

SUPPORTIVE COMMUNICATION, AVOIDANCE EFFICACY, AND OFFENDERS'
SUBSTANCE AVOIDANCE

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ABSTRACT

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Women offenders with substance use history often face multiple challenges when attempting to desist from reoffending. These struggles may be alleviated by supportive communication provided by their probation and parole agents. Through this unique relationship, women offenders who receive informational, emotional, and esteem support from their agents may also have a higher perception of their drug and alcohol avoidance efficacy. Ultimately, this belief may be the underlying mechanism that mediates the relationship between social support and behavioral outcomes. In the Midwest, 206 women on probation or parole were interviewed three separate times over a nine-month period. Analyses revealed that emotional support was the only type of social support that was significantly correlated with drug and alcohol avoidance efficacy, in that the more emotional support a women offender recalled the more drug and alcohol avoidance efficacy they reported. Drug and alcohol avoidance efficacy did not appear to be related to either of the substance avoidance outcomes which were comprised of their self-reported substance abuse and their drug-related violations reported by their agents. The results also suggest that drug and alcohol avoidance efficacy does not mediate the relationship between social support and substance avoidance. These findings highlight the need to continue exploring the processes by which social support provided by agents may impact substance avoidance in women offenders.

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--JKB

TABLE OF CONTENTS

LIST OF TABLES	v
KEY TO ABBREVIATIONS	vi
INTRODUCTION	1
Needs of Women on Probation and Parole	2
Social Support	4
Self-Efficacy	6
Drug and Alcohol Avoidance Efficacy	8
Informational Support	9
Emotional Support	10
Esteem Support	12
Drug and Alcohol Avoidance Efficacy as a Mediator	14
METHODS	16
Instruction and Implementation	16
Participants	17
Time 1: Supportive Communication	18
Time 2: Self-Efficacy to Avoid Alcohol and Drug Use	19
Time 3: Current Substance Abuse and Drug-Related Violations	20
RESULTS	22
Drug and Alcohol Avoidance Efficacy	22
Informational Support	24
Emotional Support	24
Esteem Support	25
Drug and Alcohol Avoidance Efficacy Mediation	25
DISCUSSION	27
Theoretical and Pragmatic Implications	30
Limitations and Future Directions	33
CONCLUSION	36
APPENDICES	37
APPENDIX A	38
APPENDIX B	39
APPENDIX C	40
APPENDIX D	41
APPENDIX E	42
APPENDIX F	43

REFERENCES	44
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LIST OF TABLES

Table 1: Descriptive Analyses of Main Variables	38
Table 2: Expanded Scale Items	39
Table 3: Correlation Matrix	40
Table 4: Beta Weights for Informational, Emotional, and Esteem Support	41
Table 5: Mediation Model Coefficients for Self-Reported Substance Abuse	42
Table 6: Mediation Model Coefficients for Agent-Reported Drug-Related Violation	43

KEY TO ABBREVIATIONS

OMM	Optimal Matching Model
SSBC	Social Support Behavior Code
SCT	Social Cognitive Theory
CETESM	Cognitive-Emotional Theory of Esteem Support Messages
OLS	Ordinal Least Squares
CI	Confidence Interval

INTRODUCTION

Women on probation and parole have distinct needs that are often overlooked, such as relational or economic needs (Holtfreter & Morash, 2003). These needs may be addressed, in part, through supportive communication provided by probation and parole agents (Holmstrom, Adams, Morash, Smith, & Cobbina, 2017; Roddy et al., 2018). When incarceration occurs, it can significantly impact women offenders' relationships with their communities of support, typically resulting in increased feelings of disconnection and isolation. As such, support provided by probation and parole agents may be a key factor to improving women offenders' desistance (i.e., stopping offending or exhibiting other antisocial behavior; Pollack, 2000).

A large proportion of women offenders have a history of alcohol or drug abuse, at a rate higher than that of men offenders (Bennett, Holloway, & Farrington, 2008; Fedock, Fries, & Kubiak, 2013). Alcohol and drug abuse impacts users' relationships with others, living arrangements, associations with their children, and criminal behavior (Morash, 2010a). It has been noted that relapse with drugs and alcohol is the rule rather than the exception with women offenders (Maruna, Lebel, Mitchell, & Naples, 2004). Therefore, understanding what tools can aid in women offenders' avoidance of drug and alcohol use is essential. Social support provided by probation or parole agents could attend to this issue by increasing women offenders' perceived drug and alcohol avoidance efficacy (their belief in their ability to avoid drug and alcohol use), which may then result in the behavioral change of substance avoidance.

Previous research has found that supportive messages are shared between women offenders and their probation and parole agents within the contexts of substance abuse and

employment (Holmstrom et al., 2017; Roddy et al., 2018). Furthermore, additional research within this context has found that higher drug and alcohol avoidance efficacy in women offenders leads to better drug and alcohol outcomes (Smith, Cornacchione, Morash, Kashy, & Cobbina, 2016). However, research has fallen short in answering why and how social support may impact substance avoidance. Therefore, it is proposed that perceived drug and alcohol avoidance efficacy is the missing link. This research tests whether social support messages can increase one's drug and alcohol avoidance efficacy, which then may ultimately lead to substance avoidance.

This article builds off a previously created data set (Morash, Smith, Kashy, & Cobbina, 2019) to examine the possible communication mechanisms that effect change in offenders' substance use. The needs of women on probation and parole are first presented, followed by an examination of social support and its potential to address those needs. Then, self-efficacy, with a focus on drug and alcohol avoidance efficacy will be discussed. Following this, the paper will illuminate how specific types of social support can impact women offenders' perceived drug and alcohol avoidance efficacy, ultimately increasing their substance avoidance. The purpose of this study is to determine whether the provision of social support can influence a woman offender's drug and alcohol avoidance efficacy, which may be a significant precursor of an offender's substance avoidance. Testing these claims will include using previously collected interview data from women offenders on probation and parole along with their agents. Understanding ways to aid the large proportion of women offenders who struggle with substance use is possible through this expansion of social support research.

Needs of Women on Probation and Parole

The needs of women on probation and parole are often complex and varied. Several

factors have been found to predict an offender's risk of reoffending (i.e., recidivism), such as substance use and criminal history (Van Voorhis, Salisbury, Wright, & Bauman, 2008). However, many previous studies have focused on male offenders and not on the factors related to women's recidivism (Morash, Bynum, & Koons, 1998). When women offenders cannot get their needs met, these needs act as a double-edged sword and manifest into the recidivist factors that push them toward reoffending.

The specific factors that lead to recidivism may further impact and be associated with the needs of women on probation and parole. Holtfreter and Morash (2003) studied 402 women offenders from Minnesota and Oregon to gauge the wide array of different needs that these women faced throughout their sentences. Substance abuse needs, academic needs, emotional stability/mental health needs, criminal companion needs, financial management needs, relationship needs, employment/vocational needs, and parenting needs were identified as common needs (Holtfreter & Morash, 2003). Because there are numerous needs that women offenders face, understanding how to support these needs is crucial in assisting women's substance avoidance.

Assessments of women offenders' needs by both research and correctional personnel have often failed to address these aforementioned needs that are specific to women. Some of these assessments do not consider gender responsive programming, and therefore overlook needs such as substance abuse and trauma, personal safety, self-efficacy, relationships, poverty, mental health, children and parenting, and self-esteem (Voorhis et al., 2008). Identifying these needs of women is pivotal to successfully linking women offenders to the most beneficial programs and types of support.

Women offenders often have the risk of suffering from the lack of social support when

involved in the criminal justice system, especially compared to the networks of support available to men (Mallik-Kane & Visser, 2008). The relationship between the offender and probation or parole agent becomes a possible gateway to receive social support, and therefore can impact behavior change. Many women build trusting relationships with their probation and parole agents, by putting value in their relationships and being open about their needs, thus giving their agents chances to provide social support (Bloom, Owen, Covington, & Raeder, 2003).

Previous research has found that offenders' future compliance with rules can be predicted by the quality of dual-role relationships with their agents (Skeem, Louden, Polaschek, & Camp, 2007). Additionally, satisfying relationships with probation and parole agents have been shown to be related to reduced risk of violations and more preferred outcomes (Skeem, Encandela, & Louden, 2003; Skeem, Louden, Manchak, Vidal, & Haddad, 2009), showing the opportunity that probation and parole agents have to provide high-quality support. Women offenders often have social support, substance use, and self-efficacy needs (Holtfreter & Morash, 2003; Voorhis et al., 2008). Both men and women offenders have documented substance abuse problems, however women suffer at a higher rate than men, which impacts their interpersonal relationships and criminal behavior (Bennett et al., 2008; Fedock et al., 2013; Morash, 2010a). The communication provided to women offenders by their probation or parole agent could be an opportunity to address their needs through supportive communication.

Social Support

A broad definition of social support is resources provided by other persons (Cohen & Syme, 1985). More specifically, Burleson (2003) describes social support as aid provided to

someone else who is in need; however, distinct types of social support have been identified. The optimal matching model (OMM), first proposed by Cutrona (1990), aims to identify the type(s) of social support that will be most beneficial in specific stressful situations. The benefits from this model allow support to be examined as a multidimensional construct and for specific stressors to be evaluated. In addition, the practical benefits produced from the OMM may help people provide better aid to a variety of receivers in different situational contexts. The OMM proposes that a specific stressor has a “match” with the type(s) of social support that will be the most beneficial to relieve the stress (Cutrona, 1990). Although this hypothesis has not received much empirical support, examining specific types of social support in this context may provide a deeper understanding of the processes at play (Burleson & MacGeorge, 2002). Therefore, expanding empirical testing of the model is significant in understanding the importance of optimal matching and the implications of its findings.

The social support behavior code (SSBC) defines five different types of social support (Cutrona, 1990). Emotional support entails expressions of comfort and caring. Informational support is advice or guidance. Esteem support can be seen as bolstering a person’s sense of competence or self-esteem. Tangible support includes offering services or resources. Finally, network support is helping a person achieve membership in a group where members share similar interests (Cutrona & Suhr, 1992).

Previous research has proposed connections between types of social support used in certain contexts and particular outcomes. For example, one study by Gray (2014) examined women who experienced the stress of an unplanned pregnancy and found that when first receiving the news of the pregnancy and deciding what to do, emotional support was most helpful. However, later when carrying out their decision, the most beneficial support was

esteem support (Gray, 2014). Other researchers have hypothesized that loss of assets would call for tangible support, whereas losing group membership would be associated with network support (Cutrona, 1990).

Although there has been a wide range of research on specific stressors and the optimal support needed, more research is needed in the area of women on probation and parole to understand their most apparent needs and what types of support will help them. One study found that informational support given to women offenders about employment was the most common type of support offered and had positive, negative, or mixed effects, whereas emotional and esteem support (the second and third most frequent type of support) were perceived only as positive (Roddy et al., 2018). This demonstrates the importance of the OMM in that using some types of social support to meet particular needs can have overwhelmingly positive outcomes. Another study focused on women offenders who suffered from problems of substance abuse and found that most types of social support had positive outcomes in addition to the support being perceived positively by the support recipients (Holmstrom et al., 2017). For example, esteem support had positive outcomes in the form of behavioral, relational, and psychological effects. Therefore, understanding *how* social support provided to women on probation and parole leads to the improvement of women's substance avoidance is of value.

Self-Efficacy

It is apparent that probation and parole agents can offer social support in response to the high rates of recidivism for substance use among women offenders and to their commonly overlooked needs (Cullen, 1994). However, how does probation and parole agents' social support impact substance avoidance? This paper proposes that social support increases

women offenders' drug and alcohol avoidance efficacy, which in turn can impact their actual substance use behavior.

Self-efficacy refers to one's belief in their capability to achieve their goals (Bandura, 1977). This perception impacts the way one approaches challenges and is critical to the way one thinks and behaves. One's belief in their abilities reaches into every aspect of their life: motivation, vulnerability to stress and depression, attitudes, and regulating thoughts and behavior (Pajares, 2006). In 1986, Bandura proposed social cognitive theory (SCT) which emphasized the triadic reciprocal causation between human behavior, personal factors, and environmental factors (Bandura, 1989). These concepts interact together to impact one's thoughts and actions, rather than portraying humans as passive and reactive beings to the environment (Bandura, 1984). According to SCT, humans are self-reflecting and interpret their own actions and personal factors. This became the foundation of self-efficacy (Pajares, 2006). One will interpret the consequences produced from their actions, which will further impact and inform the personal factors they possess and their interaction with the environment, which ultimately impacts and informs their future actions (Bandura, 2001).

Due to this process, the belief one holds about their possible accomplishments (one's self-efficacy) can typically predict their competencies, choices, and behavior (Pajares, 2006). Previous research has explored self-efficacy in an array of topics such as health, media, business, and athletics (e.g., Chen, Greene, & Crick, 1998; Escarti & Guzman, 1999; Hofstetter, Zuniga, & Dozier, 2001; Strecher, McEvoy DeVellis, Becker, & Rosenstock, 1986). Throughout these different avenues of research, a clear relationship between what individuals believe they are capable of and the actions they enact was found. Consequently, self-efficacy may be the mechanism missing that is needed to explain why behavioral changes

occur as a result of receiving social support.

Drug and Alcohol Avoidance Efficacy

Previous research has noted that high self-efficacy is associated with desistance, whereas low self-efficacy is related to recidivism (Adamson, Sellman, & Frampton, 2009; Bloom et al., 2003; Kadden & Litt, 2011; Wright, Van Voorhis, Bauman, & Salisbury, 2007). These findings illustrate the importance of increasing women offenders' self-efficacy as an avenue to influence their ultimate behavior. Many researchers instill domain-specific efficacy measures to examine the constructs under investigation, making the argument that "self-efficacy beliefs should be assessed at the optimal level of specificity that corresponds to the critical task being assessed and the domain of functioning being analyzed" (Pajares, 1996, p. 547). Therefore, this study focuses specifically on drug and alcohol avoidance efficacy, examining beliefs about one's ability to avoid substance use.

The present study builds off the same data set as a previously published paper (Smith et al., 2016), which focused on different aspects of the larger study (i.e., officer communication patterns). Smith et al. (2016) found that women offenders who had higher drug and alcohol avoidance efficacy, had lower reports of arrests for substance abuse and self-reported lower use of substances while on probation or parole, although this was mediated by reactance and restoration of freedom. Consequently, when an offender believes that they can refrain from alcohol or drug use while on probation or parole, they should be more likely to act in a way congruent with their belief. Given all the previous arguments, the following hypothesis is posited:

H₁: (a) Higher levels of drug and alcohol avoidance efficacy will be related to lower self-reported substance abuse and (b) agent-reported drug-related violations.

Informational Support

Previous literature has established that in the context of substance use among women offenders informational support, emotional support, and esteem support are most prevalently provided by agents, and therefore are the focus of this study. Informational support includes giving advice and guidance (Cutrona & Suhr, 1992). Unlike esteem and emotional support which are generally received with positive effects, informational support varies on its valence of outcomes (MacGeorge, Feng, & Thompson, 2008). The mixed interpretation of this type of support may derive from many contextual characteristics such as the type of distress the support is addressing or the person providing the support. According to Brown and Levinson (1978), giving advice can threaten how one views their competency and autonomy, and thus may be perceived as a face-threatening act.

However, previous research has shown that informational support provided by probation and parole agents to women offenders regarding alcohol and drug avoidance was mostly received positively (Holmstrom et al., 2017). This context may foster an environment in which informational support is not seen as an attack on autonomy, but is instead accepted with a positive reaction, due to the unique relationship that agents and offenders have. Informational support could lead to an increase in drug and alcohol avoidance efficacy due to the very nature of the support. Providing women offenders with information about how to avoid substance use gives them practical advice to decisively act upon (Tracy, Munson, Peterson, & Floersch, 2010). Once receiving this support, their belief that they could enact the suggested actions (their efficacy) could increase due to the increase in their awareness of possibilities. Therefore, the following predication is formulated:

H₂: Informational support provided by probation and parole agents will be related to

women offenders' higher perceived drug and alcohol avoidance efficacy.

Emotional Support

Emotional support can include listening, feelings of trust, sympathizing, concern, and empathy given by the provider of support (Burleson, 2003). Emotional support has been connected to numerous positive outcomes such as health benefits (Seeman, 2000). For example, Nasser and Overholser (2005) found that higher levels of emotional support were significantly related to lower levels of depression, exemplifying the association between emotional support and depression severity. When asked to recall and describe supportive acts, according to Gottlieb (1978), emotional acts are most often reported. Emotional support is also perceived generally as positive, no matter the source or topic of distress (Helgeson, 2003).

Burleson and Goldsmith (1988) discussed how emotional support can increase perceived self-efficacy through the use of appraisal theories. The theory of conversationally-induced reappraisals argues that emotions are born out of the interpretation of events, and the cognitive change that occurs during reappraisal is central to emotional change (Burleson & Goldsmith, 1988). Emotional support can offer modifications in perceptions, motives, and actions, ultimately influencing how one views their personal attributions and environment (Burleson, 2003). As previously mentioned, cognitively changing one's perception and emotions can lead to a change in their self-efficacy beliefs, which consequently impacts the actions chosen in the future (Holmstrom, Russell, & Clare, 2013; Kernis, 1995).

Holmstrom et al. (2017) found that emotional support from probation and parole agents was perceived as positive by the majority of women offenders in the context of substance avoidance. Although situational appraisal is often grouped as informational support

in the SSBC, probation and parole agents may be able to provide emotional support to women offenders through conversation, enabling the reappraisals of women offenders' emotions which will impact their perception of self-efficacy and future actions. Therefore, emotional support should increase drug and alcohol avoidance efficacy, resulting in substance avoidance. Thus, the following hypothesis is presented:

H₃: Emotional support provided by probation and parole agents will be related to women offenders' higher perceived drug and alcohol avoidance efficacy.

There are observable different strengths in the relationships between different types of support and efficacy. As mentioned earlier, it is common for informational support to be received with mixed valences of responses (MacGeorge et al., 2008). However, it is less prevalent to see contrasting responses to emotional support. For example, a previous study found that emotional support from probation and parole agents about unemployment had only positive effects, which may in part be due to the perceived encouragement women offenders received through the emotional support (Roddy et al., 2018). When a beneficiary can positively accept emotional support, the support may then have more of an opportunity to have a psychological impact, such as on their efficacy to avoid drugs and alcohol, even if the goal of that support was only to comfort and care for the recipient (Burleson, 2003; Holmstrom et al., 2017). Due to the overwhelmingly positive acceptance of emotional support from previous studies on women on probation and parole, the following hypothesis is given:

H₄: Emotional support provided by probation and parole agents will be related to women offenders' higher perceived drug and alcohol avoidance efficacy, more so than informational support.

Esteem Support

Self-esteem is typically defined globally as one's overall sense of worthiness as a person (Baumeister, Campbell, Krueger, & Vohs, 2003; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995; Schmitt & Allik, 2005). Self-esteem has been linked with multiple outcomes such as job satisfaction, health, salary, relationship satisfaction, depression, and most notably for this study, health risk behaviors such as drug use (Caughlin & Malis, 2004; Judge & Bono, 2001; Orth, Robins, & Widaman, 2012; Trzesniewski et al., 2006). Scholars have also linked higher self-esteem to higher self-efficacy (Judge & Bono, 2001). The two constructs are similar, in that they both involve personal judgements of the self; however, the two are distinct in that self-esteem focuses on perceptions of general self-worth and self-efficacy centers on capacity for action (Gardner & Pierce, 1998). This exemplifies how social support messages may increase one's perceived ability to accomplish outcomes through improving how people view and value themselves.

Self-esteem has been targeted by some programs in an effort to increase women offenders' empowerment (Pollack, 2000; Voorhis et al., 2008). This need for empowerment has been acknowledged as crucial to desistance by not only correctional treatment staff and researchers, but also by the women offenders themselves (Voorhis et al., 2008). Visser and O'Connell (2012) highlighted the importance of self-esteem and desistance by finding self-esteem was highly, negatively correlated with number of times incarcerated, and it had a significant, positive impact on offenders' reported optimism. This exemplifies the connection that self-esteem has with the behavior and decisions that women offenders make while on probation and parole.

The cognitive-emotional theory of esteem support messages (CETESM) can be used

to explain how esteem support will increase perceived efficacy. Derived from theories of emotions and reappraisals, the CETESM argues that through conversation, reappraisals (the thoughts concerning a situation post-support) can occur, resulting in the change of attitudes and thoughts to modify perceptions of a previously esteem-threatening event (Holmstrom & Burleson, 2011). Stemming from the increase in their self-esteem, outcomes of this reattributing process are enhanced evaluations of one's abilities and attributes (Holmstrom & Kim, 2015).

Therefore, it appears that esteem-supporting messages may have an impact beyond improving self-esteem, and that self-efficacy can also be impacted. Moreover, increasing self-esteem should improve how one views their abilities, accomplishments, and attributes which in return will also increase their self-efficacy. Increased positive self-perception will enable support recipients to enact the decisions that will lead them to their desired outcome (Holmstrom & Kim, 2015; Holmstrom et al., 2013; Kernis, 1995). In this particular context, it is likely that confidence to abstain from using drugs and alcohol is closely linked to self-esteem, as failing to resist temptations and persevere (i.e. substance avoidance) can be esteem-threatening. Accordingly, women offenders' efficacy to avoid drugs and alcohol should increase as a result of an increase in their self-esteem. Finding support for this claim will have theoretical implications for the CETESM by expanding the theory into a new context and will also have practical implications for improving women offenders' substance avoidance. Based on this reasoning, the following hypothesis is presented:

H₅: Esteem support provided by probation and parole agents will be related to women offenders' higher perceived drug and alcohol avoidance efficacy.

Self-esteem is generally seen as a multifaceted construct made up of feelings of self-worth

and self-efficacy (Gecas, 1982). Given that esteem support aims to enhance a recipient's view of their accomplishments, attributes, and abilities, esteem support has the potential to increase perceived efficacy and the way one views their capabilities (Holmstrom & Burleson, 2011). For example, this relationship was found within the context of unemployed individuals searching for jobs. Holmstrom, Russell, and Clare (2015) found that job-searching efficacy mediated the relationship between esteem support and job-searching behaviors, exemplifying that during an esteem-threatening circumstance esteem support can impact important behavior outcomes through enhancing perceived self-efficacy.

Therefore, esteem support may impact these feelings of efficacy more so than emotional support due to the goal of esteem support and that the context can be seen as esteem-threatening. Additionally, a previous study on women offenders on probation and parole found that the women viewed esteem support solely as positive whereas informational support received mixed results (Roddy et al., 2018), illustrating that in this context esteem support may be more closely related to efficacy than informational support. Given the close relationship between self-efficacy and self-esteem previously discussed, the following hypothesis is proposed:

H₆: Esteem support provided by probation and parole agents will be related to higher women offenders' perceived drug and alcohol avoidance efficacy, more so than emotional or informational support.

Drug and Alcohol Avoidance Efficacy as a Mediator

Previous research has found direct connections between social support and behavioral outcomes, such as substance use (Cohen, 2004; Newcomb & Bentler, 1988; Wills & Cleary, 1996). However, past examinations of these relationships could be enhanced by exploring the

mechanisms through which social support can elicit behavioral effects in the lives of the support receivers. Given all the previous propositions and reasoning, this study argues that drug and alcohol avoidance efficacy may mediate the relationship between social support and substance avoidance behaviors. Self-efficacy is a dominant predictor of future behavior (Bandura, 1986; Maher & Rickwood, 1998), and those who have a greater belief in their ability to attain a behavioral goal, have greater confidence to enact certain actions to reach those specific goals (Carvajal, Evans, Nash, & Getz, 2002). Social support provided by probation and parole agents may be successful in reducing women offenders' recidivism by enhancing the offenders' sense of drug and alcohol avoidance efficacy. The last hypothesis is presented:

H7: (a) Alcohol and drug avoidance efficacy will mediate the relationship between the different types of social support and self-reported substance abuse and (b) will mediate the relationship between the different types of social support and agent reported drug-related violations.

METHOD

Instruction and Implementation

Derived from an ongoing longitudinal study (Cornacchione et al., 2016; Holmstrom et al., 2017; Smith et al., 2016), the data analyzed for this paper pertain to the relevant measures assessed from 402 women in the Midwest on probation or parole. Probation and parole agents were contacted if they were within an hour and a half drive from the research office, resulting in 16 counties which represented 68.5% of the 2011 state population. Out of 77 agents, 73 probation and parole agents agreed to participate in the study. Each probation and parole agent was asked to recall possible clients who fit the criteria of being convicted of a felony, showed evidence of substance use involvement, and had been under supervision of the probation or parole agent for approximately three months. Probation and parole agents then recommended women offenders in one of three ways; first the probation or parole agent could introduce the interviewer to the women offender at the probation and parole sites with the agreement from the women offender; upon consent, agents provided the offenders' contact information to research staff who could later reach out to the women offenders; last, women offenders were given the research staff's information so they could set up a time to learn more information.

Through this method, a total of 402 women offenders (305 on probation, 93 on parole, and 4 on both) were identified and agreed to participate in the institutional review board approved study. Nonparticipants did not differ from participants significantly in terms of official records of substance abuse or violations of probation or parole. After consenting, women offenders participated in audio recorded, semi-structured, one-on-one interviews with trained interviewers three separate times, each approximately three months apart (i.e., Time 1,

Time 2, and Time 3). Upon completion of the interviews, women offenders received gift certificates worth \$30, \$50, and \$75, respectively. Interviews were conducted at probation and parole reporting centers or agreed upon public places. At Time 1, the interviews included discussing what conversations had occurred about substance use between participants and their probation or parole agent, which would later be unitized and coded for supportive communication type. It was at Time 2 that the participants' drug and alcohol avoidance efficacy was measured. At Time 3 participants' self-reported current substance abuse was measured and drug-related violations were collected from the probation and parole agents' notes 18 months after supervision began.

Pertinent to the present study, women offenders who discussed substance avoidance and did not change probation or parole agents throughout the time phases were retained for analyses. Therefore, of the 402 women, 119 were removed because they changed probation or parole agents during the interviewing process. An additional 49 women were removed due to failures in audio recordings ($n = 14$), or because all three interviews were not completed ($n = 35$). Last, 92 women were excluded because their probation or parole agent did not communicate about substance avoidance. Therefore, the final analyses include a total of 206 women offenders who satisfied all conditions.

Participants

Out of the 206 women offenders retained for current analyses, 73.7% ($n = 152$) were on probation, 25.2% ($n = 52$) were on parole, and 1.0% ($n = 2$) were on both. One common distinction between probation and parole sentencing is that offenders on parole were incarcerated and then were granted a reduced sentence on parole in the community; whereas offenders on probation had not been sentenced to prison, but only to community supervision

(Kaeble, Maruschak, & Bonczar, 2015). Women offenders' average age was 33.9 ($SD = 10.29$), with a range from 18 to 60 years old. In terms of race, the women identified themselves as: White ($n = 100$), Black or African American ($n = 58$), or other ($n = 4$), and 44 identified multiple racial/ethnic identities, including being Hispanic.

The average age of the women offenders when they committed their first offense was 21.76 ($SD = 7.72$), with a range from 9 to 49 years old. Out of the 206 women offenders, for 102 women their first felony conviction was the conviction discussed during the interviews. However, 48 women offenders had one or two other felony convictions, 51 women offenders had three or more felonies prior to the start of the study period, and 5 women reported not knowing. The average number of misdemeanors was 3.18 ($SD = 4.63$), with a range of none to 30. A total of 33 women offenders (16%) were on probation or parole for a violent offense at the time of the study.

Time 1: Supportive Communication

Women offenders were asked during the first interview if they had discussed staying drug free or alcohol free or getting substance abuse treatment with their agent. Probing questions such as, "What did the agent say?", "Did they refer you to any programs or services?", and "How did this make things better or worse for you?" were utilized. The audio-recorded interviews were transcribed into Microsoft Word documents, and were then read into NVivo software for qualitative data analysis.

The transcripts were first unitized for analysis. The unit of analysis for supportive communication type was a statement reported as a probation or parole agent's comment in reference to drug and alcohol avoidance. Two coders reviewed 40 randomly selected transcripts to establish unitizing reliability. The coders came close to complete agreement on

the number of complete statement units, Guetzkow's $U = .01$, indicating that 99% of the units were agreed on by the coders. After this, one of the coders unitized the rest of the transcripts (Guetzkow, 1950).

After the transcripts were unitized, the SSBC served as the coding scheme for supportive communication type (Cutrona & Suhr, 1992). The five types of social support (i.e., emotional, esteem, tangible, informational, network) each had subcategories into which the messages were first coded, and then the messages were combined into the five main types of social support for analyses. For example, separate messages could be coded under the subcategories of esteem support which are validation, compliment, and relief of blame and then merged into the main category of esteem support. To establish reliability for the SSBC, Cohen's kappa was used. Two coders coded 40 cases into the subcategories of social support and reached good reliability (Cohen's $\kappa = .79$). The remaining units were divided and coded independently. Of concern in this analysis are informational, emotional, and esteem support, and the mean number of units per respondent were used for the analysis. Table 1 provides a table of means, standard deviations, and range for each variable in the analysis. The social support ranges reflect the different subtypes of support that were coded for each participant (i.e. participants individually were coded for recalling 0 to 3 different subtypes of informational support).

Time 2: Self-Efficacy to Avoid Alcohol and Drug Use

At the second interview, self-efficacy to avoid alcohol and drug use was measured with four items rated on a 7-point Likert-type scale ranging from 1 = *very strongly disagree* to 7 = *very strongly agree*. Women offenders' confidence to avoid alcohol and drug use after interacting with their probation or parole agents was computed as the mean of their responses

to these four items. Example items include “Talking with my probation or parole agent makes me more confident that I can work through problems without turning to drug or heavy alcohol use,” and “Talking with my probation or parole agent makes me more certain that I can avoid people and situations that trigger my drug or heavy alcohol use.” A higher score indicated more self-efficacy to avoid drug and alcohol use, Cronbach’s $\alpha = .95$ ($M = 5.29$, $SD = 1.35$).

Time 3: Current Substance Abuse and Drug-Related Violations

At the third interview, current substance abuse was measured via a self-report from the women offenders. This was measured by using the current substance abuse subscale of the women’s risk/needs assessment (Van Voorhis, Wright, Salisbury & Bauman, 2010). Scores were computed by aggregating the seven yes/no items so that higher scores represented greater problems. Some examples of the seven items concerning drug and alcohol use are “Do you currently have any feelings that you need to use drugs first thing in the morning?” and “Are you currently using?” Cronbach’s Alpha was not calculated due to the additive nature of the measure. Participants’ scores ranged between 0 and 6 ($M = 1.17$, $SD = 1.34$). See Table 2 for a complete reporting of all scale items.

Probation and parole agents’ case notes provided information on women offenders’ drug-related violations of their sentenced conditions throughout the 18 months from the start of supervision. Drug-related violations were counted when there was use of illegal or prohibited substances, noncompliance with substance testing, a failure to complete a required substance abuse treatment program, or when there was a drug or alcohol related arrest. Cronbach’s alpha was not calculated due to the additive nature of this measure. Participants’ scores ranged between 0 and 21 ($M = 1.47$, $SD = 2.89$). Therefore, substance avoidance was

measured with both the self-report substance abuse measure and the number of drug-related violations reported by the probation or parole agent. See Table 3 for a correlation matrix of all measures.

RESULTS

A Pearson's correlation was first conducted to explore how the two outcome variables related to one another. A significant positive relationship was found between substance abuse and drug-related violations, $r(204) = .32, p < .001$; suggesting that both are related to one another but also that both are separate indicators of the offenders' overall substance use. Therefore, in the subsequent analyses, both variables were kept as outcomes.

H1 was tested utilizing a negative binomial regression, whereas hypotheses 2-6 were tested using multiple regression. To examine H7, a total of six different mediation path models were performed using Hayes' (2013) PROCESS macro for SPSS. This allows for the testing of direct and indirect effects by employing ordinary least squares (OLS) path analysis. Confidence intervals (CI 95%) were computed based on 10,000 bootstrap samples. Previous research (Morash, 2010b) suggests that the intensity of supervision is positively related to more agent-reported drug-related violations of probation or parole due to more opportunities for detection being available. In this study, intensity of supervision was measured as the total number of home visits, home contacts, in-person contacts in the office, and telephone calls between the probation or parole agent and offender 18 months after the start of supervision. Therefore, a Pearson's correlation was conducted in order to see if the intensity of supervision should be considered as a covariate in the analyses. The intensity of supervision and drug-related violations were significantly correlated $r(204) = .50, p < .001$; consequently, intensity of supervision was included as a covariate in further analyses when agent-reported drug-related violations acted as the outcome.

Drug and Alcohol Avoidance Efficacy

H1, which predicted that higher levels of drug and alcohol avoidance efficacy would

lead to (a) lower reports of self-reported substance abuse and (b) agent-reported drug-related violations, was addressed by computing two negative binomial regressions. The Poisson regression model is standard to use when assessing the relationships variables have with count data. However, one of the main assumptions of this model is the equality of the mean and variance which can often be hard to obtain in observed data. Therefore, the negative binomial regression addresses this by accounting for overdispersion (Long & Freese, 2014).

Overdispersion was calculated in the present study by comparing the mean and variance of each of the dependent variables (self-reported substance abuse and agent-reported drug-related violations). Since overdispersion was found, negative binominal regressions with estimate value parameters were used to examine the relationship between drug and alcohol avoidance efficacy and the substance avoidance outcomes. In the first model to test H1a, drug and alcohol avoidance efficacy was entered as the predictor with self-reported substance abuse as the outcome. The predictor did not account for a significant amount of variance in the outcome, likelihood ratio $\chi^2(1) = 2.83, p = .093$. Drug and alcohol efficacy was not a significant predictor of substance abuse, $B = -0.10, SE = .06, 95\% \text{ CI } [-.21, .02]$, and therefore the data were not consistent with H1a. In the second model to test H1b, drug and alcohol avoidance efficacy was entered as the predictor, along with intensity of supervision entered as a covariate, with agent-reported drug-related violations as the outcome. Together the predictors accounted for a significant amount of variance in the outcome, likelihood ratio $\chi^2(2) = 36.78, p < .001$. However, drug and alcohol efficacy was not a significant predictor of agent-reported drug-related violations, $B = .04, SE = .09, 95\% \text{ CI } [-.14, .22]$, and therefore the data were not consistent with H1b. This suggests that drug and alcohol avoidance efficacy does not lead to reports of higher substance avoidance with either

measure. Therefore, the data were not consistent with H1.

Informational Support

To test hypotheses 2 through 6, which predict the relationships between the different types of social support and drug and alcohol avoidance efficacy, was tested using multiple regression to investigate whether drug and alcohol avoidance efficacy could be predicted by the linear combination of informational, emotional, and esteem support. Missing cases were excluded pairwise. Standardized betas are reported in-text. Results of the regression analysis indicated that 2.8% of the variance in drug and alcohol avoidance efficacy could be predicted by informational, emotional, and esteem support, $R^2_{adj} = .014$, $F(3, 196) = 1.915$, $p = .128$. Results of the regression indicated that predictor variables were not able to account for a significant amount of variance in the outcome variable. Analysis of regression coefficients informed H2, which predicted that informational support would lead to an increase in women offenders' perceived drug and alcohol avoidance efficacy, by indicating that informational support, $\beta = -0.015$, $t = -0.207$, $p = .836$, 95% CI [-1.55, 1.26], was not a significant predictor of drug and alcohol avoidance efficacy. Thus, the data were inconsistent with H2 (see Table 4 for the full reporting of results).

Emotional Support

Analysis of regression coefficients informed H3 and H4, which predicted that emotional support would lead to an increase in drug and alcohol avoidance efficacy, more so than informational support, by indicating that emotional support, $\beta = .152$, $t = 2.15$, $p = .033$, 95% CI [.33, 7.74], was a significant predictor of drug and alcohol avoidance efficacy. Thus, the data were consistent with H3 in that emotional support was related to higher drug and alcohol avoidance efficacy. The data were also consistent with H4, which predicted that

emotional support would have a stronger relationship with drug and alcohol avoidance efficacy than would informational support, because no significant relationship was found between informational support and drug and alcohol avoidance efficacy (see Table 4 for the full reporting of results).

Esteem Support

Analysis of regression coefficients informed H5 and H6, which predicted that esteem support would be related to higher perceived drug and alcohol avoidance efficacy, more so than informational and emotional support, by indicating that esteem support, $\beta = .067$, $t = .948$, $p = .344$, 95% CI [-0.83, 2.38], was not a significant predictor of drug and alcohol avoidance efficacy. Consequently, the data were not consistent with H5, and because esteem support did not significantly predict drug and alcohol avoidance efficacy, and the data were also inconsistent with H6 (see Table 4 for the full reporting of results).

Drug and Alcohol Avoidance Efficacy Mediation

There were six mediation path models computed using Hayes' PROCESS macro (Hayes, 2013) with 10,000 bootstraps, Model 4, 95% confidence intervals, to test for mediation in order to address H7. The first three mediation path models computed informed H7a, which predicted that alcohol and drug avoidance efficacy would mediate the relationship between the different types of social support and self-reported substance abuse. The first model which had informational support as the predictor, drug and alcohol avoidance efficacy as the mediator, and self-reported substance abuse as the outcome variable, found no significant indirect effects, $b = .004$, $SE = .02$, 95% CI [-.05, .05]. The second model which had emotional support as the predictor, drug and alcohol avoidance efficacy as the mediator, and self-reported substance abuse as the outcome variable, found no significant indirect

effects, $b = -0.06$, $SE = .05$, 95% CI $[-.19, .02]$. The third model which had esteem support as the predictor, drug and alcohol avoidance efficacy as the mediator, and self-reported substance abuse as the outcome variable, found no significant indirect effects, $b = -0.03$, $SE = .04$, 95% CI $[-.13, .02]$. Thus, the data were inconsistent with H7a. The mediation path models 4 through 6 tested H7b, which predicted that alcohol and drug avoidance efficacy would mediate the relationship between the different types of social support and agent-reported drug-related violations. The fourth model which had informational support as the predictor, intensity of supervision as a covariate, drug and alcohol avoidance efficacy as the mediator, and agent-reported drug-related violations as the outcome variable, found no significant indirect effects, $b = .00$, $SE = .02$, 95% CI $[-.04, .05]$. The fifth model which had emotional support as the predictor, intensity of supervision as a covariate, drug and alcohol avoidance efficacy as the mediator, and agent-reported drug-related violations as the outcome variable, found no significant indirect effects, $b = .002$, $SE = .07$, 95% CI $[-.15, .16]$. The sixth and final model which had esteem support as the predictor, intensity of supervision as a covariate, drug and alcohol avoidance efficacy as the mediator, and agent-reported drug-related violations as the outcome variable, found no significant indirect effects, $b = -0.002$, $SE = .05$, 95% CI $[-.10, .10]$. Therefore, the data were not consistent with H7b. Overall, the data were inconsistent with the predications in H7 because no indirect effects were found in the mediation models (see Tables 5 and Table 6 for the full reporting of results). Accordingly, there is no evidence to suggest drug and alcohol avoidance efficacy mediates the relationship between any of the social support types and both measurements of substance avoidance, thus the data were not consistent with H7.

DISCUSSION

Many women offenders who have a history of substance use face issues of reoffending. Correctional personnel along with researchers have tried to create programs in an attempt to promote substance avoidance among offenders. These efforts many times call for an increase in social support from probation and parole agents and other sources such as family members. However, past research has neglected to explore why social support is beneficial, and the means by which it impacts offenders' recidivism. Therefore, the present study sought to understand the mechanisms by which social support impacts women offenders' substance avoidance, proposing that drug and alcohol avoidance efficacy is the missing link.

A total of 206 women offenders were interviewed at three separate time points, each three months apart. The participants answered survey questions regarding their drug and alcohol avoidance efficacy and their current self-reported substance abuse. In addition to this, they were also asked open-ended questions regarding the social support they received from their agents about becoming and staying drug and alcohol free. These responses were then coded using the SSBC as a guide to categorize them into five main types of support. Finally, drug-related violations for each woman offender were recorded from their agents' case notes. The analyses revealed that emotional support was the only type of social support that significantly led to an increase in drug and alcohol avoidance efficacy. Drug and alcohol avoidance efficacy was not significantly related to the two substance avoidance outcomes. Last, the results indicated that drug and alcohol avoidance efficacy did not mediate the relationship between social support and substance avoidance, showing the need to continue the search for a deeper understanding of the processes that occur when women offenders

receive social support from their agents.

A post-hoc correlational analysis revealed that informational support had the opposite impact on substance avoidance than expected in that it was directly and significantly positively associated with agent-reported drug-related violations, $r(204) = .19, p < .01$. To further investigate this finding, previous research (Brock & Lawrence, 2009; Cutrona, Cohen, & Igram, 1990; Dehle, Larsen, & Landers, 2001) was consulted which found that informational support can lead to reactance which is the feeling an individual experiences when they perceive a loss to their freedoms (Dillard & Shen, 2005). This internal state then results in the restoration of freedom that individuals partake in to reestablish their freedoms through cognitive thoughts and behaviors (Quick, Shen, & Dillard, 2013). A study previously conducted stemming from the data set used in this study (Smith et al., 2016) found that particular communication patterns of probation and parole agents influenced offenders' sense of psychological reactance which directly impacted their restoration of freedom, ultimately influencing their agent-reported drug-related violations. Given this established relationship, psychological reactance and restoration were explored post-hoc as possible avenues to explain why informational support was positively associated with agent-reported drug-related violations. The serial mediation model was tested using PROCESS with 10,000 bootstraps, Model 6, 95% confidence intervals. However, there were no indirect or direct effects found, $b = .03, SE = .05, 95\% CI [-.06, .15]$, suggesting that the psychological reactance and restoration link was not an explanatory mechanism for the positive effect of informational support on drug-related violations.

Although it did not reach significance, another post-hoc investigation revealed that esteem support was marginally negatively correlated with self-reported substance abuse,

$r(204) = -0.12, p = .097$. This finding is in the opposite direction of informational support, suggesting that women offenders who received more esteem support reported lower substance abuse. Therefore, the emotional support relationship with drug and alcohol avoidance efficacy, and the esteem support relationship with self-reported substance abuse were in the direction which is consistent with previous literature which states that these two types of social support are generally received positively (Holmstrom et al., 2017; Roddy et al., 2018).

A post-hoc qualitative analysis was conducted to examine the relationship between the specific subtypes of social support and drug and alcohol avoidance efficacy in order to explore emotional support being the only significant predictor. The qualitative analysis revealed that informational support was the most frequent type of social support ($n = 149$), and there was a total of five different subtypes of informational support coded. The most common subtype of informational support that was coded was a referral to a source of help, such as a pamphlet with information on where to get help ($n = 84$). The second most common subtype of informational support coded was specific advice or ideas about what to do ($n = 56$). As mentioned earlier, situation appraisal is included within informational support in the SSBC and was the third most common subtype ($n = 8$). The other two subtypes of informational support were not common ($n = 1$). Previous research has found negative relationships between advice and efficacy (MacGeorge et al., 2008). Receiving advice, especially unheeded advice, could have driven the women offenders to question their ability to abstain from substance use. Therefore, given that advice was the second most common subtype of informational support, this may help illuminate why informational support did not have a significant, positive relationship with drug and alcohol avoidance efficacy.

Emotional support was the second most frequent type of social support reported ($n =$

33), with five different subtypes of emotional support coded. The most common subtypes of emotional support were supportive, which includes agents' concern ($n = 19$), and understanding ($n = 9$). Although less frequent than informational support, these subtypes of emotional support demonstrate how care and concern are generally perceived positively (Helgeson, 2003), and thus were positively related to drug and alcohol avoidance efficacy.

Last, esteem support was the least common type of social support present ($n = 24$). There were only two subtypes of esteem support present within the data. The most common subtype was compliments, or when an agent says positive things about the woman or emphasizes her abilities ($n = 16$), and validation ($n = 8$). The SSBC's narrow definition of esteem support could have influenced the lack of esteem messages, and this may explain, in part, the insignificant finding between esteem support and drug and alcohol avoidance efficacy. It is also plausible that validations have a stronger connection to self-efficacy than compliments, but this subtype of esteem support was less frequent. When an agent accepts the woman offender's judgment, confirms that she made a right decision, and takes her views into account, the woman offender's self-esteem may be more impacted by this than a compliment which she can easily disagree with or ignore.

The analyses showed the need to continue exploring the processes that underlie social support which ultimately impacts behavioral outcomes. The following section expands upon this, showing the importance of continued research for both practical and theoretical benefits. In addition, limitations and future directions are also discussed.

Theoretical and Pragmatic Implications

The OMM proposes that different stressors benefit the most from specific types of social support (Cutrona, 1990). The present study finds data partially consistent with this

claim in that emotional support was the only type of support that significantly led to drug and alcohol avoidance efficacy. Thus, it may be true that when women offenders do not feel efficacious, emotional support is the most effective type of support to address the concern of relapsing. When facing this adversity, women offenders may receive emotional support that can assist them in feeling more positively about the situation than when they receive informational support like advice or esteem-building messages. Therefore, the OMM is helpful in investigating which specific forms of social support are better suited for particular conditions.

The CETESM argues that through the use of reappraisals, esteem support can help transform a once esteem-threatening event into a less-threatening circumstance (Holmstrom & Burleson, 2011). Some support was found for this claim in that there was a positive trend between esteem support and drug and alcohol avoidance efficacy, although it was not significant. The lack of significance could derive from the event itself, in that women offenders may not see their drug and alcohol avoidance efficacy as esteem-threatening and would therefore not need esteem support in this context. More research is needed to understand how the CETESM can help explain the impact of receiving esteem support from probation and parole agents.

The one link from all the three types of social support to drug and alcohol avoidance efficacy that was significant was emotional support. This could be derived from a failure to elicit strong enough psychological responses. There are often times that provided support is not recognized by the receiver (Bolger, Zuckerman, & Kessler, 2000). This can be due to the quality of the provided support, extraneous circumstances, or issues when receiving the support such as a shortage of attention or inability to receive the support (Burleson, 2009).

Participants could have also made different attributions as to what was said while retrospectively recalling the social support than did the coders. Another reason for the disconnect between informational and esteem support and drug and alcohol avoidance efficacy could derive from the nature of the relationship between women offenders and their agents. Although previous research has shown that this unique relationship may pose a special opportunity for social support to be elicited (Bloom et al., 2003), the present study did not measure the women offenders' perceptions of the relationship. Therefore, it could be that women offenders must feel a sense of closeness or respect for their agent in order for the social support to have the desired effects on efficacy and ultimately on their behavior. Extending past research on authority and social support could be beneficial in this context in order to understand how to skillfully craft messages and foster better relationships.

Although finding that informational support was significantly related to agent-reported drug-related violations was in the opposite direction than predicted; it is not astounding. This result adds to the growing body of literature uncovering the negative repercussions of informational support (MacGeorge et al., 2008), especially when advice is given that is not solicited. Politeness theory argues that negative face threats derive from perceived threats to one's freedom and ability to make decisions, and that there are certain factors that influence whether a message is perceived as threatening (Brown & Levinson, 1978). This study bolsters the claim that communicating a face-threatening message in a supportive interaction can have determinantal outcomes for the receiver (Goldsmith, 1992), in that women offenders who reported receiving more informational support also possessed more agent-reported drug-related violations. Consequently, politeness theory (Brown & Levinson, 1978) acts as a possible explanation for the positive relationship found between informational support and

drug-related violations. It is also possible that the women offenders who have more drug-related violations may also need more informational support, and thus recall receiving more.

The present study not only offers theoretical implications, but it also extends several practical implications. First, support providers, especially within this context, should be vigilant when providing informational support. Although it may be necessary in many circumstances for agents to provide informational support, supplying this type of support should be done with caution. In particular, when agents act as support providers, they should pay attention to several of the factors outlined by Brown and Levinson (1978) that increase a message's likelihood of being perceived as threatening. If agents were to implement such caution, their informational support may have more positive outcomes and perceptions, similar to those reported in Tracy et al. (2010). In addition, agents should also be trained to successfully provide all five types of support proposed by Cutrona (1990). This would give the agents the tool set needed to intentionally provide the most effective support in certain conversations with the offenders, hopefully resulting in positive outcomes. Last, correctional programs should continue to explore how to prepare other members in the offender's network to provide advantageous support. This would result in a triangular approach as women offenders could then receive quality support varying in type, amount, and source.

Limitations and Future Directions

The present research sheds light on the provision of social support being used to increase substance avoidance among women offenders. However, there are limitations to the current study that warrant discussion and that should prompt future research. The data set that this study extends from was collected four years ago. Although there would most likely not be significant differences in the underlying processes of support provision, there may be slight

latent changes that have occurred naturally since data collection. Therefore, future research should aim to collect a more recent sample from diverse locations, incorporate male offenders, and also include efforts to examine the women offenders' valanced perception of the different forms of social support in regard to substance use.

Second, this study relies on retrospective recall and also uses self-report measures that may result in social desirability bias (Fisher, 1993). However, the agent-reported drug-related violations were an objective measure as they provided official records. Nonetheless, future research would benefit from including other data collection methods such as the experience sampling methods, which would allow researchers to gage how women offenders feel directly after their conversations with their agents instead of recalling messages from the past. Collecting the natural occurring interactions between women offenders and their agents would also aid in illuminating the dynamic process that occurs when social support is provided and received.

Another limitation is that the SSBC does not account for the quality of social support. Although it is essential to gather information on whether support is present within this unique context, examining the quality of the messages will illuminate more about the relationships between women offenders and their agents. This approach will also provide a greater detail of the messages themselves, allowing researchers to gain a greater understanding of the impact of specific aspects of support messages.

The lack of mediation found in the present analyses points to the need for further investigation into the processes by which social support impacts both efficacy and behavioral outcomes. By examining past research, potential pathways outside of efficacy that may play a role in the impact of social support can be identified. One mechanism that should be explored

in the future is the amount of perceived stress around the behavior outcome. The definition of social support is to provide aid to someone who is in distress (Burleson, 2003), so it is possible that the amount of perceived stress is what mediates the relationship between social support and substance avoidance, in that a women offender must feel a sense of tension or anxiety about abstaining from drugs and alcohol in order for social support to suppress these feelings, allowing women offenders to engage in substance avoidance. Another possible mechanism that should be explored is women offenders' reappraisal ability. Social support may only elicit substance avoidance behaviors when women offenders have the ability to reappraise the situation in different ways through different types of support. Past research suggests that social support is often successful at alleviating distress through conversational-reappraisals (Burleson & Goldsmith, 1988; Holmstrom & Burleson, 2011). Therefore, a greater emphasis should be placed on women offenders' ability to reappraise situations in the future. Future research may want to focus on examining whether there are large gaps between what support the agents recall providing and how much the offenders recall receiving. These gaps could be indicative of the need for support that elicits stronger psychological reactions or they may suggest that social support effectively improves substance avoidance through a different mechanism than drug and alcohol avoidance efficacy.

CONCLUSION

Many women offenders have a history of substance use and face the challenges of reoffending while on probation or parole. Offering social support could aid these women with their drug and alcohol avoidance efficacy. The present research extends the OMM by investigating how social support impacts substance avoidance among women offenders. Emotional support was the only form of social support that significantly impacted drug and alcohol avoidance efficacy. The analyses also revealed that drug and alcohol avoidance efficacy does not appear to mediate the relationship between social support and substance avoidance, therefore suggesting that future research should aim to gain a better understanding of the mechanisms enacted through social support that result in positive behavioral changes. Therefore, bettering the lives of women offenders who are on probation and parole should continue to be earnestly and promptly investigated as scholars have a responsibility to understand how social support may be the vessel in which this happens.

APPENDICES

APPENDIX A

Table 1:

Descriptive Analyses of Main Variables

	Mean	Std. Deviation	Range
Informational Support	.72	.67	0-3
Emotional Support	.16	.41	0-2
Esteem Support	.12	.35	0-2
Drug and Alcohol Avoidance Efficacy	5.29	1.35	1-7
Substance Abuse	1.17	1.34	0-6
Drug-related Violations	1.47	2.89	0-21
Intensity of Supervision	29.07	16.02	4-123

APPENDIX B

Table 2:

Expanded Scale Items

Scale	Number of Items	Measurement	Time Period	α
<i>Self-Efficacy to Avoid Alcohol and Drug Use</i> 1. Talking with my PO makes me more confident that I can work through problems without turning to drug or heavy alcohol use. 2. Talking with my PO makes me more confident that I can work through problems without turning to drug or heavy alcohol use. 3. Talking with my PO makes me more sure that I can take care of myself so that I don't turn to drug or heavy alcohol use. 4. Talking with my PO makes me more positive that I can create a life for myself that does not include drug or heavy alcohol use.	4	Likert-Scale	T2	.95
<i>Current substance abuse subscale of the Women's Risk/Needs Assessment</i> 1. Have you had any recent (past 6 months) conduct violations, law violations, or technical violations related to drugs or alcohol use? 2. During the past 6 months have you received a drug screen that was rated positive or diluted? 3. Since the first interview for this study, do you associate with individuals who drink heavily or use drugs? 4. Since the first interview for this study, have you missed treatment appointments or stopped participating in support groups? (not applicable = 0) 5. Since the first interview for this study, did anyone in your home use drugs or alcohol? 6. Are you currently using? (If more appropriate, check yes if there is any evidence of current use). 7. Do you currently have any feelings that you need to use drugs first thing in the morning?	7	Yes/No	T3	NA

APPENDIX C

Table 3:

Correlation Matrix

	1	2	3	4	5	6	7
1. Informational Support	1						
2. Emotional Support	-0.02	1					
3. Esteem Support	.01	.04	1				
4. Efficacy	-0.02	.15*	.07	1			
5. Substance Abuse	.04	-0.06	-0.12	-0.13	1		
6. Drug-Related Violations	.19**	.00	.00	-0.01	.32**	1	
7. Intensity of Supervision	.14*	.04	-0.05	-0.02	.11	.50**	1

Note. Efficacy refers to drug and alcohol avoidance efficacy. * $p < .05$, ** $p < .01$

APPENDIX D

Table 4:

Beta Weights for Informational, Emotional, and Esteem Support

Variable	Drug and Alcohol Avoidance Efficacy		
	<i>B</i>	<i>SE B</i>	β
Informational Support	-.148	.712	-0.015
Emotional Support	4.034	1.877	.152*
Esteem Support	.772	.814	.067
R^2			.028
F			1.915

* $p < .05$.

APPENDIX E

Table 5:

Mediation Model Coefficients for Self-Reported Substance Abuse

Predictor	<i>b</i>	<i>SE</i>	95%CI	
Mediator model (Drug and Alcohol Avoidance Efficacy): $R^2 = .03$, $F(4,195) = 1.44$, $p > .05$				
Constant	5.24	.22	4.8	5.67
Informational Support	-0.02	.14	-0.31	.26
Emotional Support	.5*	.23	.04	.96
Esteem Support	.25	.27	-0.28	.78
Intensity of Supervision	-0.00	.01	-0.01	.01
Dependent variable model (Substance Abuse): $R^2 = .04$, $F(5,194) = 1.67$, $p > .05$				
Constant	1.62	.43	.76	2.47
Informational Support	.04	.14	-0.24	.33
Emotional Support	-0.16	.23	-0.63	.30
Esteem Support	-0.42	.27	-0.95	.12
Intensity of Supervision	.01	.01	-0.00	.02
Avoidance Efficacy	-0.11	.07	-0.25	.03
Indirect effect of Drug and Alcohol Avoidance Efficacy on Substance Abuse	.00	.02	-0.04	0.05

Note. * $p < .05$

APPENDIX F

Table 6:

Mediation Model Coefficients for Agent-Reported Drug-Related Violations

Predictor	<i>b</i>	<i>SE</i>	95%CI	
Mediator model (Drug and Alcohol Avoidance Efficacy): $R^2 = .03$, $F(4,195) = 1.44$, $p >.05$				
Constant	5.24	.22	4.8	5.67
Informational Support	-0.02	.14	-0.31	.26
Emotional Support	.5*	.23	.04	.96
Esteem Support	.25	.27	-0.28	.78
Intensity of Supervision	-0.00	.01	-0.01	.01
Dependent variable model (Drug-Related Violations): $R^2 = .27$, $F(5,194) = 13.95$, $p <.001$				
Constant	-1.49	.82	-3.11	.13
Informational Support	.55*	.27	.01	1.09
Emotional Support	-0.11	.44	-0.99	.77
Esteem Support	.20	.51	-0.80	1.21
Intensity of Supervision	.09**	.01	.07	.11
Avoidance Efficacy	.00	.14	-0.26	.27
Indirect effect of Drug and Alcohol Avoidance Efficacy on Drug-related Violations	.00	.07	-0.15	0.14

Note. * $p < .05$, ** $p < .001$

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