldn't be a good time in my life for that.

“There are chances of me turning out like my parents.” Some youth in the sample feared pregnancy and parenting, in part, because they did not want to reflect qualities of their parents, yet were concerned they would nonetheless mirror them in some ways. In discussing her fears and negative attitudes regarding pregnancy, one young woman said, “My past has really traumatized me about kids. And it’s just, I’m afraid, I know I’m not, but it’s always in the back of my mind that there are chances of me turning out like my parents.”

“That would be a really hard interruption for me at this point.” Moreover, for transgender respondents in the sample, the stakes associated with becoming pregnant or involved in a pregnancy were also quite daunting, and deeply personal to their senses of identity. One youth said, “It would send me back to ‘a dude who wears girls’ clothes’ and I’m a lot more than that. Maybe it’s my mood from the hormones and the stuff I have going on, but I would think about suicide.” Another respondent noted that merely being asked about the topic of pregnancy was sensitive, in addition to the thought of actual pregnancy. This youth stated,

So first off, I’d just like to say thank you for you how you asked that question to me. I’m trans. I am a woman. I hate when people, um, assume they know if I can become pregnant or not. Yes, I was born a male. And I am working toward living as who I am. A woman. I take hormones, yes. I just started to actually. And I like that you didn’t just assume I can’t, like um, become pregnant because I probably visibly seem like I don’t have a uterus. And I also like that you didn’t assume that I can certainly become pregnant just because I’m dressed in women’s clothing. That’s really validating to me, actually. So thanks. But so, uh, I would say that I would feel really awful about getting someone else pregnant, because that is just a really difficult thing to imagine with all I have gone through and continue to go through in this journey. I’m just going through so much, in being seen as who I am, you know? I, uh, really think that would be a really hard interruption for me at this point.

Further, another transgender youth concisely stated, “Because I have fought through so much stuff for so many years to be seen by everyone as the person I really am. If I got pregnant it would be the worst thing possible for that.”

“It’s basically a crime to let a child go into foster care.” Another poignant finding was, that even among youth who held overtly negative attitudes regarding pregnancy/involvement, many said they would ultimately continue with their pregnancies and become parents. One young woman said, “I would be overwhelmed and scared. I really do not want to be pregnant now. But I would definitely keep the baby.” Most often, this sentiment was rooted in youths’ negative attitudes and experiences regarding adoption and foster care. As this young woman subsequently said, “It’s basically a crime to let a child go into foster care.” Another young man added,

My dad walked out on us, and I think that’s why I just can’t imagine knowing that my child was somewhere out there and not know who they are and what they’re doing. I just can’t. It’d be too hard. It’d be like putting a dog down.

Another youth referred to both her and her partner’s views on pregnancy, and their negative perceptions of the foster care system. Despite endorsing distinctly anti-pregnancy attitudes throughout her comments, she elaborated on her fears, and said, “I don’t think either of us wanna see more kids being waited around to be adopted. Or in the foster system.” Finally, one youth who held overtly negative attitudes regarding pregnancy, summarized his fear of becoming involved in a pregnancy, and observed, “The foster system is horrendous. I would never add to that whole mess.”

Pregnancy Experiences

Interviews also revealed that some youth in the sample were either currently pregnant and/or had been pregnant or involved in pregnancies in the past. Youth recounted how these experiences shaped their lives. For youth who were currently pregnant, they described their pregnancies as: 1) “Probably to be expected”; and 2) “God’s way of making it happen.” Youth who had been pregnant/involved in pregnancy(ies) in the past summarized their experiences through the following perspectives: 1) “I can’t believe it, either, but it’s actually made me want more kids”; and 2) “I will do what it takes to give her a good life.”

Currently pregnant. Four young women in the sample indicated that they were currently pregnant at the time of the interview. Two of these respondents had very recently learned of their pregnancies (within the month prior), whereas two respondents indicated that they were about four and six months pregnant, respectively.

“Probably to be expected.” Each of the pregnant young women noted that their attitudes prior to becoming pregnant were largely ambivalent. The two young women who were further along in their pregnancies both expressed that their pregnancies were unintended, while they also reflected that they had been doing very little to prevent pregnancy from occurring. As one of these young women noted, “How did I react? I was like, I don’t know? Probably to be expected. I wasn’t really doing anything like all that helpful to *stop* me from getting pregnant, I guess.” The other young woman said,

It was pretty much a mix of emotions when I found out. I wasn’t doing anything to not get pregnant, so I guess that’s the same thing as trying to. But I didn’t really think of it like that. But I’m getting ready to be 21, I’m like, ‘Wow, I’m sad because now I have to change my birthday plans to eating.’ Hopefully, if I’m not big yet, I would like to go and drink some wine. I’d like to go and drink some wine with some friends. Maybe go to a little jazz thing or something for my birthday instead of a huge bash.

“God’s way of making it happen.” However, the two young women who had more recently found out they were pregnant provided slightly different depictions of their reactions to

their pregnancies. After learning of their pregnancies, their attitudes were described as a combination of surprised, excited, scared, and as one youth described, “an act of fate.” The other youth, who had recently learned of her pregnancy, expressed, “And I think, kind of God’s way of making it happen. He made sure. I’m like, ‘What in the world, this can’t be real? But I can’t believe you’re still here and you’re really not fake’ [looks at belly].”

Prior pregnancy or pregnancy involvement. Several youth had also been pregnant or involved in a pregnancy (for some, multiple pregnancies) in the past. Some of these pregnancies ended in abortion, some resulted in miscarriage, and some of youths’ children had been removed and placed into the homes of either family members or in foster care. One young woman was working to obtain sole custody of her child and was experiencing great conflict with the child’s father and also with members of her family of origin over the child’s living arrangements. However, the most common perspectives, provided by youth who had been pregnant or involved in pregnancies in the past, were that these respondents subsequently wanted to have more children, and/or that they were working hard and undertaking personal sacrifices to provide for (and potentially re-connect with) their child(ren).

“I can’t believe it, either, but it’s actually made me want more kids.” All youth who indicated pregnancy or pregnancy involvement history noted that they had once been ambivalent about the idea of pregnancy. For some of these youth, becoming a parent subsequently changed these ambivalent views, particularly as parenting became a source of joy and purpose to them. As one youth said, “I remember thinking, ‘Oh no, I definitely can’t ever have kids.’ But then, after having my daughter, my life totally changed. She makes everything better. I’d like to have more kids, maybe in a few years.” Another youth said, “I love being a dad. Like, it’s great. My son’s awesome. Anyone who knew me a few years ago? Man, they wouldn’t recognize me. I can’t believe it, either, but it’s actually made me want more kids.”

“I will do what it takes to give her a good life.” Numerous youth also indicated that pregnancy and parenting have greatly impacted their priorities and behaviors in other ways. Youth described ways in which they were working hard and making personal sacrifices in order to

provide for, and potentially reconnect with, their child(ren). A young man, who was a parent to a one-year-old said,

I help with expenses, which is hard. I work two jobs. There's not much left after that so that's why I am here at the shelter. I can't afford rent just yet. Trying to get things more stable and hopefully getting my own place in the next few months, after I have a bit more extra saved. It's [parenting] the best part of my life and I will do what it takes to give her a good life, and hopefully to find solutions to problems [baby's mother's name] and I've had. My daughter definitely gives me hope.

Another youth expressed similar personal efforts toward reconnecting with her children,

Yeah, I have two sons. They're staying with my mom. While I'm getting things together. Well, I've had a lot of trouble with addiction. I couldn't keep a job. So I have been doing a lot of groups, getting my life in order. Working on my recovery, and getting back on my feet. So the boys are with my mom, and I'm here at the shelter, but the shelter has given me a lot of good things. Good groups, case manager. I feel hopeful and think I can be back into a place with my kids in about a year if I keep this up.

Social Norms Regarding Pregnancy

Similar to the concept of social norms regarding pregnancy, as were analyzed in the quantitative strand of this study, youth in the qualitative sample were asked about their perceptions of how common pregnancies were to homeless youth (descriptive norms), as well as who they believed would object to (versus encourage) them becoming pregnant or involved in a pregnancy (injunctive norms). Regarding descriptive norms, youths' views were overall summarized by the statement, "Pregnancies are caught like the flu." In terms of injunctive norms, youths' perceptions varied somewhat, but were most frequently characterized by, "I don't think anyone really cares about that, or me, in general, one way or other." Sub-themes within youths' ideas about descriptive and injunctive norms are also further described.

"Pregnancies are caught like the flu." Most respondents noted that pregnancy is a rampant phenomenon among homeless youth. Youth described pregnancy and pregnancy

involvement in terms such as, “Pregnancies are caught like the flu.” As another youth noted, “It seems like pregnancy is like the plague at homeless shelters I’ve been in.” A different youth said, “It’s so *in fashion* to be pregnant. Like a fashion trend or something. But then it gets real, and real quick.”

Youth recounted numerous reasons for the high prevalence of pregnancy and pregnancy involvement among their peers. These themes were depicted by the following perspectives: 1) “Another way to live”; 2) “Being pregnant makes people ‘see’ you”; 3) “Be seen as a real adult”; and 4) “They would get sick bennies [benefits].”

“Another way to live.” As one respondent described, pregnancy and parenting were often sought by other homeless youth as “a way to make something good come out of their bad situations, to bring good back into their life.” As one youth more specifically posited,

I think people just give up hope eventually after being homeless for a while. And a way out seems like getting pregnant, making a family, making it work as a couple, getting family involved in their lives again. Like it will help turn over a new leaf or something.

Others noted that homeless youth pregnancy is common because they believe it will create a family in order to bring comfort, particularly when coming from difficult family situations, and/or to heal wounds from abusive familial experiences. As one youth stated, “Most people here had a lot of struggles in life. And a baby seems like a good idea, because it’s a happy distraction from everything they’ve been through. It’s hard to see anything but good in a baby.” Another youth said, “We had really shitty family experiences. And the ones who try to get pregnant wanna prove there’s another way to live. That it could be, that families could be a thing that isn’t about hatred.” A different respondent similarly expressed that many homeless youth seemed to view having children as an antidote to their adverse family experiences, and articulated, “Kids show love and bring a lot of laughter to life. And people around here could really use that. There’s lots that’s bleak around here, but kids are good, like little lights in the darkness.”

“Being pregnant makes people ‘see’ you.” Many respondents further added that pregnancy is often seen as a cure of sorts to youths’ loneliness. Moreover, respondents believed

that many homeless young people become pregnant in an attempt to become more visible, gain positive attention, and be treated better by others. One youth eloquently stated, "Being pregnant makes people 'see' you." Another youth described pregnant women as, "They're like queens. People bend over backwards for anything a pregnant girl wants. Pregnant girls get noticed, so that's why it happens." A youth similarly noted, "Yeah, people know that people sort of stay out of your way if you're pregnant. Like less harsh. Like 'Shhh, leave her alone, she be pregnant. Y'all can't mess with an expecting woman.' That sort of thing." This positive treatment, to some, further extended into serving as a perceived form of protection for the pregnant youth. As one youth said, "If someone beats up a pregnant lady, everyone will want to go beat him up."

"Be seen as a real adult." Becoming pregnant or involved in pregnancy were actions depicted by respondents as common attempts by youth to demonstrate that they are worthy and responsible people. As one youth noted, "I think they think about it, like, they'll be seen as a real adult. Like doing important things. Like productive or whatever." This general idea of being viewed as a "worthy" adult translated further into seeking visibility and not being defined by labels of homelessness. As one youth said, "Having a kid could be a lovely responsibility for some. Like someone who needs you and is loyal. Sort of middle finger to the world, like, 'I can be a great parent, even if you think I'm homeless trash.'" Another respondent further ruminated on what pregnancy represents to many homeless youth,

To feel like there's an actual reason to be on Earth. I mean, yeah, it's miserable, being homeless. Getting pregnant would seem like there's a point to it all. I think, just, feeling like you're capable of creating life, and that you love what you created, and it loves you too. And you have a different label on you. Other than homeless. Now you're a mother, a father, a daughter, a son, things like that. Not just homeless. I think that's why.

"They would get sick bennies [benefits]." Some respondents perceived that other homeless youth commonly became pregnant or involved in a pregnancy, as they saw pregnancy and parenting as means by which they could obtain better amenities and benefits, such as better/more food, improved access to health care and other social services, and more immediate

access to transitional housing. As one youth noted, "It's [pregnancy] sort of a no-brainer to most people around here, if you're desperate to get into housing." A young man in the sample expanded upon these concepts, and said,

I can't think of any reasons why raising a child out here on the streets would be good. But it does seem like some girls here at the shelter are really hoping to be pregnant as some escape or something. I don't get that at all. Like how if they got pregnant their man would step up and take care of them. Or they would get sick bennies [benefits]. Money and food stamps and other hand-outs and shit. I don't know what they get or if that's true, but that's a thing. I mean, it's common. There's lots of pregnant girls here. I know since I've been here I've known three people, too, who weren't pregnant at first and then who found out they were pregnant while they were staying here. And with them, it seemed like they didn't care. Or were sort of not shocked. But then they kind of got some extra attention from people asking them questions about it. And got on lists, for housing. And other stuff. So then it was like they won the lotto or some shit.

A majority of youth said that these benefits were typically temporary, however. Many youth observed that pregnancy is both stressful and uncomfortable for young homeless women. As one youth articulated, "But it's all temporary, and it's not like it's a party to be pregnant, feeling sick, and throwing up, and being crazy tired, on the streets as a homeless person. Seems like a pretty awful situation." Another youth mentioned, "Well, now they're not just focused on surviving themselves but helping another person survive. They gotta start to give full-time attention to that. It's difficult for them. It ruins their life and causes a lot of stress and shit." Finally, as another youth summarized, on the fleeting nature of these perceived benefits,

They think it's all gonna get better at first, but it doesn't. Most of them end up staying here. It's not like they be getting to leave or anything, not getting invited back in to live with family or nothin'. Family doesn't end up pulling through, usually never. 'It will solve my problems,' they think. But they still homeless. They still be broke, not much education, no job. Usually their man leaves. They still addicted to drugs. All that positive idea fades.

“I don’t think anyone really cares about that, or me, in general, one way or other.”

Respondents were also asked about who they believed would object to, versus encourage, them becoming pregnant or involved in a pregnancy, similar to the notion of injunctive norms, as examined in the study’s quantitative strand. Some youth named one or two individuals who would object to them becoming pregnant or involved in a pregnancy, and/or one or two people from their networks who would encourage them to become pregnant/involved in a pregnancy. These people varied widely in relationship “type” (e.g., family members, peers, and serious partners), and were somewhat unique to each youth. Respondents did not mention staff members or service providers, however, with the exception of one youth, who expressed, “My case manager is on my team about goals. She’d probably feel bad about me getting pregnant. We never talk about that. Like love, sex, relationship stuff. They don’t talk about that much here. More like surviving and stuff.”

Yet, the most commonly mentioned response among youth conveyed a perception that no one would encourage them to become pregnant or involved in a pregnancy, while also that no one would object to them doing so, either. As one youth remarked, “I don’t think anyone really cares about that, or me, in general, one way or other. It’s probably why I actually wanna have a family. So someone would actually be interested if I lived or died.” A few youth believed that although they felt that few people cared about what happened to them in terms of pregnancy or involvement, they mutually felt little concern regarding others’ potential objections to or encouragements of them becoming pregnant or involved in a pregnancy. However, there was one distinct exception to this sentiment. Youth were pointedly concerned about how their serious partner would respond to becoming pregnant or involved in pregnancy, and whether they would object to (versus encourage) them to become pregnant/involved. As one youth observed, “It’s our decision, only. Everyone else’s thoughts are nice and all but it’s us who has to bear the burden. Actually raise the child, you know. The only opinion about pregnancy that matters to me is my boyfriend’s.”

Social Support Influences on Pregnancy Attitudes and Behaviors

Many youth reported having at least one person in their lives from whom they, in general, accessed some form of social support. Some youth said they receive emotional support from a serious partner or family member, although the most common response among youth was that they rely upon themselves for emotional support, and also turned to other outlets, such as journaling and/or creating art as an aid in their coping and emotional processing. Case workers, as well as youths' reliance upon themselves, were the most commonly mentioned sources of informational support. Most youth noted that they depend on a serious partner and/or themselves for instrumental support, with a few youth saying they receive no instrumental support altogether, aside from having a place to sleep at the shelter. Regarding social support influences specifically on youths' pregnancy attitudes and behaviors, however, three distinct themes emerged: 1) "I think literally every person here at the shelter is super trapped by any person when there's a possibility of getting some money"; 2) "It's such a double-standard"; and 3) "There'd be so many things I'd need help with, but I'd be lost and kinda alone."

"I think literally every person here at the shelter is super trapped by any person when there's a possibility of getting some money." According to many respondents, youths' relationships with their serious partners were particularly influential, specifically on youths' pregnancy attitude formation. This was especially evident among relationships in which instrumental support (e.g., money and other tangible necessities and benefits) was provided to youth by their serious partner. One youth summarized this commonly mentioned theme, and stated,

I think literally every person here at the shelter is super trapped by any person when there's a possibility of getting some money. Because we're all so desperate for money, even those of us who work full time, like I do. At Taco Bell. I can definitely see how, especially a girl here might just cave and get pregnant if literally anyone who was giving her money, for anything, even remotely suggested that getting pregnant might be a good idea. Especially if that person is her boyfriend. Then it's just what's gonna happen.

“It’s such a double-standard.” A theme that also arose throughout transcripts was gender-based norms and expectations pertaining to pregnancy, and who within intimate partner relationships, were seen as the bearers of responsibility and provision of support. Numerous youth discussed how pregnancy differentially impacts male and female homeless youth. As one participant opined, “It’s such a double standard. Such bullshit. The guy can do whatever, get someone pregnant, and be fine. Like he has no responsibility for any actions. It’s not fair. Just another example of sexism.” Another youth also said,

Oh, it all ends up falling on the girl, eventually. Baby daddies split. Families can act excited, but I don’t think they really ever help or change anything in the end. So it’s all on the girl. A lot of pressure, and she ends up taking all the blame, like blame for getting pregnant, and like for having an abortion, or giving it up for adoption, and even for like raising the child just in her life situation and with her struggles. Nothing seems to be good enough for all the haters.

In contrast, however, some males believed they had important responsibilities to be attentive parents and partners, as well as to disrupt this stereotypical perception of young fathers. As one young man revealed,

When my girlfriend found out she was pregnant, I felt immediately just as affected, or in the situation, with her as she was feeling. You know, I wanted to take on my responsibility as a father and as a husband. Well, we’re not married, but you know. But I think for some girls, it feels like everything is falling on them. And some guys panic and don’t stay. I have, um, really no respect for that. None. It took two people to make the baby, you know? It’s no excuse for the guy to leave, just ‘cause he isn’t carrying the baby around himself.

Respondents noted how others’ reactions to youths’ pregnancies and involvement also differed regarding gender. As one youth conveyed, “Well, people are friendly to the girl. If they even know who the guy is and he’s still around, then it’s like ‘Oh man, that’s the worst, how you gonna get out that?’” However, this perception was not held by all youth in the sample. As a youth

differently noted, “The girls are like queens of the world. They’re loving it, being pregnant and getting all that attention. But the guys, not so much. It’s lots of responsibility. They gotta figure out how to pay for everything.” Moreover, a transgender youth made an especially insightful observation of these gender-based expectations regarding pregnancy, and said,

I think the girl is always the one taking the brunt of the entire thing, like it’s all her fault. ‘What are you going to do now?’ ‘You shouldn’t have done that.’ Or ‘Sweetie, you gotta figure this shit out.’ But there’s always little mention of the fact that someone had to get her, like, pregnant, you know? So it’s weird, probably, but I’m starting to get a better idea of what sexism really is, what’s it’s really all about. Now especially as I’m outwardly living my life as a woman full-time. I didn’t always see how deep that is, that sexism, until I became more seen and treated like a woman. It’s everywhere. But I think especially with the subject of pregnancy.

“There’d be so many things I’d need help with, but I’d be lost and kinda alone.”

Youth said that if they became pregnant or involved in a pregnancy, some of their support-related needs would include housing, greater financial stability, and assistance navigating the medical system regarding aspects such as making the appropriate appointments with doctors and understanding health insurance and costs. One youth, in summarizing the supports she would need if she became pregnant, noted,

To get healthier food. Not just living on Taki’s. What doctors to go to. How to parent right. Most people here are definitely not ready to be a good parent. How to understand how to use Medicaid. Money stuff, like savings, you know. There’d be so many things I’d need help with, but I’d be lost and kinda alone.

A few youth said they would need help with smoking cessation and/or substance use challenges. Several youth also mentioned they would need help obtaining “special vitamins” (i.e., prenatal vitamins or folic acid). However, when youth talked about what they would need if they found out they were pregnant or involved in a pregnancy, the supports most commonly named were social in nature. Youth resoundingly said they would want to feel as though they were not alone in the

pregnancy. Having others in their lives that could provide both emotional and tangible sources of support throughout pregnancy and beyond was of crucial importance to most respondents. Here, many youth again expressed strong opinions about the role of fathers, with both young men and women indicating the importance of the father remaining committed to the relationship in which the pregnancy occurred. As one young man noted, "It's important that the baby daddies stay. That's it, they should care too, and step up. Be a man and take responsibility."

In addition to not feeling alone in pregnancy, respondents said they would want to feel supported in the sense that they were not stigmatized for becoming pregnant or involved in a pregnancy. Youth illustrated an "intersection" of pregnancy and homelessness that they saw as colliding to inform youths' experiences of discrimination. As one youth verbalized,

I think the biggest thing is not judging a homeless person for becoming pregnant. It's really hard to understand to anyone who has not been homeless, even for just a few days. It's a whole different world out here, and most people here have had a lot of bad things happen in their lives to get to this place. That's not a reason for us to not be able to be parents. Or to have our own families. And to be happy, or do whatever we want in life. So I think just not acting like it's another homeless person, doing something they shouldn't have, and um, well, um, passing judgment or saying bad things about them becoming pregnant. You just can't unless you've really been in this, um, experience of not having even a place to call home, or that many people in your life who even care.

Many young women said they would seek support from others, first in the form of telling their serious partner that they learned that they had become pregnant. Among males, many said after learning of a pregnancy from their female partner, that they would first tell either a family member or a friend at the shelter as a way of seeking social support. Several youth, however, said they would not tell anyone about their pregnancy or pregnancy involvement, thereby limiting their access to social support. As one young man described,

I wouldn't tell a soul. No way. Because I don't need people in my business or trying to judge me or trying to, you know, tell me, 'Hey, you're homeless. Why the fuck do you

have a kid?' Yeah. I don't need that bullshit. The reason I'm homeless has nothing to do with being a freeloading type of person like most people probably think. I like to think I'm really smart and motivated, but I've just had a really hard upbringing. And I'm literally busting my ass and doing the best I can to get on a better path than I was born on. So I don't need anyone to add to all of the feelings that I already have as someone that is looked down upon by most people in society, because I am different than that stereotype. I'm hoping that my time as a homeless person is short-lived, and that when I'm hopefully successful one day, at music or whatever it is that allows me to finally have a stable, normal life, that I can give back in some way. To help, you know, build up the self-esteem in others like me who really just are in this pocket of the world as the only last resort at this point in life. It's hard to feel like garbage every day. I'm not trying to be a parent or anything right now, but I'd be no worse. No, I'd be a lot better as a parent than most people because I know exactly what *not* to do.

Unprotected (Condomless) Sex

The vast majority of respondents said that condom use is not common among homeless youth. Some participants noted that they believed youth were more likely to use condoms during sex with "strangers" or casual partners when compared to encounters with more serious partners. However, most youth said that "no one" is consistent with condom use, with some of such respondents noting that homeless youth are only consistent in *not* using condoms during sex. Respondents provided several hypotheses regarding why condom use among homeless youth generally tends to be erratic, which were represented through the following observations: 1) "There aren't a lot of really decent places to have sex when you're homeless"; 2) "People are always talking about how condoms are literally the worst"; and 3) "I could make more money by not using condoms."

"There aren't a lot of really decent places to have sex when you're homeless."

One reason for homeless youths' inconsistent condom use was depicted as dependent upon the location of youths' sexual encounters. One young man highlighted this by saying,

Mmm, well, there aren't a lot of really decent places to have sex when you're homeless, so if you're with your girl and it's a good opportunity, you usually just seize it, and that is often when you might not have a condom. Like in a nice park, or down by the river. That's usually where we go. My friends said they had sex behind one of the game areas at the [public event site], isn't that crazy talk? But I guess other places are like coffee shops. Like in the bathroom at Starbucks or a grocery store. We've done that. Sort of awkward, but you know. And like at the movies, but usually no condom, no.

Many youth similarly said that condom use is infrequent because people do not think of using one "in the moment" when the opportunity and location arises. Youth elaborated on this theme, and also said that using condoms takes planning and forethought, which is difficult in light of the many other daily stressors being faced as a person experiencing homelessness. As one youth remarked,

They cost a lot of money and you have to remember to do that well before it's needed. So then you might not have them with you or remember if you have any when the time comes. And if you're struggling for things like food and other stuff, well, um, well, then buying condoms is also not going to be the highest thing on the list that you need to be doing.

"People are always talking about how condoms are literally the worst." Some youth concurrently did not enjoy using condoms, nor did they trust the effectiveness of condoms, and thus perceived them as a waste of precious monetary resources. One youth said, "I don't really believe they work anyway. And people here can't be spending money on that, since they might break anyway, so it's just a waste of what little money people have." In fact, a majority of respondents revealed that they simply do not like using condoms. As one youth offered,

They sort of ruin the vibe and then it's something that makes it not feel as good. And they're just sort of weird, in general. Like a weird material and smell funky and then you have this creepy thing leftover at the end that you have to throw away. Just sort of unnatural, you know? And they can break so they're not that perfect anyway.

Another youth further captured this by saying,

Well, I think people, myself included, sort of view the awful-ness of how the condom feels as more important to prevent than like a pregnancy or an STD. Which I realize sounds massively fucked up. People are always talking about how condoms are literally the worst. Guys pretty much never want to wear them, and the ladies mostly seem like they don't really care one way or another about getting pregnant, at least, so it sort of works out for everyone. Well, not 'works out' but everyone just basically agrees to not using condoms as a result.

"I could make more money by not using condoms." Furthermore, a few youth replied that not using condoms in transactional sex, which one of these youth described as "a lot more common than you probably think," could result in being paid more for engaging in sexual acts. As one youth recalled, "When I was prostituting and whatnot, I could make more money by not using condoms or anything, so, of course, I was desperate and did that then. I'm not proud of it." Some female respondents also noted that they felt pressure from their male partners to not use condoms during sex and thus did not, particularly if that person was a serious or long-term partner.

Condoms were, overall, deemed as mostly accessible by youth, who noted that they could get condoms for free at the shelter in which they were residing. As such, condom accessibility was not one of the most common justifications for condom non-use noted by respondents. A few youth, however, said that the condoms that could be accessed at the shelter were not high quality. As one youth expressed,

Oh, they're definitely easy to get. They have them here. Well, cheap ones. No one likes the cheap ones, either, so I guess that's probably another reason that no one uses them. If we had the expensive, nicer ones for free, that would maybe help. But I'm not even sure about that.

A few youth admitted that they had, on occasion, stolen condoms in the past so that they could obtain the brands or types of condoms that they preferred.

A minority of youth, conversely, said they personally felt it was very important to use condoms, not only to prevent pregnancy and HIV/STIs, but also as a responsibility in conducting themselves as healthy and accountable individuals. Two youth further noted that if condoms could somehow be made “cooler” or “more fashionable,” that they would also be far more likely to use condoms. As one of these youth brainstormed,

Although, if they made like a SpongeBob condom, I'd be all about that. Or, no, if they made Batman condoms, or like, I would want to see, like, a light saber condom that glows in the dark. That, I would literally give all of my time to help research how to make that happen. Of course, it'd probably cause radiation poisoning and some shit and cause like really nasty STDs 'cause of the glowing condom, but I mean, it's a glowing condom, man...Like she's about to feel the full effects of 'the force.'

Of concern, most youth said that very little HIV/STI testing occurs among this population, particularly before engaging in sexual acts. A few youth noted that while it is slightly more common for youth to be tested *after* having sex, this was typically a reactive (rather than proactive) test to determine whether sexual occurrences resulted in their acquisition of HIV and/or STIs. While many youth said that HIV/STI testing services were offered at the shelter for free, some youth did not know about these services. Others said, similar to condom use in general, that HIV/STI testing was simply not important in the grander scheme of the many challenges they faced on a daily basis while experiencing homelessness.

Other Contraceptive/Birth Control Attitudes and Use

Similar to condom use, a majority of respondents believed that homeless youth rarely use other methods of contraceptives/birth control. The most common reasons for contraceptive non-use cited by youth were noted through the following themes: 1) “I could never afford birth control;” 2) “It makes you feel crazy and you gain a ton of weight”; and 3) “It seems kinda like a different language to us.”

“I could never afford birth control.” The most common reason for contraceptive non-use cited by youth was contraceptive cost. Moreover, youth reflected numerous misperceptions

and inaccuracies pertaining to contraceptive cost. As one youth articulated, on both contraceptive use among homeless youth as well as contraceptive cost,

It's not very common. It's too expensive. I could never afford birth control. I heard that one that lasts a long time is like \$10,000 or something crazy. Like I would buy a car if I had that kind of money just sitting around.

Another youth also (inaccurately) noted that contraceptives are not covered by Medicaid, another perceived barrier to homeless youths' abilities to obtain and utilize contraceptives. She expressed that she could not obtain contraceptives, as she stated, "I don't know, probably because it's really expensive. I have heard birth control is very expensive and you can't use Medicaid or anything like that for it."

"It makes you feel crazy and you gain a ton of weight." Some youth further indicated that they perceived some contraceptive methods as being uncomfortable or "unnatural." A few youth also noted that perceived potential side effects of contraceptives, such as weight gain, acne, and negative long-term impacts on fertility, were deterrents to their use of contraceptives; one youth further extended this sentiment by saying that experiencing these negative side effects outweighed the risks of her potentially becoming pregnant. As one youth said, "I heard it makes you unable to have kids later." Another youth said, "I wouldn't take that because I wouldn't wanna get all that acne. That'd be the worst thing ever." Another youth expressed, "It makes you feel crazy and you gain a ton of weight." In addition to such perceived side effects, some youth indicated that the inconvenience of taking contraceptives was another drawback of sorts. These youth expressed that contraceptives seemed difficult to remember to take, and in the case of oral contraceptives, that they simply did not have space to carry around pills. As one youth said,

Well, besides the cost and not being able to afford most kinds, the cheaper ones, like the pill, is too hard too because you're supposed to take it at the same time and life is just too all-over-the-place when you're homeless. And carrying bottles of pills around. Hard because backpacks get stolen, don't always have stuff with you if you are in and out of shelter. Just too much to mess with.

“It seems kinda like a different language to us.” A majority of youth further disclosed that they did not know where to obtain information and services pertaining to contraceptives, and that they were in great need of information on free clinics, Medicaid eligibility, and how contraceptives work, more generally. Youth also indicated that transportation is an added barrier that factored into the complexity of seeking health care services. As one youth commented,

Yeah. I think going to the doctor, in general, is tough, because taking the bus or the light rail, and all of that, but then adding that people just don't really know where to go, how things work, and haven't had many things really ever explained to make it easier is probably a big problem with this. A lot of it seems kinda like a different language to us. And the money, you know, basic things we need are sort of the first thing on our minds. Just getting through the day or week or month or whatever.

However, a seemingly even larger barrier to homeless youths' access to and use of contraceptives was depicted in youths' comments about their reticence to engage in the health care system. While some youth said this was simply because they did not enjoy going to the doctor, youth most often reflected on negative experiences they had in their past interactions with health care providers. One youth recounted a negative experience she recently had,

I was so uncomfortable and went to the ER a few weeks ago. And the ER doctor was such a jerk. He said, 'Well, you probably just have another STD.' And I was like, 'Excuse me, I don't have any STDs, and I know what this is. It's BV [bacterial vaginosis]. It has been diagnosed, and treated, but it can still come back.' And I felt so disrespected. And judged. So I think that can be a thing for people here too. You know, homeless people. Feeling like doctors just think we're bad people, don't know what we're talking about, you know? So some people just don't want to go have bad experiences in hospitals and with doctors who treat them like crap. So people just don't go then, for things like birth control and stuff either.

Most youth said that much of what they knew about contraceptives was information passed along to them by their peers, some of which they acknowledged, was possibly inaccurate.

Youth often noted that their parents and/or caregivers had not taught them much about these topics, and that they had not learned much about sexual and reproductive health, in general, from their school-based experiences. However, a few youth could be described as contraceptive “super-users.” One young woman, who identified as heterosexual, had used many different forms of contraception, actively sought health information, and proactively accessed reproductive health services at local community-based clinics.

Moreover, several cisgender youth in the sample noted that most of their transgender peers were especially knowledgeable, responsible users of contraceptives. A transgender young man said that most reproductive health care providers were judgmental and lacked both knowledge and sensitivity regarding health concerns faced by transgender youth. However, to that youth, the risks of becoming pregnant far outweighed the discomfort of engaging with the health care system. Another transgender youth noted, “Well, I think some people just wanna get knocked up. Some just don’t mind, or it would be like ‘oh well.’ But for trans people, it’s like ‘Hell no, I would die.’” For that youth, the importance of being recognized for his true gender was important, and he thus had been a long-time user of a contraceptive implant. Moreover, this respondent said, “the threat of rape as a trans man is so real that I just have to have the implant.”

Abortion Attitudes and Experiences

Most youth in the study perceived that abortions among this population are common. Some additional youth remarked that they were not sure how common abortions actually were, partly because they believed that people were not likely to openly discuss the topic due to its sensitive nature. These respondents indicated, nonetheless, that they knew at least one or more homeless young person who had obtained an abortion, and/or who had been involved in at least one pregnancy that ended in abortion. A few others merely hypothesized about the prevalence of abortion in this population. As one youth estimated, “Like a lot of people have them, probably, and it’s a more lonely event. Like they don’t tell anyone.”

Abortion-seeking among homeless youth. Respondents believed that homeless youth decided to obtain abortions for a range of reasons. Such reasons for which homeless youth

sought abortions were captured by the following themes, provided through respondents' quotes:

1) "She has no choice but to go through with it"; 2) "She just went along with it to keep him happy"; and 3) "They changed their minds."

"She has no choice but to go through with it." One of the most commonly reported factors in homeless youths' decisions to obtain abortions was relationship status change within the dyads in which pregnancies occurred. Youth noted that some male partners responded negatively to learning of the pregnancy, and some formally ended the couple's relationship thereafter. However, as one respondent expressed, "Some dudes just disappear when they find out." In these cases, in which youths' relationships were terminated after pregnancy occurred, respondents noted that some young women opted to terminate their pregnancies through abortion, as they feared raising a child alone. As one participant described,

They break up over getting pregnant. So then, sometimes the girl, even if she doesn't want the abortion, she just feels like she has nowhere else to go and nothing she could do about it, especially while on her own, and you know. She has no choice but to go through with it. Having the abortion.

"She just went along with it to keep him happy." Some respondents also mentioned that, at times, abortion decision-making was influenced by abuse or pregnancy decision-making discord transpiring within the dyad. Some respondents said that young women would secretly obtain abortions, unbeknownst to their male partner(s), in part because of abuse that was occurring within the relationship. Additional, and overlapping, intimate partner relationship dynamics were also mentioned by youth. A few participants said they knew of other homeless youth who experienced great pregnancy decision-making discord within their relationships. One respondent offered, "Like my friends who got pregnant together. She really wanted that baby but she knew he would abandon her if she didn't have an abortion. So she caved and did it for him. I know she's sad about it." Another youth remarked, "My friend's boyfriend thought it would be best for her to have an abortion. She just went along with it to keep him happy. But she had to go to great lengths to hide it from her parents."

“They changed their minds.” Respondents also discussed that among pregnancies that were seemingly “intended” or initially viewed positively, that youth nonetheless obtained abortions because, as one youth summarized, “They changed their minds.” This shift in youths’ thinking was most often depicted through the unrelenting challenges youth endure while experiencing homelessness. As one youth described,

I think some of the pregnancies come at a really awful time in the girl’s life. Well, the girl and the dude, if he’s still in the picture. Like being homeless, not having any money. And not having anyone to help or support her through it in any way. And I think some abortions happen because being pregnant is sort of like a shock, but not really that bad of one, like, at first. Sometimes it’s even what the girl wanted, like she was happy about it. But then it becomes more and more clear that life is just getting harder and harder with that. It’s hard for people to get their lives going. Because at the end of the day, and as the pregnancy goes on, you know what? They’re still homeless. That didn’t go away. So they have not much of a choice left. You know, for the abortion.

Social network influences on homeless youths’ abortion decision-making. Youths’ perceptions of whether or not members of their social networks would approve or disapprove of their pregnancy decision-making was a salient theme noted throughout the interviews. Respondents reflected that homeless youth are highly influenced by their perceptions of others’ opinions or reactions to them potentially having an abortion or being involved in a pregnancy that resulted in abortion. These themes, most frequently, were captured through the following perspectives: 1) “My family would banish me from the family for life”; and 2) “I know my own boyfriend would murder me.”

“My family would banish me from the family for life.” The most common relationship type in which these influences of social network members’ views on youths’ abortion decision-making occurred was among family members. Respondents recalled that some of their friends actually became homeless as a direct result of their parents or caregivers finding out they had obtained abortions. A few other youth talked about how their peers decided to proceed with

unwanted pregnancies, as they feared the reactions of their family members. One youth said she would be inclined to make the same such decision, and noted, “My family would banish me from the family for life if I had an abortion. So I could never.” A different youth similarly stated,

My parents are super against abortion so I know they would kill me, like literally kill me and end my life, if they ever found out about me having an abortion, so I think that’s sort of shaped my view, in just that I don’t think I could. Not because I think it’s really wrong or anything but mostly because I wouldn’t want to die myself.

“I know my own boyfriend would murder me.” Youth also articulated that some young women either do not, or would not, have abortions due to their male partners’ disapproving views toward abortion. Others noted this would also be true for themselves. As one respondent said, “I know my own boyfriend would murder me if I had an abortion. He’s super Catholic. So that’s not an option.” Further, youth indicated a diverse range of views when speaking of their own attitudes regarding abortion. Approximately two-thirds of the sample indicated pro-choice views regarding abortion, but approximately one-third of this group expressed more nuanced pro-choice attitudes. One youth captured this sentiment in her description of her own abortion attitudes, and said, “I’m staunchly pro-choice for others, just not for myself.” Approximately one-third of the sample showed distinctly negative views on abortion. Youths’ complex attitudes regarding abortion, as well as their perceptions of others’ views regarding abortion, are notable; most youths’ personal views on this contentious issue seemingly framed much of how they depicted the overall prevalence and experience of abortion among homeless youth, in general.

Self-induced abortions among homeless youth. Of concern, respondents indicated that in addition to homeless youth obtaining abortions in traditional, medical-based settings, that many homeless youth attempt abortions through self-induced methods. Each of the 30 youth interviewed in the sample either knew of someone who had attempted and/or completed a self-induced abortion, or at a minimum, were rumored to have done so. As one youth described this phenomenon, “It’s totally happening, all the time.” Another youth remarked, I get the impression that kinda thing’s more common than actually going to have a regular abortion. Like people,

especially when they're in the desperate situation of being homeless, they sort of cause the pregnancy to end." As noted, this topic seemed to be often discussed, in the form of rumors and speculation, among homeless youth. As one youth expressed,

Oh my God, I think this is a crisis that's happening. Like, and we don't really know much about it yet. I know it's happening. One person tried to starve herself after she got pregnant so the baby wouldn't live. So that's one person I know, for sure, but I think there are way, way, more. She did have a miscarriage. She was like a rail. Like emaciated. It was really disgusting and sad to watch. Like she just refused to eat and she was so unhealthy, not just like for the pregnancy, but it's no way to treat your own body and expect you'd survive. There has to be another way. But I think that sorta thing is why it seems like it's just all normal for things like that, you know, when people are homeless. Like, 'Oh pregnancy is dangerous for homeless people because they are living on the streets and don't have food.' Like it's normal to expect a miscarriage for us. So yes, it's hard on the streets. But most of us *do* have food. Maybe not enough for some people, but most of us don't just like die of starvation. So miscarriages aren't really like, something that should be a normal part of being homeless. I think behind at least some of the stories, there's way more. It's like a dark secret. Seems like something really fishy's happening behind what we *think* happened.

Another youth provided a similar example, and stated,

I know a girl who had a nasty breakup with her baby daddy a few weeks after she found out she was pregnant. And she didn't want any reminder of him. So she took like every drug she could find. She's lucky she didn't die, but basically all that happened was she miscarried and she was back to her normal life like two weeks later. That actually kinda makes me wonder more about some of those other miscarriage stories. Happens a lot.

Moreover, two respondents indicated that they, themselves, had "created a miscarriage." As one of these youth disclosed,

Well, so please don't tell anyone this, like people here. But I got pregnant when I was 15.

It was a nightmare. And I knew I was too young, and that I couldn't have that baby. And my parents woulda killed me for getting pregnant, but they woulda also killed me if I got an abortion. So I made my own miscarriage.

Respondents most often believed that homeless youth attempt, and sometimes complete, self-induced abortions due to lacking funds to obtain abortions within the formal medical system. Furthermore, many youth held inflated misperceptions of what abortions actually cost. As one youth hypothesized,

Abortions cost like a couple thousand dollars, I would estimate. I heard you have to go to the doctor like five times though and get permission from a judge or something. And they make you watch an ultrasound video to make sure you remember it's a human being that you're about to get rid of it.

Many youth also said that self-induced abortions are common because people seek to avoid the shame and stigma that they perceive as associated with obtaining an abortion. Some extended this idea further, as one youth said, "It's easier to not look like some monster who went and had an abortion. If it looks like a miscarriage, then people just feel bad for you. Like, 'That's so sad that you lost your baby.'" Respondents believed that some homeless youth self-induce abortions because they do not know where to obtain an abortion safely, and/or that they lacked transportation to be able to go to a medical provider's clinical setting. Others noted that some youth desired to hide the pregnancy from a serious partner, or to ensure that the pregnancy seemed to the serious partner and others as though it ended in miscarriage, rather than via abortion. Although a unique finding within the sample, in one poignant example, a youth said,

I know someone who got pregnant by her uncle, which is so fucked up. But she needed a signature from an adult, because she was 15 and needed permission. But she couldn't tell anyone in her family because they wouldn't believe her and then he would kill her and shit, so she just had to try to do it herself in secret without telling anyone and just hoping that she didn't die in the process.

Youth recounted that they had heard of many ways by which other homeless youth have sought to self-induce abortions. The most common strategies included planned physical abuse, the insertion of sharp objects, and heavy/repeated use of drugs and alcohol. A few youth had heard of others “purchasing herbs from the internet,” and one youth said that her friend had “thrown herself down some stairs.” A particularly grisly example, one respondent said she knew of someone who had vaginally inserted a bleach-soaked tampon, which unsurprisingly, caused a number of adverse reproductive health implications for the young woman.

Homeless youths’ interest in reproductive and sexual health information-seeking and research participation. More hopeful, however, was that a majority of youth in the sample indicated that they actively wanted to seek more information about reproductive and sexual health, and from medically accurate, non-judgmental, and caring sources. As one youth expressed,

Homeless shelters could definitely use some speakers or something to come in and teach about this stuff. I’m amazed by the little bit that people, people here who are older than me, how little they know about all of this stuff. And they could die from some of these choices, like literally. So I think we need some like health super hero to come in here and save the day with some fun info. Like a fun group about sex ed and stuff, but that isn’t all weird and serious and boring. And with free birth control and condoms and stuff about abortion, too. [laughs]

Another youth said it was important for education and training efforts to include information on how to better understand and navigate the complexities of the health care system. This youth added,

I think we need to learn all of those things. Like health insurance and stuff is so confusing. And it seems like we are trapped or like everything is hopeless, and maybe it’s easier and there’s more for us out there than what we know about. If we could just have some of these things better explained to us, and by someone who actually cares about us and doesn’t make us feel like idiots. Like you, you know? Like you made this stuff

really easy to talk about, and fun, actually. And that makes me wanna talk more and listen more to other people, and like they may have really good questions too that they can't ask anyone right now. So that's my idea, anyway.

Finally, youth were overall quite engaged and enthusiastic about participating in this research study, and many indicated appreciation merely for being asked about their perspectives on these topics. As one youth remarked, "We feel forgotten a lot so this research is cool because we're usually ignored." A few youth also noted that they would like to be more actively involved in future iterations of this line of inquiry. As one youth said, at the end of her interview, upon being asked if she wanted to share any additional thoughts or ask any further questions,

You forgot to ask me if you want any help taking over the world with your research.

[Laughs] This is badass. I would love to pitch in to help if there's anything else you want to know about or how to help you educate more people about these things. It's important. Some sad shit happens because of pregnancy, especially for homeless people, so I just wanna say it's cool that you're trying to be a solution. I mean, I almost killed myself.

You're a badass for doing this work and for giving a shit and wanting to make the world a better place. We need that. Especially us homeless people. That's rad.

CHAPTER FIVE: DISCUSSION

Mixed Methods Integration of Study Findings

Informed by theoretical perspectives pertaining to social networks, social norms, and social support, this dissertation sought to identify how youths' broader ecological contexts may influence their pregnancy attitude formation, and subsequently, their engagement in unprotected vaginal sex. The study first examined two quantitative specific aims, which investigated predictors of homeless youths' pro-pregnancy attitudes and engagement in unprotected vaginal sex, respectively. The study then queried, through a qualitative specific aim, youths' attitudes, experiences, and behaviors regarding pregnancy, HIV risk behaviors, and other interrelated aspects of family planning decision-making. As follows, results from these study aims are discussed, compared, and contrasted, study implications are suggested, and limitations of these research efforts are noted.

Predictors of homeless youths' pro-pregnancy attitudes. Across these quantitative models predicting youths' pregnancy attitudes, approximately 40% of youth in each sample indicated pregnancy-ambivalent or pro-pregnancy attitudes. In the subsequent qualitative sample of 30 homeless youth, a higher percentage (60%) of respondents indicated ambivalent or positive attitudes regarding pregnancy. While not widely studied, this 40%-60% range of respondents who expressed pregnancy-ambivalent and pro-pregnancy attitudes mirrors those reported in other studies of homeless youth (Cowley & Farley, 2001; Tucker et al., 2012a; Winetrobe et al., 2013).

Although the quantitative and qualitative study samples were similar in many ways, a few differences in sample characteristics across the arms of the study may, in part, elucidate some of such differences in youths' pregnancy attitude endorsements. For example, a higher percentage of youth in the qualitative sample were female (over 50% vs. approximately 30% of youth in the quantitative samples). On average, youth interviewed in the qualitative arm of the study were

younger (19.1 years of age), compared to youth in the quantitative samples (21.4-21.5 years of age). Moreover, youth in the qualitative study had been homeless for a shorter duration of time, on average (approximately 9 months, compared to 2.7-2.9 years, in the quantitative samples). As follows, results from each quantitative model within Specific Aim #1 are compared to qualitative study results obtained, and also to prior research findings, if applicable.

Sociodemographic characteristics and other life experiences associated with homeless youths' pregnancy attitudes. The quantitative model assessing the association between youths' sociodemographic characteristics/other life experiences and youths' pregnancy attitudes found two significant predictors of youths' pro-pregnancy attitude endorsements: homeless duration and prior pregnancy/pregnancy involvement. Longer homelessness duration was significantly associated with youths' greater likelihood of endorsing pro-pregnancy attitudes ($OR = 1.06, p < .01$). This finding is similar to results found in prior studies. Thompson and colleagues (2008) found homelessness duration to be positively associated with the prevalence of homeless youth pregnancy/involvement, in general, and Tucker and colleagues (2012a) found longer homelessness duration to be a significant predictor of homeless youths' pro-pregnancy attitude endorsements. Qualitative results further illustrated this relationship, as respondents frequently noted that pregnancy was positively perceived by youth as "a way out" of homelessness. Some youth expressed that they believed their homeless peers, in essence, became less hopeful, more lonely and despondent, and thus became more motivated to become pregnant or involved in pregnancy as they were homeless for longer periods of time.

Prior pregnancy or pregnancy involvement was also found, in the current study, to be a significant predictor of homeless youths' pro-pregnancy attitude endorsements ($OR = 1.64, p < .001$). Approximately 38%-46% of youth in the quantitative samples examined in this study had been pregnant or involved in pregnancy(ies) in the past. In the qualitative sample, four youth were currently pregnant (25% of cisgender females interviewed), and numerous additional youth, both female and male, discussed prior pregnancies and pregnancy involvement. Although some of these pregnancies/involvement resulted in miscarriage or abortion, youth most often expressed

that having a child(ren) had been a positive life experience, with some outlining the personal sacrifices and extensive efforts they were making in order to provide for and/or reconnect with their child(ren). Indeed, prior pregnancy/involvement may be a predictor of homeless youths' positive attitudes regarding pregnancy. However, more research is needed to further examine this relationship. In prior quantitative samples of homeless youth, 30% to 60% of female samples reported past or current pregnancies (Anderson et al., 1994; Cauce et al., 2005; Crawford et al., 2011; Halcón & Lifson, 2004; Haley et al., 2002; Wagner et al., 2001; Winetrobe et al., 2013), and 22% to 43% of young homeless male samples indicated prior pregnancy involvement (Wagner et al., 2001; Winetrobe et al., 2013). This is the first study, to our knowledge, although, that specifically tested the relationship between prior pregnancy/involvement and youths' positive attitudes regarding pregnancy/pregnancy involvement.

Among youth in the general population, prevention efforts have often emphasized the need for reducing repeat births to teens and young adults. Approximately one out of five births to women ages 20 and younger are repeat births (CDC, 2013b). Repeat births to homeless young people have not been well studied, and more research in this area is needed. Not only is the prevention of unintended repeat pregnancies to homeless youth important to better understand, but also are the etiology of and outcomes associated with homeless youths' "intended," "desired," and/or "ambivalent" repeat pregnancies.

Of note, gender was not a significant predictor of youths' pro-pregnancy attitudes in any model examined in the quantitative study. Qualitatively, a wide range of pregnancy attitudes (pro-pregnancy, pregnancy-ambivalent, and anti-pregnancy) was expressed by youth across genders. However, one consistent sentiment regarding pregnancy—overtly anti-pregnancy attitudes—was indicated by transgender youth. For transgender youth in the qualitative sample, pregnancy/involvement represented a traumatic set-back to being able to express and be seen as their true gender identity. Data pertaining to transgender homeless youths' pregnancy attitudes are absent from extant literature.

Although also not vastly studied, gender-based differences in cisgender youths' pregnancy attitudes have varied in prior studies. Tucker et al. (2012a) found young homeless men to be far more likely to endorse pro-pregnancy attitudes compared to their female homeless counterparts, whereas Winetrobe et al., (2013) found no such gender-based differences. In the general population, one study found that young men were far less likely, compared to their young female peers, to endorse positive attitudes toward pregnancy (Cuffee, Hallfors, & Waller, 2007). However, as young men's attitudes, as well as the attitudes and experiences of homeless and/or transgender youth, regarding pregnancy/involvement are scarcely researched, all of such findings warrant replication.

Perceived social norms regarding pregnancy in relationship to homeless youths' pregnancy attitudes. Quantitative findings not only revealed that a majority of youth (84%) believed that one or more of their network members had ever been pregnant or involved in a pregnancy, but also that a majority of youth (76%) perceived that one or more of their network members would object to them becoming pregnant/involved in a pregnancy. The qualitative strand of the study overall supplemented the quantitative results obtained, confirming some findings and extending others. As expected, youth qualitatively noted that pregnancy was a common phenomenon in their entire social networks. Most frequently, though, youth believed that their network members would neither object (nor would encourage) to them becoming pregnant or involved in a pregnancy. Youth most often expressed that they felt that perhaps none of their network members "cared what happened to them." When considering a particularly major life event such as pregnancy/involvement, youths' feelings of loneliness and lack of social connectedness may serve as an underlying explanation for many youths' positive views regarding pregnancy. Some youth may thus see pregnancy as a means to quell their loneliness, and to satisfy their desires for social connection and feelings of closeness to others. This is the first known study to examine the relationship between homeless youths' perceived descriptive and injunctive norms of pregnancy and youths' pregnancy attitudes. As such, these results merit replication, since there is no known research to which these results may be directly compared.

Quantitative results also showed that youth who were currently enrolled in school were more likely to endorse pro-pregnancy attitudes. This result was slightly surprising, as Tucker et al. (2012a) found that homeless youth were less likely to endorse positive attitudes regarding pregnancy if they had greater numbers of network members who regularly attend school. No known research has specifically examined current school attendance as a predictor of homeless youths' pregnancy attitudes, however. The qualitative study similarly elucidated the quantitative study arms' findings. Some youth in the qualitative sample expressed that they would immediately enroll in school if they became pregnant, in order to be able to secure more stable, higher-paying employment. Other youth noted that because they were currently in school, they felt as though their lives were more "together," and thus, that becoming pregnant at the present time would not pose as many difficulties or concerns. As such, school was perceived as more of a "readiness" factor for pregnancy and parenting, to many of the youth interviewed. This finding suggests that schools nonetheless remain a crucially important place in which reproductive and sexual health education efforts should be offered. These efforts should include not only information about preventing unwanted pregnancies, but also resources that encourage healthy pregnancies, positive relationships, and parenting skills.

Interestingly, in the first of the two social norms models, quantitative analyses found no significant relationship between youths' descriptive norms regarding pregnancy and youths' pregnancy attitudes. Here, no association may have been detected, as youths' entire social networks were considered. Logically, a vast majority of youth believed that one or more members of their social networks had ever been pregnant or involved in pregnancy. However, these network members could have included older family members, staff members, and other individuals with quite different current life situations in comparison to the lives of the respondents. As such, the need for considering the heterogeneity of youths' networks may be supported, and descriptive norms were more narrowly examined (by specific referent-groups) in the subsequent quantitative model, accordingly.

However, a significant association was found between youths' injunctive norms regarding pregnancy and youths' pregnancy attitude endorsements in the first quantitative model including social norms. Youth who perceived that their social networks were overall more objecting to them becoming pregnant/involved in a pregnancy (versus encouraging of pregnancy) were 64% less likely to endorse pro-pregnancy attitudes. This finding was somewhat supported and somewhat refuted in the qualitative findings. Some youth in the qualitative study (similar to quantitative results) mentioned that delaying pregnancy/involvement was important to them due to negative reactions they thought they would receive from their social network members in response to pregnancy occurrence. Conversely, several youth in the qualitative sample believed that becoming pregnant/involved in a pregnancy would bring them closer to various members of their social networks, and thus, they indicated ambivalence or overtly positive attitudes regarding pregnancy.

Both arms of the study thus sought to examine youths' social networks more granularly, by specific referent-groups (i.e., home-based peers, street-based peers, family members, staff members, serious partners), which revealed interesting findings. In the quantitative study, approximately 67% of youth perceived that one or more of their home-based peers had ever been pregnant or involved in a pregnancy, whereas far less youth (30%) perceived that one or more of their street-based peers had ever been pregnant or involved in pregnancy. This finding may be surprising, particularly given the high rates of pregnancy and involvement observed in prior homeless youth samples. These results may be explained through youths' transience, as well as their homelessness duration. Homeless youth may find that they interact with street-based and shelter-based acquaintances for shorter durations of time, and thus often do not know of others' pregnancy histories or status. Moreover, homeless youth may simply become acquainted with other street-based peers at a time in which they are not pregnant or involved in a pregnancy, but youth may subsequently become pregnant/involved at a different time, after youth have moved on to other settings. However, youths' home-based peers are typically people with whom they have interacted for a longer period of time, and perhaps comprise a much wider range of ages and life

experiences as well, compared to youths' street-based peers. Thus, it is perhaps understandable, then, that homeless youth perceive a higher percentage of their home-based peers as ever pregnant or involved in a pregnancy when compared to that of their street-based peers.

Youth in the qualitative sample noted that street-based relationships are often quick to become close, as youth find they can directly relate to the experiences of other youth experiencing homelessness. However, youth said these are often "fleeting," short-lived relationships due to the typically chaotic and rapidly changing life circumstances and (literal) locations of this youth population. Therefore, this "come and go" nature of relationships between homeless youth and their street-based peers may subsequently influence the degree to which descriptive norms regarding pregnancy are predictive in youths' pregnancy attitude formation.

Injunctive norms among certain types of network members were particularly influential in youths' attitudes about pregnancy. Two relationships specifically, injunctive norms among street-based peers and those of serious partners, were important in predicting youths' pregnancy attitudes. Here, youth who believed that their street-based peers were overall more objecting to (versus encouraging of) them becoming pregnant or involved in a pregnancy were 51% less likely to endorse pro-pregnancy attitudes. Youth who perceived that their serious partner was more objecting to (versus encouraging of) them becoming pregnant/involved in pregnancy, were 74% less likely to endorse pro-pregnancy attitudes. Such relationships have not been explicitly researched before, to our knowledge.

Of particular interest, here, is the characterization of youths' connections to "pro-social" individuals. Pro-social network members are typically described as home-based peers, family members, and staff members. Research has often framed these individuals as the most optimal connections for youth in terms of encouraging their engagement in healthy, positive behaviors. Quantitative findings in the current study, however, suggest that there may also be positive influence derived from youths' perceptions of street-based peers' and serious partners' attitudes pertaining to them becoming pregnant or involved in pregnancy. This suggests the potential utility of further exploring peer-based and intimate partner/dyadic approaches to pregnancy prevention,

particularly as these appear to be salient relationship-based influences in youths' pregnancy attitude formation.

Qualitative results were nuanced in these regards, as well. Youth were highly motivated to become pregnant/involved in a pregnancy if they perceived that their serious partner desired pregnancy as well. However, some youth noted that they wanted to delay pregnancy or involvement, specifically because they believed their partner did not want to become pregnant or involved in pregnancy. Most often, youth attributed these feelings to their and their partner's education and/or career aspirations. As such, goal setting and future planning may also be important constructs to more specifically test in the development of pregnancy prevention programs, as this was a commonly-mentioned "buffer" against youths' positive pregnancy attitudes and intention.

Incongruent to quantitative findings obtained, youth did not often qualitatively mention the influence of street-based peers' objections to or encouragement of them becoming pregnant/involved in pregnancy on their own pregnancy attitude formation, however. Street-based peers were most often discussed as people to whom youth could go to "cope about something" or to "process" things that happened in their lives, mostly because they perceived that other homeless youth could uniquely relate to their experiences and challenges. As such, this finding, combined with quantitative results, suggest there may indeed be some benefit to further considering street-based peers in potential "peer-support models" of prevention, given their capacity to foster a sense of community and "relatable" social connections among each other.

Social support and youths' pregnancy attitudes. Various forms of support (i.e., emotional, informational, instrumental) from specific types of social network members were differentially associated with pregnancy attitudes. In bivariate-level analyses, youths' receipt of informational support from home-based peers, street-based peers, and family members, as well as youths' receipt of instrumental support from staff members, were each significantly associated with youths' lower endorsements of pro-pregnancy attitudes. However, only one social support variable remained significant in the multivariate model. Youth who indicated receipt of

instrumental support from a serious partner were nearly 1.4 times more likely to endorse pro-pregnancy attitudes, compared to youth who did not report receiving this specific form of support from a partner. This finding suggests that youth who receive money and other tangible resources from serious partners may be more inclined to hold positive pregnancy attitudes.

This theme was also quite present in qualitative findings. Youth indicated notable vulnerability to much-needed tangible resources. One poignant quote from a respondent highlighted that youth, particularly female homeless youth, feel “trapped” by their need for money and such resources. The respondent also noted that young homeless women go to great lengths, including becoming pregnant, merely to maintain access to such resources, especially when pregnancy is perceived as desired by their male partner. While not the precise focus of prior research, adjacent findings from previous studies should be noted; Tucker and colleagues (2012a) found that youth were more likely to hold positive attitudes regarding pregnancy if they felt greater commitment to their relationship with their serious partner. This, coupled with the potential influence of instrumental support provided by serious partners on youths’ pregnancy attitude formation, may further bolster the argument for creating intimate partner/dyadic-based prevention activities.

Youths’ pregnancy attitudes and engagement in unprotected (condomless) vaginal sex. Of concern, the majority of the quantitative sample (61%) indicated that they engaged in unprotected vaginal sex during their most recent sexual encounter. This observation is similar to results of prior studies, which have typically found youths’ rates of unprotected sex engagement as ranging from 40% to 70% of homeless youth samples queried (Haley et al., 2004a; Solorio et al., 2008; Tucker et al., 2013).

Qualitative results helped to elucidate several reasons for youths’ engagement in unprotected sex. Respondents believed that condom use among homeless youth was relatively low because youth often lack consistent places in which they may engage in sex (and thus do so spontaneously and without condoms), many do not like using condoms, and some said due to being able to earn more money for not using condoms during transactional sex. Participants also

noted that most HIV/STI testing occurred on a reactive basis, rather than proactively. As such, these are troubling findings in the sense that youth, regardless of their attitudes and intentions pertaining to pregnancy, are likely underestimating their risks for HIV and STI acquisition and transmission. As such, more effective and novel strategies for stressing the importance of engaging in safer sex simply must be developed and more comprehensively integrated into reproductive and sexual health prevention and intervention efforts with this population.

In addition, multivariate quantitative results found that female homeless youth in the study were nearly twice as likely, compared to their male counterparts, to indicate engagement in unprotected vaginal sex. Prior studies have reported similar findings (Barman-Adhikari, Hsu, Begun, Portillo, & Rice, 2016; Halcón & Lifson, 2004; Slesnick & Kang, 2008). As noted, studies have shown that condom use is less likely when homeless young males hold more negative attitudes toward condoms (Tucker et al., 2013). Accordingly, additional attention should be paid in future intervention development to gender-based norms and power differentials within heterosexual relationships that, as suggested by Wingood and DiClemente (2000), may serve to coerce young women into engaging in HIV risk behaviors such as unprotected (condomless) vaginal sex. This same theme was expressed by some youth in the qualitative strand of the current study. Several female respondents similarly articulated that they felt pressured by their male partners to not use condoms during sex. In response to this perceived pressure, these young women recalled that they thus did not use condoms during sex, especially in cases in which their sexual partner represented a serious or long-term relationship, and/or if their partner provided them with some sort of financial support, a place to stay, or other basic necessities.

In terms of race, White youth in the sample were nearly twice as likely, compared to their non-White peers, to report engagement in unprotected vaginal sex. Findings on racial differences have been overall inconsistent in prior studies, however. As previously noted, in a study by Halcón and Lifson (2004), results indicated that White homeless youth were less likely than all other racial/ethnic categories to use condoms, while Black homeless youth were more likely than any other racial group to use condoms. Conversely, other studies have found no racially based

differences regarding condom use among homeless youth (Kennedy et al., 2013; Solorio et al., 2008; Tucker et al., 2013). Furthermore, in the qualitative sample of the current study, youth did not attribute condom use versus non-use to racial or ethnic identity.

A few predictors of condom use found in previous work were not replicated in the current study. Prior research efforts have found associations between homeless youths' condom use and regular school attendance (Kennedy et al., 2013; Tevendale et al., 2009), among homeless youth who have completed high school (Winetrobe et al., 2013), and among youth who are currently employed (Tevendale et al., 2009). However, none of such significant relationships were observed in the current study.

Quantitatively, youth who indicated pro-pregnancy attitude endorsements were significantly more likely to denote engagement in unprotected vaginal sex ($OR = 1.40, p < .05$). In prior research, Winetrobe et al. (2013) reported significant relationships between homeless youths' interest in preventing pregnancy and their greater likelihood of using effective forms of contraception, which combined both birth control and/or condom methods in the study. Of note, youth who were opposed to pregnancy/involvement were also more likely to report using withdrawal methods with sexual partners during the prior month (Winetrobe et al., 2013). Tucker and colleagues (2012a), alternatively, found that even among homeless youth who were overtly opposed to becoming pregnant or involved in a pregnancy, less than half of all males and females in the sample, at last sexual encounter, used no effective contraceptive/birth control and/or condom method, or instead, used withdrawal as their only pregnancy prevention method. It is important to note that, in the current quantitative study, youths' indication of unprotected sex was measured through asking youth only about their most recent sexual experiences, thus limiting inferences to a brief "snapshot" of youths' sexual encounters, rather more robust trends across time. Given the limited literature base examining the association between homeless youths' pregnancy attitudes and their engagement specifically in unprotected (condomless) sex, future research should aim to more thoroughly understand this relationship.

In qualitative results, youth who were ambivalent or positive in their pregnancy attitudes often mentioned that they consciously chose not to use condoms. Some attributed this non-use, in part, to their pregnancy attitudes, and said that they were simply not doing anything to specifically prevent pregnancy because they did not know what they hoped would happen. Therefore, when crafting intervention strategies pertaining to a comprehensive range of reproductive and sexual health issues, and inclusive of HIV, STI, and pregnancy prevention, aiding youth in a deeper examination of their pregnancy attitudes, and their potential responses to a full spectrum of possible health and life consequences, is important to facilitate.

Homeless youths' other contraceptive/birth control attitudes and decision-making.

A paucity of prior research has examined homeless youths' other contraceptive/birth control attitudes and decision-making (aside from condoms), particularly with regard to youths' use of the many available, and differential, forms of contraception/birth control. Contraceptive/birth control methods are quite nuanced in how they are administered, to which they are adhered, how long they remain effective, and how much they cost. As such, the qualitative arm of this study also served as a highly exploratory and preliminary investigation of homeless youths' attitudes and use of other contraception/birth control methods. On the whole, youth noted very rare use of other contraceptives/birth control, and for reasons of cost (and misperception of cost), beliefs pertaining to contraceptive side effects, and broader difficulties in navigating the complexities of the health care system. Youths' comments suggest there is a great need for many improvements to reproductive and sexual health prevention and intervention efforts with regard to increasing homeless youths' contraception/birth control "fluency."

Youth recounted numerous myths regarding how contraception/birth control methods work, many of which they said they learned from their peers. They also discussed their perceptions of adverse health-related effects that could be caused by contraceptive use, most of which were highly exaggerated or simply untrue. Moreover, youth noted many inaccuracies pertaining to cost and/or potential for reimbursement by health insurance pertaining to contraceptives. These contraceptive "myths" expressed by homeless youth signal a need for

prevention efforts to better highlight the basic process by which contraceptive information and services may be obtained, and how they may indeed do so via no-cost or low-cost options.

Furthermore, preliminary insights pertaining to youths' decisions regarding whether or not to use contraceptives/birth control, based on their perceptions of reactions they may receive from various members of their social networks in response to doing so (e.g., religious-based objections to contraceptive use), highlight the need to further study homeless youths' other contraceptive/birth control use in the context of their broader social environments. Of note, the study of contraceptive/birth control use among homeless youth should also be further expanded to examinations based on youths' complex identities and lived experiences. For example, as several transgender youth in the qualitative study were found to be contraceptive/birth control "super-users," more inclusive research on homeless youths' contraceptive/birth control use should be conducted, more diversely expanding beyond merely studying cisgender young women's experiences and attitudes.

Additional family planning attitudes, behaviors, and decision-making among homeless youth. Similar to findings on homeless youths' contraceptive/birth control attitudes and decision-making, themes pertaining to homeless youths' abortion-related experiences reflected trends of youth being in dire need of more accurate information and opportunities for self-efficacious decision-making. Although respondents perceived abortion as more prevalent, in comparison to contraceptive/birth control use, among homeless youth, many myths were expressed by youth pertaining to abortion cost, how and where to access abortion, and what (medically) actually transpires during an abortion. Youth also noted being highly influenced, in their abortion decision-making, based on their perceptions of how their social network members would respond to them becoming pregnant. Some youth said they believed they would be coerced into obtaining an abortion (against their will), and some said they could not obtain an abortion because of the retribution they feared they would receive from social network members. As such, some youth said they would simply continue with their unwanted pregnancy(ies), whereas others said they would attempt to induce a miscarriage such that their pregnancy loss

would not be viewed (and stigmatized) as an abortion obtained in the formal medical system. These results suggest a need to more specifically study homeless youths' social network influences on their abortion attitudes and decision-making, particularly in an effort to reduce both unwanted as well as dangerous health outcomes.

The prevalence, and details associated with, self-induced abortions among homeless youth, was a particularly troubling theme expressed by the vast majority of this qualitative sample. These findings mirrored results obtained in two prior research studies regarding self-induced abortions among homeless youth (Ensign, 2001; Smid et al., 2010). Youth in the current study recounted a range of dangerous strategies that either they, or other young homeless peers, had attempted and/or completed in order to terminate their pregnancies. Therefore, in future efforts to improve reproductive and sexual health prevention and intervention approaches with homeless youth, more concerted attention should be paid to accurately educating youth on all of such aspects pertaining to accessing safe, legal abortions. Such efforts should also focus on communication strategies for use with their social network members, as applicable, as well as their privacy rights in obtaining such services. Additional attention to such education and prevention efforts is urgently needed to ensure that homeless youths' pregnancies, whether continued or terminated, result in the healthiest, most fully informed possible outcomes.

Study Implications

Implications for theory. Certain aspects of the findings provide support for the theoretical perspectives that guided this study. To reiterate, Social Cognitive Theory (Bandura, 1977) posits that individuals are part of a broader social environment, which provides examples for behavior. The current study noted numerous ways by which youths' surrounding social environments played a role in influencing their attitudes regarding pregnancy. For instance, in the quantitative strand of the study, youth who perceived that their social networks were overall more discouraging of them becoming pregnant/involved in a pregnancy were significantly less likely to endorse pro-pregnancy attitudes. Of note, in a subsequent quantitative study model, youth who endorsed pro-pregnancy attitudes were significantly more likely to thereby indicate engagement

in unprotected (condomless) vaginal sex, a behavior that is not only linked to greater likelihood of pregnancy incidence, but also is highly correlated with HIV and STI acquisition/transmission. In the qualitative portion of the study, youths' perceptions of how common pregnancy/involvement was among their peers, as well as their perceptions of how others would respond to them becoming pregnant or involved in pregnancy were commonly mentioned themes to which they linked their own ideas about pregnancy, condom use, and abortion decision-making.

Social Identity Complexity (Roccas & Brewer, 2002) was also employed, which asserts that homeless youths' social networks are heterogeneous and thus convey multifaceted and, at times, contradictory social norms pertaining to various issues and behaviors. This notion was illustrated in the examination of the differential influences on homeless youths' pregnancy attitudes, when sorted by perceived social norms regarding pregnancy as espoused by youths' specific referent-group social network members. In more narrowly dissecting the analysis of social norms regarding pregnancy to levels of youths' specific referent-groups, results showed that the most salient associations were between youths' perceptions of norms regarding pregnancy held by their street-based peers, as well as those perceived as held by youths' serious partners, and youths' own pregnancy attitude endorsements. Youth qualitatively depicted the differential influences of their specific network members on their reproductive and sexual health attitudes and behaviors, as well. Respondents frequently mentioned that their serious partners were highly influential to their own attitude formation and decision-making on a range of aspects, including pregnancy, condom and other contraception/birth control use, and also abortion decision-making and parenting. Family members were also viewed as important influences on youths' pregnancy attitudes and abortion decision-making. This theoretical perspective thus aided the study in seeking to find the most prominent network-based influences on youths' attitudes and behaviors, amidst the complexity of youths' diverse social relationships.

Social Capital Theory (Bourdieu, 1986; Lin, 1999; Putnam, 2000) also aided in examining the relationship between youths' receipt of different forms of social support and their pregnancy attitude endorsements. Typically characterized as a person's capacity for obtaining resources by

way of membership in a social network (Portes, 1998; Warschauer, 2004), this study found numerous significant associations between youths' receipt of social support from specific sources and youths' pregnancy attitudes. More specifically, youths' receipt of informational support from home-based peers, street-based peers, and from family members, was significantly associated, in bivariate analyses, with youths' lower likelihoods of endorsing pro-pregnancy attitudes. Instrumental support, received by staff members, was also significantly associated, in bivariate analyses, with homeless youths' lower endorsements of pro-pregnancy attitudes. Conversely, and significant in both bivariate and multivariate analyses, youths' receipt of instrumental support from serious partners was positively associated with youths' endorsements of pro-pregnancy attitudes.

These findings highlight youths' vulnerability to the pursuit of needed resources and supports, and suggest that the receipt of some forms of social support (e.g., informational support) may be a protective factor against youths' active desires for pregnancy/involvement. However, the receipt of other forms of support (e.g., instrumental support), by specific network members upon whom youth feel particularly reliant in some way (e.g., serious partners), may serve to influence youths' active desires for pregnancy or involvement. Such findings were noted by youth in both quantitative and qualitative strands of the study. These results would benefit from additional research efforts, as such findings somewhat challenge the notion of "bonding" versus "bridging" social capital, as suggested by Putnam (2000). In the current study, home-based peers, family, and staff members were not purely "protective," or bridging sources of emotional, information, and instrumental support, nor did street-based peers and serious partners represent absolutist influences of "risk," or bonding sources of support. As such, future studies should include more nuanced examinations of the social capital influences present in youths' networks, and how to most effectively harness the potential of these sources of social support to encourage healthy behaviors and decision-making among homeless youth.

Finally, The Theory of Reasoned Action (Ajzen & Fishbein, 1980) guided the current study in conceptualizing norms as predictors of attitudes, and attitudes as subsequent predictors

behaviors. In this study, social norms—injunctive norms, more specifically—regarding pregnancy were significant predictors of homeless youths’ pro-pregnancy attitude endorsements. These positive attitudes regarding pregnancy were, subsequently, significant predictors of homeless youths’ engagement in unprotected vaginal sex, the result of which, of course, could include homeless youth becoming pregnant or involved in pregnancy. Not only did these relationships emerge in quantitative study models, but youth qualitatively illustrated such themes as well. Respondents indicated that many homeless youth seemingly either wanted to become pregnant/involved in pregnancy, or rather, did not care what resulted (including pregnancy as an outcome), and thus did not commonly use condoms or contraception. Some participants also noted that homeless youth did not proactively seek HIV or STI testing before engaging in unprotected sex, which further increased their potential for transmitting and/or acquiring HIV and STIs. Accordingly, theoretical links between norms, attitudes, and behaviors, as asserted by the Theory of Reasoned Action (Ajzen & Fishbein, 1980), assisted in explicating the connections observed between youths’ perceived social network norms regarding pregnancy, the high rates of positive pregnancy attitudes among homeless youth, the relatively high incidence of youths’ engagement in unprotected vaginal sex, and this population’s exceptionally high rates of both pregnancy as well as HIV/STIs.

Taken together, findings suggest that relationships between social norms, social support, pregnancy attitudes, and engagement in unprotected vaginal sex among homeless youth are adeptly explained by the sociological and behavioral theories consulted in the current study; these included Social Cognitive Theory (Bandura, 1977), Social Identity Complexity (Roccas & Brewer, 2002), Social Capital Theory (Bourdieu, 1986; Lin, 1999; Putnam, 2000), and the Theory of Reasoned Action (Ajzen & Fishbein, 1980).

Implications for policy. Recent shifts in policy efforts have emphasized developing and evaluating innovative, evidence-based strategies for decreasing pregnancies among vulnerable populations, including homeless youth. For instance, as part of the Patient Protection and Affordable Care Act (2010), the Personal Responsibility Education Program (PREP) was

designated to finance comprehensive, medically accurate, age-appropriate, sex education and intervention programs to reduce HIV, STIs, and pregnancies among young people (Family and Youth Services Bureau, 2016). Since the program's inception, a sub-set of this PREP funding has been allocated each year to the investigation of emerging innovative strategies for reducing pregnancies specifically among vulnerable, highest-risk, and culturally under-represented youth populations (ages 10 to 20) (Family and Youth Services Bureau, 2017). These groups specifically include homeless youth, youth in foster care, pregnant women under the age of 21, youth with HIV/AIDS, and youth who reside in geographic areas with high teen birth rates (Family and Youth Services Bureau, 2017).

Although promising results have preliminarily emerged from such attempts at focusing on more socially contextualized intervention efforts, funding for these programs is quite limited. Many vulnerable populations, with different specific needs and challenges, are targeted in this program. As such, insufficient funding is currently being allocated for exhaustively exploring and/or adapting intervention approaches to meet the unique life challenges faced by each respective sub-population. Moreover, very few projects funded, to date, have focused specifically on homeless youth. Such programs may lead to exciting and important discoveries in reproductive and sexual health prevention and intervention. However, policy change, in the form of greater funding allocations, is needed to adequately develop and test a full range of programs that meet the diverse needs of these vulnerable youth, who perennially continue to experience the highest pregnancy rates and most adverse reproductive and sexual health outcomes.

Furthermore, results from this study indicated that homeless youth have a clear need for more information on where and how to obtain reproductive and sexual health information and services. Youth often noted misperceptions of how much services, particularly contraception/birth control and abortion, cost. Policy efforts are needed that focus on improving youths' access to accurate information on such topics, as well as to improve youths' accessibility to, affordability, and knowledge of the services themselves.

In an effort to reduce youths' barriers of transportation, bringing information and services that instead meet youth in places where they are already located (e.g., mobile health services, telehealth) is one such priority that merits further funding and investigation. Increasing and protecting low-cost and/or no-cost family planning services is another needed strategy. Moreover, the provision of fully confidential reproductive and sexual health care services has demonstrated great success in reducing pregnancies to teens and young adults. For example, in Colorado, teen birth rates were reduced by 40%, and abortions to teens decreased 42%, in just a five-year timeframe, after a statewide family planning initiative was funded to offer no-cost, fully confidential contraceptives (including the most effective, long-acting reversible contraceptive [LARC] methods, such as IUDs and contraceptive implants) to any young woman between the ages of 13 and 24 (Tavernise, 2015). Through this program, which was funded by a private foundation, highly effective contraceptives were offered to young people without requirements of parental notification/permission or health insurance, and were provided free of charge. These compelling results suggest the utility of expanding funding for such service provision models for use in additional regions and community-based health services contexts, including those in which homeless youth are most likely to engage.

Similar policy-based interventions would likely be beneficial regarding homeless youths' access to abortion information and services, as well, particularly given the many cost- and procedural-based misperceptions expressed by youth in the study. Whether delivered via policy reforms to Medicaid/family planning waivers, Title X, and/or through private funding sources, improving homeless youths' knowledge of, accessibility to, and affordability of safe, legal abortion services is needed. Such policy-based interventions are urgently important, particularly in reducing the dangerous trend of self-induction strategies, which are seemingly frequently undertaken by this vulnerable population.

Unfortunately, however, recent policy efforts have increasingly sought to make reproductive and sexual health services, including abortion, more difficult to access. In merely the first six months of 2016, 1,256 provisions pertaining to family planning were introduced in state

legislatures, with 35% of these aiming to restrict abortion access in some way(s) (Guttmacher Institute, 2016). Since the 1973 U.S. Supreme Court Decision that legalized abortion (Roe v. Wade), 30% of all family planning restrictions enacted by states occurred between the years of 2011 and 2016 (Guttmacher Institute, 2016). These data do not reflect the policy objectives expressed, attempted, or already enacted through Executive Order, by the current/most recently elected executive and legislative branches of the U.S. (federal) government, or the most recent appointment to the U.S. Supreme Court. These elected or appointed governing bodies are predicted to be even more likely to attempt to enact, compared to their respective predecessors, a range of restrictive policies pertaining to abortion (including later-term abortion), contraceptive care, comprehensive sex education, global family planning, and insurance coverage for family planning services, in general (Guttmacher Institute, 2017).

Implications for professionals serving homeless youth. There is also potentially great utility in providing additional supports and improved training to individuals who work with homeless youth. Here, considerations for service providers in homeless youth-serving shelters and drop-in services, as well as medical professionals are discussed.

Service providers. Many youth in the qualitative sample noted that they would benefit from opportunities to learn more about reproductive and sexual health prevention topics. Youth mentioned that they would like to know more about where and how to access services, including how to navigate the health care system and the complexity of insurance rules and regulations, particularly pertaining to Medicaid. Some youth also said that they would like to know more about the cost of and/or how to pay for health care services. Youth frequently expressed interest in learning more about how certain procedures are performed (e.g., abortion, IUD or contraceptive implant insertion) and/or how different forms of contraceptives are used or function. Further, youth articulated needs for learning communication strategies specific to their interactions with serious partners and with families, and on issues pertaining to sexual activity, healthy relationships, pregnancy, and parenting. Taken together, these findings suggest the potential for shelter and drop-in services to actively engage youth in group-based trainings and discussions

about a range of reproductive and sexual health topics. Indeed, researchers engaged in developing and testing reproductive and sexual health interventions for use specifically with homeless youth should also consider the inclusion of these topics, as suggested directly by homeless youth, in intervention manuals and activities.

Such trainings and education efforts, as noted earlier, could potentially seek to engage intimate partner dyads, operate using peer-support models, and/or peer-led approaches. Research has demonstrated that peer-led approaches to sexual and reproductive health prevention with young people are overall promising, although remain somewhat under-researched (Alford, 2011). To date, most of such programs have been described as successful when they explicitly involve youth as decision-makers, facilitate strong goal-setting and open communication, clearly identify assets and challenges present in youths' lives, and provide ongoing training and leadership opportunities for peer leaders (Alford, 2011). Dyadic-level approaches to HIV-prevention have been conceptualized and recommended (Karney et al., 2010). However, there is a dearth of research pertaining to dyadic-level approaches to comprehensive sexual health intervention (e.g., inclusive of pregnancy, HIV, STIs, and other reproductive and sexual health issues) specifically with vulnerable youth populations. Given the preliminary findings of this study, insofar that serious partners appear to be highly influential to youths' reproductive and sexual health attitude formation and decision-making, this area of study is worthwhile to further explore.

As one respondent noted in the qualitative study, case managers and other shelter or drop-in service providers are often charged with tending to day-to-day operations, and at times, emergencies. Moreover, they typically have limited to no budget capacity for new program development. As such, opportunities for discussing and providing resources pertaining to these topics, such as youths' experiences in relationships, and their needs for reproductive and sexual health information and resources, may thus become lower priorities in these often chaotic settings. However, youth in the study expressed a self-efficacious desire for opportunities to actively learn about and take charge of their own health. Opportunities therefore potentially exist

for the creation of group-based trainings and discussions, perhaps to be co-facilitated by community-based volunteers with expertise in these health and relationship-based topics, while also allowing for youth to assist in leading group discussions and play active roles in planning discussion agendas for each group session.

Accordingly, youth engaged in forming these groups could also be tasked with reciprocally “training the trainer.” Youth throughout the study noted the importance of learning from caring, non-judgmental adults; youth could thus hold interviews to “screen” community-based facilitators to ensure that these professionals are not only well-informed, but that they are culturally responsive and empathetic to the youths’ lived experiences, challenges, while encouraging of their unique capacities for resilience and success. Such an approach to providing these resources in shelter-based and drop-in milieu would thus not present any additional burden of funding or time/demands on already time-strapped service staff. However, if co-designed and co-led by homeless youth, new ways to engage youth as leaders (and potentially developing “expert-level” peer health navigators over time) and active consumers of knowledge pertaining to their own health and decision-making would be afforded.

Medical professionals. Youth, in the qualitative arm of the study, also mentioned notable reticence toward engaging with the health care system, overall, and more specifically, due to prior negative experiences they had with doctors and other medical providers. Youth said that medical professionals had previously made them feel judged, which they most commonly perceived as being a function of their homelessness status. Some youth sensed that medical professionals did not believe that they, as young people, had the ability to understand and make choices for themselves pertaining to their reproductive and sexual health. These youth indicated that they either felt coerced into making certain decisions pertaining to their health (e.g., contraceptive uptake, STI testing and/or treatment), or these experiences simply shaped their decisions to no longer engage with the formal health care system going forward.

Undoubtedly, there are many highly skilled, and culturally sensitive medical professionals, who, on a daily basis, provide excellent and empathetic care to young people of all

backgrounds and lived experiences. However, as numerous youth recalled similar negative experiences in their access of health care services, the suggestion thus arises for medical professionals to be optimally trained to work with vulnerable youth. More focused training (e.g., in schools of medicine, nursing, and public health, through continuing education, and within individualized clinical settings) could be improved by further adding or requiring content on service provision to vulnerable youth through a lens of cultural humility. Such training would benefit from particular attention paid to the complex intersectionality of considerations commonly affecting homeless youth, such as homelessness stigma, youths' gender/sexuality fluidity, sexual coercion and transactional sex, youths' common histories of abuse and neglect, and their ongoing struggles for needed resources and social connections to others.

Furthermore, medical professionals should be further challenged to improve the ways by which they inform youth about the most effective reproductive and sexual health resources available (e.g., LARC), while also clearly leaving self-efficacy and decision-making in youths' hands. Family planning professionals are generally quite aware of the pitfalls of being perceived as "coercing" young people—particularly disadvantaged young people—into using the most effective forms of contraception (Gold, 2014). However, it is important to continually train and update training, for all medical providers, on the most effective strategies for providing accurate information and services to youth, while still preserving their abilities to make fully informed, self-determined decisions about their health.

Study Limitations and Recommendations for Future Research

Limitations. When interpreting these results, certain limitations should be considered. The study's cross-sectional design constrains the ability to draw conclusions pertaining to causation. As such, future research would benefit from longitudinally investigating such topics of reproductive and sexual health among homeless youth. Longitudinal studies would provide a more nuanced understanding of homeless youths' sexual and reproductive health behaviors and outcomes—which are not "static"—across a longer duration of time. This longer-term, more comprehensive knowledge of youths' experiences and reproductive/sexual health trajectories

would likely aid in the development of more sustainable (in effectiveness and continued relevance to youth) prevention and education programs. Longitudinal research may also assist in more definitively comprehending the causal pathway(s) by which homeless youths' networks may contribute to the establishment of social norms pertaining to pregnancy that may be uniquely influential to this especially vulnerable population.

In addition, variables and question prompts used throughout the study were based on youths' self-reports. As with any self-reported data, there is the possibility that behaviors are under- or over-reported due to social desirability biases. As an attempt to minimize invalid data, participants were reminded that their responses were confidential and de-identified, and youth in both samples were encouraged to ask clarifying questions while completing the survey or while participating in the qualitative interview. As aforementioned, computer-assisted self-interview methods were utilized in the quantitative strand of the study, as they have been shown to reduce concerns of social desirability by facilitating participants' provision of honest, less-biased answers to study questions. Nonetheless, in both arms of the study, youths' interactions with overall unfamiliar interviewers, in tandem with such social desirability bias, may have resulted in youths' under-reporting of information regarding sensitive topics of sexual and reproductive health. In both samples, interviewers received extensive training in ethical research, and also specific to working with young people experiencing homelessness; interviewers were mindful and authentic in establishing rapport with participants and emphasizing the importance of respondents' confidentiality and privacy. However, as with most studies in fields of social sciences, such limitations are virtually impossible to completely eradicate.

Furthermore, both quantitative and qualitative samples were comprised of service-seeking youth only, preventing generalizability to youth disconnected from or reticent to engage with services. Although more difficult, future research in this area should also attempt to involve homeless youth who are not linked to services. Such research should thus include homeless youth who live in geographic regions in which services are either highly limited or altogether unavailable (e.g., rural areas, or smaller communities that do not have as many service provider options in comparison to the current study's data collection sites of Los Angeles and Denver).

In addition, geographically expanding studies pertaining to homeless youths' reproductive and sexual health would also likely yield important insights. Geographic regions of the U.S. vary widely in terms of guiding policies and laws, surrounding social norms and cultural values, and the extent to which certain reproductive and sexual health services and resources are accessible and/or legally regulated (e.g., abortion, low-cost/no-cost contraception, comprehensive sex education). These regional differences are thus likely to differentially impact youths' experiences pertaining to reproductive and sexual health.

Moreover, in the quantitative arm of the study, all variables pertaining to social norms were based on the youth's perceptions. As previously noted, while research has shown that perceived norms are useful predictors of behaviors, such perceptions may still nonetheless have inaccuracies. Further research on social norms regarding pregnancy among homeless youth could thus include independent confirmations of such norms, thereby allowing for the precise comparison of youths' perceptions to the actual attitudes and beliefs as endorsed by youths' social network members.

Also of note, the current study examined two separate samples in its respective quantitative and qualitative study strands. While the samples were quite similar in many ways, the Denver-based, qualitative sample was, on average, slightly younger and had been homeless for a shorter period of time, when compared to the Los Angeles-based, quantitative sample. Youths' attitudes and experiences regarding reproductive and sexual health therefore may have been, in some ways, influenced by these differences. The independently-drawn samples may be seen as

a limit by some; however, some expert mixed methods research methodologists advocate for the examination of more than one sample in order to optimally compare and contrast results obtained from groups that may share and/or differ in certain characteristics and experiences (Creswell & Plano Clark, 2007; Teddlie & Tashakkori, 2009). Such approach is thus thought to provide rich opportunities for the nuanced integration and interpretation of results across samples that are simultaneously different but also alike in some way(s) (Creswell & Plano Clark, 2007; Teddlie & Tashakkori, 2009).

Finally, some youth in the Denver-based, qualitative sample were notably eager to participate in the study, as these youth articulated personal interest in contributing to a study specifically about reproductive and sexual health. As such, certain results may have captured the opinions and attitudes of some youth who would be most likely to engage in education and prevention efforts simply because they pointedly indicated interest in the topic itself. However, respondents' interest in study participation may also be connected to other observations drawn from the study. Across many of the youths' comments, there seemed to be a great desire to be noticed for being pregnant, valued for displaying good parenting skills, provided with sympathy for having a miscarriage (versus contempt for having an abortion), and included as "subject matter experts" in research efforts with aims of helping other homeless young people. These observations alone may indicate the great need that youth feel for acceptance and positive forms of "visibility" by others. Nonetheless, this research is important to continue to replicate, particularly among youth who may not initially find these topics important, compelling, or useful to them, and who thus may be most difficult to engage in prevention and intervention efforts.

Recommendations for future research. In addition to extending investigations of homeless youths' pregnancy attitudes and experiences longitudinally, future research would also benefit from further empirical study of the influences of homeless youths' perceived social norms regarding both contraception/birth control and abortion on their decision-making in these areas. The qualitative arm of this study preliminarily identified that youths' contraceptive/birth control and abortion decision-making may be explicitly impacted by their broader ecological contexts. Youth

frequently noted that their actions specifically regarding contraception and abortion were influenced by their perceptions of their social network members' opinions on whether they should or should not use contraception/birth control and/or obtain abortions. The study of social norms pertaining to these topics would aid in better understanding how youths' perceptions of their social network members' opinions and reactions, in terms of retribution, coercion, or otherwise, may result in their use/non-use of contraception/birth control, as well as their abortion-seeking. Such inquiry could also add needed understanding to youths' decisions to engage in self-induced abortions, hopefully serving to reduce the prevalence of these dangerous phenomena.

This study also adds to a burgeoning evidence base that prevention efforts are most likely to be successful if they are more "holistic" in nature. Prevention strategies should thus concurrently focus on a more comprehensive, integrated range of reproductive and sexual health topics (e.g., medically accurate information on pregnancy, HIV/STIs, healthy relationships and communication strategies, information on how and where to access reliable information and services, youths' rights in obtaining confidential services). Findings from this study also contribute to the research-based belief that these efforts must extend beyond focusing solely on young women. Given the complexity and salience of influences on youths' pregnancy attitudes and behaviors that are found in youths' social networks, future intervention efforts should focus on also engaging young women's intimate partners (both male and/or female), as well as their peers. More research is needed to further develop and test the most effective ways by which intimate partner dyads, as well as peer-based approaches to reproductive and sexual health interventions may be crafted, in general, but also further adapted to meet homeless youths' specific needs and life circumstances.

Moreover, this study also reinforces the need for reproductive and sexual health education and prevention programs to extend beyond "gender-binary" thinking. Gender-based and sexuality-based fluidity is of crucial importance to consider and include in prevention efforts, particularly with youth populations. As this study noted, homeless youths' complex lived experiences and identities undergird their pregnancy attitudes, engagement in HIV risk behaviors,

and their decision-making in terms of contraceptive uptake and abortion-seeking. Prevention efforts thus must be more thoughtful and inconclusive to meet youths' diverse identities and customized needs for reproductive and sexual health information and services.

The current study also underlines homeless youths' vulnerability to the pursuit of obtaining basic needs and social supports. Youth in this study noted, and in a range of ways, how their pregnancy attitudes and decision-making may be influenced specifically by the tangible necessities and accurate knowledge of available resources that they often lack. In numerous ways, their reproductive and sexual health attitudes and actions were influenced by their longing for emotional support as well as their desire for social connectedness. Future reproductive and sexual health research with homeless youth should thus also emphasize how to more effectively connect youth to needed and accurate information, tangible resources, and positive social connections. For some youth experiencing homelessness, pregnancy was viewed as the only potential "means" to ends of obtaining such resources; yet, in some of such cases, it was unclear if the actual pregnancy/parenting responsibilities were as desired as the resources were urgently needed. For youth in these types of situations, prevention efforts could thus be improved to help youth successfully connect to these resources without going the drastic lengths of navigating pregnancy, and potentially parenting, as the only perceived ways by which these basic needs might be secured.

However, for some youth, pregnancy and parenting are notably positive life events, and are desired, as some youth simply want to create positive family environments and have child(ren) to love and from whom to receive love. As such, research efforts should also approach these topics as the delicate, complex phenomena that they truly are. Individuals, regardless of their housing status, resources, and lived experiences, nonetheless possess the right to become pregnant and parents if they so desire. Creating prevention efforts that respect these attitudes and preferences, rather than attempting to "universally" prevent pregnancies to all homeless youth, are thus imperative to integrate into future iterations of interventions. These approaches should therefore also focus on aiding youth in learning and obtaining needed information and

resources for having healthy pregnancies. Such efforts should also seek to optimize prenatal health and perinatal maternal-child health outcomes, particularly despite challenges faced that are specific to youths' homelessness status and resource-related deficits. Moreover, these interventions should further emphasize youths' acquisition of healthy, positive parenting skills and supports. Finally, for youth who remain homeless or unstably housed while parenting, resources and supports that promote effective parenting strategies, specifically for use while parenting in chaotic and stressful shelter-based and drop-in milieu, would also be beneficial to thoughtfully develop and test.

Conclusion

In summary, young people experiencing homelessness become pregnant or involved in pregnancies at exceptionally high rates, and such pregnancies are linked to numerous challenging life experiences and health outcomes. Although seemingly paradoxical, some homeless youth intentionally seek to become pregnant or involved in a pregnancy, as pregnancy and parenthood are perceived as means of accessing social services, basic necessities, and meaningful social connections to others that this group often lacks. Logically, homeless youths' pregnancy attitudes may influence their decisions to engage in unprotected (condomless) vaginal sex, one of the greatest known risk factors for acquiring and/or transmitting HIV and other STIs.

This study contributed to the extant, albeit sparse, evidence base regarding homeless youth pregnancy by examining homeless youths' pregnancy attitudes in the context of their social networks, surrounding social norms, and their sources of (and needs for) social capital. The study also investigated how youths' pregnancy attitudes are linked to their engagement in unprotected (condomless) vaginal sex, an HIV risk behavior, and added understanding to research on homeless youths' responses to their pregnancies, which sometimes result in abortion, and of concern, dangerous self-induction strategies. Among many insights, the study found that homeless youth do not merely form attitudes and engage in behaviors pertaining to reproductive and sexual health in isolation; rather, their attitudes and behaviors are deeply impacted by their perceptions of their surrounding social contexts and their dire needs for resources and support.

As such, results of this study point to a compelling need for the further development and testing of more comprehensive approaches to reproductive and sexual health prevention and intervention programs that meet the specific and socially contextualized needs of homeless youth. By working to innovate, and with a spirit of cultural humility, the ways by which such education and prevention is developed for use with this highly vulnerable population, homeless youth—and their offspring, as applicable—will lead healthier, more positively fulfilling, and self-determined lives.

BIBLIOGRAPHY

42 U.S.C. § 5732

76 Fed. Reg. 233 (December 5, 2011). Rules and Regulations. *Federal Register: The Daily Journal of the United States*. Retrieved from:
https://www.hudexchange.info/resources/documents/HEARTH_HomelessDefinition_FinalRule.pdf

Ahmed, A. (2009). *Effect of breastfeeding educational program based on Bandura Social Cognitive Theory: Breastfeeding outcomes among mothers of preterm infants*. Retrieved from: <http://hdl.handle.net/10755/160761>

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Upper Saddle River, NJ: Prentice-Hall.

Albarracín, D., Johnson, B. T., Fishbein, M., & Muellerleile, P. A. (2001). Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. *Psychological Bulletin*, 127(1), 142. doi: 10.1037/0033-2909.127.1.142

Alford, S. (2011). *Creating a strong and successful peer sexual health program*. Advocates for Youth. Retrieved from: <http://www.advocatesforyouth.org/publications/publications-a-z/1855-creating-a-strong-a-successful-peer-sexual-health-program>

Alford, S. (2012). *Science and success: Sex education and other programs that work to prevent teen pregnancy, HIV, and sexually transmitted infections*. Advocates for Youth. Retrieved from:
<https://advocatesforyouth.org/storage/advfy/documents/thirdeditionexecutivesummary.pdf>

Allen, D. M., Lehman, J. S., Green, T. A., Lindegren, M. L., Onorato, I. M., & Forrester, W. (1994). HIV infection among homeless adults and runaway youth, United States, 1989-1992. *AIDS*, 8(11), 1593-1598. doi: 10.1097/00002030-199411000-00011

Anderson, J. E., Freese, T. E., & Pennbridge, J. N. (1994). Sexual risk behavior and condom use among street youth in Hollywood. *Family Planning Perspectives*, 26(1), 22-25. doi: 10.2307/2136092

- Baggett, T. P., O'Connell, J. J., Singer, D. E., & Rigotti, N. A. (2010). The unmet health care needs of homeless adults: A national study. *American Journal of Public Health, 100*(7), 1326-1333. doi: 10.2105/AJPH.2009.180109
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191. doi: 10.1037/0033-295X.84.2.191
- Bandura, A. (2011). The social and policy impact of Social Cognitive Theory. In M. Mark, S. Donaldson, & B. Campbell (Eds.), *Social Psychology and Evaluation*. (pp. 33-70). New York, NY: Guilford Press.
- Bantchevska, D., Bartle-Haring, S., Dashora, P., Glebova, T., & Slesnick, N. (2008). Problem behaviors of homeless youth: A social capital perspective. *Journal of Human Ecology, 23*(4), 285-293. Retrieved from: <http://www.krepublishers.com>
- Bao, W. N., Whitbeck, L. B., & Hoyt, D. R. (2000). Abuse, support, and depression among homeless and runaway adolescents. *Journal of Health and Social Behavior, 41*(4), 408-420. doi: 10.2307/2676294
- Barman-Adhikari, A., Al Tayyib, A., Begun, S., Bowen, E., & Rice, E. (2017). Descriptive and injunctive network norms associated with nonmedical use of prescription drugs among homeless youth. *Addictive Behaviors, 64*, 70-77. doi: 10.1016/j.addbeh.2016.08.015
- Barman-Adhikari, A., Begun, S., Rice, E., Yoshioka-Maxwell, A., & Portillo, A. P. (2016). Sociometric network structure and its association with methamphetamine use norms among homeless youth. *Social Science Research, 58*, 292-308. doi: 10.1016/j.ssresearch.2016.01.004
- Barman-Adhikari, A., Hsu, H. T., Begun, S., Portillo, A. P., & Rice, E. (2016). Condomless sex among homeless youth: The role of multidimensional social norms and gender. *AIDS and Behavior, 21*(3), 688-702. doi: 10.1007/s10461-016-1624-2
- Barman-Adhikari, A., Rice, E., Winetrobe, H., & Petering, R. (2015). Social network correlates of methamphetamine, heroin, and cocaine use in a sociometric network of homeless youth. *Journal of the Society for Social Work and Research, 6*(3), 433-457. doi: 10.1086/682709

- Barrington, C. (2008). *Social networks, norms, and HIV-related behaviors among the male partners of female sex workers in La Romana, Dominican Republic*. Retrieved from: <http://www.gradworks.umi.com>
- Bassuk, E. L., Buckner, J. C., Perloff, J. N., & Bassuk, S. S. (1998). Prevalence of mental health and substance use disorders among homeless and low-income housed mothers. *American Journal of Psychiatry*, 155, 1561-1564. Retrieved from: <http://ajp.psychiatryonline.org/data/Journals/AJP/3694/1561.pdf>
- Bassuk, E. L., & Weinreb, L. (1993). Homeless pregnant women: Two generations at risk. *American Journal of Orthopsychiatry*, 63(3), 348. doi: 10.1037/h0085034
- Begun, S., Bender, K. A., Brown, S. M., Barman-Adhikari, A., & Ferguson, K. (2016). Social connectedness, self-efficacy, and mental health outcomes among homeless youth: Prioritizing approaches to service provision in a time of limited agency resources. *Youth & Society* [advanced online edition]. doi: 10.177/0044118X16650459
- Berkowitz, A. D. (2004). *The social norms approach: Theory, research, and annotated bibliography*. Retrieved from: http://www.alanberkowitz.com/articles/social_norms.pdf
- Bourdieu, P. (1986). The forms of capital. *Handbook of Theory and Research for the Sociology of Education*. Westport, CT: Greenwood.
- Brandford, C., & English, D. (2004). *Foster youth transition to independence study*. Seattle, WA: Office of Children's Administration Research, Washington State Department of Social and Health Services. Retrieved from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.554.9086&rep=rep1&type=pdf>
- Burda, J. P. (2015). PrEP and our youth: implications in law and policy. *Columbia Journal of Gender & Law*, 30, 295. Retrieved from: http://heinonline.org/HOL/Page?handle=hein.journals/coljgl30&div=13&g_sent=1&collection=journals

- Busen, N. H., & Engebretson, J. C. (2008). Facilitating risk reduction among homeless and street-involved youth. *Journal of the American Academy of Nurse Practitioners*, 20(11), 567-575. doi: 10.1111/j.1745-7599.2008.00358.x
- Carpentier, N., & White, D. (2002). Cohesion of the primary social network and sustained service use before the first psychiatric hospitalization. *The Journal of Behavioral Health Services and Research*, 29(4), 404-418. doi: 10.1007/BF02287347
- Cauce, A. M., Paradise, M., Ginzler, J. A., Embry, L., Morgan, C. J., Lohr, Y., & Theofelis, J. (2000). The characteristics and mental health of homeless adolescents: Age and gender differences. *Journal of Emotional and Behavioral Disorders*, 8(4), 230-239. doi: 10.1177/10634266000800403
- Cauce, A. M., Stewart, A., Whitbeck, L. B., Paradise, M., & Hoyt, D. R. (2005). Girls on their own: Homelessness in female adolescents. In D. Bell, S. L. Foster, & E. J. Mash (Eds.), *Handbook of behavioral and emotional problems in girls*, (pp. 439-461). New York: Kluwer Academic.
- Centers for Disease Control and Prevention [CDC]. (2013a). *Fact sheet for public health personnel*. National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention. Retrieved from: <https://www.cdc.gov/condomeffectiveness/latex.html>
- Centers for Disease Control and Prevention [CDC]. (2013b). *Preventing repeat teen births*. CDC Vital Signs, Centers for Disease Control and Prevention. Retrieved from: <https://www.cdc.gov/vitalsigns/teenpregnancy/>
- Centers for Disease Control and Prevention [CDC]. (2014). *Preexposure prophylaxis for the prevention of HIV infection in the United States, 2014*. Retrieved from: <https://www.cdc.gov/hiv/pdf/guidelines/PrEPPProviderSupplement2014.pdf>
- Centers for Disease Control and Prevention [CDC]. (2015). *STDs and HIV: CDC fact sheet*. Retrieved from: <http://www.cdc.gov/std/hiv/stdfact-std-hiv-detailed.htm>
- Centers for Disease Control and Prevention [CDC]. (2016). *About teen pregnancy*. Retrieved from: <https://www.cdc.gov/teenpregnancy/about/index.htm>

- Centers for Disease Control and Prevention [CDC]. (2017). *Effectiveness of family planning methods*. Retrieved from:
https://www.cdc.gov/reproductivehealth/contraception/unintendedpregnancy/pdf/contraceptive_methods_508.pdf
- Chapman, K., Tarter, R. E., Kirisci, L., & Cornelius, M. D. (2007). Childhood neurobehavior disinhibition amplifies risk of substance use disorder: Interaction of parental history and prenatal alcohol exposure. *Journal of Developmental and Behavioral Pediatrics, 28*, 219-224. doi: 10.1097/DBP.0b013e3180327907
- Clements, K., Gleghorn, A., Garcia, D., Katz, M., & Marx, R. (1997). A risk profile of street youth in Northern California: Implications for gender-specific human immunodeficiency virus prevention. *Journal of Adolescent Health, 20*(5), 343-353. doi: 10.1016/S1054-139X(97)00033-5
- Cochran, B. N., Stewart, A. J., Ginzler, J. A., & Cauce, A. M. (2002). Challenges faced by homeless sexual minorities: Comparison of gay, lesbian, bisexual, and transgender homeless adolescents with their heterosexual counterparts. *American Journal of Public Health, 92*(5), 773-777. doi: 10.2105/AJPH.92.5.773
- Coleman, J. S. (1990). The emergence of norms. In M. Hechter, K. Opp, & R. Wippler (Eds.), *Social institutions: Their emergence, maintenance, and effects* (pp. 35-39). New York: Aldine de Gruyter.
- Constantine, W. L., Jerman, P., & Constantine, N. A. (2009). *Sex education and reproductive health needs of foster and transitioning youth in three California counties*. Oakland, CA: Public Health Institute, Center for Research on Adolescent Health and Development. Retrieved from: <http://www.californiateenhealth.org/wp-content/uploads/2011/09/FTYSHNA-FullReport-3-2-09.pdf>

- Cowley, C., & Farley, T. (2001). Adolescent girls' attitudes toward pregnancy. *Journal of Family Practice, 50*(7), 603-607. Retrieved from:
<http://www.mdedge.com/jfponline/article/60591/adolescent-girls-attitudes-toward-pregnancy-importance-asking-what-boyfriend>
- Crawford, D. M., Trotter, E. C., Hartshorn, K. J. S., & Whitbeck, L. B. (2011). Pregnancy and mental health of young homeless women. *American Journal of Orthopsychiatry, 81*(2), 173. doi: 10.1111/j.1939-0025.2011.01086.x
- Creswell, J. W., & Plano Clark, V. L. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage.
- Crittenden, C. P., Boris, N. W., Rice, J. C., Taylor, C. A., & Olds, D. L. (2009). The role of mental health factors, behavioral factors, and past experiences in the prediction of rapid repeat pregnancy in adolescence. *Journal of Adolescent Health, 44*(1), 25-32. doi: 10.1016/j.jadohealth.2008.06.003
- Cuffee, J. J., Hallfors, D. D., & Waller, M. W. (2007). Racial and gender differences in adolescent sexual attitudes and longitudinal associations with coital debut. *Journal of Adolescent Health, 41*(1), 19-26. doi: 10.1016/j.jadohealth.2007.02.012
- Dadds, M. R., Braddock, D., Cuers, S., Elliott, A., & Kelly, A. (1993). Personal and family distress in homeless adolescents. *Community Mental Health Journal, 29*(5), 413-422. doi: 10.1007/BF00754409
- Davey-Rothwell, M. A., & Latkin, C. A. (2007). HIV-related communication and perceived norms: An analysis of the connection among injection drug users. *AIDS Education & Prevention, 19*(4), 298-309. doi: 10.1521/aeap.2007.19.4.298
- Dilorio, C., Dudley, W. N., Soet, J., Watkins, J., & Maibach, E. (2000). A social cognitive-based model for condom use among college students. *Nursing Research, 49*(4), 208-214.
- Dworsky, A., & Courtney, M. E. (2010). The risk of teenage pregnancy among transitioning foster youth: Implications for extending state care beyond age 18. *Children and Youth Services Review, 32*(10), 1351-1356. doi: 10.1016/j.childyouth.2010.06.002

- Dworsky, A., & Meehan, P. (2012). The parenting experiences of homeless adolescent mothers and mothers-to-be: Perspectives from a shelter sample. *Children and Youth Services Review, 34*(10), 2117-2122. doi: 10.1016/j.chilyouth.2012.07.004
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace.
- Ensign, J. (2001). Reproductive health of homeless adolescent women in Seattle, Washington, USA. *Women & Health, 31*(2-3), 133-151. doi: 10.1300/J013v31n02_07
- Family and Youth Services Bureau. (2016). *Competitive personal responsibility education program fact sheet*. Retrieved from: www.acf.hhs.gov/programs/fysb/resource/competitive-prep-fact-sheet
- Family and Youth Services Bureau. (2017). *Personal responsibility education innovative strategies program (PREIS)*. Retrieved from: <https://www.acf.hhs.gov/fysb/programs/adolescent-pregnancy-prevention/programs/preis>
- Ferguson, K. M., Bender, K., Thompson, S. J., Maccio, E. M., & Pollio, D. (2012). Employment status and income generation among homeless young adults: Results from a five-city, mixed-methods study. *Youth & Society, 44*(3), 385-407. doi: 10.1177/0044118X11402851
- Foster, D. G., Bley, J., Mikanda, J., Induni, M., Arons, A., Baumrind, N., ... & Stewart, F. (2004). Contraceptive use and risk of unintended pregnancy in California. *Contraception, 70*(1), 31-39. doi: 10.1016/j.contraception.2004.01.012
- Friedkin, N. E. (2001). Norm formation in social influence networks. *Social Networks, 23*(3), 167-189. doi: 10.1016/S0378-8733(01)00036-3
- Frost, J. J., Singh, S., & Finer, L. B. (2007). Factors associated with contraceptive use and nonuse, United States, 2004. *Perspectives on Sexual and Reproductive Health, 39*(2), 90-99. doi: 10.1363/3909007
- Ghanem, K. G., Hutton, H. E., Zenilman, J. M., Zimba, R., & Erbelding, E. J. (2005). Audio computer assisted self interview and face to face interview modes in assessing response bias among STD clinic patients. *Sexually Transmitted Infections, 81*(5), 421-425. doi: 10.1136/sti.2004.013193

- Gold, R. B. (2014). Guarding against coercion while ensuring access: A delicate balance. *Guttmacher Policy Review*, 17(3). Retrieved from: <https://www.guttmacher.org/gpr/2014/09/guarding-against-coercion-while-ensuring-access-delicate-balance>
- Grant, K., Grace, P., Trujillo, J., Halpert, J., Kessler-Cordeiro, A., Razzino, B., & Davis, T. (2002). Predicting desire for a child among low-income urban adolescent girls: Interpersonal processes in the context of poverty. *Journal of Primary Prevention*, 22(4), 341-359. doi: 10.1023/A:1015223522236
- Greenblatt, M., & Robertson, M. J. (1993). Homeless adolescents: Lifestyle, survival strategies and sexual behaviors. *Hospital and Community Psychiatry*, 44, 1177-1180. Retrieved from: <http://www.psych.org>
- Greene, J. M., Ennett, S. T., & Ringwalt, C. L. (1999). Prevalence and correlates of survival sex among runaway and homeless youth. *American Journal of Public Health*, 89(9), 1406-1409. doi: 10.2105/ajph.89.9.1406
- Greene, J. M., & Ringwalt, C. L. (1998). Pregnancy among three national samples of runaway and homeless youth. *Journal of Adolescent Health*, 23(6), 370-377. doi: 10.1016/S1054-139X(98)00071-8
- Guttmacher Institute. (2016). *The 334 abortion restrictions enacted by states from 2011 to July 2016 account for 30% of all abortion restrictions since Roe v. Wade*. Washington, D. C., Guttmacher Institute. Retrieved from: <https://www.guttmacher.org/infographic/2016/334-abortion-restrictions-enacted-states-2011-july-2016-account-30-all-abortion>
- Guttmacher Institute. (2017). *Reproductive health in crisis*. Washington, D. C., Guttmacher Institute. Retrieved from: <https://www.guttmacher.org/tags/reproductive-health-crisis>
- Halcón, L. L., & Lifson, A. R. (2004). Prevalence and predictors of sexual risks among homeless youth. *Journal of Youth and Adolescence*, 33(1), 71-80. doi: 10.1023/A:1027338514930

- Haley, N., Roy, E., Leclerc, P., Lambert, G., Boivin, J. F., Cedras, L., & Vincelette, J. (2002). Risk behaviours and prevalence of Chlamydia trachomatis and Neisseria gonorrhoeae genital infections among Montreal street youth. *International Journal of STD & AIDS*, 13(4), 238-245.
- Haley, N., Roy, E., Leclerc, P., Boudreau, J. F., & Boivin, J. F. (2004a). HIV risk profile of male street youth involved in survival sex. *Sexually Transmitted Infections*, 80(6), 526-530. doi: 10.1136/sti.2004.010728
- Haley, N., Roy, E., Leclerc, P., Boudreau, J. F., & Boivin, J. F. (2004b). Characteristics of adolescent street youth with a history of pregnancy. *Journal of Pediatric and Adolescent Gynecology*, 17(5), 313-320. doi: 10.1016/j.jpag.2004.06.006
- Hammer, H., Finkelhor, D., & Sedlak, A. J. (2002). *Runaway/Thrownaway children: National estimates and characteristics* (NCJ 196469). National Incident Studies of Missing, Abducted, Runaway, and Thrownaway Children. Retrieved from: <http://digitalcommons.unl.edu/cgi/>
- Hathazi, D., Lankenau, S. E., Sanders, B., & Jackson Bloom, J. (2009). Pregnancy and sexual health among homeless young injection drug users. *Journal of Adolescence*, 32(2), 339-355. doi: 10.1016/j.adolescence.2008.02.001
- Hoffman, S. D., & Maynard, R. A. (2008). *Kids having kids: Costs and social consequences of teen pregnancy*. Washington, D. C.: Urban Institute.
- Horne, C. (2001). *Sociological perspectives on the emergence of social norms*. New York: Russell Sage.
- Horwitz, S. M., Klerman, L. V., Kuo, H. S., & Jekel, J. F. (1991). Intergenerational transmission of school-age parenthood. *Family Planning Perspectives*, 23(4) 168-177. Retrieved from: <http://www.guttmacher.org/archive/PSRH.jsp>
- Hosmer Jr, D. W., & Lemeshow, S. (2004). *Applied logistic regression*. John Wiley & Sons.
- Jaccard, J., Dodge, T., & Dittus, P. (2003). Do adolescents want to avoid pregnancy? Attitudes toward pregnancy as predictors of pregnancy. *Journal of Adolescent Health*, 33(2), 79-83. doi: 10.1016/S1054-139X(03)00134-4

- Johnson, K. D., Whitbeck, L. B., & Hoyt, D. R. (2005). Predictors of social network composition among homeless and runaway adolescents. *Journal of Adolescence*, 28(2), 231-248. doi: 10.1016/j.adolescence.2005.02.005
- Karabanow, J., & Naylor, T. D. (2010). "Being hooked up": Exploring the experiences of street youth and information technologies. *Digital Diversity*, 161-178. Retrieved from: <http://www.homelesshub.ca/sites/default/files/infotech.pdf>
- Karney, B. R., Hops, H., Redding, C. A., Reis, H. T., Rothman, A. J., & Simpson, J. A. (2010). A framework for incorporating dyads in models of HIV-prevention. *AIDS and Behavior*, 14(2), 189-203. doi: 10.1007/s10461-010-9802-0
- Kendall, C., Afable-Munsuz, A., Speizer, I., Avery, A., Schmidt, N., & Santelli, J. (2005). Understanding pregnancy in a population of inner-city women in New Orleans: Results of qualitative research. *Social Science & Medicine*, 60(2), 297-311. doi: 10.1016/j.socscimed.2004.05.007
- Kennedy, D. P., Tucker, J. S., Green Jr., H. D., Golinelli, D., & Ewing, B. (2012). Unprotected sex of homeless youth: Results from a multilevel dyadic analysis of individual, social network, and relationship factors. *AIDS and Behavior*, 16(7), 2015-2032. doi: 10.1007/s10461-012-0195-0
- Kennedy, D. P., Wenzel, S. L., Brown, R., Tucker, J. S., & Golinelli, D. (2013). Unprotected sex among heterosexually active homeless men: Results from a multi-level dyadic analysis. *AIDS and Behavior*, 17(5), 1655-1667. doi: 10.1007/s10461-012-0366-z
- Kincaid, D. L. (2004). From innovation to social norm: Bounded normative influence. *Journal of Health Communication*, 9(1), 37-57. doi: 10.1080/10810730490271511
- Kirby, D. (2002). Antecedents of adolescent initiation of sex, contraceptive use, and pregnancy. *American Journal of Health Behavior*, 26(6), 473-485. doi: 10.5993/AJHB.26.6.8

- Kirby, D. (2007). *Emerging answers 2007: Research findings on programs to reduce teen pregnancy and sexually transmitted diseases*. Washington, D.C.: National Campaign to Prevent Teen and Unplanned Pregnancies. Retrieved from:
https://thenationalcampaign.org/sites/default/files/resource-primary-download/EA2007_full_0.pdf
- Kirby, D., & Lepore, G. (2007). *Factors affecting teen sexual behavior, pregnancy, childbearing, and sexually transmitted disease: Which are important? Which can you change?* Education, Research, and Training Associates. Retrieved from:
<http://recapp.etr.org/recapp/documents/theories/RiskProtectiveFactors200712.pdf>
- Kral, A. H., Molnar, B. E., Booth, R. E., & Watters, J. K. (1997). Prevalence of sexual risk behaviour and substance use among runaway and homeless adolescents in San Francisco, Denver, and New York City. *International Journal of STD & AIDS*, 8(2), 109-117. doi: 10.1258/0956462971919651
- Lapinski, M. K., & Rimal, R. N. (2005). An explication of social norms. *Communication Theory*, 15(2), 127-147.
- Latkin, C., Donnell, D., Celentano, D. D., Aramrattna, A., Liu, T., Vongchak, T., . . . Metzger, D. (2009). Relationships between social norms, social network characteristics, and HIV risk behaviors in Thailand and the US. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, 28(3), 323. doi: 10.1037/a0014707
- Layzer, C., Rosapep, L., & Barr, S. (2014). A peer education program: Delivering highly reliable sexual health promotion messages in schools. *Journal of Adolescent Health*, 54(3), S70-S77. doi: 10.1016/j.jadohealth.2013.12.023
- Lin, N. (1999). Building a network theory of social capital. *Connections*, 22(1), 28-51. Retrieved from: <http://www.insna.org/connections.html>
- Lindsey, E. W., Kurtz, P. D., Jarvis, S., Williams, N. R., & Nackerud, L. (2000). How runaway and homeless youth navigate troubled waters: Personal strengths and resources. *Child and Adolescent Social Work Journal*, 17(2), 115-140. doi: 10.1023/A:1007558323191

- Little, M., Shah, R., Vermeulen, M. J., Gorman, A., Dzendoletas, D., & Ray, J. G. (2005). Adverse perinatal outcomes associated with homelessness and substance abuse during pregnancy. *Canadian Medical Association Journal, 173*(6), 615-618. doi: 10.1503/cmaj.050406
- Liverpool, J., McGhee, M., Lollis, C., Beckford, M., & Levine, D. (2002). Knowledge, attitudes, and behavior of homeless African-American adolescents: Implications for HIV/AIDS prevention. *Journal of the National Medical Association, 94*(4), 257-263. Retrieved from: <http://www.nmanet.org>
- Logan, C., Holcombe, E., Ryan, S., Manlove, J., & Moore, K. (2007). *Childhood sexual abuse and teen pregnancy*. Washington, D.C.: Child Trends. Retrieved from: <http://www.childtrends.org>
- Luke, D. A., & Harris, J. K. (2007). Network analysis in public health: history, methods, and applications. *Annual Review of Public Health, 28*, 69-93. doi: 10.1146/annurev.publhealth.28.021406.144132
- Macalino, G. E., Celentano, D. D., Latkin, C., Strathdee, S. A., & Vlahov, D. (2002). Risk behaviors by audio computer-assisted self-interviews among HIV-seropositive and HIV-seronegative injection drug users. *AIDS Education and Prevention, 14*(5), 367-378. doi: 10.1521/aeap.14.6.367.24075
- MacKellar, D. A., Valleroy, L. A., Hoffmann, J. P., Glebatis, D., LaLota, M., McFarland, W., ... & Janssen, R. S. (2000). Gender differences in sexual behaviors and factors associated with nonuse of condoms among homeless and runaway youths. *AIDS education and prevention: Official publication of the International Society for AIDS Education, 12*(6), 477-491. Retrieved from: <http://www.guilford.com>
- MacLean, M. G., Embry, L. E., & Cauce, A. M. (1999). Homeless adolescents' paths to separation from family: Comparison of family characteristics, psychological adjustment, and victimization. *Journal of Community Psychology, 27*(2), 179-187. doi: 10.1002/(SICI)1520-6629(199903)27:2<179::AID-JCOP5>3.0.CO;2-S

- Manlove, J., Terry-Humen, E., Ikramullah, E., & Holcombe, E. (2008). *Sexual and reproductive health behaviors among teen and young adult men: A descriptive portrait*. Washington, DC: Child Trends. Retrieved from: <http://www.childtrends.org/wp-content/uploads/2008/10/Teen-Sexual-Health.pdf>
- Marshall, D. L., Kerr, T., Shoveller, J. A., Patterson, T. L., Buxton, J. A., & Wood, E. (2009). Homelessness and unstable housing associated with an increased risk of HIV and STI transmission among street-involved youth. *Health & Place, 15*, 783-790. doi: 10.1016/j.healthplace.2008.12.005
- McCaskill, P. A., Toro, P. A., & Wolfe, S. M. (1998). Homeless and matched housed adolescents: A comparative study of psychopathology. *Journal of Clinical Child Psychology, 27*(3), 306-319. doi: 10.1207/s15374424jccp2703_7
- Meadows-Oliver, M. (2009). Adolescent mothers' experiences of caring for their children while homeless. *Journal of Pediatric Nursing, 24*(6), 458-467. doi: 10.1016/j.pedn.2008.06.007
- Melander, L. A., Tyler, K. A., & Schmitz, R. M. (2016). An inside look at homeless youths' social networks: Perceptions of substance use norms. *Journal of Child & Adolescent Substance Abuse, 25*(1), 78-88. doi: 10.1080/1067828X.2014.918003
- Milburn, N. G., Rotheram-Borus, M. J., Rice, E., Mallet, S., & Rosenthal, D. (2006). Cross-national variations in behavioral profiles among homeless youth. *American Journal of Community Psychology, 37*(1-2), 63-76. doi: 10.1007/s10464-005-9005-4
- Miller, K. (2005). *Communication theories: Perspectives, processes, and contexts* (2nd ed.). New York: McGraw-Hill.
- Mitchell, C. U., & LaGory, M. (2002). Social capital and mental distress in an impoverished community. *City & Community, 1*(2), 199-222. doi: 10.1111/1540-6040.00017
- Mollborn, S., & Morningstar, E. (2009). Investigating the relationship between teenage childbearing and psychological distress using longitudinal evidence. *Journal of Health and Social Behavior, 50*(3), 310-326. Retrieved from: <http://www.sagepub.com/home.nav>

- Morrison-Beedy, D., Carey, M. P., & Tu, X. (2006). Accuracy of audio computer-assisted self-interviewing (ACASI) and self-administered questionnaires for the assessment of sexual behavior. *AIDS and Behavior, 10*(5), 541-552. doi: 10.1007/s10461-006-9081-y
- National Alliance to End Homelessness. (2017). *Youth: Overview*. Retrieved from: http://www.endhomelessness.org/pages/youth_overview
- Noll, J. G., Shenk, C. E., & Putnam, K. T. (2009). Childhood sexual abuse and adolescent pregnancy: A meta-analytic update. *Journal of Pediatric Psychology, 34*(4), 366-378. doi: 10.1093/jpepsy/jsn098
- Okun, M. A., Ruhlman, L., Karoly, P., Lutz, R., Fairholme, C., & Schaub, R. (2003). Social support and social norms: Do both contribute to predicting leisure-time exercise? *American Journal of Health Behavior, 27*(5), 493-507. doi: 10.5993/AJHB.27.5.2
- Oliveira, N., & Goldberg, J. (2002). The nutrition status of women and children who are homeless. *Nutrition Today, 37*, 70-77. doi: 10.1097/00017285-200203000-00007
- Padgett, D. K. (2012). *Qualitative and mixed methods in public health*. Thousand Oaks, CA: Sage.
- Paikoff, R. L. (1990). Attitudes toward consequences of pregnancy in young women attending a family planning clinic. *Journal of Adolescent Research, 5*(4), 467-484. doi: 10.1177/074355489054006
- Patient Protection and Affordable Care Act, 42 U.S.C. § 18001 (2010).
- Perper, K., Peterson, K., & Manlove, J. (2010). *Diploma attainment among teen mothers*. Washington, D. C.: Child Trends. Retrieved at: https://www.childtrends.org/wp-content/uploads/2010/01/child_trends-2010_01_22_FS_diplomaattainment.pdf
- Pfeifer, R. W., & Oliver, J. (1997). A study of HIV seroprevalence in a group of homeless youth in Hollywood, California. *Journal of Adolescent Health, 20*(5), 339-342. doi: 10.1016/S1054-139X(97)00038-4
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology, 24*(1), 1-24. Retrieved from: <http://www.annualreviews.org/journal/soc>

- Powers, J. L., Eckenrode, J., & Jaklitsch, B. (1990). Maltreatment among runaway and homeless youth. *Child Abuse & Neglect, 14*(1), 87-98. doi: 10.1016/0145-2134(90)90084-7
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
- Rabinovitz, S., Desai, M., Schneir, A., & Clark, L. (2010). *No way home: Understanding the needs and experiences of homeless youth in Hollywood*. Hollywood, CA: Homeless Youth Partnership. Retrieved from: http://www.hhyp.org/downloads/HHYP_TCE_Report_11-17-10.pdf
- Ray, N. (2006). *Lesbian, gay, bisexual and transgender youth: An epidemic of homelessness*. New York: National Gay and Lesbian Task Force Policy Institute and the National Coalition for the Homeless. Retrieved from: http://www.thetaskforce.org/static_html/downloads/HomelessYouth.pdf
- Ream, G. L., Barnhart, K. F., & Lotz, K. V. (2012). Decision processes about condom use among shelter-homeless LGBT youth in Manhattan. *AIDS Research and Treatment, 2012*, 1-9. doi: 10.1155/2012/659853
- Rew, L. (2001). Sexual health practices of homeless youth: A model for intervention. *Issues in Comprehensive Pediatric Nursing, 24*, 1-18. doi: 10.1080/014608601300035544
- Rew, L., Fouladi, R. T., & Yockey, R. D. (2002). Sexual health practices of homeless youth. *Journal of Nursing Scholarship, 34*(2), 139-145. doi: 10.1111/j.1547-5069.2002.00139.x
- Rice, E. (2010). The positive role of social networks and social networking technology in the condom-using behaviors of homeless young people. *Public Health Reports, 125*(4), 588-595. Retrieved from: <http://www.publichealthreports.org>
- Rice, E., Kurzban, S., & Ray, D. (2012). Homeless but connected: The role of heterogeneous social network ties and social networking technology in the mental health outcomes of street-living adolescents. *Community Mental Health Journal, 48*(6), 692-698. doi: 10.1007/s10597-011-9462-1

- Rice, E., Milburn, N. G., & Rotheram-Borus, M. J. (2007). Pro-social and problematic social network influences on HIV/AIDS risk behaviors among newly homeless youth in Los Angeles. *AIDS Care, 19*(5), 697-704. doi: 10.1080/09540120601087038
- Rice, E., Monroe, W., Barman-Adhikari, A., & Young, S. D. (2010). Internet use, social networking, and HIV/AIDS risk for homeless adolescents. *Journal of Adolescent Health, 47*(6), 610-613. doi: 10.1016/j.jadohealth.2010.04.016
- Rice, E., Stein, J. A., & Milburn, N. (2008). Countervailing social network influences on problem behaviors among homeless youth. *Journal of Adolescence, 31*(5), 625-639. doi: 10.1016/j.adolescence.2007.10.008
- Rimal, R. N., Lapinski, M. K., Cook, R. J., & Real, K. (2005). Moving toward a theory of normative influences: How perceived benefits and similarity moderate the impact of descriptive norms on behaviors. *Journal of Health Communication, 10*(5), 433-450. doi: 10.1080/10810730591009880
- Rimal, R. N., & Real, K. (2003). Understanding the influence of perceived norms on behaviors. *Communication Theory, 13*(2), 184-203. doi: 10.1093/ct/13.2.184
- Ringwalt, C. L., Greene, J. M., Robertson, M., & McPheeters, M. (1998). The prevalence of homelessness among adolescents in the United States. *American Journal of Public Health, 88*(9), 1325-1329. doi: 10.2105/AJPH.88.9.1325
- Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology Review, 6*(2), 88-106. doi: 10.1207/S15327957PSPR0602_01
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press.
- Rogers, J., Augustine, J., & Alford, S. (2005). *Integrating efforts to prevent HIV, other sexually transmitted infections, and pregnancy among teens*. Advocates for Youth. Retrieved from: <https://www.advocatesforyouth.org/storage/advfy/documents/integrating.pdf>
- Rosengard, C., Phipps, M. G., Adler, N. E., & Ellen, J. M. (2004). Adolescent pregnancy intentions and pregnancy outcomes: A longitudinal examination. *Journal of Adolescent Health, 35*(6), 453-461. doi: 10.1016/j.jadohealth.2004.02.018

- Rotheram-Borus, M. J., Song, J., Gwadz, M., Lee, M., Van Rossem, R., & Koopman, C. (2003). Reductions in HIV risk among runaway youth. *Prevention Science, 4*(3), 173-187. doi: 10.1023/A:1024697706033
- Ruttan, L., Laboucane-Benson, P., & Munro, B. (2012). Does a baby help young women transition out of homelessness? Motivation, coping, and parenting. *Journal of Family Social Work, 15*(1), 34-49. doi: 10.1080/10522158.2012.64271
- Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). Thousand Oaks, CA: Sage.
- Salomonsen-Sautel, S., Van Leeuwen, J. M., Gilroy, C., Boyle, S., Malberg, D., & Hopfer, C. (2008). Correlates of substance use among homeless youths in eight cities. *The American Journal on Addictions, 17*(3), 224-234. doi: 10.1080/10550490802019964
- Schaffner, L. (1998). Searching for connection: A new look at teenaged runaways. *Adolescence, 33*(131), 619.
- Sexuality Information and Education Council of the United States [SIECUS]. (2009). *What the research says: Comprehensive sex education*. Retrieved from: <http://www.siecus.org/index.cfm?fuseaction=Page.ViewPage&PageID=1193>
- Sipsma, H. L., Ickovics, J. R., Lewis, J. B., Ethier, K. A., & Kershaw, T. S. (2011). Adolescent pregnancy desire and pregnancy incidence. *Women's Health Issues, 21*(2), 110-116. doi: 10.1016/j.whi.2010.09.004
- Slesnick, N., Bartle-Haring, S., Glebova, T., & Glade, A. C. (2006). Homeless adolescent parents: HIV risk, family structure and individual problem behaviors. *Journal of Adolescent Health, 39*(5), 774-777. doi: 10.1016/j.jadohealth.2006.04.021
- Slesnick, N., & Kang, M. J. (2008). The impact of an integrated treatment on HIV risk behavior among homeless youth: a randomized controlled trial. *Journal of Behavioral Medicine, 31*(1), 45-59. doi: 10.1007/s10865-007-9132-5

- Smid, M., Bourgois, P., & Auerswald, C. L. (2010). The challenge of pregnancy among homeless youth: Reclaiming a lost opportunity. *Journal of Health Care for the Poor and Underserved, 21*, 140-156. doi: 10.1353/hpu.0.0318
- Solorio, M. R., Rosenthal, D., Milburn, N. G., Weiss, R. E., Batterham, P. J., & Gandara, M. (2008). Predictors of sexual risk behaviors among newly homeless youth: A longitudinal study. *Journal of Adolescent Health, 42*(4), 401-409. doi: 10.1016/j.jadohealth.2007.09.023
- Stablein, T. (2011). Helping friends and the homeless milieu: Social capital and the utility of street peers. *Journal of Contemporary Ethnography, 40*(3), 290. doi: 10.1177/0891241610390365
- Stein, J. A., Lu, M. C., & Gelberg, L. (2000). Severity of homelessness and adverse birth outcomes. *Health Psychology, 24*, 1275-1288. doi: 10.1037/0278-6133.19.6.524
- Stricof, R. L., Kennedy, J. T., Nattell, T. C., Weisfuse, I. B., & Novick, L. F. (1991). HIV seroprevalence in a facility for runaway and homeless adolescents. *American Journal of Public Health, 81*(Suppl), 50-53. doi: 10.2105/AJPH.81.Suppl.50
- Swick, K. J., & Williams, R. (2010). The voices of single parent mothers who are homeless: Implications for early childhood professionals. *Journal of Early Education, 38*, 49-55. doi: 10.1007/s10643-010-0378-0
- Tavernise, S. (2015). *Colorado's effort against teenage pregnancies is a startling success*. Retrieved from: http://www.nytimes.com/2015/07/06/science/colorados-push-against-teenage-pregnancies-is-a-startling-success.html?_r=0
- Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Thousand Oaks, California: Sage.
- Tevendale, H. D., Lightfoot, M., & Slocum, S. L. (2009). Individual and environmental protective factors for risky sexual behavior among homeless youth: An exploration of gender differences. *AIDS and Behavior, 13*, 154-164. doi: 10.1007/s10461-008-9395-z

- The National Campaign to Prevent Teen and Unplanned Pregnancy. (2010). *Counting it up: The public costs of teen childbearing*. Retrieved from: <http://thenationalcampaign.org/why-it-matters/public-cost>
- Thompson, S. J., Bender, K. A., Lewis, C. M., & Watkins, R. (2008). Runaway and pregnant: Risk factors associated with pregnancy in a national sample of runaway/homeless female adolescents. *Journal of Adolescent Health, 43*(2), 125-132. doi: 10.1016/j.jadohealth.2007.12.015
- Thompson, S. J., Safyer, A. W., & Pollio, D. E. (2001). Differences and predictors of family reunification among subgroups of runaway youths using shelter services. *Social Work Research, 25*(3), 163-172. doi: 10.1093/swr/25.3.163
- Thrane, L. E., & Chen, X. (2012). Impact of running away on girls' pregnancy. *Journal of Adolescence, 35*(2), 443-449. doi: 10.1016/j.adolescence.2011.07.011
- Tucker, J. S., Sussell, J., Golinelli, D., Zhou, A., Kennedy, D. P., & Wenzel, S. (2012a). Understanding pregnancy-related attitudes and behaviors: A mixed-methods study of homeless youth. *Perspectives on Sexual and Reproductive Health, 44*(4), 252-261. doi: 10.1363/4425212
- Tucker, J. S., Ryan, G. W., Golinelli, D., Ewing, B., Wenzel, S. L., Kennedy, D. P., Green Jr., H. D., & Zhou, A. (2012b). Substance use and other risk factors for unprotected sex: Results from an event-based study of homeless youth. *AIDS and Behavior, 16*, 1699-1707. doi: 10.1007/s10461-011-0017-9.
- Tucker, J. S., Wenzel, S. L., Golinelli, D., Kennedy, D. P., Ewing, B., & Wertheimer, S. (2013). Understanding heterosexual condom use among homeless men. *AIDS and Behavior, 17*, 1637-1644. doi: 10.1007/s10461-012-0165-6
- Turner, C. F., Ku, L., Rogers, S. M., Lindberg, L. D., Pleck, J. H., & Sonenstein, F. L. (1998). Adolescent sexual behavior, drug use, and violence: increased reporting with computer survey technology. *Science, 280*(5365), 867-873. doi: 10.1126/science.280.5365.867

- Tyler, K. A. (2008). Social network characteristics and risky sexual and drug related behaviors among homeless young adults. *Social Science Research, 37*(2), 673-685. doi: 10.1016/j.ssresearch.2007.09.004
- Tyler, K. A. (2013). Homeless youths' HIV risk behaviors with strangers: Investigating the importance of social networks. *Archives of Sexual Behavior, 1-9*. doi: 10.1007/s10508-013-0091-3
- Tyler, K. A., Whitbeck, L. B., Chen, X., & Johnson, K. (2007). Sexual health of homeless youth: Prevalence and correlates of sexually transmissible infections. *Sexual Health, 4*, 57-61. doi: 10.1071/SH06045
- Unger, J. B., Molina, G. B., & Teran, L. (2000). Perceived consequences of teenage childbearing among adolescent girls in an urban sample. *Journal of Adolescent Health, 26*(3), 205-212. doi: 10.1016/S1054-139X(99)00067-1
- United States Department of Health and Human Services Office of Adolescent Health. (2008). *Engaging adolescent males in prevention*. Retrieved from: <https://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/engaging-males.html>
- Ventura, S. J., Curtin, S. C., Abma, J. C., & Henshaw, S. K. (2012). Estimated pregnancy rates and rates of pregnancy outcomes for the United States, 1990-2008. *National Vital Statistics Reports: The Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, 60*(7), 1-21.
- Waddell, E. N., Orr, M. G., Sackoff, J., & Santelli, J. S. (2010). Pregnancy risk among black, white, and Hispanic teen girls in New York City public schools. *Journal of Urban Health, 87*(3), 426-439. doi: 10.1007/s11524-010-9454-4
- Wagner, L. S., Carlin, L., Cauce, A. M., & Tenner, A. (2001). A snapshot of homeless youth in Seattle: Their characteristics, behaviors, and beliefs about HIV protective strategies. *Journal of Community Health, 26*(3), 219-232. doi: 10.1023/A:1010325329898

- Walls, N. E., & Bell, S. (2011). Correlates of engaging in survival sex among homeless youth and young adults. *Journal of Sex Research, 48*(5), 423-436. doi: 10.1080/00224499.2010.501916
- Wang, K., Brown, K., Shen, S. Y., & Tucker, J. (2011). Social network-based interventions to promote condom-use: A systematic review. *AIDS and Behavior, 1*-11. doi: 10.1007/s10461-011-0020-1
- Warf, C. W., Clark, L. F., Desai, M., Rabinovitz, S. J., Agahi, G., Calvo, R., & Hoffman, J. (2013). Coming of age on the streets: Survival sex among homeless young women in Hollywood. *Journal of Adolescence, 36*, 1205-1213. doi: 10.1016/j.adolescence.2013.08.013
- Warschauer, M. (2004). *Technology and social inclusion: Rethinking the digital divide*. Cambridge, MA: The MIT Press. Retrieved from: <https://mitpress.mit.edu/books/technology-and-social-inclusion>
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge, UK: Cambridge University Press.
- Watson, J. (2011). Understanding survival sex: Young women, homelessness, and intimate relationships. *Journal of Youth Studies, 14*(6), 639-655. doi: 10.1080/13676261.2011.588945
- Webb, D. A., Culhane, J., Metraux, S., & Robbins, J. M., & Culhane, D. (2003). Prevalence of periodic episodic homelessness among adult childbearing women in Philadelphia, PA. *American Journal of Public Health, 93*, 1895-1896. doi: 10.2105/AJPH.93.11.1895
- Weinreb, L., Goldberg, R., & Perloff, J. (1998). Health characteristics and medical service use patterns of sheltered homeless and low-income housed mothers. *Journal of General Internal Medicine, 13*(6), 389-397. doi: 10.1046/j.1525-1497.1998.00119.x
- Wenzel, S., Holloway, I., Golinelli, D., Ewing, B., Bowman, R., & Tucker, J. (2012). Social networks of homeless youth in emerging adulthood. *Journal of Youth and Adolescence, 41*(5), 561-571. doi: 10.1007/s10964-011-9709-8
- Wenzel, S. L., Tucker, J. S., Golinelli, D., Green, H. D., & Zhou, A. (2010). Personal network correlates of alcohol, cigarette, and marijuana use among homeless youth. *Drug and Alcohol Dependence, 112*(1), 140-149. doi: 10.1016/j.drugalcdep.2010.06.004

- Whitbeck, L. B. (2009). *Mental health and emerging adulthood among homeless young people*. New York: Taylor & Francis.
- Whitbeck, L. B., Hoyt, D. R., Yoder, K. A., Cauce, A. M., & Paradise, M. (2001). Deviant behavior and victimization among homeless and runaway adolescents. *Journal of Interpersonal Violence, 16*(11), 1175-1204. doi: 10.1177/088626001016011005
- Winetrobe, H., Rhoades, H., Barman-Adhikari, A., Cederbaum, J., Rice, E., & Milburn, N. (2013). Pregnancy attitudes, contraceptive service utilization, and other factors associated with Los Angeles homeless youths' use of effective contraception and withdrawal. *Journal of Pediatric and Adolescent Gynecology, 26*, 314-322. doi: 10.1016/j.jpjag.2013.06.007
- Wingood, G. M., & DiClemente, R. J. (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health Education & Behavior, 27*(5), 539-565. Retrieved from: <http://heb.sagepub.com>
- Yates, G. L., MacKenzie, R., Pennbridge, J., & Cohen, E. (1988). A risk profile comparison of runaway and non-runaway youth. *American Journal of Public Health, 78*(7), 820-821. doi: 10.2105/AJPH.78.7.820
- Young, S. D., & Rice, E. (2011). Online social networking technologies, HIV knowledge, and sexual risk and testing behaviors among homeless youth. *AIDS and Behavior, 15*(2), 253-260. doi: 10.1007/s10461-010-9810-0
- Zapata, L. B., Hillis, S. D., Marchbanks, P. A., Curtis, K. M., & Lowry, R. (2008). Methamphetamine use is independently associated with recent risky sexual behaviors and adolescent pregnancy. *Journal of School Health, 78*(12), 641-648. doi: 10.1111/j.1746-1561.2008.00360.x