Published in final edited form as:

Psychol Men Masc. 2012 July ; 13(3): 283–293. doi:10.1037/a0025522.

The Role of Masculine Norms and Informal Support on Mental Health in Incarcerated Men

Derek Kenji Iwamoto¹, Derrick Gordon², Arazais Oliveros², Arturo Perez-Cabello², Tamika Brabham², Steve Lanza³, and William Dyson⁴

¹University of Maryland ²Yale University ³Family Reentry, Bridgeport, CT ⁴Connecticut's Department of Mental Health and Addiction Services

Abstract

Mental health problems, in general, and major depression in particular, are prevalent among incarcerated men. It is estimated that 23% of state inmates report experiencing symptoms of major depression. Despite the high rates of depressive symptoms, there is little understanding about the psychosocial factors that are associated with depressive and anxiety symptoms of incarcerated men. One factor relevant to the mental health of incarcerated men is their adherence to traditional masculine norms. We investigated the role of masculine norms and informal support on depressive and anxiety symptoms among 123 incarcerated men. The results revealed that adherence to the masculine norm of emotional control were negatively associated with depressive symptoms while heterosexual presentation and informal support were related to both depressive and anxiety symptoms. High levels of reported informal support moderated the effects of heterosexual presentation on depressive and anxiety symptoms. Public health and clinical implications are discussed.

According to the Bureau of Justice Statistics (2009), there are over 1.6 million sentenced prisoners in the United States. Given the large number of incarcerated individuals, there is a great need for rehabilitation programs, specifically, mental health services (Pomeroy, Kiam, & Green, 2000). The call for rehabilitative mental health services rests on the observation that nearly half of incarcerated men report recent histories of mental health problems (U.S. Department of Justice, 2006). According to the US Department of Justice, of the 705,600 state prisoners who report mental health problems in 2005, 23% reported experiencing major depressive symptoms. Despite the high prevalence of mental health problems reported by incarcerated men, little is known about the psychosocial mechanisms associated with the expression of depressive and anxiety symptoms (Draine, Wilson, & Pogorzelski, 2007; Kupers, 2001). In addition to the public health benefits of addressing mental health concerns with this population, identifying the psychosocial factors associated with depression and anxiety would have the added benefit of potentially decreasing the risks for recidivism, health care costs associated with non-treatment, violence, and the associated dangers with other risky behaviors (e.g., HIV infection) (Pomeroy, Kiam, & Green, 2000; Siennick, 2007). This study advances the literature by investigating the role of masculine norms and informal support on depressive and anxiety symptoms among an incarcerated sample of men.

There are numerous explanations why incarcerated men might be more vulnerable to mental health problems than men in the general population (Brinded, Alexander, Simpson, Laidlaw, Farley & Fiona, 2001; Hochstetler, Murphy, & Simons, 2004). Pomeroy, Kiam and Green (2000) suggested that experiencing loss of personal freedom, placement in a restrictive setting, feelings of hopelessness, and adaptation process to a new environment may help to

explain the vulnerability that incarceration generates. These factors can create conditions that exacerbate depressive symptoms. In addition, many incarcerated individuals have histories or pre-existing mental disorders and history of trauma (i.e., child abuse) which may be heightened in correctional facilities (Botterrell, 1984).

In correctional facilities, men lose sense of autonomy, familial support, and material goods, which are important components of men's identities (Hsu, 2005). Given that environment and experiences help shape identity (Tajfel & Turner, 2001; Thoits, 1983), incarceration may strip away or cause a flux in identity (Courtney & Sabo, 2001). According to the identity accumulation hypothesis, the greater the loss of multiple identities, the more psychological distress experienced (Thoits, 1983). Subsequently, incarcerated men may have to construct new identities in prison, however, this may be challenging due to the pressures and hierarchies in the prison setting.

Prison Hierarchies and Traditional Masculinity

Prison hierarchies and power structure inherent in correctional facilities influence how incarcerated men construct and maintain their identity, which may affect their mental health. Specifically, the prison institution is built on hierarchies where prisoners are "forced to submit to authority" (Hsu, 2005, p.3). Prison hierarchies span the relationships between the prison guards and prisoners to the power structure amongst prisoners. These hierarchies narrow the prisoners' masculine identity options, which in turn influences how it is constructed and communicated (Hsu, 2005; Kupers, 2001). Prisons have been described as institutions that adhere to strict constructions of masculinity. As a result, incarcerated men may experience greater pressure to focus primarily on and protect their masculine identities (Hsu, 2005; Johnson, 1979; Newton, 1994). The theoretical framework of traditional masculinity is key in understanding the mental health and psychology of men in prison (Courtenay & Sabo, 2001; Hsu, 2005; Newton, 2005). Masculinity helps to bridge the intersections of prison hierarchies, power relationships, and identity formation for prisoners (Hsu, 2005) because masculine norms are formed and shaped through social interactions and societal expectancies, beliefs, and norms of what it means to be a man (Mahalik, Locke, Ludlow, Demer, Scott, Gottfried, & Freitas, 2003).

Traditional American masculine norms include heterosexual presentation, risk taking, emotional restraint, power over women, dominance, self-reliance, and winning (Mahalik et al., 2003; Parent & Moradi, 2009). Several researchers (Courtenay, 2000; Hsu, 2005; Newton, 1994) report that many incarcerated men attempt to establish themselves in prison by adopting hyper-masculine ideologies and behaviors that are more pronounced and extreme than non-incarcerated men. Some incarcerated men may posture and exhibit hyper-masculine behaviors, including controlling and denying any vulnerability or weaknesses to avoid being perceived as "gay" (Courtenay, 2000). These men may need to appear physically strong, emotionally impervious, dominant, violent, and dismissive of any need for help to position themselves higher in the prison hierarchy (Courtenay & Sabo, 2001). These norms can play a crucial role in protection and survival within the prison system.

Incarcerated men have been shown to disapprove of individuals seeking help and who are perceived to complain too much (Courtenay & Sabo, 2001). To protect themselves, men may disassociate themselves from help-seeking and other behaviors that they associate with femininity. The self-protective role that this stance takes in the prison context is best observed by the fact that men who are perceived as vulnerable or feminine are sometimes targeted and prone to physical or sexual assault by other prisoners (Hsu, 2005). The challenge of constructing strong masculine identities while incarcerated highlights the strain that these men face as they seek to negotiate these systems, construct an identity that is

consistent with their current social context, and protect themselves while in these environments.

Masculine dysfunction strain theory

Based on the review of the literature, conforming to strict masculine norms appears to be a common survival strategy of men who are incarcerated (Courtenay & Sabo, 2001; Hsu, 2005). These norms establish and position individuals within the prison hierarchy and can be protective in some instances. Strict adherence to these norms over an extended time, however, might take a psychological toll. That is, men who adhere to more androgynous masculine norms (i.e., non-aggressive values, emotionally open) before entering prison, may have to quickly adopt strict masculine scripts (i.e., dominating others) while incarcerated, despite any incongruence with their values and identity (Courtenay & Sabo, 2001; Hsu, 2005). Men often strive to live up to the real (i.e., one's self perception of their masculinity) versus ideal (i.e., one's ideal notions of what it means to be a man) masculine identity (Levant, 1996; Liu, Rochlen, & Mohr, 2005), and the processes of protecting against any instance in which they may fail or violate these norms, can create volatility and strain in their lives (Levant, 1996). The pressure to conform to these male codes and the instability it creates for men is best illustrated by masculine dysfunction strain theory (Levant, 1996; Pleck, 1995).

Masculine dysfunction strain theory describes how rigid adherence to traditional masculine norms creates dysfunction and may result in negative health consequences such as depression and anxiety. Scholars postulate that incarcerated men who conform strictly to traditional notions of masculinity experience more anxiety and display poorer health behaviors (Courtenay & Sabo, 2001; Eisler, Skidmore, & Ward, 1988). Men who adhere strictly to these norms are less likely to seek help for their mental and physical health concerns (Addis & Mahalik, 2003). Studies with non-incarcerated samples of men have linked masculine norms to poor mental health outcomes (Burns & Mahalik, 2006; Iwamoto, Liao, & Liu, 2010; Mahalik et al., 2003). In a sample of men being treated for prostate cancer, the masculine norms of emotional control and self-reliance were associated with psychological distress (Burns & Mahalik, 2006). Mahalik and colleagues (2003) found that dominance and self-reliance norms were associated with men's anxiety. Finally, among ethnically diverse samples of men in college and in the community, masculine norms have been found to be related to mental health (Iwamoto et al., 2010; Levant & Richmond, 2007). These findings highlight the influence that masculine norms can have on the mental health of men in general. Consequently, it is crucial to investigate how the multiplicity of masculinities operates in relationship to the mental health of incarcerated men (Hsu, 2005). It would also be important to understand how the social context or the use of informal support systems is associated with the mental health of incarcerated men.

Informal Support

In prison, incarcerated men's connections to their social and familial systems diminish, resulting in social isolation, which in turn may be a risk factor for psychological distress (Courtenay & Sabo, 2001; Pomeroy et al., 2000). Some protective strategies such as using informal support systems might buffer the adverse effects of social isolation. Informal supports include seeking friends, family members, or community resources to solve problems or garner support (Woodward, Taylor, Bullard, Neighbors, Chatters, & Jackson, 2008). One epidemiological study with an ethnically diverse sample found that men used informal support systems more frequently than formal professional services such as therapy (Woodward et al., 2008). However, prison culture often deters individuals from seeking help thus resulting in even fewer resources for these men to draw upon. As a result, incarcerated

men can experience a “double jeopardy”: on the one hand, they might save face with their fellow incarcerated peers, but on the other hand, their mental health is likely to worsen (Addis, 2008; Hatezenbuehler, Hilt, & Nolen-Hoeksema, 2009). Therefore, it is important to understand the extent to which informal support mitigates psychological distress, and examine how informal support might interact with masculine norms. Accordingly, it is hypothesized that men’s *disuse* of informal support systems will predict psychological distress (depression and anxiety). The subject of psychological distress calls to the fore issues related to coping, and in this context, how informal support might buffer the possible negative effects of masculine norms on depression and anxiety. Understanding how these men may cope with personally challenging experiences can also help to inform our understanding of the psychological factors associated with the expression and development of depressive and anxiety related symptoms.

Taken together, conformity to masculine norms and informal support appear to be associated with mental health outcomes. To our knowledge no study to date has investigated how these factors collectively affect depressive and anxiety symptoms of incarcerated men. According to the masculine dysfunction strain theory, it is hypothesized that men who conform highly to traditional masculine norms will be more likely to report higher depressive and anxiety symptoms. Second, it is hypothesized that individuals who report using less informal social support will exhibit higher levels of anxiety and depressive symptoms. The third research question seeks to investigate the extent to which informal support moderates the effects of masculine norms on depression and anxiety.

Method

Participants

One hundred twenty three incarcerated men were drawn from two community re-entry programs within two Connecticut state correctional facilities. The two correctional facilities are level 2, or minimum security pre-release institutions with a focus on educational and addiction programming designed to foster successful community re-entry. The specific community reentry program in which the men were drawn from, attempts to reduce recidivism by fostering the strengths and support systems of the men. The racial/ethnic background of the participants included 86 African Americans, 18 Latinos, 7 Caucasians, and 3 “other”. The mean age of the participants was 31.7 ($SD = 8.8$), and the average length of incarceration was 25 months ($SD = 27$). The majority of the participants were convicted of felonies such as selling or possessing narcotics, which is consistent with the general incarcerated population statistics in Connecticut (Department of Justice, 2011).

Procedures

This research study was drawn from a larger evaluation research project that examined factors associated with men’s successful return to two urban communities in Connecticut. Specifically, the men included in the study were a convenience sample of individuals who consented to take part in the community re-entry program. Most of the men who were invited to participate consented to involvement in the intervention and evaluation research. The men were generally within three to six months from prison release. To be included in the study, the men had to be 18 years of age or older and willing to provide written consent to participate. Specifically the participants were informed that the information provided was protected from being released under subpoena or legal processes through a Certificate of Confidentiality obtained from the U.S. Department of Health and Human Services. All eligible men were identified by corrections facility and then invited to an informational meeting where they consented to their involvement. Men who chose to enter the program were informed about the voluntary nature of their participation in the evaluation and their

option to withdraw at any time. They were also informed that their responses to questions would remain anonymous and would not negatively affect their parole, probation, release or participation in the program. The men were not provided with any remuneration or monetary compensation for their time in a pre-release setting. Data were gathered from semi-structured interviews conducted by trained research assistants, and the interviews ranged between 45 minutes to two hours. This semi-structured interview format was used to clarify questions and ease the burden of reading for the participants.

Measures

Depression and Anxiety Symptoms—Depressive and anxiety symptoms over the past week were measured using an adapted version of the Brief Symptoms Inventory (BSI; Derogatis, 1994). In a previous study, Gordon and colleagues (2009) examined the factor structure of the BSI given that the BSI's factor structure had not been thoroughly investigated with an incarcerated sample. A principal axis factor analysis was performed on the complete BSI. An oblique rotation was conducted since the factors of depression and anxiety were assumed to be correlated. Items that had factor loadings less than .40 or cross-loadings greater than .30 were removed. The results yielded a three factor solution: depression, anxiety, and paranoid ideation. For the purpose of the current study, the depression and anxiety scales were used. The internal consistency estimates for the depression scale was $\alpha = .86$, and .69 for the anxiety scale.

Conformity to Masculine Norms-22 (Mahalik et al., 2003)—The CMNI-22 is a revised version of the 94-item CMNI, and is a well-validated measure of traditional masculine norms. The 11 masculine norms include risk-taking, disdain for homosexuality, violence, winning, emotional control, power over women, dominance, playboy, self-reliance, primacy of work, and pursuit of status. In Mahalik et al.'s validation study, the CMNI displayed strong convergent validity with other masculinity measures such as the Gender Role Conflict Scale (O'Neil, Helms, Gable, & Wrightsman, 1986), Brannon Masculinity Scale (Brannon & Juni, 1984), and the Masculine Gender Role Stress Scale (Eisler & Skidmore, 1988). The CMNI-22 was created by taking the highest two factor loadings of each of the 11 subscales in the full CMNI (Mahalik et al., 2003; Parent & Moradi, 2009; Rochlen, McKelley, Suizzo, & Scaringi, 2008). The current study included the subscales risk taking, heterosexual presentation (formerly termed disdain for homosexuality by Mahalik et al., 2003, but changed to heterosexual presentation by Parent and Moradi, 2009), and emotional control because these subscales yielded reliability estimates greater than $\alpha = .70$ (range .70-.78).

Informal Support—Current informal support was assessed using five-items from the Texas Christian University Social Functioning Inventory (Simpson, 2007). Sample items include "I have a few positive friends," or "I have a few community resources," and participants respond to each item "yes" (0) or "no" (1). Lower scores indicate less perceived use of informal support systems. The reliability consistency estimates for the informal support measure was adequate ($\alpha = .71$).

Results

Correlations

Pearson correlations were conducted to explore the relationships among variables in the study (Table 1). Depression scores were related to anxiety ($r = .50$), informal support ($r = -.22$), emotional control ($r = -.18$), and risk-taking ($r = .18$). Anxiety symptoms were associated with informal support ($r = -.51$) and heterosexual presentation ($r = .18$). Age was inversely associated to heterosexual presentation ($r = -.22$).

Hierarchical Multiple Regression

Our first two research questions examined the extent to which informal support and the masculine norms of heterosexual presentation, emotional control, and risk-taking would predict, 1) depressive and 2) anxiety symptomatology, while controlling for age and length of incarceration. The third research question investigated the possible interactions between the masculine norms and informal support on depression and anxiety. Accordingly, three masculine norms and informal support were centered to reduce multicollinearity between the predictors and interaction terms (Aiken & West, 1991; Fraizer, Tix & Barron, 2004), and the interaction terms were created by multiplying the centered masculine norms with informal support. In the first step, the control variables age and length of incarceration were entered followed by heterosexual presentation, risk taking, emotional control and informal support. In the second step, the interaction terms were entered. If the interaction terms were significant we plotted interaction terms with high (+1 *SD*) and low (−1 *SD*) scores on masculine norms, and by high (+1 *SD*) and low (−1 *SD*) informal support values.

Depression Hierarchical Regression Model

In the first step, heterosexual presentation, emotional control, and informal support were all significant predictors of depressive symptoms, $R^2 = 17\%$, $F(6, 117) = 3.86$. These results suggest that men who have higher endorsement of heterosexual presentation, and lower emotional control and informal support report higher levels of depressive symptoms (Table 2). In the second step, we entered the interaction terms, which did not result in a significant change in $R^2 = 3.5\%$, but the overall model was significant, $R^2 = 20.5\%$, $F(9, 114) = 3.15$. All the variables entered in the first step remained significant and one interaction term emerged: heterosexual presentation X informal support ($B = -.93$, $p < .001$). Analysis of the simple slopes of heterosexual presentation was significant when the condition values of informal support was low ($B = 1.21$, $p < .001$); however the slope of the conditional effects of high informal support was non-significant ($B = .05$, $p = .71$). These findings suggest that stronger conformity to a heterosexual presentation was positively associated with depressive symptoms in men with low, but not high, informal support (Figure 1).

Anxiety Hierarchical Regression Model

In the first step, age and time incarcerated were entered as control variables, followed by risk taking, heterosexual presentation, emotional control, and informal. Informal support and heterosexual presentation were significantly associated with anxiety symptoms, $R^2 = 32\%$, $F(6, 117) = 8.93$ (Table 2). Incarcerated men who reported higher heterosexual presentation and less access to informal support systems were more likely to report higher levels of anxiety symptomatology. In the second step, we entered the interaction terms, which did result in a significant change in $R^2 = 7.6\%$, and the overall model was significant, $R^2 = 40\%$, $F(9, 114) = 8.07$, and all the variables entered in the first step remained significant. Similar to the depression model, heterosexual presentation X informal support ($B = -.56$, $p < .001$) interaction was significant. The simple slope analysis for heterosexual presentation and informal support interactions revealed that the slope was significant when informal support was low ($B = .71$, $p < .001$) but was not statistically significant when the conditional effects of informal support was high ($B = -.18$, $p = .31$). These findings suggest that stronger conformity to a heterosexual presentation was positively associated with anxiety symptoms in men reporting low informal support (Figure 2).

Discussion

Given the high rates of depression and anxiety reported by incarcerated men in general, it is important to identify the factors associated with these mental health concerns among this vulnerable population. Relatively little is known about the psychosocial factors that confer

risk on depressive and anxiety symptoms among this population. Masculine norms have been implicated in the literature as possible salient factors that affect the mental health of incarcerated men. There have, however, been minimal empirical investigations in this area. This study extends the literature by identifying how distinct masculine norms and reported use of informal support affect the mental health of incarcerated men.

The results of this study begin to underscore how masculinity adds to the discourse on the complexity of the psychology of men in prison (Hsu, 2005). The findings suggest that incarcerated men who endorsed higher levels of heterosexual presentation and lower emotional control reported more depressive symptoms. These findings are consistent with previous research (Burns & Mahalik, 2006) and support the masculine dysfunction strain theory (Levant, 1996), which highlights how the pressure to adhere to masculine norms may create gender strain and take a psychological toll on these men, resulting in increased depressive symptomatology (Syzdek & Addis, 2010).

Higher adherence to the masculine norm of heterosexual presentation corresponded with elevated levels of anxiety. These findings are aligned with experimental studies from college samples of men that suggest that men experience heightened feelings of anxiety when their manhood is threatened (Vandellow, Bosson, Cohen, Burnaford, & Weaver, 2008). That is, men often have to strive to achieve unrealistic notions of “ideal” heterosexual masculinity – which results in the development of a fragile and precarious masculinity (Vandellow et al., 2008). It is possible that heterosexual posturing may be exacerbated in prison given that this conveys strength, power and “non-femininity” which in turn could be protective in certain situations (Johnson, 1979). In other words, a heterosexual presentation could be a way of establishing self in the prison hierarchy and reducing challenges while incarcerated, all with negative mental health consequences. In addition, Hsu (2005) notes that “suppression and rejection of homosexual desires together with the deprivation of heterosexual relationships” (p.13) may result in psychological distress. Embedded in this observation are questions about the role of male-to-male sexual contact on the endorsement of these norms and mental health challenges experienced. This hypothesis is speculative at best; therefore more research is warranted examining the nature of heterosexual presentation, male-to-male sexual contact while incarcerated, and mental health among incarcerated men.

Informal support was a strong determinant of both depressive and anxiety symptoms. Men who reported having less informal support generally had higher levels of depressive and anxiety symptoms. Interestingly, informal support moderated the effects of heterosexual presentation on depressive and anxiety symptoms. Higher use of informal support was protective of psychological distress even when men endorsed high levels of heterosexual presentation. This finding is consistent with literature that highlights the protective effects of informal support (Woodward et al., 2008). It makes sense that individuals who use informal support systems (such as, friends or resources in the community) might report less psychological symptomatology. That is, by seeking support or having the knowledge that one has resources available may temporarily alleviate men’s heterosexual identity concerns. While using informal support appears to be protective in the community, this option may be a challenge while incarcerated. Although informal support systems may help alleviate distress, men in prison have to balance and negotiate the possible negative ramifications of seeking and using support. One effective strategy could be providing required forums (i.e., informal support groups that are not labeled so) for all the men so individuals will not be singled out. Increasing community involvement strategies where family members and other social supports are encouraged and supported to regularly see the men while they are incarcerated could also be important. This may help to provide a more normalizing experience and lead general acceptance and modeling using support systems among incarcerated populations.

There is practical value in identifying psychosocial factors that increase or protect mental health problems. Most of the rehabilitation programs in the prison systems are focused on substance abuse treatment, and vocational and academic training rather than mental health interventions (Pomeroy et al., 2000). The current findings underscore the importance of addressing and integrating the mental health needs of incarcerated men. That is, although there are substance abuse treatments in many prisons, these interventions should also address mental health concerns (Grant et al., 2004). Correctional facilities may consider screening for mental health concerns such as anxiety and depression in this population. Further, group counseling interventions with incarcerated men should carefully incorporate discussions of masculinity, given that it tends not to be explicitly discussed in prisons (Sabo, Kupers & London, 2001). In these group forums, facilitators can raise awareness of masculine norms by posing questions such as “what did you learn about how men should think, feel, and act?, which of these lessons did you take to heart?, how did they get you into trouble?”, which did you resist?, how did these lessons help you with the challenges you faced?”. Psychoeducational interventions and classes that provide information about multiple topics including healthy masculine scripts that promote health, identifying informal support systems, stress management and substance use, might be a highly effective and cost efficient strategy (Pomeroy et al., 2000). For example, these interventions could provide the men with mutual support that can mitigate social isolation, as well as teach them healthy active coping strategies to deal with stressors and regulate mood. A preventative framework for providing these interventions, as well as careful labeling of such services, may decrease the potential stigma that may be associated with attending services that are officially for support or treatment, especially for men. In order for these changes to take root, structural changes also need to be initiated within the prisons and jails that support prisoners’ mental health.

This study begins a conversation about the relative value of examining mental health for this group; however the results should be considered in the context of the limitations of the study design. First this study is not representative of all incarcerated men and the design was cross-sectional so causation cannot be assumed. Longitudinal studies could help explicate the specific mechanisms and nature of the relationships. To ease the burden and reduce the structured interview time for the participants, only brief measures were included in the study. This time constraint limited our ability to investigate these constructs (CMNI and BSI) more comprehensively. These observations could have been more instructive with more involved measures of the norms presented. This would have also aided in the analysis of how they operate in the short and longer versions for incarcerated samples. Future studies should consider using full scales of the CMNI or other masculinity (MRNI-49; Berger, Levant, McMillan, Kelleher, & Sellers, 2005) or gender role conflict measures (GRCS; O’Neil et al., 1986) with similar populations. Finally, a larger sample would have provided more power to detect small effects.

Despite the limitations, this study advances the literature on the psychosocial factors associated with mental health among this vulnerable and hard to reach population. This study is the first to our knowledge to investigate how informal support moderates the effects of distinct masculine norms on depression and anxiety. These findings are important given that the mental health of incarcerated men is a salient public health problem, with nearly half of all state prisoners in the United States reporting serious mental health challenges. The current findings suggest that the judicial system would benefit from the adaptation of proven mental health programs paired with social support, since this may help reduce the risks of recidivism, homelessness, and substance dependence, along with a host of other risk behaviors (Pomeroy, Kiam, & Green, 2000; Siennick, 2007).

Acknowledgments

Funding for this project was provided in part by Connecticut's Court Support Services Division, Judicial Branch; Family Reentry, Bridgeport CT; and Connecticut's Department of Mental Health and Addiction Services. Manuscript preparation for the first author was supported by the National Institute of Drug Abuse grant 5T32 019426-06 & RO1-DA018730. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of Connecticut's Court Support Services Division, Judicial Branch; Family Reentry, Bridgeport CT; Connecticut's Department of Mental Health and Addiction Services; and the National Institute of Health. The authors thank the reviewers for their insightful comments and helpful suggestions.

References

- Addis ME. Gender and depression in men. *Clinical Psychology: Science and Practice*. 2008; 15:153–168.
- Addis M, Mahalik JR. Men, masculinity and the contexts of help-seeking. *American Psychologist*. 2003; 58:5–14. [PubMed: 12674814]
- Aiken, LS.; West, SG. Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage; 1991.
- Berger JM, Levant RF, McMillan KK, Kelleher W, Sellers A. Impact of gender role conflict, traditional masculinity ideology, alexithymia, and age on men's attitudes toward psychological help seeking. *Psychology of Men and Masculinity*. 2005; 6:73–78.
- Brannon R, Juni S. A scale for measuring attitudes towards masculinity. *JSAS Catalog of Selected Documents in Psychology*. 1984; 14:6.
- Brinded P, Alexander MJ, Simpson IF, Laidlaw TM, Farley N, Fiona M. Prevalence of psychiatric disorders in New Zealand prisons: A national study. *Australian and New Zealand Journal of Psychiatry*. 2001; 35:166–173. [PubMed: 11284897]
- Botterrell EH. Report of the study team: Seven suicides in the Atlanta region. *Canadian Journal of Criminology*. 1984; 26:467–468.
- Bureau of Justice Statistics. Mental health problems of prison and jail inmates. Washington, DC: U.S. Department of Justice; 2006.
- Bureau of Justice Statistics. Growth in the total correctional population during 2008 was the slowest in eight years. Washington, DC: U.S. Department of Justice; 2009.
- Burns SM, Mahalik JR. Physical health, self-reliance, and emotional control as moderators of the relationship between locus of control and mental health among men treated for prostate cancer. *Journal of Behavioral Medicine*. 2006; 29:561–572. [PubMed: 16988886]
- Courtenay WH. Construction of masculinity and their influence on men's well-being: a theory of gender and health. *Social Science & Medicine*. 2000; 50:1385–1401. [PubMed: 10741575]
- Courtenay, WH.; Sabo, D. Preventative health strategies for men in prison. In: Sabo, D.; Kupers, TA.; London, W., editors. *Confronting prison masculinities: The gendered politics of punishment*. Temple University Press; Philadelphia, PA: 2001.
- Draine J, Wilson AB, Pogorzelski W. Limitations and potential in current research on services for people with mental illness in the criminal justice system. *Journal of Offender Rehabilitation*. 2007; 45(3–4):159–177.
- Eisler RM, Skidmore JR, Ward CH. Masculine gender-role stress: Predictor of anger, anxiety, and health-risk behaviors. *Journal of Personality Assessment*. 1988; 52:133–141. [PubMed: 3361409]
- Frazier PA, Tix AP, Barron KE. Testing moderation and mediator effects in counseling psychology research. *Journal of Counseling Psychology*. 2004; 51:115–134.
- Gordon, DM.; Perez, A.; Nelayev, A. Bridgeport Fresh Star Community Re-entry Initiative: Year-to-date report. 2009.
- Grant BF, Dawson DA, Stinson FS, Chou SP, Dugour MC, Pickering RP. The 12-month prevalence and trends in DSM-IV alcohol abuse and dependence: United States, 1991–1992 and 2001–2002. *Drug and Alcohol Dependence*. 2004; 74:223–234. [PubMed: 15194200]

- Hatzenbuehler, ML.; Hilt, LM.; Nolen-Hoeksema, S. Gender, sexual orientation and vulnerability to depression. In: Chrisler, J.; McCreary, editors. *Handbook of Gender Research in Psychology*. New York, NY: Springer; 2009.
- Hsu HF. The patterns of masculinity in prison sociology: A case study in one Taiwanese prison. *Criminal Criminology*. 2005; 13:1–16.
- Iwamoto DK, Liao L, Liu WM. Masculine norms, avoidant coping and depressive symptoms among Asian American men. *Psychology of Men and Masculinity*. 2010; 11:15–24. [PubMed: 20657794]
- Johnson R. Manliness myths: The high price of prison survival. *American Journal of Criminal Justice*. 1979; 4:1–15.
- Kupers, T. Mental health in Men's prisons. In: Sabo, D.; Kupers, TA.; London, W., editors. *Confronting prison masculinities: The gendered politics of punishment*. Temple University Press; Philadelphia, PA: 2001.
- Levant RF, Richmond K. A review of research on masculinity ideologies using the males roles norms inventory. *Journal of Men's Studies*. 2007; 15:130–146.
- Levant RF. The new psychology of men. *Professional Psychology: Research and Practice*. 1996; 27:259–265.
- Liu WM, Rochlen A, Mohr J. Real and ideal gender role conflict: exploring psychological distress among men. *Psychology of Men and Masculinity*. 2005; 6:137–148.
- Mahalik JR, Locke BD, Ludlow LH, Demer MA, Scott RP, Gottfried M, Freitas G. Development of the conformity to masculine norms inventory. *Psychology of Men and Masculinity*. 2003; 4:3–25.
- Newton C. Gender theory and prison sociology: Using theories of masculinities to interpret the sociology of prisons for men. *Howard Journal of Criminal Justice*. 1994; 33:193–202.
- O'Neil JM, Helms B, Gable R, David L, Wrightsman L. Gender Role Conflict Scale: College men's fear of femininity. *Sex Roles*. 1986; 14:335–350.
- Parent MC, Moradi B. Confirmatory factor analysis of the Conformity to Masculine Norms Inventory and development of the Conformity to Masculine Norms Inventory-46. *Psychology of Men & Masculinity*. 2009; 10:175–189.
- Pleck, JH. The gender role strain paradigm: An update. In: Levant, R.; Pollack, WS., editors. *A new psychology of men*. New York: Basic Books; 1995. p. 11-32.
- Pomeroy EC, Kiam R, Green DL. Reducing depression, anxiety, and trauma of male inmates: An HIV/AIDS psychoeducational group intervention. *Social Work Research*. 2000; 24:156–167.
- Rochlen AB, McKelley RA, Suizzo M, Scaringi V. Predictors of relationship satisfaction, psychological well-being, and life satisfaction among stay-at-home fathers. *Psychology of Men & Masculinity*. 2008; 9:17–28.
- Sabo, D.; Kupers, TA.; London, W. *Confronting prison masculinities: The gendered politics of punishment*. Temple University Press; Philadelphia, PA: 2001.
- Siennick SE. The timing and mechanisms of the offending-depression link. *Criminology*. 2007; 45:583–615.
- Simpson, D. Texas Christian University Social Functioning Inventory. Texas Institute of Behavioral Research; TCU, Fort Worth: 2007.
- Syzdek MR, Addis ME. Adherence to masculine norms and attribution processes predict depressive symptoms in recently unemployed men. *Cognitive Therapy Research*. 2010.1007/s10608-009-9290-6
- Tajfel, H.; Turner, JC. An integrative theory of intergroup conflict. In: Hogg, M.; Abrams, D., editors. *The social psychology of intergroup relations*. New York: Psychology Press; 2001. p. 94-109.
- Thoits PA. Multiple identities and psychological well being: A reformulation and test of the social isolation hypothesis. *American Sociological Review*. 1983; 48:174–187. [PubMed: 6859677]
- U.S. Department of Justice. Prison statistics. 2011. Retrieved March 3, 2011 from the World Wide Web: <http://www.ojp.usdoj.gov/bjs/prisons.htm>
- Vandello JA, Bosson JK, Cohen D, Burnaford RM, Weaver JR. Precarious manhood. *Journal of Personality and Social Psychology*. 2008; 95:1325–1339. [PubMed: 19025286]

Woodward AT, Taylor RJ, Bullard KM, Neighbors HW, Chatters LM, Jackson JS. Use of professional and informal support by African Americans and Caribbean Black with mental disorders. *Psychiatric Services*. 2008; 59:1292–1298. [PubMed: 18971405]

Figure 1.
Moderator effects of heterosexual presentation with informal support on depressive symptoms

Note: * = $p < .05$. ns = non-significant

Figure 2.
Moderator effects of heterosexual presentation with informal support on anxiety symptoms
Note: * = $p < .05$. ns = non-significant

Table 1

Correlations, Means, Standard Deviations, Ranges

Measures	1	2	3	4	5	6	7	8
1. Depression	--							
2. Anxiety	.50**	--						
3. Age	.05	-.02	--					
4. Length	-.01	.00	-.02	--				
5. Informal	-.22**	-.51**	.02	.14	--			
6. Risk Taking	.18*	.11	-.17	-.03	.10	--		
7. Hetero	.16	.18*	-.22*	.00	.07	.10	--	
8. Emotional	-.18*	.00	-.11	.04	.04	.00	.13	--
<i>M</i>	15.7	11.0	31.7	25.3	.63	3.5	5.9	2.5
<i>SD</i>	6.3	2.5	8.8	27.3	.89	1.0	1.5	1.1
Range	10-41	10-26	19-62	1-168	0-5	1-6	2-8	0-6
α	.86	.69	---	---	.71	.70	.72	.78

*Note.** $p < .05$.** $p < .01$.Length = Length of incarceration in months; Informal = Informal Support; Hetero = Heterosexual Presentation. α = internal consistency estimate.

Table 2

Summary of hierarchical multiple regression analyses with depressive and anxiety symptoms as dependent variables

Variable	Outcome: Depressive Symptoms			
	Step 1		Step 2	
	B	SE	B	SE
Constant	13.79	2.70	13.12	2.70
Age	-.04	.06	-.06	.06
Length of incarceration	.00	.02	.00	.02
Heterosexual Presentation	.69	.34	.18*	.34
Risk Taking	.90	.50	.16	.50
Emotional Control	-.91	.44	-.18*	.45
Informal Support	-1.83	.56	-.28**	2.08
Hetero* Informal			-.93	.45
Emotional* Informal			.77	.63
Risk* Informal			.77	.79
Outcome: Anxiety Symptoms				
	Step 1		Step 2	
Constant	10.14	1.04	9.98	1.00
Age	-.00	.02	-.02	.02
Length of incarceration	-.00	.00	-.06	.00
Heterosexual Presentation	.28	.13	.17	.13
Risk Taking	.21	.19	.09	.19
Emotional Control	.06	.17	.03	.17
Informal Support	-1.83	.22	-.55**	.77
Hetero* Informal			-.56	.17
Emotional* Informal			.21	.24
Risk* Informal			-.30	.30

Note:

* $p < .05$,

.10
p<.d
**

NIH-PA Author Manuscript

NIH-PA Author Manuscript

NIH-PA Author Manuscript