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THE ASSOCIATION BETWEEN SOCIAL CONTEXT AND PHASE OF RECOVERY AMONG DRUG COURT CLIENTS: A GENDER COMPARISON

by

JENNIFER ZORLAND

Under the Direction of James Emshoff

ABSTRACT

The association between drug court clients' pro-drug and pro-recovery social context at multiple ecological levels, and phase of recovery was assessed, and gender comparisons were evaluated. Drug courts provide alternatives to incarceration for substance abusing offenders, providing treatment within clients' social environments. The findings indicated that social context is associated with recovery, and that this relation differs by gender. Specifically, increased favorable attitudes toward drug use among social referents were associated with men being in an earlier phase of recovery and women being in a later phase of recovery. Furthermore, perceived encouragement to use drugs was associated with being in earlier phases of recovery, while positive outcome beliefs related to recovery were associated with being in later phases of recovery. Therefore, drug courts may lead to positive long-term outcomes, as social context can be addressed during the recovery process. Additionally, these courts might benefit from incorporating gender-specific components into treatment.

INDEX WORDS: Social context, Drug court, Gender, Substance abuse, Offender, Ecological theory

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by

JENNIFER L. ZORLAND

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Introduction

The current study examines whether drug court participants' pro-drug or pro-recovery social context is associated with the phase of the drug court they are in, and if this relation is greater among women than among men. Research suggests that drug courts are effective in addressing substance abuse. However, these interventions have almost exclusively been designed to treat men. The relational theory (Miller, 1986) and French and Raven's (1959) theory of social power highlight the importance of social context among women. Yoder and Kahn (2003, p. 283) referred to social context as "any element in a person's social environment that can produce or constrain a behavior". Previous research has demonstrated that women have different pathways into drug use, recovery, and criminal behavior than men (Wolf, 2006). Differential pathways may require differential treatment approaches. The rate of female substance abusers involved in the criminal justice system [CJS] is escalating rapidly (Irwin, Schiraldi, & Ziedenberg, 1999), and traditional treatment programs may not be as successful for treating them. Extant literature suggests that gender-responsive strategies may improve outcomes for female drug court participants. Results of this study may support the importance of treatment within community settings where social context can effectively be addressed, as well as support the need for gender-specific drug court programs.

Problems with Traditional Treatment Approaches

Incarceration has been increasingly utilized to address drug use and related criminal activity (Blumstein & Beck, 1999). However, this approach has not been effective. Individuals who have been incarcerated are often released back into their communities without having received any substance abuse treatment, or services designed to aid in the reentry process (Prendergrast, Wellisch, & Falkin, 1995). Incarceration can have negative effects on individuals,

including stigma, low self-esteem, strained or broken relationships, and financial repercussions (Rose & Clear, 2002). However, the costs associated with incarceration may be greater for women than for men, as women are marginalized in this society, and imprisonment increases marginalization (Chesney-Lind, 1991; Owen & Bloom, 1995).

Historically, substance abuse treatment programs have been designed by men to meet the needs of men (Reed, 1987). This is also true of treatment programs within the CJS (Wellisch, Anglin, & Pendergrast, 1993). Bride (2001) found that traditional treatment models are generally less successful for female participants. Specifically, women have significantly lower retention and completion rates than men in traditional programs. Standard treatment practices developed for men address self-discipline, while women may require programs that focus on the development of healthy interpersonal relationships, and increasing self-esteem (Center for Substance Abuse Treatment, 1997).

Traditional treatment programs utilize a medical model to address addiction. Such models fail to acknowledge that addictive behaviors are similar to all other human behaviors, in that they are impacted by social and cognitive influences (Peele, 1985). Szasz (1960) noted the limitations of addressing "problems in living" using a medical framework. Specifically, this practice lends itself to blaming the victim for deviating from social norms, rather than acknowledging the psychosocial issues underlying such behavior (Ryan, 1971). The "War on Drugs" has perpetuated society's propensity to blame the victim. Victim blaming is a common reaction to individuals who suffer from addictions and to those who commit crimes. Consequently, substance abusing offenders are often blamed for not one, but two violations of social norms. The stigma associated with drug use may be greater and more permanent for women than for

men due to their prescribed gender roles, and this stigma often leads to problems in interpersonal relationships (Robbins, 1989).

Furthermore, traditional substance abuse treatment programs utilize confrontational approaches. Bloom, Owen, and Covington (2003) asserted that because women are socialized to seek connectedness and have often been victimized they may react unfavorably to adversarial tactics. As a result, confrontational treatment approaches may serve as a barrier to treatment retention and successful outcomes for women. “Trauma-sensitive” or non-confrontational approaches may be required to keep female participants engaged in treatment.

Introduction to Drug Courts

The first drug court was established in 1989 as a response to rapidly increasing rates of incarceration due to drug related criminal activity. Drug courts offer an alternative to incarceration for non-violent, felony-level offenders and utilize a therapeutic rather than punitive model of adjudication. These courts represent a paradigm shift (Kuhn, 1970), as program elements are based on research findings that support the need to address crime by focusing on underlying substance abuse rather than simply punishing criminal behavior. Moving away from a medical model, drug courts implement a more holistic approach which acknowledges contextual influences at different ecological levels in which the individual is enmeshed (Bronfenbrenner, 1979). Recognizing the interdependence of ecological levels (Dalton, Elias, & Wandersman, 2001) may increase the effectiveness of drug courts in treating substance abuse among offending populations.

Drug court programs utilize an interdisciplinary team approach. As described by the National Drug Court Institute (n.d.): “Drug courts represent the coordinated efforts of the judiciary, prosecution, defense bar, probation, law enforcement, mental health, social service,

and treatment communities to actively and forcefully intervene and break the cycle of substance abuse, addiction, and crime." Drug court teams design treatment plans specifically for each participant in the program. Tailoring treatment to address the particular needs of individuals has been shown to enhance the likelihood of successful recovery from substance abuse (National Institute on Drug Abuse [NIDA], 2006).

The majority of drug courts have multiple phases in their treatment models, and while the exact number may vary by court, they all tend to follow the trajectory of Prochaska and Velicer's (1997) transtheoretical model of change [TTM] (Gilbertson, 2007) which includes 5 stages: pre-contemplation, contemplation, preparation, action and maintenance. Initially participants are in a "stabilization" phase, during which they may go through detoxification, have a treatment assessment, and are screened for other problems that may impact recovery, such as psychological and medical issues. Following this initial phase, participants enter an "intensive treatment" phase (or phases) which generally includes counseling at the individual, family, and group level; finding employment; volunteering in the community; and continuing their education (most drug courts require clients to obtain a general equivalency diploma if they do not have a high school diploma). Finally, participants enter a "transitional" phase, during which issues related to long-term success are highlighted. These issues often include housing, continued education, social reintegration, and aftercare.

The National Association of Drug Court Professionals (1997) described ten key components of successful drug courts. These include incorporating substance abuse treatment services into case processing through the CJS; using a non-adversarial approach to promote public safety while protecting participants' rights; quickly identifying and placing eligible participants in drug court programs; providing a continuum of substance abuse treatment and

rehabilitation services; monitoring abstinence frequently through drug testing; responding to participants' compliance with court requirements through coordinated strategies; ensuring frequent interactions between judges and participants; examining and evaluating court goals and successes; continued interdisciplinary education of the drug court team; and creating partnerships between other drug courts, as well as among other agencies and community organizations in an effort to increase court effectiveness.

Drug court clients are closely monitored by the drug court team, and are rewarded for compliance and sanctioned for non-compliance with court requirements. Rewards may include being praised by the judge, decreased supervision, and advancement into the next phase of the program. Conversely, sanctions may consist of being reprimanded by the judge, increased drug testing, being sentenced to serve jail time, and being demoted into an earlier phase of the program. It should be noted that continued non-compliance with the court requirements may result in termination from the program.

Research has shown these specialized courts to be successful in decreasing participant substance abuse and related criminal behavior during participation in the program, as well as reducing recidivism rates for a year after program completion (Belenko, 1998; Bureau of Justice Assistance [BJA], 2005; Fluellen & Trone, 2000; Roman, Townsend, & Bhati, 2003). In addition, these courts have been found to be more cost effective than incarceration in dealing with substance abusing offenders (Institute for Applied Research, 2004). As a result, as of May, 2005 there were over 1,600 drug courts operational in the U.S. providing treatment to substance abusing offenders who meet eligibility criteria (BJA, 2005). Furthermore, due to the success of drug courts, other problem-solving courts have been developed to address other issues, such as Driving under the influence [DUI], domestic violence, and most recently gambling addiction.

Drug courts provide a unique opportunity to treat substance-abusing offenders within their social environments. Brown, O'Grady, Battjes, and Katz (2004) noted the importance of attending to social context in treating substance abuse. Similarly, Moos (2003) asserted that developing and sustaining positive social contexts increases the likelihood of successful recovery. Although relational difficulties often underlie substance abuse, drug court participants are able to address these problems during the treatment process, potentially increasing the likelihood of successful recovery. Individuals who are removed from their environments, whether they receive drug treatment or not, often begin using again when they return to their communities due to powerful environmental cues they are ill equipped to deal with (Weiner, Silberman, Glowacki, & Folks, 1997).

Social and psychological issues related to addiction should be dealt with simultaneously, rather than sequentially for drug treatment programs to be successful (Jacobs, 2004; Wallen & Weiner, 1988). Focusing exclusively on the individual, and not addressing the larger ecological social systems that person is embedded in, constrains the exploration of potential resources available, and fails to prevent potential obstacles to successful recovery. Matto, Miller, and Spera (2006) noted the importance of attending to "context resources and vulnerabilities" during substance abuse treatment. Specifically, awareness of how family members, friends, and neighborhoods impact attitudes and behaviors related to drug use and recovery is instrumental in developing successful treatment programs. Treatment programs that address relationships with family, partners, and the community have been found to decrease rates of substance abuse, especially among women (Bloom, et al., 2003). Because drug court participants remain in their social environments during the treatment process, social context can be addressed, along with other factors related to substance abuse.

Podkopacz, Eckberg, Zehm, and Kubits (2006) noted that the majority of drug court participants reported family and friends as being their primary sources of social support. However, participants also cited relationships with family members and peers as major barriers to completing requirements of the court (Wolf & Colyer, 2001). Furthermore, previous research suggests that women who abuse drugs tend to have small social networks, members of which fail to adequately support abstinence (O'Dell, Turner, & Weaver, 1998). Through community partnerships, drug courts can offer alternate, more beneficial sources of support, such as members of local churches, mutual assistance groups, or community organizations. Community drug courts represent alternative settings where the relationships developed provide a foundation for the court (Maton, 2000). Relationships are formed between court staff, and also between staff and participants, providing a model of positive social interaction. Furthermore, healthy relationships often develop among the participants. The opportunities to develop healthy, supportive relationships afforded by this court structure may enhance identification with recovery over time.

The Dekalb and Fulton County Drug Courts

The Dekalb County Drug Court [DCDC] has been in operation since 2002, and the Fulton County Drug Court [FCDC] began in 1997; both are located in Atlanta, Georgia. In keeping with the drug court model, both courts begin with intensive treatment and supervision, which becomes progressively less intense as participants move through the phases. The initial phase of each of the courts require participants to make a court appearance before a judge and submit to several drug screens each week. In addition, participants are required to attend 12-step meetings, individual and family counseling, and to work and/or volunteer in the community.

Program dosage varies by court and is based on individual client characteristics and needs. Specifics of the FCDC program dosage were not available. However, of the clients of the DCDC (including 47 graduates and 47 active clients in various phases), the average client appeared before the Judge 45 times, attended 223 NA and/or AA sessions, and participated in 98 treatment sessions with a counselor. Additionally, clients submitted on average to 276 drug screens, of which 2 were identified as positive for drugs. Sanctions for this court include level 1 (attending an extra treatment session); level 2 (performing additional community service); and level 3 (serving jail time). On average, clients received 0.30 level 1 sanctions, 2.25 level 2 sanctions, and 2.34 level 3 sanctions. Furthermore, of the 183 clients accepted into the DCDC, 69 were terminated from the program for non-compliance or other issues, which prevented them from fulfilling requirements of the court.

Relational Context

Developmental theory has traditionally pointed to goals of autonomy and separation as indicating maturity and readiness for intimacy (Erikson, 1950). The relational model (Miller, 1986) may provide a more accurate description of women's psychological development. This model posits that relationships, and connections with others are vital to the healthy development of women. Given gendered socialization processes, female development is inextricably tied to connection with others; and growth related to sense of identity and self-worth comes from relationships (Chodorow, 1978; Covington, 2003; Gilligan, 1982; Miller, 1976).

French and Raven's (1959) model of power supports the importance of relationships among women. This model specifies five sources of social power, or avenues in which social influence is exerted: reward, coercive, expert, legitimate, and referent power. Specifically, reward power is based on the perception that a person is able to give rewards or remove

punishments. The basis of coercive power is the ability to punish behaviors. Expert power is derived from perceptions that someone has superior skills or knowledge. Legitimate power refers to organizational or cultural authority. Finally, referent power is relational, based on the development and maintenance of relationships, and is not contingent upon access to external sources of power.

Women generally obtain power through relationships, as they have less access to external sources of power (Guttentag & Secord, 1983). Carli (1999) noted that in U.S. culture men have greater expert and legitimate power, while women have greater referent power. Johnson (1976) asserted that referent power is more influential among women because it corresponds to their socially constructed gender roles. Specifically, referent power is perceived in those who possess good social skills, are kind, warm, and have communal values (Eagly, 1987). Relationships afford women the opportunity to attain power they may not be able to gain in other ways. Therefore, social referents may influence the behaviors of women to a greater extent than men, as their power is contingent upon social acceptance.

Different Pathways to Substance Use, Recovery, and Crime

Women have different pathways than men into substance abuse, recovery, and the CJS (Wolf, 2006). Previous research has highlighted that women's motivation to use drugs is most often relational or interpersonal. Specifically, women are more likely to be influenced by their partner's drug use than men (Wilsnack & Wilsnack, 1995). Many women have attributed their initial drug use to the social influence of men in their lives (Eldred & Washington, 1976; Henderson & Boyd, 1995; Henderson, Boyd, & Mieczkowski, 1994; Rosenbaum, 1981). Research has also shown that women often engage in substance use in an effort to connect and maintain relationships with their partners (Covington & Surrey, 1997). Additionally,

significantly more women than men who use drugs reported having a spouse or partner who had a drug problem (Langan, & Pellisier, 2001; Griffin, Weiss, Mirin, & Lange, 1989; Reihman, Hser, & Zeller, 2000).

In addition to significant others, friends influence women's drug related behaviors and efforts at recovery. More women than men reported having friends with substance abuse problems (Langan & Pelissier, 2001) and the presence of drug users within social networks have been found to reduce the likelihood of abstaining from use among individuals in treatment (Goehl, Nunes, Quitkin, & Hilton, 1993; Wasserman, Stewert, & Delicchi, 2001).

Gender differences in substance use have also been attributed to relational influences within family networks. Specifically, more women than men who use drugs reported having a family history of drug use by a parent, sibling, or grandparent (Boyd, Blow, & Orgain, 1993; Chatham, Hiller, Rowan-Szal, Joe, & Simpson, 1999; Chermack, Stoltenberg, Fuller, & Blow, 2000; Davis & DiNitto, 1996; Denier, Thevos, Latham, & Randall, 1991; Langan & Pellisier, 2001; Peters, Strozier, Murrin, & Kearns, 1997; Westmeyer & Boedicker, 2000). Furthermore, parental substance abuse has been found to be associated with higher rates of substance abusing behaviors among women than men (Wilsnack & Wilsnack, 1991).

Social influences impact entering and remaining in treatment for women more than men (Marlowe, Merikle, Kirby, Festinger, & McLellan, 2001). Beckman and Amaro (1986) found that a greater number of women than men reported being discouraged from entering or participating in drug treatment by their partners. Furthermore, Boyd and Mieczkowski (1990) reported that among a sample of crack abusers in residential treatment, 30% of women reported that no one within their social network would provide them with support for being in recovery, compared to only 19% of males. This is important, as social support that encouraged abstaining

from drug use significantly predicted positive outcomes among drug court participants of both genders (Podkopacz, et. al, 2006). However, such support may be more salient for women. Lind (1988) found social normative beliefs to be significantly associated with behavioral intentions to abstain from drug use for women, but not men. These findings may, in part, explain why Rempel and Destefano (2001) found that women were more likely to drop out of drug court programs than were men.

Social support for abstinence has been found to be associated with positive treatment outcome among drug court participants. A study by Podkopacz, et al. (2006) assessed how different types of social support from family, friends, and significant others influenced client progress through a Minnesota Drug Court. Specifically, emotional, practical, informational, financial, and socializing supports were assessed using the Social Support Behaviors Scale (Vaux, Riedel, & Stewart, 1987) and support for abstinence was measured using 2 subscales of the Social Influences on Abstinence and Drug Use Scale (Wasserman, Stewart, & Delucchi, 2001), which assessed whether or not clients had "people in their lives who provided them with support for not using drugs". Of the 570 participants initially interviewed, 257 were assessed six-months later. The majority of these participants were male (81%), African American (54%) or White (33%), and the average age was 32 years. These demographic distributions are fairly similar to those found in drug courts in Atlanta, Georgia.

The findings indicated that social support in general was not a significant predictor of behavioral compliance. Of all types of support assessed only social support for abstinence predicted positive outcomes, as measured by the number of bench warrants issued, new criminal charges, and program completion. The researchers indicated that no gender differences in regard to these findings were found (Podkopacz, et al., 2006), yet due to the small proportion of women

in the study (19%), it is possible such differences existed but were not detected. Furthermore, social influences within larger ecological levels, such as neighborhood, community, and society were not assessed, and may impact client progression through drug courts.

In addition to substance use and recovery, relational and social influences on criminal behavior impact women to a greater extent than men. Previous research supports the concept that women are often tied to drug use and crime through their interpersonal relationships (Raeder, 1993). This is significant as many participants in drug courts enter the CJS for crimes fueled by drug use, but were not "drug crimes". Women often reported that their relationships with men led to their involvement in criminal activity (Gilfus, 1992; Steffensmeier & Terry, 1986). Social influence on criminal behavior is not limited to intimate relationships. Simsons, Miller, and Aignor (1980) found a significant decrease in gender differences regarding criminal behavior, when controlling for the presence of friends who supported such conduct. Similarly, Jenson and Eve (1976) found that gender explained little variance in criminal behavior when social connections were statistically controlled.

Successful treatment of substance abuse among women may ultimately lead to greater decreases in the number of crimes they commit than for men. Anglin and Hyser (1987) found that women are less likely than men to commit crimes prior to the onset of addiction, and are more likely to discontinue these behaviors upon recovery. In addition, they found that drug use is more likely to act as a catalyst for women to engage in criminal activity and lead them to develop relationships with men who have substance abuse problems. Such relationships may benefit men and be detrimental for women, as women often serve as accomplices to crimes and are exploited sexually to supply their partners with drugs (Pettiway, 1987; Steffensmeier & Terry, 1986).

Unhealthy relationships can negatively influence substance abuse and recovery efforts. Specifically, "disconnections" or violations within women's relationships (with family, friends, acquaintances, or general feelings of disconnectedness in society) can result in psychological problems, which can lead to substance abuse, and hinder recovery efforts (Miller, 1986). Amaro and Hardy-Fanta (1995) found that women with drug problems considered their relationships to be extremely important, yet they also felt a sense of "disconnect and depravity" within these relationships. Additionally, more women than men remain in unhealthy relationships, which may serve as a barrier to recovery (Steffensmeier, & Allen, 1996; Zankowski, 1987).

Furthermore, significantly more women than men with substance abuse problems reported a history of physical or sexual abuse (Boyd et al. 1993; Chatham, Hiller, Rowan-Szal, Joe, & Simpson, 1999; Gil-Rivas, Fiorentine, Anglin, & Taylor, 1997; Jainchill, Hawke, & Yagelka, 2000; Janikowski, Bordieri, & Glover, 1997; Langan & Pelissier, 2001; Liebschutz et al., 2002; Messina, Burdon, & Pendergrast, 2003; Messina, Wish, & Nemes, 2000; Ouimette, Kimerling, Shaw, & Moos, 2000; Peters, Strozier, Murrin, & Kearns, 1997; Robinson, Brower, & Gomberg, 2001; Wallen, 1992). The NIDA (2004) estimated that a minimum of 70.0% of female substance abusers have experienced sexual abuse.

These traumatic experiences may negatively impact feelings of self-worth, which can result in an increased sense of powerlessness and prompt drug use, ultimately leading to involvement in the CJS (Beckerman & Fontana, 2001; Jacobs, 2004; Peters & Schonfeld, 1993). The NIDA (2004) noted that women who use drugs often have low levels of self-esteem, self-confidence, and consider themselves to be powerless. Moreover, women who are addicted reportedly have significantly lower self-esteem than addicted men (Colten, 1979). However, it has been argued that perceptions of powerlessness and low self-esteem among women might

represent, in part, an artifact of an androcentric focus on male norms (Tavris, 1992) and lower social status in our culture (Lorber, 1994). However, research has shown low self-esteem and feelings of powerlessness to be associated with increased susceptibility to social influences. Stacy, Newcomb, and Bentler (1992) reasoned that this relationship might exist because individuals with low self-esteem may not trust their own judgment and have an increased need for social acceptance.

Previous research has also identified gender differences regarding motivation to use drugs. For example, women reported using drugs to alleviate emotional pain or to increase self-esteem, while most men reported using for hedonistic reasons (Hser, Anglin, & Booth, 1987; Kline, 1996; Langan & Pellisier, 2001). In addition, after completing treatment women reported relapsing as a result of interpersonal issues, such as conflict and stress, while men attributed relapses to intrapersonal events, such as losing a job (Hodgins, El-Guebaly, & Addington, 1997). Problems within relationships, as well as the absence of social connections may lead to drug abuse among women. The NIDA (2004) reported that women who use drugs often experience feelings of isolation from support networks, and Wallen (1992) noted that women in substance abuse treatment had significantly more difficulty socializing than their male counterparts.

Gender-specific Treatment

Previous research points to associations between gender and social influences, substance abuse, recovery and crime. Further research is needed to explore issues specific to women who are drug using offenders. Women currently account for the largest increases in incarcerated populations, and are more likely to meet eligibility criteria for drug court programs due to the non-violent nature of their offenses. The BJS (2002) reported that 37.0% of the population growth in jails could be attributed to individuals convicted of drug offenses. From 1985 to 1996

the rate of women arrested for drug offenses increased by 95.0%, while the rate for men increased by only 55.1% during the same time period (Federal Bureau of Investigation, 1985, 1997). According to Irwin, Schiraldi, and Ziedenberg (1999) "women are the fastest growing and least violent segment of jail and prison populations, 85.1% of women are in jail for non-violent offenses". The BJS (2003, 2005) reported that the most serious crimes committed by 65.0% of women in federal prisons and 31.5% in state prisons involved violating drug laws.

Bloom et al. (2003) asserted that the lower risk women pose to the community should be considered when developing sentencing policies. Women are less likely than men to commit violent crimes (Anglin & Hyser, 1987; Greenfeld & Snell, 1999). Therefore, alternatives to prison should be considered, such as community treatment programs that address social context (Henderson, 1998). These types of programs may be more suitable for women. Specifically, community programs tend to be relational, and may be better equipped to deal with problems in living among women involved in the CJS. Moreover, community based programs may increase treatment retention among women. Females reported lower expectations than males of residential treatment, perhaps due to separation from children and other important people within their social networks (Kline, 1996).

Drug court participants remain in their communities and are able to develop and maintain healthy relationships during treatment. These programs employ coercive treatment, meaning the court gives substance abusing offenders an ultimatum: enter and comply with a treatment program, or remain incarcerated. Coercive treatment has been shown to be associated with positive outcomes, even when clients lack intrinsic motivation to enter treatment (Anglin & Hser, 1991; Kelly, Finney, & Moos, 2005). However, coercion alone may not result in treatment retention. Participants must "buy in" to the program over time, and feel that the program fits their

needs. Recently several gender-specific drug court programs have been developed, with promising results. Beckerman and Fontana (2001) found that drug court programs adapted to treat the unique needs of women had higher rates of treatment retention, increasing the likelihood of positive outcomes. Furthermore, Bride (2001) noted the importance of single-gender programs, as they may steer women's focus away from concerns about social approval and the welfare of others, allowing them to attend more to their recovery.

It should be noted that men might also benefit from gender specific treatment programs. "'Time Out! For Men" is an intervention targeted at males in substance abuse treatment. This psycho-educational intervention focuses on building communication skills, increasing the ability to establish intimacy, and an examination of gender role socialization and sexuality. An evaluation of this intervention concluded that participants (who were mandated by the CJS to enter treatment) not only had a favorable view of the program, but also displayed significant increases in knowledge in all domains of the intervention. Furthermore, participants displayed less rigid beliefs about gender roles and intimate relationships. The authors concluded that these program outcomes might result in less gender role conflict, and an increased ability to solicit and accept social support, which has been linked to positive treatment outcomes (Bartholomew, Hiller, Knight, Nucatola, & Simpson, 2000).

The literature supports the concept that women and men have different pathways into substance abuse, recovery, and crime. Specifically, relationships and social referents are more likely to influence the behaviors of women. However, developing appropriate interventions requires an understanding of why these differences exist and how they manifest. Fishbein and Ajzen (1975) developed the theory of reasoned action [TRA] to predict and understand motivational influences on behaviors. This theory has provided a framework for numerous

interventions designed to address substance abuse, as well as other health related behaviors (Montaño, Kasprzyk, & Taplin, 1997). The TRA asserts that behavioral intentions predict behavior, and are influenced to a large extent by social context. Specifically, intentions are determined by attitudes and subjective norms related to a behavior. Attitudes are shaped by beliefs and perceived outcomes of performing a behavior, while subjective norms are determined by perceived support of social referents regarding a behavior. Fishbein (as cited in Baron & Kenny, 1986) found that behavioral intentions predicted the behaviors of women better than those of men.

Given the assumptions of Miller's (1986) relational theory, French and Raven's (1959) theory of social power, and the TRA, women's drug and recovery related behaviors might be influenced to a greater extent by social referents than those of men. Specifically, women place a greater emphasis on maintaining relationships and connecting with others, obtain social power through relationships, and social influences are more salient predictors of women's behaviors. Therefore, pro-drug or pro-recovery social context may be important to address among women in treatment.

Covington and Bloom (2000) noted the need for the CJS to be "gender responsive", meaning addressing different pathways women take to engaging in criminal activity, and relationships that impact these behaviors. Including program content that addresses issues that may be more salient for women, such as relationships, self-esteem, socio-cultural factors, and substance abuse, may enhance intervention strategies. Within the context of a community drug court, ecological levels of social influence are exceedingly important, as participants remain in their communities. Therefore, it is crucial that participants possess good interpersonal and

decision making skills, allowing them to establish and maintain healthy relationships, while making decisions in their best interests, despite perceived attitudes of social referents.

Many experts view alternatives to incarceration as desirable, yet community based programs also present unique challenges. Specifically, a large proportion of women with drug problems have experienced abuse or have been exploited by someone in their family, or other members of the community. Attempting to treat these women, while they remain in close proximity to those who perpetrated these abuses may require specialized treatment. Providing a safe, supportive environment, and promoting a sense of empowerment is vital to the successful treatment of women, especially those who have been victimized (Copeland & Hall, 1992).

Empowering approaches to treatment may be more appropriate for women. In fact, empowerment, along with mutual support and interpersonal connections are often cited as salient elements of recovery (Hall, 1992, 1993; Robinson, 1979, Tomko, 1988). Covington (2000) noted that long-term recovery necessitates women developing healthy relational connections and support systems. Finkelstein (1993) highlighted the importance of implementing a strength based ("asset") model to address relationships when developing programs to treat women with addictions. Reframing problems in relationships as "efforts to connect" rather than as "failures to disconnect" may enhance participants' perceptions regarding their abilities to develop healthy relationships, thus increasing feelings of self worth, and potentially leading to decreases in drug use.

Gaps in the Literature

Previous research supports the effectiveness of drug court programs. However, these studies have focused almost exclusively on men and provide little information regarding how women fare within such settings. There has been limited research conducted on any type of

substance abuse treatment for women, and the studies that have been done tend to focus solely on pregnant women. Beckerman and Fonatana (2001) asserted that the social and cultural context of most women in treatment is largely ignored and ways in which programs might be altered to increase retention among diverse populations has not been adequately explored. Additionally, outcome evaluations of treatment programs have generally defined successful outcomes using male treatment models (Hagan, Finnegan, & Nelson-Zlupko, 1994). Henderson (1998) called for research exploring the relationships of women with substance abuse problems to examine how they may impact relapse and recidivism, and thus inform policies and programs related to women's substance abuse treatment.

Finally, few studies have evaluated the impacts of social context on participants' experiences. Studies that have examined this issue have focused on the impacts of interactions between participants and family or peers within the program. The impacts of larger ecological levels of social reference (neighborhood, community, or society) have been largely ignored. Studies that have examined the influence of "community" on those in treatment operationalized "community" as "recovery community", meaning in-patient treatment programs. The current study goes beyond examining the social influence of other individuals within controlled environments by seeking information about the importance of social influences within larger social contexts.

Potential Importance of Findings

This research seeks to explore the extent to which social context affects behaviors related to drug use and recovery, and whether this influence is greater among women. Results may support the need for gender specific programs which incorporate elements to help participants effectively cope with social influences and highlight the importance of building healthy

relationships and self-efficacy. When substance abuse among women is viewed through the lens of Miller's relational theory (1986), the potential for social context to affect recovery efforts is great. This is problematic if family, friends, or the community are embedded within the drug culture, and view recovery negatively. In addition, results may point to gender similarities, as well as differences in the importance of social context regarding drug and recovery related behaviors. The contextual information this study will provide may inform future research directions and the development of interventions targeted at offending populations.

Hypotheses

It is hypothesized that pro-drug social context (as measured by perceived encouragement to use drugs, favorable attitudes toward drug use, and outcome beliefs related to drug use) will predict participants being in an earlier phase of the drug court program, while pro-recovery social context (measured by perceived encouragement to be in recovery, favorable attitudes toward recovery, and outcome beliefs related to recovery) will predict being in a later phase of the program, and that these associations will be stronger among women than men.

Method

Research Design

This study is exploratory, correlational, and utilized a cross-sectional design to explore the relationship between social context, gender, and phase in drug court treatment programs. A model was created to assess whether statistically significant associations exist, and was not intended to provide information from which causality can be inferred.

Participants

A convenience sample of 92 drug court participants was recruited from the DCDC and the FCDC in Atlanta, Georgia. Of the participants in the current study, 61 (66.3%) were male

and 31 (33.7%) were female. In an effort to ensure anonymity, no additional demographic information was collected from participants. However, demographic information pertaining to all Drug Court participants in both the DCDC and the FCDC was collected to provide a way to approximate characteristics of study participants. Specifically, demographic information was obtained for clients who were active in the DCDC during the time that data was being collected; and demographic information was obtained representing all past and present clients of the FCDC.

At the time of data collection for the present study the DCDC had 47 active participants, and the FCDC had 217. The majority of participants in both the DCDC and FCDC were male, (66% and 74%, respectively). In addition, the majority of participants in both courts were Black (approximately 80%), while roughly 20% were White. Additional demographic information for FCDC participants was not available, however, the "typical" client was described as being under 30 years of age, did not complete high school, was unemployed, and primarily used crack cocaine (Fulton County Drug Court, 2006). The majority of DCDC participants were between 40 and 49 years of age (nearly 50%), followed by those between 30 and 39 (nearly 30%), approximately 15% were between the ages of 20 and 29, and roughly 5% were between 50 and 59 years of age. The average age of first arrest for DCDC clients was 23, and on average clients had 13 arrests, 2 felony convictions, and 3 misdemeanor convictions.

Variables

"Gender" was assessed as a dichotomous variable, a forced choice between male or female. "Time in the program" was measured in months, from intake into the program to the time of data collection. "Phase" was measured on a scale from 1 to 5, representing the phase of the drug court program the respondent was in at the time of participation (with 5 being farthest

along in the program). The drug court phases in these courts representing phases of the TTM include orientation, coming to believe, making decisions, making the transition, and graduation. Participants progress through these phases at individual rates. They may be held in a phase, or regressed into earlier phases for non-compliance with the court. The minimum duration of phases for the DCDC range from 8 to 20 weeks; while each phase of the FCDC has a 12 week minimum duration. Due to differing minimum durations of phases between courts and individual progression rates of clients, length of time in the program was to be treated as a covariate.

Criteria for progressing through phases of most drug courts are fairly similar. Progressing onto the next phase typically requires that clients have attended a specific number of treatment sessions, Narcotics/Alcoholics Anonymous meetings, had a minimum number of clean days (as assessed by urine screening), not missed a court session for a minimum number of days, as well as have completed any other requirements specified in their individual treatment plans. Descriptions of the specific progression criteria for DCDC by phase were obtained and are presented in Appendix A, and are consistent with the recommendations of the NADCP. However, despite the researcher's efforts, specific information regarding criteria for phase completion was not available for the FCDC.

Clients in the DCDC must petition the court to transition into a later phase. Upon receiving the petition, the court staff ensures that all criteria for progressing to the next phase have been met. After this determination has been made, the client must make a presentation to the community (drug court clients and staff) regarding their experiences during the phase, and why they believe they are ready to enter the next phase. The drug court staff then meets to decide whether or not to allow the client to move forward in the program. This decision must be

unanimous among all court staff members. If the staff accepts the petition, the client is given a certificate of completion in open court during the next court session.

Measure

Six subscales of The Ecological Assessment of Substance-abuse Experiences [EASE] were administered to assess participants' perceived social context related to drug use and recovery (Matto, Miller, & Spera, 2005). The EASE expands on the general concepts of the TRA by assessing perceptions of social referents within a greater socio-ecological context (friends, family, neighborhood, community, and society). The scales utilized in the current study assess pro-drug social context: encouragement to use [encourage drug], favorable attitudes of others [favorable drug], and outcome beliefs [outcome drug]; and pro-recovery social context: encouragement to be in recovery [encourage recovery], favorable attitudes [favorable recovery], and outcome beliefs [outcome recovery].

Specifically, 8 items measure encouragement on a five-point Likert scale ranging from (1) *not at all important* to (5) *extremely important,* 13 items measure favorable attitudes by frequency (level of measurement is ratio), and 23 items measure outcome beliefs on a four-point Likert scale ranging from (1) *strongly disagree* to (4) *strongly agree*. The entire measure consisted of 88 items: 44 assessing drug use and 44 assessing recovery. Higher scores indicate greater perceptions of encouragement, favorable attitudes, and outcome beliefs related to either drug use or recovery anchors (see appendix B for measure and scoring protocol). It should be noted that 4 subscales of the EASE (social identity and attitudinal congruence) were not included in the current study, as they do not assess whether attitudes regarding drug use and recovery are positive or negative and are not relevant to the research question.

Although overall reliability of the EASE has yet to be established, internal reliability, as assessed by Cronbach's alpha was found to be acceptably high (>.80) across subscales (Matto, Miller, & Spera, 2007). In the current study, internal reliability was similarly high across subscales (encourage drug $\alpha = .95$, favorable drug $\alpha = .79$, outcome drug $\alpha = .87$, encourage recovery $\alpha = .90$, favorable recovery $\alpha = .84$, and outcome recovery $\alpha = .89$).

Procedure

The researcher gained access to the DCDC by contacting their director who extended an invitation to the researcher to attend weekly court sessions, as well as graduation ceremonies and various other drug court events. Attending these events allowed for the development of an understanding of the court's processes and desired outcomes, and for relationships between the researcher and drug court personnel to be established. These relationships facilitated access to clients of the DCDC for participant recruitment, as well as to the Director of the FCDC, who allowed clients of that court to be recruited.

After obtaining IRB approval, participants were recruited from the DCDC and FCDC with recruitment flyers (see appendix C), distributed to participants at both courthouses the week prior to the start of data collection. In addition, the researcher attended community meetings at both courts, during which the research study was described to potential participants, and questions related to the study were addressed (from both drug court clients and staff). Informed consent was obtained, and subsequently questionnaires were administered to participants in private rooms at the Dekalb and Fulton County Courthouses, as well as in the Courts' treatment centers. All participants completed a pencil and paper questionnaire, administered by the researcher on an individual basis, and to groups ranging from 3 to 12 participants. The researcher

read the questionnaire aloud and filled in the responses of participants unable to read on a level that would have allowed them to participate on their own.

Results

Preliminary Analyses

Prior to conducting analyses regarding moderation, the data were screened and normality of the variables was assessed. Missing data were assessed to be missing at random. Listwise deletion resulted in a loss of 2 cases (2.1% of the data), resulting in a sample of 90 participants for the moderation analyses. There were no out of range values, however several outliers were present (all of which were greater than 1.5, but less than 3 *SD* from the mean). Two cases were identified as outliers on more than one scale. Subsequent analyses revealed they had minimal impact on the normality of the measured variables, therefore they were retained in the data set.

Three of the measured variables produced standardized skew and kurtosis values that indicated non-normality. Specifically, skew and kurtosis values for encourage drug, favorable drug, and encourage recovery were 1.77 and 2.08; 1.67 and 2.96; and -1.48 and 1.96, respectively. Therefore, logarithmic transformations were performed on all scales, as such procedures change the units of measurement, thus changing the differences between transformed and non-transformed variables (Fields, 2005). The transformations improved normality estimates for all measured variables. No indications of homoskedasticity or multicollinearity were identified, indicating that all statistical assumptions of regression were met.

Descriptive data indicated that on average, participants were in the second phase of the drug court program (M = 2.65, SD = 1.56) and that that females, on average, were in a higher phase than males (M = 3.19, SD = 1.56, and M = 2.38, SD = 1.50, respectively). Additionally, a

disproportionate number of participants were in phase 1 of the drug court programs, which is consistent with the distribution of all drug court clients in both courts (see Table 1).

Table 1. *Frequencies and Percentages of Participants in Drug Court Phases*

Phase	Male N (%)	Female N (%)	Total phase N (%)
1	27 (79.4%)	7 (20.6%)	34 (37.0%)
2	10 (71.4%)	4 (28.6%)	14 (15.2%)
3	5 (50.0%)	5 (50.0%)	10 (10.9%)
4	12 (66.7%)	6 (33.3%)	18 (19.6%)
5	7 (43.8%)	9 (56.3%)	16 (17.4%)
Total	61 (66.3%)	31 (33.7%)	92 (100%)

Descriptive statistics of the pro-drug and pro-recovery measured variables, including means and standard deviations by gender, as well as normality statistics subsequent to performing logarithmic transformations are displayed in Table 2.

Table 2. *Means, Standard Deviations, and Normality Values of Variables*

	Male		Female		Normality statistics	
Variable	Mean	*SD*	Mean	*SD*	Skewness	Kurtosis
Encourage drug	14.32	9.71	13.48	9.17	1.14	0.05
Favorable drug	2.21	2.70	1.42	1.36	0.36	-0.97
Outcome drug	45.37	12.59	43.42	14.22	-0.10	-0.19
Encourage recovery	35.34	6.02	35.13	6.33	-0.51	-1.44
Favorable recovery	8.54	3.51	8.55	3.19	-0.64	-.046
Outcome recovery	71.55	12.84	72.38	10.43	-0.72	0.21

Zero-order correlations indicated that scales assessing perceptions of drug use and scales assessing recovery were not highly correlated (see Table 3). Therefore, each scale was treated as an independent variable in the following analyses. Furthermore, the initial data analysis plan included entering length of time in the drug court program as a covariate in the moderation analyses. However, examination of the correlation matrix indicated that time in the program was highly correlated with phase in the program (r = .854). Further assessment of this relationship revealed that time in the program accounted for over 72% of the variance in program phase (B = 2.809, SE = .183, β = .850). Therefore, time in the program was not included in the analyses, as this variable was strongly confounded with phase.

Interaction terms for moderation analyses were created by mean centering the continuous independent variables and multiplying them by gender (Aiken, & West, 1996; Cronbach, 1987). Furthermore, gender was dummy coded (1 = male, 0 = female) in the initial moderation analyses. To obtain the slope for males, gender was recoded (1 = female, 0 = male), new interaction terms computed, and the analyses assessing moderation were re-run.

Moderation analysis

Six hierarchical multiple regression analyses were conducted to test the hypotheses that 1) gender would moderate the association between perceptions of social context related to drug use and phase in the drug court program and 2) gender would moderate the association between perceptions of social context related to recovery and phase in the drug court program. For each of the regressions gender, encouragement, favorable attitudes, and outcome beliefs were entered in the first step, and the interaction term was entered in the second step.

In the following results the main effects interpreted represent those obtained from the second step of the regression analysis where a significant interaction effect was identified, and

from the first step where the moderating effect failed to reach statistical significance. The results indicated that there was a statistically significant interaction of gender on the association between favorable drug and participant phase in the program, $F(5,85) = 4.81$, $p = .001$. Figure 1 depicts the predicted phases of men and women at low (1 *SD* below mean) and high (1 *SD* above mean) levels of perceived favorable attitudes of social context referents towards drug use. The model that included the interaction and main effects accounted for 22% of variance in phase (see Table 4). Specifically, among females for each unit increase in favorable drug a 3.34 unit increase in phase could be predicted, $b = 3.34$, $SE = 1.11$, $t(85) = 3.00$, $p = .004$. Conversely, for each unit increase in favorable drug among male participants, we could predict a 3.34 unit decrease in phase, $b = -3.34$, $SE = 1.11$, $\beta = -.33$

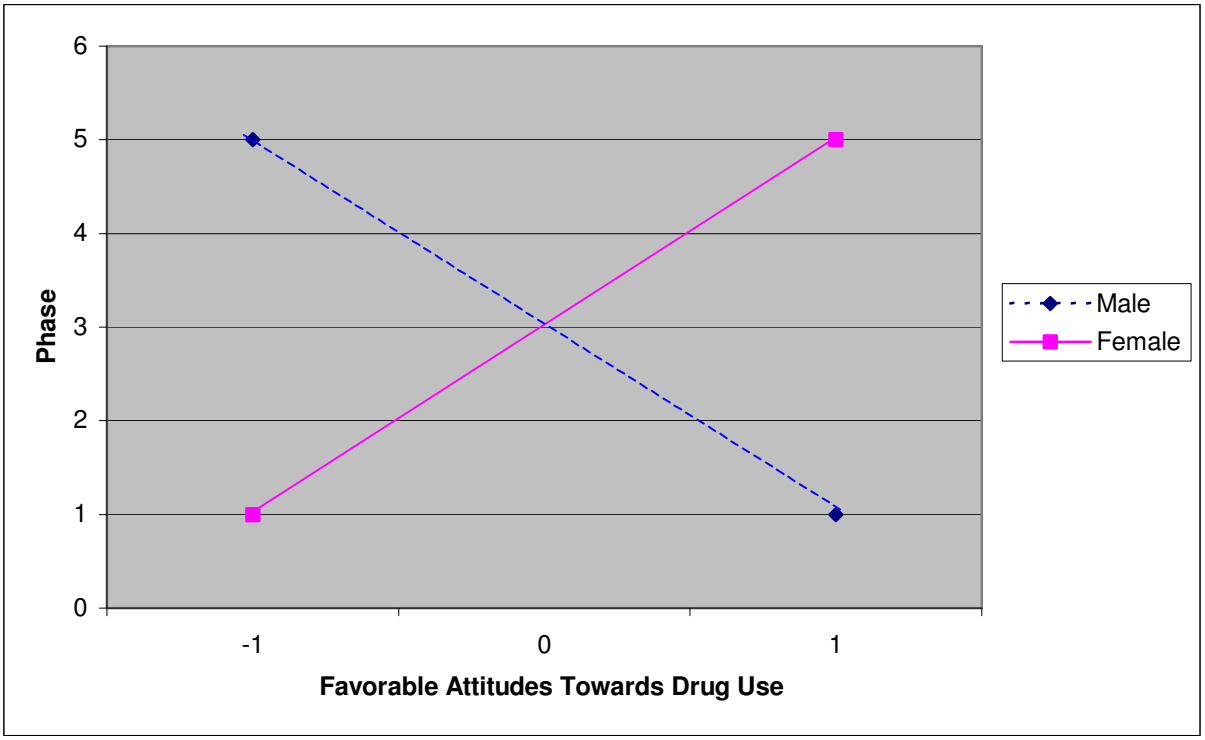

Figure 1. *Predicted Phase at Low and High Levels of Favorable Drug Scores by Gender*

In the presence of the interaction term there were no statistically significant main effects of gender, encourage drug, or outcome drug on phase. However, the results revealed a trend toward significance of encourage drug on phase in the program, b = -1.39, SE = 0.72, $t(85)$ = -1.95, p = .054. This result indicates that as perceived encouragement to use drugs increased, participant phase in the program tended to decrease. In addition, there was a trend of gender on phase, b = -0.63, SE = 0.32, $t(85)$ = -1.97, p = .052. This result indicates that women, on average, were in later phases of the drug court than men. Additionally, gender did not moderate the association between encourage drug and phase, R^2 *change* = .014, p = .242; or outcome drug and phase, R^2 *change* = .00, p = .873.

As presented in Table 5, the results indicated that gender, encourage recovery, favorable recovery, and outcome recovery together accounted for 15% of the variance in participant phase in the program, $F(4,86)$ = 3.88, p = .006. There was a statistically significant main effect of gender on phase, b = -0.79, SE = 0.33, $t(86)$ = -2.38, p = .019, indicating that women were, on average, in an later phase than men. In addition, there was a statistically significant main effect of outcome recovery on phase in the program, b = 0.04, SE = 0.01, $t(86)$ = 2.57, p = .012. Specifically, for each *SD* increase in outcome beliefs related to recovery a .29 *SD* increase in participant phase in the drug court program can be predicted, ß = .29. The association between encouragement to be in recovery and phase in the program failed to reach statistical significance, as did the relation between favorable attitudes toward recovery and phase in the program.

Furthermore, the results indicated that there were no statistically significant interactions between gender and recovery variables. Specifically, gender did not moderate the relation between encouragement to be in recovery and phase in the program, R^2 *change* = .014; favorable

attitudes related to recovery and phase in the program, R^2 *change* = .007; or outcome beliefs related to being in recovery and phase in program, R^2 *change* = .006.

Table 3. *Intercorrelations Between Phase, Gender and Social Context Subscales*

Variable	Phase	Gender	Encourage drug	Favorable drug	Outcome drug	Encourage recovery	Favorable recovery	Outcome recovery
Phase	_							
Gender	-.25*	_						
Encourage drug	-.25*	.05	_					
Favorable drug	-.20	.10	.37**	_				
Outcome drug	-.14	.08	.14	.02	_			
Encourage recovery	.01	.01	-.19	-.31**	-.14	_		
Favorable Recovery	.15	.01	-.10	-.26**	-.13	.43**	_	
Outcome recovery	.26*	-.03	-.35**	-.29**	-.32**	.44**	.29**	_

*p < .05 **p< .01

Table 4. *Hierarchical Regression Analysis: Pro-drug and Phase (N = 90)*

	Model 1			Model 2			Model 3			Model 4		
Variable	*B*	*SE B*	β	*B*	*SE B*	β	*B*	*SE B*	β	*B*	*SE B*	β
Gender	-0.73 *	0.33	-.22	-0.73*	0.33	-.22	-0.63[a]	0.32	-.19	-0.73 *	0.33	-.22
Encourage	-1.30[a]	0 .75	-.19	-1.30[a]	0 .75	-.19	-1.39[a]	0 .72	-.20	-1.30[a]	0 .75	-.19
Favorable	-0.54	0.54	-.11	-0.54	0.54	-.11	-3.05**	0.98	-.62	-0.54	0.54	-.11
Outcome	-1.11	1 .28	-.09	-1.11	1 .28	-.09	-1.25	1 .23	-.10	-1.11	1 .28	-.09
Encourage x gender				1.75	1.48	.21						
Favorable x gender							3.34**	1 .11	.58			
Outcome x gender										-0.43	2.66	-.03
R^2		.14 *			.15 *			.22 **			.14*	

Note. Female coded 0
*p < .05 **p≤ .01
[a] p < .10

Table 5. *Hierarchical Regression Analyses: Pro-recovery and Phase (N = 90)*

Variable	Model 1			Model 2			Model 3			Model 4		
	B	*SE B*	β	*B*	*SE B*	β	*B*	*SE B*	β	*B*	*SE B*	β
Gender	-0.79 *	0.33	-.24	-0.79 *	0.33	-.24	-0.79 *	0.33	-.24	-0.79 *	0.33	-.24
Encourage	-0.58	0.38	-.18	-0.58	0.38	-.18	-0.58	0.38	-.18	-0.58	0.38	-.18
Favorable	0.69	0.55	.14	0.69	0.55	.14	0.69	0.55	.14	0.69	0.55	.14
Outcome	0.04*	0.01	.29	0.04*	0.01	.29	0.04*	0.01	.29	0.04*	0.01	.29
Encourage x gender				-0.82	0.70	-.21						
Favorable x gender							-0.88	1.06	-.14			
Outcome x gender										0.03	0.03	.17
R^2		.15 **			.17**			.16 **			.16 **	

Note. Female coded 0
*p < .05 **p≤ .01

Discussion

The results of the present study provided limited support for the hypotheses that pro-drug social context would predict participants being in an earlier phase of the drug court program, while pro-recovery social context would predict being in a later phase of the program, and that these associations would be greater among women than men. The findings indicated that there was a significant interaction of gender on the association between pro-drug social context and phase in the drug court program, when measured by perceived favorable attitudes of social referents regarding drug use. Consistent with the hypothesis, favorable attitudes regarding drug use predicted being in an earlier drug court phase among men. However, contrary to the moderation hypothesis, this relation was not stronger among women. In fact, favorable attitudes regarding drug use predicted women being in a later phase of the program. The findings failed to reveal the presence of any other interaction effects of gender.

Furthermore, of the variables assessing pro-drug social context, there was a trend toward statistical significance of encouragement to use drugs predicting participant phase in the drug court program. Specifically, increased encouragement to use drugs was associated with being in a lower phase of the drug court for men and women. Additionally, of the 3 variables assessing pro-recovery social context, outcome beliefs regarding recovery were significantly associated with participant phase. Specifically, more positive outcome beliefs regarding recovery predicted participants being in a later phase of the drug court.

The results indicated that increased favorable attitudes regarding drug use predicted being in a lower drug court phase among men and being in higher drug court phase among women. This finding may be explained by previous research demonstrating that greater levels of social support predict treatment retention (Dobkin, De Civita, Paraherakis, & Gill, 2002), and

individuals who use drugs tend to remain within social networks of women in treatment (Falkin & Strauss, 2003; Trulsson & Hedin, 2004). This may be especially true of women offenders and those in community based treatment programs, such as drug court participants. Falkin and Strauss (2003) found that among women offenders mandated to enter treatment by the CJS, nearly 60% reported their "main drug associates" provided them with social support, and nearly 25% of all support providers were in some way involved with their drug use. Furthermore, Tracy and Johnson (2007) found that nearly 50% of the social networks of women in treatment used drugs or alcohol, and when compared to women in residential treatment, those in community programs had a significantly greater number of network members who used drugs.

Therefore, the results may indicate that women in drug courts who have lower levels of social support (thus fewer people with favorable attitudes toward drugs within their social networks) are less likely to remain in, or progress to later stages of the program, while women with higher levels of support (hence a greater number of social network members who view drug use favorably) remain in the program and progress to later phases. In short, women who successfully progress through the program may be more likely than those who drop out or are retained in earlier phases to have higher levels of social support, which may come from others with favorable attitudes toward drug use.

Men may also maintain social ties with others who have favorable attitudes towards drugs. Yet, due to the salience of social connections among women, they may be more likely to sustain relationships with others who use drugs than men, even as they establish healthier relationships. Drug courts discourage, and often prohibit interaction between clients and individuals who use drugs. However, not having contact with significant others over a period of time may not decrease the extent to which women perceive these relationships as enduring and

important. Conversely, men may find it easier to let go of such associations, as relationships are not as vital to their identities (Miller, 1986), and their feelings of empowerment (French & Raven, 1959).

The presence of drug users within social networks of individuals in treatment has been found to reduce the likelihood of abstaining from drug use (Goehl, Nunes, Quitkin, & Hilton, 1993; Wasserman, Stewert, & Delicchi, 2001). Moreover, favorable attitudes toward drug use beyond those at the individual level have also been found to be associated with continued drug use among those in treatment. Neighborhood drug use acceptability, as measured by drug related arrest rates, showed that greater acceptability increased the odds of those in treatment continuing to use illicit drugs by 141%, while having even one drug user within one's social network increased the odds by 331% (Schroeder, Latkin, Hoover, Curry, Knowlton, & Celentano, 2001). Thus, research suggests that individual level factors are more strongly associated.

Taken together, these findings point to a need for drug courts to encourage the development of healthy relationships among all clients. However, among women, particular attention should be paid to long-term relationships, which may be with substance users. While such relationships may provide much needed social support; they may also serve as barriers to successful long-term recovery. These relationships should be discussed during the treatment process and evaluated as to their quality and potential to negatively impact recovery. The results indicated that men tend not to maintain relationships with others who hold favorable attitudes toward drug use as they progress through the drug court. However, the termination of such relationships may negatively impact the level of social support available to them. Because social support is vital to the recovery process, men may benefit from building relational skills, allowing

them to develop intimate relationships more readily, as well as increasing the likelihood they will elicit and accept social support.

Of the variables assessing pro-drug social context, there was a trend toward statistical significance of encouragement to use drugs predicting participant phase in the drug court program. Specifically, encouragement to use drugs was associated with being in a lower phase of the drug court for men and women. This finding may indicate that clients in earlier phases of the drug court program have yet to establish social connections with individuals who do not encourage drug use, and have yet to acknowledged community and societal level anti-drug values, as they may have been immersed within a “drug culture”. Alternately, individuals who have recently entered treatment may perceive greater encouragement to use, despite such behaviors not actually being encouraged. Perhaps they have yet to transcend old thought patterns, and are simply used to being encouraged by others to use drugs.

This finding highlights the importance of drug courts assisting clients in terminating relationships with others who are supportive of drug use, as well as engaging clients in community organizations that have clear anti-drug values. Additionally, it may be valuable to encourage clients to evaluate and assess what cues individuals provide which they consider to be encouraging drug use, as they may be misinterpreting these signals. Furthermore, increasing awareness of neighborhood, community and societal level anti-drug standards (even if they are not the norm) may decrease the extent to which clients perceive encouragement to continue substance using behaviors.

Finally, of the three variables assessing pro-recovery social context, outcome beliefs regarding recovery were significantly associated with participant phase, regardless of gender. Specifically, more positive outcome beliefs regarding being in recovery predicted participants

being in a later phase of the drug court. This finding is not surprising given that outcome beliefs are a core component of the widely accepted TRA in health behavior literature. The TRA posits that positive outcome beliefs influence behavioral intentions regarding health related behaviors, and such intentions predict adopting healthy behaviors. The current study included an assessment of perceived outcome beliefs in relation to larger ecological levels (neighborhood, community, and society) than previous studies, which typically focus on the influence of family and friends.

This finding has implications for treatment among offending populations in community based treatment programs, as positive outcome beliefs may lead to positive outcomes in treatment. Substance abusers and offenders are often stigmatized within society, and such stigma tends to persist even after such behaviors have ceased. Therefore, this population is at risk of feeling ostracized by non-drug using individuals and community groups, potentially leading to negative outcome beliefs about being in recovery. Negative outcome beliefs due to stigma may inhibit attempts to establish healthy relationships outside of the treatment setting, as well as prevent engagement in community activities (Substance Abuse and Mental Health Services Administration [SAMHSA], 2000). This is problematic, as such interactions have been found to be associated with treatment retention (Moos, 2003), as well as positive long-term outcomes (Gifford, Ritsher, McKellar, & Moos, 2006). Increasing the awareness of potential positive outcomes of being in recovery, and providing opportunities for positive experiences within the community may mitigate concerns about stigma, and increase drug court clients' willingness to socially interact within their communities.

Additionally, positive outcome beliefs may increase the willingness of those in recovery to participate in collaborative efforts between governmental agencies and community groups to address substance abuse. Ultimately, participation in such partnerships may lead to increased

support for, and more successful intervention efforts. In fact, a report by SAMSHA (2000) stated the following in regard to improving substance abuse treatment:

> Most important is the creation of opportunities for people with alcohol and drug problems to help solve the problem. People in treatment and those in recovery are the most eloquent communicators about the value of treatment in their own lives. They can play an essential role in effective partnerships. (p. 29)

Implications

The results of this study suggest that social influences are related to phase of recovery among drug court clients. Therefore, drug courts may provide a better alternative to treatment within correctional settings, as social context can be addressed during the recovery process. Providing treatment within one's social environment, while under the supervision of the CJS may not only enhance treatment outcomes, but may also be instrumental in indirectly reducing criminal acts motivated by drug use. Specifically, coercive treatment may increase treatment retention, providing time for clients to "buy in" to the program, and to begin to identify with being in recovery, despite pro-drug social influences. Furthermore, drug court programs can assist clients in learning skills to effectively resist and critically assess perceived pro-drug social influences. Finally, these programs can enhance positive outcome beliefs related to being in recovery among their clients by providing opportunities for such outcomes to occur within community settings.

In addition, the findings highlighted gender differences, as well as gender similarities in regard to the association between social context at multiple ecological levels and recovery among offenders. Therefore, gender specific components of drug courts may be beneficial. Specifically, men may benefit from building relational skills, allowing them to develop healthy

relationships more readily; while women may benefit from evaluating, and possible terminating unhealthy relationships with others who use drugs, as well as focusing on the development of healthy relationships. Based on the previous literature and the current findings, gender role stereotypes may have limited the methods that have been used to address substance abuse among men and women, as well as research questions that are asked. Specifically, interventions tend to be designed for men, and focus on self-control. Limited attention is paid to social context, as this is not seen as being influential among men. Therefore, treatment programs may be less successful than they could be, as they typically fail to address relational issues and social influences.

Finally, the results of this study indicated that encouragement to use drugs within one's social environment is related to being in an earlier phase of recovery, while positive outcome beliefs related to being in recovery are associated with being in a later phase. These findings highlight the need to incorporate critical evaluations of pro-drug social context at the neighborhood, community and societal levels into treatment, as positive perceptions of drug use within larger ecological systems may negatively impact recovery. While such perceptions may be accurate, there are alternative social contexts, such as community groups, churches, etc., which may hold recovery in high regard, and have negative attitudes toward drug use. Exposure to such social climates may facilitate the recovery process by providing support and encouragement for recovery, and perhaps more importantly, providing acceptance to individuals who are often stigmatized and ostracized by their communities. Additionally, having a sense of belonging in an environment (outside of a treatment setting) where the norms are anti-drug may increase opportunities to establish healthy relationships. The development of healthy relationships with others who support abstinence may increase retention and engagement in

treatment, ultimately leading to positive long-term outcomes for offenders who have substance abuse problems.

Limitations

This study had several limitations. The cross-sectional design provided information about the relation between social context and phase in the drug court at one point in time, and we do not know how this association might evolve over time. Moreover, the self-report measure utilized allows for bias, as participants may inaccurately report perceptions of social referents. Furthermore, participants were recruited and volunteered to participate, those who declined may be systematically different than those who agreed to participate. Additionally, participants were recruited from two drug courts, both in Atlanta. Therefore, the sample obtained may not be representative of the population of all drug court participants. Furthermore, socioeconomic status, age, ethnicity, gender identity, employment status, individual differences in susceptibility to social influences, and life stressors, such as having dependent children were not assessed or controlled for. Thus, the model may have been mis-specified, compromising the validity of the research.

In addition, sample size may not have been adequate to achieve statistical power to detect associations. In particular, women were underrepresented in this study, especially in earlier phases of the program, A priori power analyses (Cohen, 1992) suggested that a sample size of 84 participants would be adequate to achieve statistical power of 0.80 (β= 0.20), utilizing an alpha level of 0.05; and assuming a medium effect size (r = 0.30) within the population. However, testing for interactions using a categorical variable, as was used in this study, often decreases power. Furthermore, despite hypotheses being directional in nature, 2-tailed significance levels were reported, as findings in the opposite direction of what was predicted have implications for

treatment. Therefore, it was determined that the potential value of the findings superseded statistical tradition.

Finally, participants were recruited from different drug courts that may differ in program implementation and fidelity to the drug court model. Potential differences in implementation, fidelity, and client dosage of the intervention were not assessed, nor were they controlled for. Therefore, some of the variance in measured variables may have been due to contextual differences between the courts, potentially impacting the results.

Future Intervention and Research Directions

The results of the present study indicate the presence of an association between social context and phase of recovery among drug court participants of both genders. However, this relation should be examined further to assess the relative contributions of varying ecological levels of social influence on recovery. Such findings may inform where to target intervention efforts. Furthermore, the findings from such research may indicate that all levels of social influence are important, and that a multiple ecological level approach is warranted. In their social responsibility framework for interventions Prilleltensky and Nelson (2000) suggested incorporating collectivist values and empowering approaches into interventions at varying ecological levels. Such interventions may lead to positive outcomes for offenders in treatment, as well as prevent the incidence of substance abuse problems.

Specifically, enhancing coping skills (the ability resist negative social influences) and relational skills at the individual level could increase treatment retention. Additionally, micro-system interventions may include involving family members and peers in the recovery process, as substance abuse negatively impacts significant others, and social support from these individuals may positively impact treatment. Exo-system level interventions might consist of

building community partnerships to address the problem of substance abuse, and ensuring there are adequate opportunities for drug court clients to become involved. Such involvement may increase a sense of belonging and self-efficacy, as well as lead to the development of more successful treatment programs. Moreover, at the macro-system level efforts to create normative change (Levine, 1998) may be beneficial. Specifically, replacing the "drug culture" with normative beliefs that drug abuse is not to be held in high regard may prevent people from beginning to abuse drugs. Additionally, promoting the belief that recovery efforts are to be respected may increase the likelihood that drug court clients identify with being in recovery, and decrease feelings of being stigmatized. Furthermore, attempts to modify normative beliefs related to substance abusers from being punitive, to being treatment oriented may increase support for community based treatment programs for offenders. The implementation of any such intervention efforts should be evaluated as to their effectiveness, and the findings disseminated to other agencies and groups that address substance abuse.

Additionally, further research studies should include additional variables known to disproportionately negatively impact women, such as income, number of dependents (children and adults), depression, self-esteem, and dysfunctional intimate relationships. The findings from such studies may elucidate why women offenders in recovery maintain relationships with others who continue to use drugs. Furthermore, the information gained may identify other factors underlying substance abuse problems among women.

Furthermore, Ajzen (2002) modified the TRA and added control beliefs, which refer to the extent to which a person believes he or she can behave in a certain way. Specifically, Ajzen's theory of planned behavior [TPB] posits that behavioral intentions, along with control beliefs predict behaviors. Control beliefs are influenced by perceptions of factors that can facilitate or

serve as barriers to performing a behavior. Future research endeavors might assess the extent to which social context influences control beliefs, and how these beliefs relate to drug use and recovery.

In addition, qualitative research may enhance the understanding of social context, as well as elucidate gender differences and similarities, in relation to drug use and recovery among offenders. Specifically, it would be useful to determine which ecological level of social influence is most strongly associated with drug use and recovery, how these influences impact behaviors, and what other attributes of one's environment impact these associations. Furthermore, the contextual information such research may provide could be beneficial in regard to the development of interventions targeted at all substance abusing offenders, as well as informing the development of gender specific intervention components. As Szasz (1985) asserted in regard to those who use drugs, "It is quite impossible to know-without knowing a great deal about such a person, his family and friends, and his whole cultural setting-just what an individual is doing and why." Such information may be best obtained through qualitative inquiry.

Finally, gender specific programs for the treatment of substance abuse have recently been implemented for women (Beckerman, & Fantana, 2001; Bloom, et al., 2003; Covington, 2000) and for men (Bartholomew, et al., 2000). However, there are no gender specific programs have been deemed "best-practices" in treating substance abusing offenders. Future research endeavors should examine whether gender specific programming positively impacts recovery among male and female drug court clients, and if so, what components are responsible for those outcomes. Continued research of treatment programs designed to divert offenders from the CJS, and deal with addictions underlying criminal acts are needed to establish best practices, as well as to determine whether or not these practices are gender specific.

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Appendices

Appendix A
Dekalb County Drug Court Phase Completion Requirements

Phase I: The Orientation Phase-8 week minimum duration

This is the most intensive phase of treatment. During this time comprehensive assessments including the Addiction Severity Index, medical, bio-psycho-social, and mental health are conducted. Orientation to treatment and drug court program is conducted for the participant and family. A licensed clinician develops a coordinated treatment plan with the participants, appropriate family members, and the drug court team. The provision of intensive outpatient services with regularly scheduled group therapy, educational groups/assignments, individual and family counseling, clinical case management, and random drug screens.

Completion criteria:
- Orientation and introduction to primary counselor
- Family orientation
- Completion of phase-specific treatment goals as set down in treatment plan and assessed by drug court team
- Minimum 24 treatment sessions (192 hours)
- Minimum 8 assigned court sessions
- Minimum 24 scheduled NA/AA meetings
- Minimum 4 counseling sessions with counselor, and 8 weekly check-in contacts
- Minimum 2 family counseling sessions or workshops-as indicated
- Attain sponsor and identify home group
- Maintain minimum of 60 days clean and comply with all requests for screens
- Maintain court approved housing
- Attain court approved employment and provide court with documentation of hours and income upon request
- Attend drug court team review as requested
- Request advance to Phase II and conduct Phase I presentation to community

Phase II: coming to Believe Phase-12 week minimum duration

Completion criteria:
- Completion of phase-specific treatment goals as set down in treatment plan and assessed by drug court team
- 36 treatment sessions (108 hours)
- 12 assigned court sessions
- 8 scheduled NA/AA meetings or court approved alternative support services
- 4 counseling sessions with case manager, and 12 weekly check-in contacts
- Family counseling sessions or workshops-as indicated
- Maintain contact with sponsor and attendance at home group
- Maintain minimum of 60 days clean and comply with all requests for screens
- Attain court approved employment and provide court with documentation of hours and income upon request and/or attend vocational rehab/educational classes

- Attend 1 community assignment per month
- Attend drug court team review as requested
- Pay weekly treatment fees (pay in $120.00)
- Request advance to Phase III and conduct Phase II presentation to community

Phase III: Making Decisions Phase-12 week minimum duration

Completion criteria:
- Completion of phase-specific treatment goals as set down in treatment plan and assessed by drug court team
- 24 treatment sessions (60 hours) and 6 to 12 check-in sessions
- 6 assigned court sessions
- 60 scheduled NA/AA meetings or court approved alternative support services
- 3 counseling sessions with counselor, and minimum of 12 weekly check-in contacts
- 3 family counseling sessions or workshops-as indicated
- Maintain contact with sponsor and attendance at home group
- Maintain minimum of 120 days clean and comply with all requests for screens
- Maintain court approved employment and provide court with documentation of hours and income upon request and/or attend vocational rehab/educational classes
- Attend 2 community assignment per month
- Attend drug court team review as requested
- Pay weekly treatment fees (pay in $120.00), initiate or resume court ordered restitution and/or child support payments
- Complete relapse prevention plan
- Request advance to Phase IV and conduct Phase III presentation to community

Phase IV: Making the Transition Phase-20 week minimum duration

Completion criteria:
- Completion of phase-specific treatment goals as set down in treatment plan and assessed by drug court team
- 20 treatment sessions (25 hours)
- 5 assigned court sessions
- 100 scheduled NA/AA meetings or court approved alternative support services
- 5 counseling sessions with counselor
- Attend family counseling sessions or workshops-as indicated
- Maintain contact with sponsor and attendance at home group
- Maintain minimum of 200 days clean and comply with all requests for screens
- Maintain employment
- Attend 2 community assignment per month
- Participate in 1 service project per month with new participants
- Attend 1 drug court team review
- Pay weekly treatment fees (pay in $200.00)
- Continue court ordered restitution and/or child support payments

- Review relapse prevention plan
- Request advance to Phase V and conduct Phase IV presentation to community

Phase V: Graduation Phase-20 week minimum duration

Completion criteria:

- Completion of phase-specific treatment goals as set down in treatment plan and assessed by drug court team
- 10 treatment sessions
- 5 assigned court sessions
- 100 scheduled NA/AA meetings or court approved alternative support services
- 5 counseling sessions with case manager
- Maintain contact with sponsor and attendance at home group
- Maintain minimum of 200 days clean and comply with all requests for screens
- Maintain employment
- Attend 2 community assignment per month
- Participate in 1 service project per month with new participants
- Attend 1 drug court team review
- Complete treatment fees ($1000.00)
- Be current on any court ordered restitution and/or child support payments
- Complete aftercare plan
- Request graduation

Appendix B

Ecological Assessment of Substance-abuse Experiences (EASE)

Please answer the following:

Date Started Program: Month_____ Year_____

Phase of program you are currently in: 1 2 3 4 5

Gender: Male _____ Female _____

1. How important are the following persons in **encouraging you to DRINK/DRUG**: (place an X in N/A box if not applicable)

	NOT AT ALL IMPORTANT	NOT VERY IMPORTANT	IMPORTANT	SOMEWHAT IMPORTANT	EXTREMELY IMPORTANT	N/A
Your friends	1	2	3	4	5	
Your father	1	2	3	4	5	
Your mother	1	2	3	4	5	
Your siblings	1	2	3	4	5	
Your children	1	2	3	4	5	
Your spouse, partner, boyfriend, girlfriend	1	2	3	4	5	
The people in your neighborhood	1	2	3	4	5	
Other significant people in your life right now	1	2	3	4	5	

2. Place an X next to all persons who you believe hold **favorable** (positive) attitudes towards using DRUGS/ALCOHOL:

----- My children
----- My significant other (please circle one: spouse, partner, boyfriend, girlfriend)
----- My father
----- My mother
----- Other people in my immediate family (e.g., sisters, brothers)
----- Other people in my extended family (e.g., aunts, uncles, grandparents)
----- My close friends
----- My acquaintances
----- People in my religious community (e.g., church, synagogue, etc)
----- People in my neighborhood
----- People at my work
----- People at my school
----- Other (please specify _____)

3. Indicate how strongly you agree with the following:

WHEN I USE DRUGS/ALCOHOL, I FEEL LIKE:	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
I fit in with my friends	1	2	3	4
My friends and I get to do a lot of fun activities together	1	2	3	4
I gain respect from my friends	1	2	3	4
I gain support from my friends	1	2	3	4
I fit in with my family	1	2	3	4
My family and I get to do a lot of fun activities together	1	2	3	4
I gain respect from my family	1	2	3	4
I gain support from my family	1	2	3	4
My family understands me	1	2	3	4
I am disconnected from my family	1	2	3	4
I am less bothered by my family	1	2	3	4
I fit in with my neighborhood	1	2	3	4
I get to do a lot of fun activities with people in my neighborhood	1	2	3	4
I gain respect from people in my neighborhood	1	2	3	4
People in my neighborhood understand me	1	2	3	4
I am accepted in my community	1	2	3	4
I am a part of a bigger whole	1	2	3	4
I am disconnected from my community	1	2	3	4
I'm out of my element in my community	1	2	3	4
I am isolated from the rest of society	1	2	3	4
I fit it in pretty well with everyone else in our society	1	2	3	4
I am able to really find my place	1	2	3	4
I struggle to make a difference in this society	1	2	3	4

PART II: ABOUT YOUR RECOVERY

4. How important are the following persons **in encouraging you to be in RECOVERY** from substance use: (please place an X in N/A box if not applicable)

	NOT AT ALL IMPORTANT	NOT VERY IMPORTANT	IMPORTANT	SOMEWHAT IMPORTANT	EXTREMELY IMPORTANT	N/A
Your friends	1	2	3	4	5	
Your father	1	2	3	4	5	
Your mother	1	2	3	4	5	
Your siblings	1	2	3	4	5	
Your children	1	2	3	4	5	
Your spouse, partner, boyfriend, girlfriend	1	2	3	4	5	
The people in your neighborhood	1	2	3	4	5	
Other significant people in your life right now	1	2	3	4	5	

5. Place an X next to all persons who you believe have **favorable** (positive) attitudes towards RECOVERY:

----- My children
----- My significant other (please circle one: spouse, partner, boyfriend, girlfriend)
----- My father
----- My mother
----- Other people in my immediate family (e.g., sisters, brothers)
----- Other people in my extended family (e.g., aunts, uncles, grandparents)
----- My close friends
----- My acquaintances
----- People in my religious community (e.g., church, synagogue, etc..)
----- People in my neighborhood
----- People at my work
----- People at my school
----- Other (please specify _____)

6. Indicate how strongly you agree with the following:

WHEN I AM IN RECOVERY, I FEEL LIKE	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE
I fit in with my friends	1	2	3	4
My friends and I get to do a lot of fun activities together	1	2	3	4
I gain respect from my friends	1	2	3	4
I gain support from my friends	1	2	3	4
I fit in with my family	1	2	3	4
My family and I get to do a lot of fun activities together	1	2	3	4
I gain respect from my family	1	2	3	4
I gain support from my family	1	2	3	4
My family understands me	1	2	3	4
I am disconnected from my family	1	2	3	4
I am less bothered by my family	1	2	3	4
I fit in with my neighborhood	1	2	3	4
I get to do a lot of fun activities with people in my neighborhood	1	2	3	4
I gain respect from people in my neighborhood	1	2	3	4
People in my neighborhood understand me	1	2	3	4
I am accepted in my community	1	2	3	4
I am a part of a bigger whole	1	2	3	4
I am disconnected from my community	1	2	3	4
I'm out of my element in my community	1	2	3	4
I am isolated from the rest of society	1	2	3	4
I fit it in pretty well with everyone else in our society	1	2	3	4
I am able to really find my place	1	2	3	4
I struggle to make a difference in this society	1	2	3	4

Thank you!

EASE Scoring Protocol

PART I: DRUG USE

#1 measures the importance of social context referents in encouraging drug use, with a range of total scores from 8-40, with higher scores indicating greater encouragement of client's drug use.

#2 measures drug attitude similarity between the client and others in his/her social network, and ranges from 0-13, with higher scores indicating a greater number of social referents having a favorable attitude towards drugs.

#10 measures outcomes beliefs related to drug use that spans across various social context referent dimensions (e.g., friends, family, neighborhood, community), with total scores ranging from 23-92, with higher scores indicating more favorable beliefs related to drug use. Before totaling the scores on these 23 items, 5 items need to be reverse scored. The reverse score items are: #10 "I am disconnected from my family"; #18 "I am disconnected from my community"; #19 "I am out of my element"; #20 "I am isolated from the rest of society"; #23 "I struggle to make a difference".

PART II: RECOVERY follows this same scoring template, as they are the same questions but with recovery as the anchor instead of drug use.

Range of scores for pro-drug and pro-recovery social context:

Pro-drug: 31 – 145 *Higher scores indicate greater pro-drug social context

Pro recovery: 31 – 145 *Higher scores indicate greater pro-drug social context

Appendix C
Recruitment Flyer

You are invited to participate in a research study:

Georgia State University, Department of Psychology

Title: *The impact of social context on drug use and recovery among drug court participants: A gender comparison*

Purpose of study: to examine how people around you feel about drug use and treatment, and if this has influenced your progress in the Drug Court program

- **Participation in this study is completely voluntary; no one associated with the drug court will know if you decide to participate or not**
- **Participation will not influence your status in the drug court program**
- **How much time will it take?**
  About 30 minutes
- **What will you need to do?**
  Fill out a paper & pencil questionnaire
- **When will this happen?**
  After court next week
- **What if you can't do it then?**
  You may contact a researcher to schedule a different time, in a public location convenient for you
- **Will anyone know what you write on your questionnaire?**
  No, you will not put your name on the form, and only researchers will see your questionnaire. Your answers will be kept private.
- **What will you be asked?**
  How you think people around you feel about drug use and recovery. You will also be asked the month and year you started the program, your gender, and what phase of the program you are currently in.
- **What will you get out of this?**
  You won't get anything personally. However, you may provide information that could help drug courts when they change or develop new programs.
- **If you would like to participate: Researchers will be here next week and will direct you to where questionnaires will be filled out.**

If you have any questions, feel free to contact: Jennifer Zorland: 404-413-6332, jzorland1@gsu.edu, or James Emshoff jemshoff@gsu.edu, 404-413-6270