THE IMPACT OF TRADITIONAL MASCULINITY IDEOLOGY ON VETERAN MENTAL HEALTH AND TREATMENT OUTCOME

by

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Abstract

This dissertation examines the intersections between traditional masculinity ideology, mental health, and psychotherapeutic treatment outcome among veteran men. This is an important line of inquiry as endorsement of traditional masculinity ideology is common among veteran men and linked to mental health concerns that can negatively impact the transition from military to civilian life. A better understanding of how, and through which means, traditional masculinity impacts veteran men's mental health and treatment outcomes may elucidate how negative effects of masculinity on the transition trajectory may be mitigated. To this end, three distinct, but interrelated studies were conducted. The first study aimed to determine the relevance of traditional masculinity ideology to veterans' transition trajectory by examining the relationship between individual masculinity facets and mental health. Results indicated that restrictive emotionality predicted posttraumatic stress disorder (PTSD), depression, and lack of perceived social support, and avoidance of femininity predicted alcohol-related problems. To build on these findings, we sought to assess whether the relationship between traditional masculinity ideology and veteran mental health extends to psychotherapeutic treatment outcome. We began by assessing whether individual masculinity facets impacted pre-to post-treatment change in PTSD symptomatology. Results indicated that higher endorsement of self-reliance and dominance attenuated positive treatment outcomes. To build on our learnings, we conducted a subsequent treatment-focused study to determine if similar results would be observed when measurement of treatment outcome was expanded beyond a single mental health category. To do so, treatment outcome was assessed according to changes in general psychosocial functioning. Additionally, we conducted three post-treatment follow-ups over 18 months to increase our understanding of how masculinity influences symptom change over a longer trajectory of time. Results indicated that higher endorsement of self-

reliance may impede treatment outcome and endorsement of toughness may improve outcomes overtime. Combined, results of the three studies can be used to identify means of interrupting the effects of masculinity on the military to civilian transition trajectory. They may also be useful in potentiating positive treatment outcome by indicating interventions points related to interrupting masculinity facets that may disrupt veteran wellbeing and bolstering those with possible protective effects.

Lay Summary

The purpose of this dissertation is to examine the impact of traditional masculinity ideology on veteran mental health and wellbeing. In a series of three studies, we examined the ways in which endorsement of traditional masculinity ideology, mental health, and psychological treatment outcome intersect among veteran men. While the first paper focuses on assessing the degree to which traditional masculinity ideology and veteran mental health are related, the second and third studies built on findings from the first study by assessing whether the identified relationship between traditional masculinity and veteran mental health extends to psychotherapeutic treatment outcome. While the second study examines treatment outcome according to a single mental health category (PTSD), the third study examines treatment outcome more broadly (general psychosocial functioning). In addition to assessing changes from pre- to post-treatment, the third study examines change over an 18-month post-treatment period of time. The results of these studies indicate that endorsing traditional masculinity ideology is likely to negatively impact veteran mental health. Certain facets appear to be more harmful to veteran mental health than others. In the context of treatment outcome, some facets of masculinity appear detrimental, while others are indicated to be neutral or even supportive of change overtime.

Preface

Study 1, outlined in chapter 2, was conducted at the University of British Columbia (UBC). The manuscript was published in the *Journal of Men's Studies* (date of publication: March 15, 2020; copyright Sage Journals). The citation for this publication is as follows: O'Loughlin, J.I., Cox, D.W., Ogodniczuk, J.S., Castro, C.A. (2020). The relation between traditional masculinity ideology and outcomes of military to civilian transition in veteran men. *Journal of Men's Studies, 28,* 318-338. My contribution was the formulation of research questions, data analysis, and manuscript preparation. Participant recruitment and data collection were conducted by Myfanwy Bakker and Leah Baugh. Dr. Daniel W. Cox was responsible for the ethics application. He contributed to data analysis and manuscript preparation. Dr. John S. Ogrodniczuk and Dr. Carl A. Castro contributed to manuscript preparation. Ethical approval for this research project was provided by the UBC Behavioural Research Ethics Board (H13-00206).

Study 2, outlined in chapter 3, was conducted at the University of British Columbia. The manuscript was published in *Counselling Psychology Quarterly* (date of publication: May 10, 2021; copyright Routledge; Taylor & Francis Group). The citation for this publication is as follows: O'Loughlin, J.I., Cox, D.W., Castro, C.A., Ogodniczuk, J.S. (202). Disentangling the individual and group effects of masculinity ideology on PTSD treatment. *Counselling Psychology Quarterly*, 1-16. My contribution was the formulation of the research questions, data analysis and manuscript preparation. Dr. Daniel W. Cox was responsible for the ethics application. He contributed to data analysis and manuscript preparation. Dr. John S. Ogrodniczuk and Dr. Carl A. Castro contributed to manuscript preparation. Participant recruitment and data collection was supported by Myfanwy Bakker and Leah Baugh. Ethical approval for this research project was provided by the UBC Behavioural Research Ethics Board (H13-00206).

Study 3, outlined in chapter 4, was conducted at the University of British Columbia. The manuscript was submitted in consideration for publication to *Psychology of Men and Masculinities* (March 2022).

My contribution was the formulation of the research questions, data analysis and manuscript preparation. Participant recruitment and data collection were conducted by Myfanwy Bakker and Leah Baugh. Dr. Daniel W. Cox was responsible for the ethics application. He contributed to data analysis and manuscript preparation. Dr. John S. Ogrodniczuk and Dr. Carl A. Castro contributed to manuscript preparation. Additional data analysis support was provided by Dr. Bozena Zdaniuk. Ethical approval for this research project was provided by the UBC Behavioural Research Ethics Board (H13-00206).

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Dedication

To the loves of my life, James and Jude.

Chapter 1: Introduction

This dissertation focuses on the intersections between traditional masculinity ideology, mental health, and psychotherapeutic treatment outcome among Canadian veteran men. To this end, a series of three quantitative research studies were conducted and are presented in chapters 2, 3, and 4, respectively. To support the reader's comprehension of the research studies that follow, outlined below, are several related constructs and frameworks.

1.1 Gender & Gender Socialization

Broadly, gender socialization describes a process wherein societal customs concerning what it means to be male and female (and how those meanings are presented socially and otherwise) are internalized via cultural influences (e.g., peers, parents, teachers, media, etc.; (Fagot, Rodgers, & Leinbach, 2000). More specifically, via gender socialization processes, individuals learn to discriminate and identify self and others on the basis of sex; they learn to recognize characteristics, dispositions, and behaviours that are considered typical for men and women, and to act in ways that are considered in accordance with their identified gender. Thus, gender may be conceptualized as a manifestation of cultural beliefs, norms, and stereotypes (Pleck, 1995), or "an emergent feature of social situations" rather than something that exists independently in the natural world (West & Zimmerman, 1987, p. 126). Put differently, gender norms are an extension of social norms, defined as the rules that prescribe what constitutes acceptable or unacceptable behaviour for men and women (Mahalik et al., 2003). These rules are not static nor universal; they are socially constructed and a product of their time and environment.

1.2 Traditional Masculinity Ideology

Masculinity refers to a "socially constructed gender ideal for men and male role models" (Thompson & Pleck, 1995, p.131). The belief system surrounding the importance attributed to boys

and men adhering to the culturally defined standards and norms that denote masculinity, (i.e., the socially constructed male ideal) is referred to as masculinity ideology (Thompson & Pleck, 1995). Masculinity ideology sets the expectation for boys and men to conform to what is deemed acceptable within a given society (Levant & Richmond, 2008). As cultural and contextual factors influence how masculinity is expressed (Garcia, Finley, Lorber, & Jakupcak, 2011), there is no single or universal standard of masculinity (Levant, 1996). Instead, what it means to "be a man" may vary greatly as per the differential standards of masculinity that emerge along lines of social class, race, ethnicity, sexual orientation, life stage, and generation (Thompson & Pleck, 1995). With this variability in mind, the term "masculinities," is more apt.

The central construct of interest in this dissertation, *traditional masculinity ideology*, refers specifically to a common constellation of standards and expectations for men that has been observed within contemporary Western culture (Levant, 1996; Levant & Richmond, 2008). Within this ideology, achievement, toughness, emotional control, and self-reliance are emphasized, while appearances of weakness and help-seeking are discouraged (Levant & Richmond, 2008). While this multidimensional construct is proposed to be the dominant view of the male role in Western culture, it is not necessarily representative of normative behaviour for all, or most, men. Rather, the degree to which, and ways in which, men endorse traditional masculinity ideology vary widely. For example, one may endorse certain facets of masculinity and not others; or one may hold contradictory beliefs across gender ideologies such as having a progressive attitude toward women's roles (e.g., endorsing equal pay) while at the same time, a conservative attitude toward men's roles (e.g., assuming the need to be the breadwinner).

Conformity to traditional masculinity ideology has been linked with several psychosocial problems. For example, deficits in relational skills, such as less willingness to disclose personal

information, thoughts, and feelings (Burns & Ward, 2005) and poor social functioning (Wong, Ho, Wang, Miller, 2017) have been associated with traditional masculinity ideology. As such, men who conform to masculinity norms are less likely to be satisfied in their romantic relationships (Burns & Ward, 2005) and typically, have smaller social networks (Wohlgemuth & Betz, 1991). Additionally, conformity to traditional masculinity ideology is associated with more health risk behaviours (e.g., not wearing safety equipment, not practicing safe sex) and fewer health promotion behaviours (e.g. regularly seeing a physician, less willingness to see a mental health provide; (Mahalik, Levi-Minzi, & Walker, 2007). Aggression (Thomas & Levant, 2012), homophobia (Rosenberg, Gates, Richmond, & Sinno, 2017), negative attitudes towards racial diversity and women's equality (Wade & Brittan-Powell, 2001), and intimate partner violence (Santana, Raj, Decker, La Marche, & Silverman, 2006) have also been linked with traditional masculinity.

Most pertinent to the focus of this dissertation is the association between endorsement of traditional masculinity ideology and negative mental health outcomes (Wong et al., 2017). Examples of this relationship include links between depression with the restrictive emotionality (Shepard, 2002) and drive for achievement (Good & Wood, 1995) facets of masculinity. Endorsement of traditional masculinity ideology has also been associated with suicidal ideation (Coleman, 2015) and the development of post-traumatic distress disorder (PTSD) following exposure to a traumatic event (Cox & O'Loughlin, 2017).

The impact of traditional masculinity ideology on mental health outcomes is strongly moderated by resistances to seeking support for emotional challenges. Indeed, those who adhere to the self-reliance facet of masculinity norms are less likely to seek support from both formal and informal sources in response to psychological distress (Berger, Addis, Green, Mackowiak,

Goldberg, 2013; Yousaf, Popat, & Hunter, 2015). As a result, mental health and adjustment difficulties are more likely to be exacerbated.

While many men who endorse traditional masculinity ideology refuse to seek help, others are willing to seek support. Unfortunately, even among those who pursue treatment, endorsement of masculinity ideology may complicate psychotherapeutic treatment engagement and process (for reviews, see Lorber & Garcia, 2010; Neilson, Singh, Harper, & Teng, 2020). While there have been efforts towards adapting psychotherapy to be more inclusive to the needs of boys and men (e.g., Kiselica, Benton-Wright, & Englar-Carlson, 2016), there exist several discrepancies between masculinity norms and the processes upon which many contemporary psychotherapeutic approaches rely (Brooks, 1998). For example, traditional masculinity norms that teach men to hide private experiences, maintain control, be stoic, present self as invincible, and favor action over introspection, conflict with traditional psychotherapeutic processes that require self-disclosure, recognizing and expressing feelings, experiencing vulnerability, confronting pain, and admitting difficulty (Brooks, 2010). As a result, a mismatch between approach and relational style may make psychotherapy aversive to men who endorse masculinity norms and increase potential for treatment disengagement or dropout (Lorber & Garcia, 2010).

While much of the research and literature dedicated to the study of masculinity ideology represent it as a construct related to personal, relational, and social problems, there has been a recent shift towards a nuanced perspective. The positive psychology positive masculinity paradigm (Kiselica, Benton-Wright, Englar-Carlson, 2016) for example, asserts that positive aspects of masculinities exist yet have been largely overlooked or not accounted for. As a result, masculinity has been incorrectly viewed as categorically negative for psychosocial wellbeing.

According to the positive psychology positive masculinity paradigm, there exist masculinity-related beliefs and behaviours which are intra- and inter-personally positive (Kiselica et al., 2016). They support men's personal and relational health and interrupt societal problems associated with toxic masculinity. Drawing from theory and qualitative research, 11 potential domains of positive masculinity (i.e., facets that accentuate noble aspects of masculinity and are considered strengths over deficits) have been identified. Examples include: the worker–provider tradition of men, men's respect for women, the group orientation of men and boys, and use of humor (McDermott et al., 2018).

Likewise, there has been recent encouragement to consider the possibility that the impact of traditional masculinity ideology on psychotherapeutic processes is not wholly negative. For example, in the context of group therapy process, masculinity has been observed to facilitate an increase in willingness to disclose personal challenges and emotional distress via the familiar dynamic of camaraderie among veteran men (De Visser, Smith, & McDonnell, 2009; Green, Emslie, O'Neill, Hunt, & Walker, 2010; Scheinfeld, Rochlen, & Russell, 2017). Moreover, there is reason to believe that integrating masculinity ideology-congruent language or rhetoric into the therapy process may facilitate improvements in treatment engagement among veteran men (Shields, Kuhl, & Westwood, 2017). Underlying this stance is the recognition that approaches used in many cotemporary forms of psychotherapy may in essence, be culturally foreign to men who endorse traditional masculinity. This may result in a lack of identification with, or non-acceptance of, the treatment processes. Re-conceptualizing psychological treatment via masculinity-congruent norms may enhance motivation to seek and engagement with treatment. Examples of this include framing treatment a process that requires strength and a willingness to work hard to overcome obstacles; a process that necessitates grit or toughness. In one study, masculinity was indicated to motivate

treatment engagement among veteran men via a reframing of help-seeking as actively dealing with, or *fighting* against, PTSD (Caddick, Smith, & Phoenix, 2015). Finally, there are indications that intentionally integrating language and aspects of masculinity ideology into treatment process may support treatment engagement via an affirmation of one's status as a man (Spector-Mersel & Gilbar, 2021). When men who endorse traditional masculinity ideology are not expected or required to wholly abandon the gendered aspects of their identity, they may engage more in treatment. As a result, they may form instead, a hybrid masculinity in which they selectively resist and maintain varying facets of traditionally masculinity (Bridges & Pascoe, 2014; Spector-Mersel & Gilbar, 2021).

1.3 Masculinity in the Military

There are few institutions that endorse masculinity ideals more overtly than does the military (Chen & Dognin, 2017). In many respects, masculinity ideals are a core and organizing feature of military culture; they permeate the history, values, and traditions of the US and Canadian militaries (Cogan, Haines, & Devore, 2021; Taber, 2018). For example, masculinity ideals (e.g., restrictive emotionality, toughness, self-reliance, and dominance) are represented in the military's emphasis on reason over emotion and strength over weakness, testing and celebration of stoicism and rigid self-reliance (camaraderie among service providers notwithstanding), and sanctioning of aggression/violence (Chen & Dognin, 2017; Fox & Pease, 2012).

As there is a wide variety in the degree to which military members endorse and enact culturally embedded masculinity norms, the term "military masculinities" is most appropriate for use in this context (Higate, 2003). That being said, elements of traditional masculinity ideology form, for many, an essential feature of their military life and identity as a soldier (Barrett, 1996; Green et al., 2010). Some recruits begin to endorse traditional masculinity norms as they become

immersed in military culture, while for others—those who identified with masculinity ideology prior to enlisting—endorsement intensifies during service (Brooks, 2001). The term *secondary socialization* (Arkin & Dobrofsky, 1978) has been used to describe the latter processes whereby masculinity ideology is adopted or amplified by way of immersion into military life and culture.

While military masculinities are represented in varied ways among military members (Higate, 2001), its centrality within military culture can be linked to the fact that men who elect to join the military are more likely to identify with hypermasculine culture (Barrett, 1996; Brooks, 2001). Moreover, endorsement of masculinity ideology is promoted, tested, and celebrated within military culture as a means of preparing members of the military for combat (Fox & Pease, 2012). Further, and perhaps most influential, is the fact that traditional masculinity within the military is privileged and connected with institutional power (Taber, 2018). The concept of hegemony provides a useful framework in which to understand the privileging of hypermasculinity within the military culture (Richard & Molloy, 2020).

Hegemonic identities are those that are constructed within social systems, like the military, in which hierarchy is well defined (Connell & Messerschmidt, 2005). These identities legitimize the privileging of one over another and thus, are sought as a means of gaining power within a cultural system. Within the military, those who conform to masculine ideals are privileged, whereas those who enact marginalized or subordinated forms of masculinity are positioned lower on the hierarchy (Connell, 1995; Taber, 2018). As a result, many men entering the military strive to exemplify hypermasculine traits as a means of positioning themselves with power over other recruits, branches, ranks and occupations within the military (Hinojosa, 2010). In this way, the institution of the military facilitates the creation, confirmation, reinforcement, and maintenance of hegemonic masculinities (Richard & Molloy, 2020).

While successful military missions may necessitate the performance of hegemonic masculinity, or traditional masculinity ideals, these behaviors can precipitate a difficult military to civilian transition.

1.4 Military to Civilian Transition

Arguably to fully contextualize the process of military to civilian transition and elucidate the complexity of the experience (Blackburn, 2017), the role of culture—and its association with identity—requires attention. With its distinct history, laws, values, traditions, language and customs, the military is a culture unto itself (for review, see Hall, 2011). As such, a process akin to acculturation occurs for military recruits as they engage in general lifestyle changes (e.g., communal living) and transition to new ways of dressing (i.e., wearing uniform), behaving (e.g., saluting), being positioned within a hierarchical structure (i.e., ranks), being managed (e.g., receiving supervision), and speaking (e.g., acronyms and technical language); (Bergman, Burdett, Greenberg, 2014). The implications of this culture-bound identity shift can be profound for military members upon their re-entry to civilian life. Specifically, for some, changes that have occurred within their frame of reference result in a mismatch between the returnee, their environment, and the people they left behind (Shields et al., 2016). Termed ‘reverse culture shock’ (Bergman et al, 2014), such difficulties are rarely anticipated, as familiarity with a home environment is reasonably expected.

Despite the common occurrence of reverse culture shock, most members of the armed forces transition to civilian life with no to little difficulty. For others however, the process is wrought with challenge. Indeed, an estimated 25% of Canadian Armed Forces (CAF) members (Dallaire & Wells, 2014) and 44% of American veterans (Morin, 2011) characterize their transition to civilian life as challenging. Challenges may arise for many reasons (for a review, see Morin, 2011), however,

common risk factors include: having experienced emotional or physical trauma while serving, pre-enlistment socioeconomic and educational challenges, few plans for employment in civilian life, and lacking housing arrangements (Derefinko, Hallsell, Isaacs, Colvin, Salgado Garcia, & Bursac, 2019). Overall, for many, this is a time wherein sequalae related to emotional and physical traumas diversify or become more complex, leading to psychosocial consequences. More specifically, a difficult transition to civilian life is associated with a higher prevalence and degree of severity with respect to mental health difficulties (Derefinko et al., 2019; Shields et al. 2017), interpersonal difficulties (e.g., family and marital problems (Morin, 2011) or disconnection from friends; (Ahern et al., 2015), functional impairments (e.g., under- or unemployment (Kintzle & Castro, 2018), homelessness (Fargo, Metraux, Byrne, Munley, Montgomery, Jones, Sheldon, Kane, & Culhane, 2012), and suicidality (Sokol, Gromatsky, Edwards, Greene, Geraci, Harris, & Goodman, 2021).

Several of the above listed risk factors of difficult military to civilian transition have also been linked with endorsement of traditional masculinity ideology including mental health difficulties (Wong et al., 2017) and lack of social support (Wester et al., 2007). This provides a rationale for assessing the degree to which endorsement of traditional masculinity ideology precipitates or potentiates a difficult military to civilian transition.

1.5 Military Transition Theory

Military Transition Theory (Castro & Kintzle, 2014) provides a framework to identify the key moments during transition during which veterans are most likely to encounter difficulties. Specifically, within this theoretical framework, there are three interacting and overlapping stages to the transition process; each stage can be impacted differentially by a unique combination of individual, interpersonal, community, and organizational factors. The first phase, ‘Approaching the Military Transition,’ covers the personal and cultural factors that create the foundation of the

transition trajectory (e.g., type of military discharge and combat history, current physical and mental health, personal preparedness, etc.). The next phase, 'Managing the Transition,' outlines the individual adjustment factors (e.g., a person's coping styles, attitudes, and beliefs), military transition management variables (e.g., veteran's benefits, career planning, etc.), and the availability of community and civilian transition support (e.g., career counselling, mental health services, etc.) that are likely to impact military to civilian transition. The final phase, 'Assessing the Transition', focuses on the outcomes associated with transition, specifically as they pertain to adequate employment, readjustment to family life, mental and physical health, and social and community engagement.

Military Transition Theory demonstrates the intersectional nature of transition back to civilian life (i.e., that successful transition is a function of several interconnected factors, such as having a job, health status, social and family support, etc.; Kintzle, Wilcox, & Hassan, 2013), as well as the multidimensional nature of transition (i.e., that success or failure in one outcome does not indicate success or failure in transition overall; (Castro & Kintzle, 2016). Using the language of Military Transition Theory, traditional masculinity ideology, and its individual facets, may be thought of as personality variables with implications for individual adjustment factors. Inserting endorsement of traditional masculinity ideology as a personal and cultural factor defines it as foundational to the transition trajectory. As it intersects with individual adjustment factors—coping styles, attitudes, and beliefs—it impacts readjustment to family life, mental health, and social and community engagement (i.e., transition outcomes).

1.6 Veteran Mental Health & Masculinity

Military members experience greater exposure to potentially traumatic events than the general public (Vogt, 2011). As a result, they are at heightened risk of experiencing mental health

challenges. These may present during active duty (Lazar, 2014), or amidst military members' transition to civilian life (Statistics Canada, 2019). PTSD typically receives the most attention in the context of veteran mental health, however, depression, anxiety, and substance abuse are also commonplace among veterans who served in the Iraq and Afghanistan wars (Iversen & Greenberg, 2009). For example, within the CAF, an estimated 44% of veterans experience symptoms consistent with depression, anxiety, or both (Statistics Canada, 2019). Similarly high prevalence rates of mental health challenges have been observed in members of the American Armed Forces, with 41% of veterans who served in the Operation Enduring Freedom (OEF), Iraqi Freedom (OIF), and New Dawn-era requiring general mental health treatment (The National Academics of Science, Engineering, & Medicine, 2018).

Traditional masculinity ideology endorsement among veterans has been indicated as a risk factor for veteran mental health challenges, including PTSD (e.g., Cox & O'Loughlin, 2017), depression (e.g., Jakupcak, Blais, Grossbard, Garcia, & Okiishi, 2014), and substance abuse (e.g., Lorber & Garcia, 2010). In contrast to these findings, there are indications that certain masculinity facets (e.g., success dedication) can have a protective effect on veteran mental health (Garcia et al. 2011).

1.7 Summary

To summarize, traditional masculinity ideology is defined as an internalization of culture-bound beliefs and attitudes associated with the ideal male role (Levant & Richmond, 2008). It is learned through gender socialization processes via which the rules that prescribe what constitutes acceptable or unacceptable behaviour for men and women are absorbed (Mahalik et al., 2003). There is a large body of research pointing to the negative implications of traditional masculinity ideology endorsement for boys, men, and society. These include mental health difficulties (Wong et

al., 2017), social and relational challenges (Burns & Ward, 2005), and detrimental health behaviours (Mahalik et al., 2007). Mental health difficulties among men who endorse traditional masculinity ideology are frequently exacerbated via a reduced willingness to seek help (Berger et al., 2013) as well as interruptions to psychotherapeutic treatment engagement and process (Neilson et al., 2020).

The association between traditional masculinity ideology, mental health, and psychotherapeutic treatment outcome is highly relevant for male members of the Armed Forces, as men who elect to join the military are more likely to identify with hypermasculine culture (Barrett 1996; Brooks, 2001). Moreover, hypermasculine ideals (e.g., emotional control, physical fitness, self-discipline, self-reliance, the willingness to use aggression and physical violence, and risk taking; Connell & Messerschmidt, 2005) can become further entrenched through military culture and training, where they are often tested, celebrated, and enacted throughout active duty (Fox & Pease, 2010). The intersection between the high degree of endorsement of traditional masculinity ideology, recent exposure to potentially traumatic events, and proximal entrenchment in military culture may potentiate several risk factors associated with a difficult military transition for veteran men and increase the need for gender-sensitive therapeutic interventions.

1.8 Purpose and Structure of this Dissertation

The overarching purpose of this dissertation was to examine the impact of traditional masculinity ideology endorsement on veteran men's mental health and psychotherapeutic treatment outcome. To this end, a series of three studies was conducted. The first of these studies (presented in chapter 2) sought to better understand the association between traditional masculinity ideology endorsement and veteran transition by examining the relationship between traditional masculinity ideology endorsement and four correlates of a difficult military to civilian transition—PTSD,

depression, perceived social support, and alcohol-related problems. Within this study and the others that follow, the effects of individual masculinity facets were parsed for more specificity. The masculinity facets examined (restrictive emotionality, avoidance of femininity, toughness, dominance, and self-reliance) were selected on the basis of their theoretical relevance to mental health and psychological treatment process. Results of the first study indicated that restrictive emotionality was associated with PTSD, depression, and perceived social support, whereas avoidance of femininity was associated with alcohol-related problems. These results provide support for positioning masculinity within military transition theory (Castro & Kintzle, 2014) as a personal and (military) cultural factor as it appears to have ramifications on transition outcomes, specifically mental health and social engagement.

Building on findings from the first study, the second study (presented in chapter 3) aimed to assess whether the relationship between traditional masculinity ideology and veteran mental health extends to psychotherapeutic treatment outcome. Here, we explored the impact of traditional masculinity ideology endorsement on PTSD symptoms pre- and post-treatment. To better understand how masculinity may impact treatment outcome, we tested the degree to which a shared endorsement of masculinity among veteran men during group treatment relates to treatment outcome. Thus, in this study, the impact of traditional masculinity on PTSD pre- to post-treatment symptom change was measured at the individual level, and the group level (i.e., among other group members). Results indicated that the degree of individual self-reliance and dominance attenuated positive treatment outcomes, particularly with respect to total PTSD symptom change and PTSD-related avoidance symptoms. Self-reliance also attenuated symptom change in negative alterations in cognitions and mood and hyperarousal clusters. Other group members' degree of masculinity did not appear to impact individual participants' pre- to post-treatment PTSD symptom change. This

study points to the importance of interrupting beliefs and behaviours associated with self-reliance and dominance in veteran men seeking treatment for PTSD.

Finally, to build on the finding that endorsement of traditional masculinity ideology has relevance for treatment of PTSD in veteran men, another treatment-focused study (presented in chapter 4) was conducted to determine if similar results would be observed when measurement of treatment outcome was expanded beyond a single mental health category. To do so, treatment outcome was assessed according to changes in general psychosocial functioning. Additionally, we built on prior findings by examining changes that occurred pre- to post-treatment *and* over an 18-month post-treatment period. Results of the study indicated that higher endorsement of the self-reliance facet of masculinity may impede treatment outcome and that endorsement of the toughness facet of masculinity may improve treatment outcomes overtime. While the toughness facet was indicated to improve treatment outcomes overtime, it, and all other masculinity facets examined, was associated with overall lower levels of psychosocial functioning. These results extend our understanding of how the therapy process is impacted by endorsement of masculinity and can assist clinicians in developing strategies and interventions that are congruent with the emotional and relational style of veteran, and other men, who endorse traditional masculinity.

Chapters 2, 3, and 4 were submitted as autonomous manuscripts (a version of chapter 2 has been published in *Journal of Men's Studies*, a version of chapter 3 has been published in *Counselling Psychology Quarterly*, and a version of chapter 4 has been submitted to *Psychology of Men and Masculinities*).

Chapter 2: The Association Between Traditional Masculinity Ideology and Predictors of Military to Civilian Transition Among Veteran Men

2.1 Introduction

For many service members, military to civilian transition is an arduous experience (Thompson et al., 2017). Approximately 25% of Canadian veterans (Dallaire & Wells, 2014) and 44% of American veterans (Segal & Segal, 2004) report their adjustment to civilian life as being difficult or challenging. These are worrisome statistics considering that veterans who experience difficulty during transition to civilian life are at greater risk for deleterious long-term psychosocial problems such as homelessness, addiction, unemployment, divorce, and suicidality (see Shields et al., 2016 for a review). There are several factors that may explain why some veterans find readjustment to civilian life challenging, whereas others make the transition with little or no difficulty. Among the most commonly cited factors associated with difficult transition to civilian life are social isolation and mental health difficulties—namely posttraumatic stress disorder (PTSD), depression, and substance use disorder (see Rose, VanDenkerkof, & Schaub, 2018; Shields et al., 2016 for a review).

Frequently overlooked as a factor that may potentiate difficult military to civilian transition is the continued enactment or endorsement of traditionally masculine behaviors that are emphasized via military culture and training. In civilian life, these behaviors, which include but are not limited to marked stoicism, aggression, dominance, rigid self-reliance, may be regarded by society as less adaptive (Brooks, 1990, 2001). Although men in in the military adhere to these culturally embedded masculinity norms in diverse ways and to variable degrees, such behaviors, or the belief that they symbolize the ideal representation of manhood (i.e., traditional masculinity ideology; Levant & Richmond, 2008), is, for many veteran men, a core feature of their military life and

identity (Barrett, 1996). While many men who elect to join the military identify with hypermasculine culture prior to entering the Armed Forces (Barrett 1996; Brooks, 2001), others undergo a "secondary socialization" (Arkin & Dobrofsky, 1978, p. 159) via military training and culture, which promotes, tests, and celebrates hypermasculinity to prepare members of the military for combat (Fox & Pease, 2012). In many ways, the structure and values of the military—clearly defined hierarchy, prioritization of reason over emotion, and emphasis on strength over weakness—align with traditional masculinity ideals, such as toughness, dominance, and control (Chen & Dognin, 2017).

While it may be the case that successful military missions necessitate the performance of traditional masculinity ideals, there is empirical evidence that these behaviors, or the belief that they define the optimal performance of manhood, can precipitate challenges that lead to a difficult military to civilian transition. Specifically, there is evidence that endorsement of traditional masculinity ideology in veteran men increases the risk for PTSD (e.g., Cox & O'Loughlin, 2017), depression (e.g., Jakupcak, Blais, Grossband, Garcia, & Okiishi, 2014), lack of social support (e.g., Jakupcak, Osborne, Michael, Cook, & McFall, 2006), and substance abuse (e.g., Lorber & Garcia, 2010).

Although endorsement of traditional masculinity ideology has consistently been linked to psychosocial difficulties, it has been argued that viewing traditional masculinity as inherently problematic is overly simplistic, as masculinity ideals generally, and within military culture specifically, are complex, situational, and contextual (e.g., Green, Emslie, O'Neil, Hunt, & Walker, 2010). For example, there is recent research suggesting that traditional masculinity can be seen alternately as a danger *and* as a resource for veteran men's health and well-being (Caddick, Smith, Phoenix, 2015). Moreover, it is important to note that traditional masculinity ideology is not a

"normative referent" for men, but rather a common constellation of standards and expectations for men in the Western world (Levant. 1996, p. 259). For these reasons, it has been suggested that studies of traditional masculinity involve a conceptualization of the construct that is multidimensional (e.g., Higate, 2003), and one that is not assumed to be dichotomously either good or bad.

2.1.1 Military Transition Theory

Military transition theory (Castro & Kintze 2014) provides a framework through which the effect of traditional masculinity ideology on veteran transition can be understood. Within military transition theory, endorsement of traditional masculinity ideology may be considered a personal and cultural (i.e., military culture) factor that contributes to the foundation of the transition trajectory. According to the theory, personality and cultural factors may impact individual adjustment factors, such as a person's coping styles, attitudes, and beliefs, which subsequently impact transition outcomes, including readjustment to family life, mental health, and social and community engagement. Below, we review how traditional masculinity ideology and veteran transition intersect with PTSD, depression, social support, and alcohol use, respectively.

2.1.2 Masculinity and PTSD

Members of the military are frequently exposed to traumatic events throughout the course of their military careers, such as being attacked or ambushed, involved in combat, accidental injury, or witnessing someone being badly injured or killed (Hoge et al., 2004). While some service members recover from such trauma exposure, many continue to experience trauma-related symptoms (i.e., re-experiencing symptoms, avoidance symptoms, negative changes in cognitions and mood, and alterations in arousal or reactivity symptoms) far past the occurrence of the traumatic event, often

meeting diagnostic criteria for PTSD (*Diagnostic and Statistical Manual of Mental Disorders*; 5th ed.; *DSM*–5; American Psychiatric Association, 2013).

While there are several factors that may potentiate the development of PTSD following exposure to a traumatic event (see Schnurr, Lunney, & Sengupta, 2004 for a review), it has been suggested that endorsement of traditional masculinity ideology increases the risk of developing PTSD following exposure to a traumatic event predominantly through avoidance of behaviors associated with trauma recovery (Garcia, Finley, Lorber, & Jakupcak, 2011). For example, the restrictive emotionality and self-reliance facets of traditional masculinity ideology may impede emotional processing of the traumatic experience by encouraging veterans to actively avoid discussing their experience, reactions, and the impact of the event with others, as doing so would be discordant with traditionally masculine ideals (i.e., may result in a lack of emotional control or convey that one is unable to manage his symptoms independently). As a result, important recovery resources, such as social support are obfuscated, willingness to seek mental health care is reduced, or, in cases where help is sought, responsiveness to clinical interventions for PTSD that aim to interrupt avoidance of distressing trauma-related emotions, beliefs, and memories are impeded (Lorber & Garcia, 2010).

Although the relationship between traditional masculinity and PTSD is conceptually plausible, results of empirical studies examining this association in veteran men are mixed. Cox and O'Loughlin (2017) found that traditional masculinity ideology predicted PTSD, whereas Garcia et al., (2011) found that only a specific facet of traditional masculinity—self-reliance—predicted PTSD-related hyperarousal symptoms. Unexpectedly, Garcia et al. (2011) also found that the masculinity-congruent facet of success dedication may have a protective function against PTSD-related avoidance symptoms. Jakupcak et al. (2014) found a relationship between the emotional

toughness facet of masculinity and PTSD. Still others (e.g., Jakupcak et al., 2006) have found a non-significant relationship between PTSD symptom severity and traditional masculinity. These varied empirical findings indicate the need for additional research on larger samples, that involve more in-depth examination of the relationship between traditional masculinity ideology (and its individual facets) and PTSD.

2.1.3 Masculinity and Depression

There is emerging research indicating that pressure to conform to traditional masculinity ideals may contribute to men's risk of developing depression. In civilian populations, the drive for achievement (i.e., dominance) has been linked with depression in men (Good & Wood, 1995), as has restrictive emotionality (Shepard, 2002). Specifically, it has been theorized that restrictive emotionality leads some men to suppress their emotional responding (Addis, 2008), a behavior associated with negative affect and increased psychological distress (Butler et al., 2003).

Given the cultural feminization of depression (see Kilmartin, 2005 for a review), men who actively avoid femininity may be dissuaded from disclosing their distress to others (O'Brien, Hunt, & Hart, 2005), thereby impeding their access to sources of social support and mental health services. This dynamic may be exacerbated in the context of military culture (Green et al, 2010), where distress is equated with weakness (Greene-Shortridge, Britt, & Castro, 2007), and thus, actively denied. In veteran men specifically, a higher degree of the toughness facet of traditional masculinity ideology has been found to be associated with depression (Jakupcak et al., 2014). Additionally, among civilians, the toughness facet of traditional masculinity ideology has been associated with a greater likelihood to take a wait-and-see approach to help-seeking for depression (O'Loughlin et al., 2011), potentially causing symptoms to intensify in the absence of treatment.

2.1.4 Masculinity and Social Support

Social support is considered a potent protective factor during military to civilian transition (Ahern et al., 2015), as veterans who receive sufficient social support from friends, family, or significant others are at lower risk of mental health problems (Pietzak et al., 2010). However, studies have found that upwards of 48% of veterans reported strained relationships with friends and family (Morin, 2011). Many indicated feelings of alienation from loved ones upon returning home (Ahern et al., 2015), as well as a sense of loss with respect to camaraderie and friendships formed during service (Blackburn, 2017).

Endorsement of traditional masculinity ideology may further impede veterans' access to social support in the civilian world. In the general population, gendered behaviors have been shown to effect social support behaviors, such that femininity is traditionally aligned with seeking and receiving support, particularly emotional support, whereas traditional masculinity is associated with independence, competitiveness, and self-reliance (Reevy & Maslach, 2001). This may explain why men who more strongly endorse aspects of traditional masculinity typically report having significantly smaller social networks (Wohlgemuth & Betz, 1991) and less frequently seek assistance from their social support resources when dealing with challenges (Oliver, Reed, Katz, & Haugh, 1999). In the general population, an inverse relationship between traditional masculinity and perceived social support has been observed (Wester, Christianson, Vogel & Wei, 2007). In particular, the masculinity facet of restrictive emotionality has been shown to contribute to feelings of disconnection or isolation in family and social relationships (Bruns & Mahalik, 2011). In a sample of veteran men, the pressure to conform to traditional masculinity ideals was significantly and negatively associated with social support (Jakupcak et al., 2006).

2.1.5 Masculinity and Alcohol Abuse

It has been suggested that, in the military, alcohol use is an acceptable means of coping with distress, and that the pressure to conform to traditional masculinity ideals may contribute to the continuation of this behavior after leaving the military (Lorber & Garcia, 2010). Specifically, veteran men may opt to use alcohol to cope with transition difficulties, such as traumatic memories, isolation, anger, and psychological/physical injury (Ames, Cunradi, Moore, & Stern, 2007), as doing so is more congruent with traditional masculinity ideals (e.g., stoicism) than is disclosing distress to friends, family, or mental health professionals (Lorber and Garcia, 2010). The association with pressures to conform to traditional masculinity ideals and the use of alcohol to cope with distress has been observed in the civilian population (Greene-Shortridge et al., 2007; Isenhart, 2003). Individual facets of traditional masculinity including toughness, avoidance of femininity (McCreary, Newcomb, & Savada, 1999) and emotional control (Liu & Iwamoto, 2007) have been associated with heavy drinking. This may explain why veteran men are at twice the risk for substance use disorder compared to their female counterparts (Seal et al., 2009).

2.1.6 The Present Study

While the relationship between traditional masculinity ideology and factors associated with difficult military to civilian transition has been recognized, it remains unclear which facets of traditional masculinity most strongly contribute to these risk factors. To better understand the association between traditional masculinity ideology and factors that potentiate difficult veteran transition, we examined the relationship between five facets of traditional masculinity ideology – restrictive emotionality, avoidance of femininity, toughness, dominance, and self-reliance – and four predictors of difficult veteran transition – PTSD, depression, perceived social support, and alcohol-related problems within a population of veteran men who attended a program for veterans

who are struggling with transition to civilian life. The above-listed facets of traditional masculinity ideology were selected due to their theoretical and empirical association with veteran transition.

2.2 Methods

2.2.1 Participants & Procedures

Participants were (N = 289) Canadian veteran men who participated in a multimodal group therapy program designed to facilitate transition to civilian life. The program is open to all veterans who identify as struggling with transition to civilian life. Veterans are made aware of this program via word of mouth (e.g., healthcare providers, peers) and do not pay a fee to participate (all fees, including travel, room and board, are covered by donations from the Canadian public and Veterans Affairs Canada). At the beginning of the program, participants are made aware of the option to voluntarily participate in the research component of the program. It is made clear to program attendees that their access to the program is not contingent upon their willingness to participate in the research, nor the administration or outcome of the assessments conducted. Those who consented to participate in the research component of the program completed a battery of questionnaires immediately prior to beginning the treatment. The university affiliated ethics board approved data collection and study procedures and all research participants provided written informed consent.

Veterans ranged from 23 to 76 years old (M = 46.72, SD = 10.78), 87.2% were Caucasian/White, 65.7% were married or partnered, and 21.1% were divorced or separated, 75.8% had children; and 93.4% identified as heterosexual. Branches of service were 63.7% Army, 7.3% Navy, 9.7% Air Force, and 18.0% in 'other' branches (e.g., multiple branches). On average, veterans in the current sample served in the armed forces for 18.3 years. Participants were most commonly ranked as corporals (24%) or sergeants (16%). Most frequently, participants served within the regular forces (64%), regular and reserve forces (20%), and reserve forces (12%).

Based on empirically derived clinical cut-off scores for the measures used to assess PTSD (Bovin et al, 2016), depression (Beck, Steer, & Brown, 1996), and alcohol dependence (Allen, Litten, Fertig, & Babor, 1997), 75.1% of the participants had probable PTSD; 23.2% had probable moderate depression; 52.6% had probable severe depression; and 49.1% had probable alcohol dependence.

2.2.2 Measures

Male Role Norms Inventory-Short Form (MRNI-SF). The MRNI-SF is a 21-item self-report measure of traditional masculinity ideology and beliefs pertaining to the importance of adherence to culturally defined standards for male behavior (Levant, Hall, & Rankin, 2013). Respondents indicate on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale how much they believe men should adhere to traditional masculinity norms. A total score is derived by summing the item responses, with higher scores indicating greater endorsement of traditional masculinity ideology. The measure consists of seven subscales designed to assess traditional male role norms (i.e., facets of traditional masculine ideology). In the present study we used the (a) restrictive emotionality, (b) self-reliance through mechanical skills, (c) avoidance of femininity, (d) dominance, and (e) toughness subscales. In the present sample, internal consistency (i.e., coefficient α) for the total score was .93 and coefficient alphas for the subscales ranged from .78 to .93.

Posttraumatic Stress Disorder Check List-5 (PCL-5). The PCL-5 is a 20-item self-report measure of DSM-5 PTSD symptom severity (Weathers et al., 2013). Each PCL-5 item assesses one of the 20 PTSD symptoms. Respondents indicate on a 0 (*not at all*) to 4 (*extremely*) scale how much they have been bothered by each symptom over the past month. A total score is derived by summing item responses, with higher scores indicating greater PTSD symptom severity. Scores 33 or higher are considered clinically significant and are said to indicate probable PTSD (Bovin et al.,

2016). In a recent review of self-report DSM-5 PTSD measures, the PCL was identified as a gold-standard measure regarding sensitivity, specificity, and diagnostic accuracy (Spoont et al., 2015). In the present sample, internal consistency (i.e., coefficient α) was .93.

Beck Depression Inventory-II (BDI-II). The BDI-II is 21-item self-report measure designed to assess depression severity (Beck et al., 1996). Response options range from 0 to 3 and are summed to create a total score with a possible range of 0 – 63. A score of 0 –13 is considered minimal range, 14 –19 is mild, 20 –28 is moderate, and 29 – 63 is severe. The BDI-II has been positively correlated with other measures of depression, such as the Hamilton Depression Rating Scale (r = 0.71) and has shown strong test–retest reliability (r = 0.93). Internal consistency in the present sample was α = .91.

Multidimensional Scale of Perceived Social Support (MSPSS). The MSPSS is a 12-item measure designed to assess perceptions of social support adequacy from three sources: family, friends, and significant others (Zimet, Dahlem, Zimet, & Farely, 1988). Participants rate the adequacy of social support from the three sources from 0 (*very strongly disagree*) to 7 (*very strongly agree*), and responses are summed to create a total score with a possible range of 0 – 84. Higher scores represent a greater degree of perceived social support. The MSPSS has shown good reliability, factor validity, and construct validity. In the currently sample, internal consistency was α = .91.

Alcohol Use Disorders Identification Test (AUDIT). The AUDIT is a 10-item self-report questionnaire designed to screen for hazardous and harmful alcohol consumption (Saunders, Aasland, Babor, de al Fuente, & Grant, 1993). The AUDIT assesses three domains of alcohol use: amount/frequency of drinking (i.e., alcohol consumption), alcohol dependence, and alcohol-related problems. In the present study we used the alcohol-related problems subscale because we were

interested specifically in the negative effects of drinking rather than general alcohol use behaviors. Responses to each item range from 0 – 4, with a possible total alcohol-related problems subscale score of 0 – 16. A score of 4 or more on the 'dependence' questions suggests the possibility of alcohol dependence. The AUDIT has shown satisfactory internal consistency and test-retest reliability (Bergman, & Källmén, 2002). In the current sample, the internal consistency on the alcohol-related problems subscale was $\alpha = .67$.

2.2.3 Data Analytic Strategy

To examine the relative contribution of facets of traditional masculinity ideology endorsement (i.e., restrictive emotionality, avoidance of femininity, self-reliance, toughness, and dominance) to predictors of difficult military to civilian transition (i.e., PTSD, depression, social support, and alcohol-related problems), a series of linear regression analyses were conducted. First, we ran four separate linear regression analyses, each predicting a factor associated with difficult veteran transition outcome. Predictor variables included in each model were those facets of traditional masculinity that had significant bivariate correlations with the outcome variable in the model. Second, consistent with methodological recommendations (Bursac, Gauss, Williams, & Hosmer, 2008; Tabachnick & Fidell, 2013), we used backwards elimination and forwards selection of predictor variables to create more parsimonious models. In backwards elimination, all of the predictor variables were initially included. Then, according to the results of a Wald test, the non-significant variable with the least significant effect was removed from the model. This process was repeated until all predictor variables in the model had significant effects. In forwards selection, we began with no predictor variables in the model. Predictor variables were then added, one at a time, and tested for fit using a chi-square statistic. Variables were added if inclusion significantly improved the model fit. This process was repeated until adding additional predictor variables did

not improve the model fit. Finally, we conducted a manual variable selection in which we examined the effect sizes of variables and manually removed them from models. Results of the variable selection techniques were compared ensuring the results from the three processes converged. All statistical analyses were conducted using IBM SPSS Statistics version 25.

2.3 Results

2.3.1 Preliminary Analyses

Data from the 289 participants were screened for missing responses. When minimal data was missing for an individual's measure (i.e., less than 20% of items), item mean replacement was used. This approach has been shown to provide a strong representation of original data when both the number of items missing and the number of respondents with missing data were 20% or less (Downey & King, 1998). For cases that had significant missing data (e.g., >50%) the measure for the individual was eliminated from analyses. This resulted in slightly different sample sizes for each measure (n = 289 for the MNRI; n = 289 for the PCL-5; n = 260 for the BDI; n = 269 for the MSPSS; and n = 239 for the AUDIT). We then examined skewness and kurtosis via visual inspection of univariate histograms and skewness and kurtosis statistics. Moderate non-normality was observed on the PCL-5, the alcohol-related problems subscale of the AUDIT, and the self-reliance and dominance subscales of the MRNI. Following the recommendations of Tabachnick and Fidell (2013), we used square root transformations and conducted all analyses with transformed and untransformed data. There were minimal differences whether transformed or untransformed data were used; thus, we used untransformed data for ease of interpretation and comparison with other studies. On account of using five sub-scales from a single measure, a certain degree of multicollinearity was expected. Nonetheless, collinearity diagnostics were assessed. The variance inflation factor ranged from 1.66 to 1.95, well within the range of acceptable collinearity (i.e., 1-10;

Yoo et al., 2014). Bivariate correlations and descriptive statistics for the primary study variables are presented in Table 1.

2.3.2 Masculinity Ideology and PTSD

The facets of masculinity ideology that were significantly correlated with PTSD—restrictive emotionality, self-reliance, avoidance of femininity, and toughness—were entered into a linear regression analysis with PTSD as the criterion variable. While accounting for self-reliance, avoidance of femininity, and toughness, restrictive emotionality emerged as the only significant predictor of PTSD (see Table 2).

Next, we used backwards elimination and forwards selection to confirm that restrictive emotionality was the only significant predictor of PTSD. Both methods identified restrictive emotionality as the only significant predictor of PTSD; thus, it was the only predictor variable included in the second model. Restrictive emotionality was significantly associated with PTSD and accounted for 5% of the variance in PTSD scores (see Table 3).

2.3.3 Masculinity Ideology and Depression

The facets of masculinity ideology that were significantly correlated with depression—restrictive emotionality and toughness—were entered into a linear regression equation with depression as the criterion variable. Results indicated that, while accounting for toughness, restrictive emotionality was the only significant predictor of depression (see Table 2).

Next, we used backwards elimination and forwards selection to confirm that restrictive emotionality was the only significant predictor of depression. Both methods identified restrictive emotionality as the only significant predictor of depression; thus, it was the only predictor variable included in the second model analyzed. Restrictive emotionality significantly was associated with depression and accounted for 5% of the variance in depression scores (see Table 3).

2.3.4 Masculinity Ideology and Perceived Social Support

The facets of masculinity ideology that were significantly correlated with perceived social support—restrictive emotionality, avoidance of femininity, dominance, and toughness—were entered into a linear regression analysis with perceived social support as the criterion variable. Results indicated that, while accounting for avoidance of femininity, dominance, and toughness, restrictive emotionality was the only significantly predictor of perceived social support (see Table 2).

Next, we used backwards elimination and forwards selection to confirm that restrictive emotionality was the only significant predictor of perceived social support. Both methods identified restrictive emotionality as the only significant predictor of perceived social support; thus, it was the only predictor variable included in the second model. Restrictive emotionality was significantly associated with perceived social support and accounted for 9% of the variance in perceived social support scores (see Table 3).

2.3.5 Masculinity Ideology and Alcohol-Related Problems

The facets of masculinity ideology that were significantly correlated to alcohol-related problems—restrictive emotionality, self-reliance, avoidance of femininity, and toughness—were entered into a linear regression analysis with alcohol-related problems as the criterion variable. Results indicated that, with all variables included in the model, none significantly predicted alcohol-related problems (see Table 2).

Next, we used backwards elimination and forwards selection to confirm that no facets of traditional masculinity significantly predicted alcohol-related problems. Both methods identified that avoidance of femininity was a significant predictor of alcohol-related problems; thus, we included it as a predictor variable in the second model. Avoidance of femininity was significantly

associated with alcohol-related problems and accounted for 3% of the variance in alcohol-related problems scores (see Table 3).

2.4 Discussion

In this study, we evaluated the association between facets of traditional masculinity ideology and four predictors of difficult military to civilian transition – PTSD, depression, lack of perceived social support, and alcohol-related problems. Overall, findings are consistent with previous literature showing that continued endorsement of traditional masculinity ideology during civilian transition increases the risk for psychosocial difficulties during veteran transition (e.g., Cox & O'Loughlin, 2017; Jakupcak et al., 2014; Lorber & Garcia, 2010).

Examination of the relationship between individual facets of masculinity and indicators of difficult military to civilian transition revealed several significant correlations. However, when entered into linear regression models, wherein the effects of all predictor variables were taken into account in relation to one another, fewer facets of traditional masculinity appeared to significantly predict the outcome variables of interest. Restrictive emotionality was consistently the most significant predictor of the transition outcome variables examined, while avoidance of femininity (except in the case of alcohol-related problems), self-reliance, dominance, and toughness, did not appear to significantly predict the outcome variables.

2.4.1 Restrictive Emotionality and Transition

With respect to PTSD, the significant contribution of restrictive emotionality to higher degrees of symptomatology is consistent with research and theory indicating that when intense affective states associated with trauma memories are actively avoided, processing of trauma-related emotions, beliefs, and memories—the cornerstone of gold standard PTSD treatments such as exposure therapy (Rauch, Eftekhari, & Ruzek, 2012)—is unlikely to occur (Monson, Price,

Rodriguez, Ripley, & Warner, 2004). As a result, symptoms may be exacerbated, or treatment efforts may be impeded.

We also observed a significant association between restrictive emotionality and depression in veteran men. This finding aligns with research indicating that suppression of affective states results in intensified negative affect and increased distress (i.e., an exacerbation of primary symptoms of depression; Butler et al., 2003). It has long been argued that men are under-represented in prevalence statistics concerning depression diagnosis due to their hesitancy towards seeking help (Kilmartin, 2005), or denying depression symptoms given their association with femininity (O'Brien et al., 2005). However, results of this study add another layer to the picture—that restrictive emotionality may account, at least in part, for a different presentation of depression in those who ascribe to traditional norms of masculinity. Whereas typical presentations of depression are characterized by an expression of sadness, in the presence of restrictive emotionality wherein negative affect is avoided or not identified, the experience of sadness may not be readily identifiable or reported. It may be that depression manifests in somatic symptoms, a phenomenon that has been linked to difficulty identifying and communicating emotional distress (e.g., Sayar, Kirmayer, & Taillefer, 2003). This may explain why somatic symptoms are observed more frequently in men with depression (Pollack, 1998).

With respect to perceived social support, the observation that restrictive emotionality contributed significantly to veteran men's perceived lack of support from friends, family, or a significant other, is consistent with previous research indicating that men who endorse traditional masculinity ideology have less available and smaller social networks (Wohlgemuth & Betz, 1991). Specifically, this result supports research indicating that restrictive emotionality impairs social

interaction (e.g. Jansz, 2000) and that emotional sharing is an important element of building and maintaining close relationships (Derlega, Winstead, & Greene, 2008).

Taken together, and in light of research showing that military transition is significantly and negatively impacted by PTSD, depression, and lack of social support (see Rose et al., 2018 for a review), the above results indicate that restrictive emotionality may be the facet of traditional masculinity ideology with the most detrimental effect on veteran men's military to civilian transition. Put differently, suppression or lack of sharing affective states appears to put veteran men at risk of a difficult military transition trajectory and impaired psychosocial functioning.

2.4.2 Toughness, Avoidance of Femininity, and Self-Reliance

Although there is evidence in the extant literature that toughness, avoidance, and self-reliance consistently and significantly contribute to PTSD, depression, lack of social support, and alcohol dependence, we found little contribution, if any, of these masculinity facets to the outcome variables examined. An exception was in the case of alcohol-related problems for which avoidance of femininity was observed to be the only significant contributor (when accounting for the other facets of masculinity). One explanation for this finding is that men who more strongly endorse the "avoidance of femininity" facet of traditional masculinity were more likely to perceive disclosure of problems to others as a feminine trait and were fearful of their manliness being called into question if they shared their struggles. Subsequently, alcohol may be used as a maladaptive way to cope with their problems. Drawing from research showing an association between heavy alcohol consumption with unit cohesion among male soldiers (Du Preez, Sundin, Wessely, & Fear, 2011), an alternative explanation for this finding may be that alcohol is utilized as a means for members of the armed forces to openly discuss their emotional experiences in a (military) culturally acceptable way.

With respect to the lack of observed relationship between self-reliance and perceived social support, one explanation is that masculinity is not in fact negatively associated with seeking support per se, so much as avoidance of specific types of support-seeking. For example, those who endorse traditional masculinity may avoid types of help that have been culturally feminized, such disclosing emotions to friends, family, or a mental health professional, but are willing to seek more tangible forms of support (Reevy & Malasch, 2000). This may explain why restrictive emotionality appeared to contribute to lack of social support over and above self-reliance. Alternatively, it is possible that the self-reliance facet of masculinity was less apparent in the current sample, given recruitment was conducted through a veteran transition program, and thus consists of a sample of veteran men who agreed to seek help. This characteristic may not be representative of the majority of veteran men who strongly endorse traditional masculinity ideology.

2.4.3 Limitations

Limitations of this study include its cross-sectional design, which prevented us from examining the effect of traditional masculinity ideology on veteran transition longitudinally. Additionally, our sample consisted predominantly of Caucasian, Canadian veteran men, and thus, was fairly homogeneous. It is important to recognize that the majority of the literature cited regarding masculinity in the military was written in the context of American military culture. While we do not intend to imply American military values and culture are synonymous with that of the Canadian military, both organizations have been characterized as a hypermasculine (see Taber, 2018 for a review). Additionally, all measures used were self-report measures which are prone to response bias. Moreover, as participants for this study were recruited from a veteran's transition program, the sample may not be representative of a more typical presentation of veteran men who,

due to their endorsement of traditional masculinity ideology, avoid seeking help (Lorber & Garcia, 2010).

2.4.4 Theoretical and Practical Implications

The results of this study show support for the military transition theory (Castro & Kintzle, 2014), such that traditional masculinity ideology, which was conceptualized as a personal and (military) cultural factor, proved to have an effect on outcomes associated with transition, specifically mental health and social engagement. While the potential indirect effect of masculinity ideology on transition outcomes through coping strategies (or lack thereof) were not assessed in this study, it may be argued that some of the variables evaluated as outcome variables here (e.g. social support and alcohol use) could instead, be conceived of as coping strategies. Future research would benefit from examining these variables as intermediary, or mediating, factors in the relationship between masculinity and veteran transition.

With respect to clinical implications, results of this study indicate it is paramount to address restrictive emotionality in programing aimed at preparing veteran men for, or assisting them with, transition to civilian life. Given the perceived association of emotional disclosure and emotional processing with femininity, mitigating the tendency to suppress emotions, restrict emotional disclosure, or detach emotionally from distressing situations, may prove difficult with veteran men who ascribe to traditional masculinity ideology. Clinicians may look to treatments recommended to address alexithymia, a construct similar to restrictive emotionality and also associated with masculinity (Levant, Hall, Williams, & Hasan, 2009). These treatments focus on introducing the person to the world of emotional experience, helping him develop an experiential language that allows for a more enriched narrative of one's internal life (Ogrodniczuk, Kealy, Hadjipavlou, & Cameron, 2018). Others have suggested that the use of masculinity-congruent language, such as:

"*Real Men; Real Depression*; "*It takes courage to ask for help"* (Rochlen, Whilde, & Hoyer, 2005) in promotional materials for programs designed for men with mental health difficulties may counter the cultural feminization and stigmatization of men seeking therapy. Finally, a recent qualitative study suggested that, in the context of group therapy, a shared endorsement of traditional masculinity ideology may operate to increase camaraderie among group members and result in their willingness to emotionally disclose to one another (Caddick et al., 2015). Thus, when it comes to mitigating the deleterious effects of restrictive emotionality on veteran men's mental well-being, it may be that group therapy, as opposed to one-on-one therapy, is preferential for treatment of conditions that benefit from emotional processing, such as PTSD (Monson, Taft, & Fredman, 2009).

2.4.5 Future Directions

Taking into consideration that all military recruits, regardless of gender, undergo a "secondary socialization" (Arkin & Dobrofsky, 1978, p. 159) into military culture, it is possible that a difficult military to civilian transition is also potentiated among veteran women as a result of traditional masculinity ideology endorsement. This is an important consideration for future research concerning the impact of traditional masculinity of veteran health and well-being.

Table 2.1

Bivariate correlations and descriptive statistics for primary study variables

Variable	1	2	3	4	5	6	7	8	9	10
1. MRNI: Total score	-									
2. MRNI: Restrictive emotionality	.73**	-								
3. MRNI: Self-reliance	.68**	.41**	-							
4. MRNI: Avoidance of femininity	.83**	.60**	.50**	-						
5. MRNI: Dominance	.70**	.37**	.33**	.55**	-					
6. MRNI: Toughness	.74**	.57**	.60**	.48**	.34**	-				
7. Posttraumatic stress disorder symptoms	.19**	.21**	.14*	.14*	.11	.19**	-			
8. Depression symptoms	.16**	.22**	.12	.14	.03	.18**	.73**	-		

9. Perceived social support	-.27**	-.29**	-.10	-.25**	-.18**	-.16**	-.31**	-.37**	-	
10. Alcohol-related problems	.17**	.13*	.13*	.18**	.13	.17**	.11	.10	-.06	-
M	68.45	8.84	13.73	10.00	5.94	12.49	68.04	30.53	55.56	2.88
SD	22.61	4.21	4.60	4.63	3.57	4.71	15.64	10.87	14.81	3.47
Sample range	21-143	3-21	3-21	3-21	3-21	3-21	17-97	0-56	12-84	0-16

* $p < .05$. ** $p < .01$.

Note. MRNI = Male Role Norms Inventory.

Table 2.2

Masculinity Facets in Relation to Transition Outcomes

	Dependent Variable							
	Posttraumatic Stress Disorder		Depression		Perceived Social Support		Alcohol-Related Problems	
Predictor	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Restrictive Emotionality	0.58*	0.28	0.45*	0.19	-0.83**	0.27	0.01	0.07
Self-reliance	0.08	0.26	-	-	-	-	0.01	0.07
Avoidance of Femininity	-0.01	0.025	-	-	-0.34	0.26	0.09	0.07
Toughness	0.28	0.27	0.20	0.17	0.15	0.23	0.08	0.07
Dominance	-	-	-	-	-0.23	0.29	0.03	0.08
R^2		.05		.05		.09		.04
F		3.90**		7.25**		7.20***		2.11

Note. Predictors were omitted from regression models if they were not bivariately correlated with the dependent variable.

***$p < .001$; **$p \leq .01$; * $p \leq .05$

Table 2.3

Masculinity Facets in Relation to Transition Outcomes (Parsimonious Model[a])

	Dependent Variable							
	Posttraumatic Stress Disorder		Depression		Perceived Social Support		Alcohol-Related Problems	
Predictor	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Restrictive Emotionality	0.79***	0.21	0.57	0.16	- 1.02***	0.21	-	-
Avoidance of Femininity	-	-	-	-	-	-	0.14*	0.05
R^2		.05		.05		.09		.03
F		13.60***		13.24***		24.64***		8.18*

[a]Only variables significant in the regression models were included.

***$p < .001$; **$p < .01$; * $p < .05$

Chapter 3: Disentangling the Individual and Group Effects of Masculinity Ideology on PTSD Treatment

3.1 Introduction

Traditional masculinity ideology—an internalization of culture-bound beliefs and attitudes associated with the ideal male role (Levant & Richmond, 2008)—is associated with the risk of developing posttraumatic stress disorder (PTSD; e.g., Cox & O'Loughlin, 2017; Garcia, Finley, Lorber, & Jakupcak, 2011; Jakupcak, Blais, Grossband, Garcia, & Okiishi, 2014) and interfering in its treatment (Lorber & Garcia, 2010). PTSD, a psychiatric condition whose symptom clusters include reexperiencing, avoidance, hyperarousal, and negative alterations in cognition and mood (American Psychiatric Association [APA], 2013), is linked to functional impairments, including unemployment (Smith, Schnurr, & Rosenheck, 2005), family and relationship difficulties (Dekel & Monson, 2010; Meis, Erbes, Polunsy, & Compton, 2010), poor quality of life (Magruder et al., 2004), and comorbid mental health problems, such as depression, anxiety, suicidality (Jakupcak & Varra, 2011) and substance abuse (Hoge, Terhakopian, Castro, & Messe 2007; Kulka et al., 1990). The association between PTSD and masculinity is highly relevant for male members of the Armed Forces, as men who elect to join the military are more likely to identify with hypermasculine culture (Barrett 1996; Brooks, 2001). Moreover, hypermasculine ideals (e.g., emotional control, physical fitness, self-discipline, self-reliance, the willingness to use aggression and physical violence, and risk taking; Connell & Messerschmidt, 2005) can become further entrenched through military culture and training, where they are often tested, celebrated, and enacted throughout active duty (Fox & Pease, 2010).

While masculinity ideals are instilled in preparation for combat (Fox & Pease, 2012) and are, for many, a component of military identity (Green, Emslie, O'Neil, Hunt, & Walker, 2010),

several facets of traditionally idealized masculinity have been associated with the development of PTSD following exposure to potentially traumatic events. For example, the restrictive emotionality facet of masculinity may potentiate veteran men's avoidance of behaviors associated with trauma recovery, such as emotional processing (Lorber & Garcia, 2010). It has been suggested that these avoidance behaviors are elicited as a means of preventing displays of emotional distress, which would be discordant with, and threatening to, masculine identity and performance. It is worth noting that higher levels of alexithymia, a personality trait typified by restrictive emotionality, increases the risk for attempted suicide among veterans diagnosed with PTSD (Freeman, Roca, & Moore, 2000).

The self-reliance facet of masculinity, while in contrast with two elements of military culture—unit cohesion and camaraderie between military members—is associated with the belief that mental health problems should be addressed on one's own (Hoge et al., 2014). Moreover, it has been shown to interfere with the establishment and acceptance of social support from family, friends, and loved ones (Jakupcak, Osborne, Michael, Cook, & McFall, 2006; McDermott, Tull, Soenke, Jakupcak, & Gratz, 2010), important protective factors against developing PTSD (Ozer, Best, Lipsey, & Weiss, 2003). Additionally, there is evidence that self-reliance is associated with greater levels of depression and suicidality in veterans who have experienced trauma (Rochester, 2018).

3.1.1 Masculinity and PTSD Treatment

In addition to potentiating the development of PTSD, endorsement of traditional masculinity ideology poses several challenges to PTSD treatments. For example, there is evidence that endorsement of traditional masculinity ideology, particularly its emphasis on self-reliance, increases men's negative attitudes toward treatment (Berger, Levant, McMillan, Kelleher & Sellers, 2005;

Jennings et al., 2015). In a qualitative study (Sayer et al., 2009), veterans reported that pride in self-reliance was the primary priority and value that reduced their interest in seeking mental health treatment. Additionally, restrictive emotionality has been associated with veteran men's denial of trauma-related memories and discussions of psychological trauma – likely exacerbating treatment avoidance and delayed symptom response (Caddick et al., 2015). For veteran men in psychotherapeutic treatment for PTSD, restrictive emotionality may disrupt access to emotionally laden content (Lorber & Garcia, 2010), thereby interfering with treatments that rely on cognitive-emotional processing (Cox & O'Loughlin, 2017). This may help to explain why men typically demonstrate less responsiveness to traditional psychological treatments for PTSD compared to women (Wade et al., 2016). Given the intersection between the high degree of endorsement of traditional masculinity ideology, recent exposure to distressing events, and proximal entrenchment in military culture, these links between masculinity and PTSD treatment interference are likely to be pronounced for veteran men (Lorber & Garcia, 2011).

While several studies of veteran men have suggested a categorically negative association between traditional masculinity ideology and PTSD (and its treatment), others have revealed a more complex picture of military masculinity in this context (e.g., Caddick et al, 2015; Green et al., 2010). In these studies, accounting for the multidimensional and situational nature of masculinity suggests that the impact of masculinity on veteran mental health and well-being is more fluid than it is rigid, and more variable than it is static. For example, several accounts from veteran men indicated that the camaraderie elicited from sharing in hypermasculine banter contributed to the development of interpersonal bonds—a sense of belonging within a band of brothers (Green et al., 2010). Psychological health and emotional support were nurtured through these positive relationships. Moreover, there is evidence that group-based supports for veterans may provide an

atmosphere akin to this sense of camaraderie and through which the benefit of relying on others can be mirrored (Burns & Mahalik, 2011). In one such study, a reframing of help-seeking as actively dealing with, or fighting against, PTSD (as opposed to denying or 'giving into' it) was observed (Caddick et al., 2015). Another study, which examined the effect of group-based therapeutic adventure activities on veteran mental health, suggested that the development of camaraderie and trust through engagement in team challenges provided men with increased feelings of safety to be vulnerable and discuss personal challenges (Scheinfeld, Rochlen, & Russell, 2017). Likewise, it has been shown that, within a group of veteran men, accrual of 'masculine capital' through displays of traditionally masculine behaviors (e.g., anecdotes of physical prowess) may increase the permissibility of masculinity incongruent behaviors important for PTSD recovery, such as emotional disclosure (DeVisser, Smith, & McDonnell, 2009).

3.1.2 The Present Study

The aim of the present study was to extend our understanding of masculinity's association with PTSD symptom change in treatment-seeking veteran men by simultaneously considering (a) traditional masculinity's multidimensionality and (b) the masculinity of the therapeutic context.

With respect to conceptualizing masculinity as a multidimensional construct, we examine how individual facets of traditional masculinity ideology impact changes in PTSD symptomatology pre- to post-treatment. We examine traditional masculinity via the following facets given their empirical and theoretical links with PTSD and PTSD symptom change (see Levant, Hall, & Rankin, 2013 for a review): (a) restrictive emotionality (the belief that men should be detached from emotionally charged situations and emotionally inexpressive); (b) self-reliance (the belief that men shouldn't rely on others); (c) avoidance of femininity (the belief that men should avoid traditionally

feminine activities and behaviors); (d) dominance (the belief that men should always be in charge); and (e) toughness (the belief that men should take risks).

We hypothesize that restrictive emotionality, avoidance of femininity, and self-reliance will impede pre- to post-treatment PTSD symptom reduction. These hypotheses are based on existing research and theory indicating that these facets may disrupt treatment via reduced access to content required for emotional processing of traumatic experience(s), avoidance of masculinity incongruent behaviors used for cognitive-emotional processing (e.g., openly discussing experiences, reactions and the impact of traumatic events), and more negative attitudes towards treatment. We also hypothesize that the toughness facet of masculinity will have a positive impact on PTSD symptom change, due to previous research indicating that masculinity-congruent reframing of treatment engagement as facing or fighting PTSD (Caddick et al., 2015).

Finally, we hypothesize that group masculinity (i.e., other clients in the group), will be positively associated with individual pre- to post-treatment PTSD symptom change. This hypothesis is based in previous research indicating that shared masculinity among veteran men may enhance camaraderie, positive re-framing of masculinity, and the subsequent willingness to engage in masculinity incongruent behaviors (e.g., emotional expression; Caddick et al., 2015; Green et al., 2010)

To account for the contextual effect of masculinity on PTSD treatment, we examine how endorsement of masculinity ideology at the group level (i.e., the degree of masculinity endorsement among individuals attending group therapy together) impacts PTSD symptom change for individual group members. As per research findings which indicate shared masculinity among veteran men may result in enhanced camaraderie, positive re-framing of masculinity, and the subsequent willingness to engage in masculinity incongruent behaviors (e.g., emotional expression; Caddick et

al., 2015; Green et al., 2010), we expect that higher levels of masculinity within a cohort of individuals attending a group therapy-based program together will have a positive effect on individual pre- to post-treatment PTSD symptom change.

Finally, we will conduct a set of exploratory analyses in which we examine change in each PTSD symptom cluster to gain insight into which aspects of PTSD change are influenced by each masculinity facet.

3.2 Methods

3.2.1 Participants and Procedures

The sample consisted of (N = 255) Canadian veteran men who participated in a multimodal outpatient group psychotherapy program for veterans with military-related trauma. The program was designed to reduce the effects of trauma by targeting PTSD symptoms and addressing re-integration difficulties (e.g., interpersonal issues) that may have been impeding successful transition to civilian life. The transition program is open to veterans experiencing negative effects from a self-defined military trauma. Veterans experiencing active psychosis or suicidality were not eligible for participation in the program, nor were those who were unable to abstain from drugs and alcohol for the duration of treatment. Formal clinical diagnosis of PTSD was not a requirement for program eligibility, however, the vast majority (97.1%) of veterans enrolled in the research portion of the program had probable PTSD as indicated by their PTSD Checklist (PCL-5) score of 33 or above (Bovin et al., 2016). The index trauma types reported in the current sample were 39.5% military combat, 11% sudden death (of a close friend or loved one), 9.3% motor vehicle or other accident, 4.1% childhood abuse, and 22.7% other. Other index trauma types were reported infrequently by the remaining 13.4% of participants and included being threatened, unwanted sexual contact prior to the age of 13, or being assaulted.

The program is attended by veterans, in gender-specific groupings (i.e., either all male or all female) of six to eight veterans, for a total of 10 days, over the course of 3 separate weekends. Each group was led by two leaders—typically psychologists/psychotherapists—and two paraprofessionals – veterans who completed a basic therapeutic skills training course. The program is offered throughout Canada and participants within each group typically reside in the same geographical region of the country. Components of the program included: peer support, psychoeducation, emotion regulation skills training, therapeutic enactment (an adapted imaginal exposure in which the index trauma event is enacted within the group as a means of modifying maladaptive trauma narratives; Kaur, Murphy, & Smith, 2016), reducing barriers to care, and identifying and working on future goals. In total, the program provided approximately 80 hours of therapy. For a more detailed description of the program phases, see Cox et al. (2014).

At the onset of treatment, participants were invited to voluntarily participate in a research portion of the program. Less than 1% did not consent to participate. Veterans who consented to participate in the research component of the program completed a battery of pre- and post-treatment questionnaires. With respect to the constructs measured in this study, the results of the assessment of masculinity ideology endorsement conducted prior to the onset of treatment is represented, along with the pre- and pos-treatment measures of PTSD symptomatology. Of the $N = 389$ participants who consented to the research portion of the program, $n = 17$ (4.37%) withdrew consent or did not complete the treatment program. To be included in the analyses for the present study, participants had to be male, have completed a baseline measure of traditional masculinity ideology endorsement, and have a baseline score on the PCL-5 of 33 or above, which is indicative of probable PTSD (Bovin et al., 2016). The University of British Columbia ethics board approved data collection and study procedures and informed consent was obtained from all research participants.

3.2.2 Sample Demographics

Participants' ages ranged from 23 to 76 (M = 46.88; SD = 10.76). The sample was 88.6% Caucasian, followed by 5.1% Aboriginal, and 0.4% East Asian; 59.2% had completed high school or some post-secondary education; and 30.2% had received a college degree or more; 65.1% were married or common law, 22.4% were divorced or separated, 8.6% were single, and 1.2% were widowed. In terms of military service branch, 62.7% served in the Army, 9.8% served in the Air Force, and 6.7% in the Navy, and 20.8% reported multiple branches of service.

3.2.3 Measures

Male Role Norms Inventory-Short Form (MRNI-SF). The MRNI-SF is a 21-item self-report measure of traditional masculinity ideology endorsement (Levant, Hall, & Rankin, 2013). Respondents indicate on a 1 (*strongly disagree*) to 7 (*strongly agree*) scale how much they believe men should adhere to behaviors associated with traditional masculinity. Total scores are derived by summing the item responses, with higher scores indicating greater endorsement of traditional masculinity ideology. We also examined five MRNI-SF subscales due to their empirical and theoretical links with PTSD: (a) restrictive emotionality, (b) self-reliance through mechanical skills, (c) avoidance of femininity, (d) dominance, and (e) toughness. Presently, the coefficient alphas for these subscales ranged from .77 for restrictive emotionality to .87 dominance.

Posttraumatic Stress Disorder Check List-5 (PCL-5). The PCL-5 is a 20-item self-report measure of DSM-5 PTSD symptom severity (Weathers et al., 2013). Each PCL-5 item assesses one of the 20 PTSD symptoms. Respondents indicate on a 0 (*not at all*) to 4 (*extremely*) scale how much they have been distressed by each symptom over the past month. Total scores are derived by summing item responses, with higher scores indicating greater PTSD symptom severity. DSM-5 symptom cluster severity scores are obtained by summing the scores for the items relevant to each

symptom cluster. In a recent review of self-report DSM-5 PTSD measures, the PCL-5 was identified as being a gold-standard measure regarding sensitivity, specificity, and diagnostic accuracy (Spoont et al., 2015). The coefficient alpha for the current sample for the PCL-5 administered pre- and post-treatment was .91 and .95, respectively. The alphas for the pre-treatment sub-scales (used here for exploratory analyses) ranged from .76 to .87 and .87 to .88 for the post-treatment sub-scales.

3.2.3 Data Analysis

Our investigation began with an examination of the predictive capacity of each masculinity facet at the individual level, along with the effect of group masculinity, on total PTSD pre- to post-treatment symptom change. Next, we examined the impact of each masculinity facet, as an individual effect, along with a group effect of total masculinity, on pre- to post-treatment symptom change within each DSM-5 PTSD symptom cluster (i.e., re-experiencing symptoms avoidance symptoms, negative alterations in cognition and mood, and hyperarousal symptoms). Following this set of analyses, we conducted two additional analyses examining the multivariate effect of the masculinity factors indicated as having a significant impact on PTSD symptom change (total and cluster-specific).

As the veterans included in the current sample attended the transition program in 55 different groups, we initially used multilevel modeling to analyze the data as it simultaneously models individual and group effects (Selig, Trott, Lemberger, 2017). Prior to conducting the primary analyses, we ran a 2-level unconditional multilevel model to examine how much of the variance in PTSD symptom change was due to differences between veterans (i.e., Level-1 effects) and how much was due to differences between groups (i.e., Level-2 effects; Raudenbush & Bryk, 2002). The resulting intraclass correlation of .018 indicated that 98.2% of the variance in PTSD

symptom change was due to between-veteran differences and 1.8% was due to between-group differences. Because of this minimal group effect, multilevel modeling was not indicated; thus, we used a series of linear regression models. The dependent variable in each model was a pre- to post-treatment PTSD symptom change (i.e., residualized change score). Each model included two predictor variables: (a) individual veteran's masculinity and (b) group masculinity. By simultaneously considering individual and group effects, we were able to determine the impact of individual participant's masculinity facets while controlling for the effect of masculinity ideology endorsed by others in the group, and vice versa. This approach, which is based in actor-partner interdependence models (Kenny, Mannetti, Pierro, Livi, & Kashy, 2002), has become increasingly popular in research studies involving group therapy (e.g., Cox et al., 2019).

An individualized group score for traditional masculine ideology and its facets were computed for each participant, representing the aggregated group score of all group members except that individual participant. To compute these group scores, we created aggregate scores of all other group members (i.e., those with clinically significant PTSD scores and those without for whom individual effects are not being tested here) and divided the result by the total number of participants in each group minus one (i.e., group score = [total group score – individual score] / n – 1]). Thus, a different group score, representing all *other* group members, was computed for each participant. To operationalize symptom change, we used a residualized change score by conducting a simple linear regression with the pre-treatment PTSD score as the independent variable and the post-treatment PTSD as the dependent variable. The result is the residual, or the difference between the actual change score and the predicted change score. Residualized change scores were selected because they control for veterans' baseline PTSD symptom severity (Castro-Schilo & Grimm, 2018).

3.3 Results

First, data were screened for skewness and kurtosis via skewness and kurtosis statistics and inspection of histograms (Tabachnick & Fidell, 2013). Data appeared normally distributed. Next, a paired samples *t* test was conducted to assess the degree of pre- to post-treatment PTSD symptom change. Results indicated a significant difference in PCL-5 scores from pre-treatment (M = 70.25; SD = 13.89) to post-treatment (M = 55.58; SD = 16.26); $t(254) = 15.51$, $p < .001$, $d = .97$. Correlations and descriptive statistics for the primary study variables are presented in Table 1. Next, we explored whether there were significant between group differences on a select number of demographic variables. No significant group differences were observed with respect to age ($F(54, 199) = 0.82$, $p = .803$), time served in the Canadian Forces ($F(54, 195) = 1.07$, $p = .368$), branch served ($\chi^2(162, 250) = 177.28$, $p = .195$), or race/ethnicity ($\chi^2(162, 248) = 145.78$, $p = .815$).

3.3.1 Masculinity and Total PTSD Symptom Change

First, we examined the associations between specific facets of individual masculinity and group masculinity with overall PTSD symptom change (see Table 2). While controlling for group masculinity, individual self-reliance ($p = .015$) and dominance ($p = .046$) were significantly associated with total PTSD symptom change, while restrictive emotionality ($p = .197$), avoidance of femininity ($p = .054$), and toughness ($p = .126$) were not. The observed significant associations indicate that a greater degree of pre-treatment self-reliance and dominance, respectively, was associated with less change in PTSD symptoms following treatment. In all models, there was no indication that other group members' degree of masculinity ideology endorsement significantly impacted individual participants' PTSD symptom change ($p > .05$ in all cases).

We then examined, within a single model, the combined effect of self-reliance and dominance (i.e., masculinity facets indicated to have a significant impact on PTSD symptom

change) on pre- to post-treatment PTSD symptom change. Results indicated that neither masculinity facet had a significant effect, above and beyond the other, on pre- to post-treatment PTSD symptom change; (i.e., $p > .05$ in all cases). As a block, the two facets of masculinity ideology explained approximately 3% of the variance in PTSD symptom change, (i.e., $R^2 = .03$; see Table 3).

3.3.2 Masculinity and PTSD Symptom Cluster Change

To better understand the effect of individual and group masculinity on PTSD symptom change, we next examined the impact of self-reliance, dominance, and avoidance of femininity, along with total group masculinity, on changes in PTSD symptom clusters. Although avoidance of femininity was not indicated as having a statistically significant effect on total PTSD symptom change, it had approached significance, and thus, was included here for exploratory purposes. While the group masculinity effects were not significant in any of the models predicting change in overall PTSD symptoms, we continued to include group masculinity in our models to ensure that the potential situational impact of masculinity (here a group effect) was accounted for.

While controlling for group masculinity, individual self-reliance was associated with attenuated symptom change in three PTSD symptom clusters: avoidance ($p = .014$), negative cognitions and mood ($p = .014$), and hyperarousal ($p = .021$). While controlling for group masculinity, individual avoidance of femininity ($p = .001$) and dominance ($p = .002$) was associated with less symptom change in the avoidance symptom cluster. In all models, the effect of group masculinity on individual change within PTSD symptom clusters was insignificant ($p > .05$ in all cases). These results are presented in Table 4.

Finally, we examined the combined effects of self-reliance, avoidance of femininity, and dominance on change in avoidance-related PTSD symptoms. It was indicated that no one

masculinity facet had a significant effect, above and beyond another (i.e., $p > .05$ in all cases). As a block however, they explained approximately 6% of the variance in avoidance-related PTSD symptom change (i.e., $R^2 = .06$; see Table 5).

3.4 Discussion

The primary goal of this study was to examine the impact of traditional masculinity ideology endorsement on veteran men's pre- to post-treatment PTSD symptom change following participation in a group-based military-to-civilian transition program. We examined, simultaneously, the impact of traditional masculinity ideology endorsement at the individual level (i.e., each group member) and the group level (i.e., other group members) on veteran men's treatment outcome. The pre- to post-treatment design of this study extends findings from previous studies that have linked PTSD and masculinity, cross-sectionally (e.g., Cox & O'Loughlin, 2017; Garcia et al., 2011), and those that have linked masculinity to psychotherapeutic treatment interference, theoretically (e.g., Lorber & Garcia, 2010). Moreover, this paper uses a quantitative approach to build on findings from qualitative studies that point to the contextual and situational nature of masculinity (e.g., Green et al., 2010), and specifically, the proposal that group-based programming may protect against the possible counter-therapeutic effects of masculinity (e.g., Caddick et al. 2015). Results from this paper indicate that individual effects of self-reliance and dominance were associated with less overall PTSD symptom improvement. Self-reliance, dominance, and avoidance of femininity were associated with less symptom improvement within cluster C (avoidance) symptoms. Self-reliance was also associated with reduced cluster D (negative alterations in cognitions and mood) and cluster E (hyperarousal) symptom reduction. No individual facet of masculinity appeared to impact change within cluster B (intrusion) symptoms. Results

indicated that other group members' degree of masculinity did not impact individual participants' pre- to post-treatment PTSD symptom change.

3.4.1 Self-Reliance and PTSD Symptom Change

Results from this study indicate that the self-reliance facet of traditional masculinity ideology was the most consistent impediment to pre- to post-treatment PTSD symptom change, particularly with respect to avoidance symptoms, negative alterations in cognition and mood, and hyperarousal symptoms. While the impact of masculinity-congruent self-reliance on PTSD treatment outcome has typically pointed to interference via increased negative attitudes towards help-seeking (Berger et al., 2005; Jennings et al, 2015) and subsequently, reduced willingness to seek help (Lane & Addis, 2005), the same explanation cannot be applied to the present study, as the sample consisted entirely of veteran men who attended treatment. Although it is possible that some of these men were reticent to seek help, it is also possible that through a baseline negative attitude toward psychological treatment (Jennings et al., 2015), self-reliance attenuated veteran men's engagement in the treatment program. Alternatively, research has shown that the self-reliance facet of masculinity serves as a barrier to effective social functioning in veteran men (e.g., Jakupcak et al., 2006). As such, it is possible that self-reliance disrupted some veteran men's sense of acceptance and belonging within the group, both of which have been linked to successful group therapy treatment outcome (Burlingame, Fuhriman, & Johnson, 2001).

3.4.2 Dominance & Avoidance of Femininity

Unexpectedly, the individual effect of the masculinity facet of dominance appeared to impede pre- to post-treatment PTSD total symptom change, and with respect to avoidance symptoms. It is possible that underlying the belief that men should be in positions of power are notions about masculinity relating to control and success (Levant et al., 2013). Seen in this light,

for men who ascribe to the dominance facet of traditional masculinity, avoidance symptoms (i.e., actively circumventing memories, thoughts and external reminders of the traumatic event) may function, in part, as a means of preventing involuntary reactions to emotionally-inducing stimuli. As such, these symptoms may prove difficult to intervene in, as they may provide a veteran man with a sense of having regulated (i.e., gained control over) or prevented (i.e., achieved success over) other PTSD symptoms (e.g., reexperiencing symptoms).

Both avoidance of femininity and dominance appeared to attenuate pre- to post-treatment outcome with respect to cluster C (avoidance) symptom change. There is reason to believe that this finding is a function of emotional avoidance. That is, to maintain "real man" status, traditionally-feminized behaviors (e.g., admitting distress) were eschewed (Vandello & Bosson, 2013), thereby resulting in emotional avoidance, a behavior linked to the maintenance of PTSD symptomatology (Roemer, Litz, Orsillo, & Wagner, 2001). In a treatment context, it may be the case that avoidance of femininity inhibits a group member from disclosing or admitting to distress, leading to less involvement in treatment, and reducing the potential for a beneficial outcome. While theoretically sound, this interpretation should be considered in tandem with the finding that unexpectedly, restrictive emotionality was not indicated to negatively impact PTSD treatment, or treatment of avoidance symptoms specifically. It may be the case that restrictive emotionality taps more into a diminished range of emotion, or inability to identify or differentiate between emotions, whereas avoidance of femininity demonstrates a more conscious and deliberate censorship of distress (or other emotions considered weak and effeminate).

3.4.3 Restrictive Emotionality, Toughness, & Reexperiencing Symptoms

Contrary to our hypothesis, the restrictive emotionality facet of traditional masculinity ideology was not indicated as a significant impediment to PTSD treatment outcome (overall, or with

respect to cluster-specific symptoms). This finding is inconsistent with research showing a positive relation between PTSD and veteran men's difficulty expressing internal emotion states (e.g. Monson, Price, Rodriguez, Ripley, & Warner, 2004). It is further inconsistent with theory indicating restrictive emotionality may impede PTSD treatment outcome by encouraging veteran men's denial of trauma-related memories, inhibiting discussions associated with psychological trauma, and reducing access to emotionally laden content (Lorber & Garcia, 2011). It is possible that these inconsistencies highlight the ambiguous, situational and contextual nature of military masculinity (Caddick et al., 2015; Green et al., 2010). That is, despite holding a belief that men should be emotionally inexpressive, in some situations, some veteran men may be willing to discuss their emotional experiences without feeling that their masculinity has been threatened (Green et al., 2010). Additionally, it is worth noting that the majority of the literature on the impact of restrictive emotionality on PTSD treatment outcome speaks to the effect on traditional cognitive-emotional processing approaches (e.g., Lorber & Garcia, 2011). As the treatment provided to the sample of veteran men in this study was eclectic and included some less traditional psychotherapeutic techniques, such as action-oriented components (e.g., therapeutic enactment; see Balfour, Westwood, & Buchanan, 2014 for a review), it is possible that some of the negative effects of restrictive emotionality on pre- to post-treatment PTSD symptom change were circumvented.

While past research (e.g., Caddick et al., 2015) indicated that masculinity may be used to reframe PTSD treatment efforts positively, such that it is seen as an act of strength (i.e., facing or fighting symptoms) as opposed to weakness (i.e., denying symptoms), we did not find that the toughness facet of masculinity significantly predicted positive treatment outcome. Rather, our results indicate that the toughness facet of masculinity has a neutral effect on PTSD treatment.

The finding that no individual facet of traditional masculinity ideology appeared to impact treatment of cluster B (re-experiencing) symptoms is consistent with past research indicating no significant relationship between traditional masculinity and reexperiencing symptoms (Garcia et al., 2011).

3.4.4 Group Masculinity and PTSD Symptom Change

While there appear to be several negative individual effects of masculinity ideology on PTSD treatment outcome, albeit with small observed effect sizes, the same cannot be said for the group effect of masculinity. Indeed, the degree of shared masculinity among group members appeared to have no significant impact on PTSD total, or cluster-specific, symptom change. Qualitative research examining masculinity ideology in the context of group support for PTSD treatment has indicated it to be a potentially protective factor (e.g., Caddick et al., 2015); however, findings from this study do not directly support this suggestion. Rather, at most, we can conclude that in contrast to literature pointing to a detrimental individual effect of masculinity on PTSD treatment outcome (e.g., Lorber & Garcia, 2010), there is not an equal indication of this trend when the group effect of masculinity is examined. While our findings do not indicate a treatment enhancing or protective effect of group masculinity, there is no indication that it significantly hinders it either. Put differently, the results of the current study indicate that individual attitudes regarding traditional masculinity have a more significant impact on pre- to post-treatment PTSD symptom change than do the attitudes of others in the group. It is possible that were we to include mediating group level variables suggestive of climate or cohesion, such as degree of hypermasculine banter, the accrual of ‘masculine capital,’ etc., we may have been able to glean more nuanced information about the impact of group masculinity on individual treatment outcome.

3.4.5 Limitations

While the relatively large sample size and longitudinal design of this study are notable strengths, there are some limitations to consider. First, our sample consisted predominantly of Caucasian men who served in the Canadian Armed Forces. Given the sample's relative homogeneity, extrapolation of results to veterans from other countries and ethnicities should not be assumed. Additionally, all measures used in this study were self-report measures, and thus, response bias may have occurred. Moreover, all participants were recruited from a veteran transition program meaning the sample included men who sought or accepted treatment. As such, the sample may not be representative of veteran men who avoid seeking help due to their endorsement of traditional masculinity ideology. It is important to note that the exploratory nature of this study resulted in the testing of a large number of models which increases the likelihood of type 1 error. Another limitation of this study is that no measure of group climate or cohesion was included. This prevented us from examining the possible mediating effect of these factors on the relationship between group masculinity and treatment outcome. This would be a worthwhile future direction for research examining group-based therapies for veteran men. Finally, the focus of this study was on the impact of masculinity ideology on PTSD treatment, yet the treatment program participants attended was designed to treat broad military to civilian transition difficulties. While reduction of PTSD symptomatology is a strong focus of the program, it is possible results would differ were the program entirely focused on treating PTSD.

3.4.6 Clinical Implications

While keeping the relatively small effect sizes observed in mind, results from this study indicate that pre-treatment levels of traditional masculinity ideology endorsement most significantly impede pre- to post-treatment PTSD symptom change via the facet of self-reliance. This finding

indicates that it may be important to implement strategies that examine treatment attendees' beliefs towards help-seeking (Hoge et al., 2014), and intervene in ways to disconfirm such beliefs. Motivational interviewing (Miller & Rollnick, 2002) is one approach that may be indicated for this type of enquiry as it has been found to help patients attach personal relevance to treatment, thereby encouraging more motivation for treatment engagement (Murphy, Thompson, Murray, Rainey, & Uddo, 2009). In the context of group therapy, greater treatment engagement may encourage individuals' intrapersonal group cohesion, increasing the likelihood of a positive treatment outcome (Burlingame et al., 2001).

Additionally, this study indicates that the avoidance of femininity and dominance facets of masculinity would benefit from being challenged as part of PTSD treatment. Clinicians may benefit from integrating interventions (e.g., gender role analysis) designed to bring attention to, and destabilize endorsement of, gender role norms, particularly those that equate distress disclosure with femininity or weakness. In the context of PTSD treatment, psychoeducation about the role that avoidance symptoms play in the maintenance of PTSD may help to motivate veterans to engage in gold standard treatments, such as exposure therapy (Rauch, Eftekhari, & Ruzek, 2012), despite the possibility that such processes may elicit displays of emotional distress. Moreover, this type of psychoeducation may challenge the notion that mitigating certain symptoms of PTSD via avoidance behaviors equates to achievement or success over the condition. Another strategy may be to leverage aspects of traditional masculinity in such a way that it reclassifies the meaning of treatment. For example, it has been found that engaging veteran men in story telling of their performances of masculinity helped to reframe the meaning of help seeking as "fighting it [PTSD], and facing it head-on, like a man" (Caddick et al., 2015, p. 102). Thus, the perception of seeking

treatment may become modified so as to be masculinity congruent—taking control of, and fighting against, PTSD and its effects on mental health and well-being.

Table 3.1

Bivariate Correlations and Descriptive Statistics for Primary Study Variable

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	*M*	*SD*
1. Total PTSD Change	–															0	14.01
2. Cluster B Change	.83**	–														0	3.98
3. Cluster C Change	.73**	.57**	–													0	1.96
4. Cluster D Change	.93**	.65**	.64**	–												0	5.61
5. Cluster E Change	.89**	.62**	.54**	.77**	–											0	4.61
6. Restrictive Emotionality	.08	.06	.11	.05	.11	–										2.98	1.41
7. Self-Reliance	.15*	.10	.16*	.15*	.14*	.43**	–									4.59	1.54
8. Avoidance of Femininity	.12	.07	.21**	.11	.11	.56**	.51**	–								3.37	1.54
9. Dominance	.12*	.10	.19**	.16*	.10	.37**	.35**	.56**	–							1.99	1.89
10. Toughness	.09	.09	.06	.07	.11	.57**	.63**	.50**	.36**	–						4.17	1.60
11. Group Restrictive Emotionality	-.04	-.04	-.13	-.04	-.04	.10	.13*	.08	.06	.10	–					8.36	2.31
12. Group Self-Reliance	.06	.05	.07	.05	.06	.14*	.13*	.10	.05	.17**	.67**	–				12.89	2.91

13. Group Avoidance of Femininity	-.03	-.02	.02	-.06	-.02	.14*	.16*	.05	.02	.15*	.76**	.70**	–			9.42	2.47
14. Group Dominance	.05	.01	.08	.02	.09	.14*	.08	.03	.01	.09	.56**	.51**	.63**	–		5.67	1.83
15. Group Toughness	.01	-.02	.04	-.01	.01	.09	.15*	.09	.04	.18**	.69**	.81**	.68**	.50**	–	11.65	2.78

**$p < .01$; *$p < .05$

Note: The mean of each change score is equal to zero, as the mean = the sum of the residuals / the number of items. The sum is zero, so 0/n = zero

Table 3.2

Regression Results for Client Effects of Five Masculinity Facets and Group Effects of Total Masculinity Predicting Total PTSD Symptom Change

	Total PTSD Symptom Δ		
Variable	**β**	**SE**	R^2
Client: Restrictive Emotionality	0.82	0.63	.01
Group: Total masculinity	-0.21	0.06	
Client: Self-Reliance	1.41*	0.58	.02*
Group: Total masculinity	-0.04	0.06	
Client: Avoidance of Femininity	1.11	0.57	.02
Group: Total masculinity	-0.03	0.06	
Client: Dominance	0.15*	0.74	.02
Group: Total masculinity	-0.02	0.06	
Client: Toughness	0.86	0.56	.01
Group: Total masculinity	-0.03	0.31	

*$p \leq .05$;

Table 3.3

Regression Results for Effects of Masculinity Facets on PTSD Symptom Change

Predictor	*B*	*SE*	β	*p*
Self-Reliance	1.10	0.60	0.12	.070
Dominance	0.98	0.78	0.08	.212

Table 3.4

Regression Results for Individual Masculinity Facets and Group Masculinity Predicting Cluster-Specific Symptom Change

	Cluster B (Re-Experiencing) Symptom Δ		Cluster C (Avoidance) Symptom Δ		Cluster D (Negative Cognitions and Mood) Symptom Δ		Cluster E (Hyperarousal) Symptom Δ	
Variable	β	SE	β	SE	β	SE	β	SE
Individual Self-Reliance	0.26	0.17	0.20**	0.08	0.57**	0.23	0.44*	0.19
Group Masculinity	-0.10	0.02	0.01	0.01	-0.03	0.03	-0.01	0.02
R^2	.01		.02*		.03*		.02	
Individual Avoidance of Femininity	0.19	0.16	0.27***	0.08	0.42	0.23	0.32	0.19
Group Masculinity	-0.01	0.02	0.01	0.01	-0.02	0.03	-0.01	0.02
R^2	.01		.05**		.01		.01	
Individual Dominance	0.33	0.21	0.32**	0.10	0.53	0.30	0.41	0.24
Group Masculinity	-0.01	0.02	0.02	0.01	-0.02	0.03	0.01	0.02
R^2	.01		.04**		.01		.01	

*$p \leq .05$; **$p \leq .01$

Table 3.5

Regression Results for Effects of Masculinity Facets on Cluster-C (Avoidance) Symptom Change

Predictor	*B*	*SE*	β	*p*
Self-Reliance	0.07	0.09	0.06	.419
Avoidance of Femininity	0.16	0.10	0.13	.124
Dominance	0.17	0.12	0.10	.173

Chapter 4: Traditional Masculinity Ideology and Psychotherapy Treatment Outcome for Veteran Men[1]

4.1 Introduction

Masculinity ideals pervade military culture (Cogan, Haines, Devore, 2019) resulting in many service members endorsing traditional masculinity ideology—the belief that it is integral for males to present core masculinity norms (e.g., avoiding all things feminine, restricting emotions, being self-reliant, achieving status; Levant, 1996; Thompson & Pleck, 1995). While endorsement of masculinity ideals can facilitate successful military service (Fox & Pease, 2012), it can negatively impact veteran mental health and wellbeing once service is complete (Brooks, 1990, 2001). This may occur at the level of psychosocial functioning during transition to civilian life (e.g., posttraumatic stress disorder [PTSD], depression, lack of social support, and alcohol-related problems; O'Loughlin, Cox, Ogrodniczuk, Castro, 2020) or via interference with psychotherapeutic treatment engagement and process (for reviews, see Lorber & Garcia, 2010; Neilson et al., 2020). While it has been assumed that firm adherence to masculinity ideals interfere with treatment engagement and process and thus attenuate potential benefits from treatment (Lorber & Garcia, 2010; Neilson et al., 2020), there is a paucity of research studies to support this assumption. Here, we attend to this gap by examining the degree to which endorsement of traditional masculinity impacts change in psychosocial functioning from pre- to post-treatment and over an 18-month post-treatment period.

[1] For a more detailed description of treatment see published version of paper O'Loughlin, J.I., Cox, D.W., Ogodniczuk, J.S., Castro, C.A. (2022). Traditional masculinity ideology and psychotherapy treatment outcome for military service veteran men. *Psychology of Men and Masculinities.* https://doi.org/10.1037/men0000415

4.1.1 (Military) Masculinities & Psychotherapy

In their seminal article "Doing Gender," West and Zimmerman (1987) conceive of gender as a "routine, methodical and recurring accomplishment (p. 126);" a performance undertaken to demonstrate one's competence as a member within a given society. Considering this in the context of the military, a culture wherein masculinity ideals are tested, celebrated, privileged, and viewed as optimal (Fox & Pease, 2012; Taber, 2018), it is not difficult to understand why traditional masculinity becomes, for many, an essential component of their military life and identity (Barrett, 1996; Green, Emslie, O'Neill, Hunt, Walker, 2010). Whether endorsement of traditional masculinity was established prior to service—a common trait among men who elect to join the military (Barret. 1996, Brooks, 1990)—or adopted during service through a secondary socialization (Arkin & Dorbrofsky), many veteran men rigidly perform their military masculinities to demonstrate their capabilities and assert their belonging (Jakupcak, Osborne, Michael, Cook, & McFall, 2006).

Although adaptive within military culture, in civilian life, continued endorsement of traditional masculine ideals can be less advantageous. For example, veterans who adhere to masculinity norms are more likely to experience mental health difficulties, including PTSD, depression, and substance-related problems (O'Loughlin et al., 2020). Those who adhere to the self-reliance facet of masculinity norms are less likely to seek support from both formal and informal sources in response to psychological distress (Berger, Addis, Green, Mackowiak, Goldberg, 2013; Yousaf, Popat, & Hunter, 2015). As a result, mental health and adjustment difficulties are more likely to be exacerbated. Further, resistance to help-seeking among veteran men may be linked to the belief that mental health challenges should be addressed on one's own, (Hoge et al., 2014; Stecker, Fortney, Hamilton, & Ajzen, 2007). Help-seeking is also associated

with self-stigma—viewing the need for psychological support as a sign of weakness or failure. (McDermott, Currier, Naylor, & Kuhlman, 2017). This process can be further exacerbated by restrictive emotionality, which has also been linked with self-stigma (Heath et al., 2017a; Pederson & Vogel, 2007). For example, those that restrict their emotional experiences may be more compelled to address mental health challenges on their own to resist the pressure of emotional disclosure and avoid appearing weak. In some cases, this may be accomplished through masculinity-congruent coping strategies, such as alcohol use (Lorber & Garcia, 2010).

Despite adherence to masculinity ideals, some veteran men may seek, or agree to attend psychotherapeutic treatment. In such cases, whether they are participating on their own accord or attending treatment as per the encouragement of loved ones, endorsement of masculinity ideology may impact how the therapy process is enacted (Englar-Carlson, 2006). Although there have been strides towards adapting psychotherapy to be more inclusive and attentive to the needs of boys and men (e.g., Kiselica, Benton-Wright, & Englar-Carlson, 2016), there remain several discrepancies between masculinity norms and the processes upon which many contemporary psychotherapeutic approaches rely (Brooks, 1998). To this end, it has been suggested that the psychotherapy establishment has in many respects, failed boys and men by not developing treatment models consistent with the ways those socialized as male experience and cope with emotional distress (Brooks, 2010). For example, traditional masculinity norms that teach men to hide private experiences, maintain control, be stoic, present self as invincible, and favor action over introspection, conflict with traditional psychotherapeutic processes that require self-disclosure, recognizing and expressing feelings, experiencing vulnerability, confronting pain, and admitting difficulty. For those who seek treatment despite endorsing traditional masculinity ideology, a

mismatch between approach and relational style may make psychotherapy aversive and increase potential for treatment disengagement or dropout (Lorber & Garcia, 2010).

In response to the above summarized shortcomings, there has been a recognized need for an alternate perspective. As the majority of psychological frameworks concerning boys and men disregard the possibility that masculinity possesses adaptive components, there has been a call to consider, and integrate into psychotherapeutic processes, the strengths and positive aspects of masculinity that tend to be overlooked (Kiselica et al., 2016). In line with this perspective, several studies concerning masculinity and psychotherapy collectively point to the mental health and treatment-related benefits of men maintaining some aspects of traditional masculinity rather than abandoning them all together. For example, maintaining masculinity-congruent language and metaphor has been recognized to support improvements in treatment engagement among veteran men (Shields, Kuhl, & Westwood, 2017). Additionally, masculinity has been observed to motivate treatment engagement among veteran men via a reframing of help-seeking as actively dealing with, or *fighting* against, PTSD (Caddick, Smith, & Phoenix, 2015). Similarly, a masculinity-congruent re-conceptualization of treatment as one that requires grit or toughness, or as a *battle* that is best not fought alone, demonstrates how masculinity may facilitate, rather than hinder, help-seeking and treatment process (Shields et al., 2017). In the context of group therapy process, masculinity has been observed to facilitate camaraderie among veteran men (e.g., Scheinfeld, Rochland, & Russell, 2017). The safety and familiarity of this dynamic may increase men's willingness to disclose personal challenges and emotional distress (De Visser, Smith, & McDonnell, 2009; Green et al., 2010; Scheinfeld et al., 2017). Finally, there are indications that veteran men may benefit from therapy processes via formation of a hybrid masculinity (Spector-Mersel & Gilbar, 2021) wherein

one selectively resists and maintains varying facets of traditionally masculinity (Bridges & Pascoe, 2014).

While a number of studies have examined the associations between endorsement of traditional masculinity ideology and psychotherapeutic treatment engagement and process, much less is known about the impact of masculinity on treatment outcome. Among the few studies that have examined the association between traditional masculinity and treatment outcome, some have indicated that traditional masculinity impedes client outcome (e.g., O'Loughlin et al., 2021), while others have not (e.g., Scheinfeld et al., 2017). These contradictory findings indicate a need for additional investigation to clarify the association between traditional masculinity ideology endorsement and treatment outcome. Moreover, existing work has not examined how masculinity is associated with clients' functioning following the termination of therapy.

4.1.2 Present Study

While research suggests that adherence to traditional masculinity can have both maladaptive and adaptive impacts on treatment *processes*, it is unclear what the consequences of such adherence is on treatment *outcome*. In this study, we seek to build upon the extant literature examining the relationship between traditional masculinity ideology and psychotherapeutic treatment outcome. To date, this literature is either theoretically based (e.g., Lorber & Garcia, 2010), representing a single case example (e.g., Chen & Dognin, 2017), exploring treatment for a specific disorder (i.e., PTSD; O'Loughlin et al., 2021), or assessing change from pre- to post-treatment (e.g., Scheinfeld et al., 2017). To extend what has been learned from the existing research, in the present study we empirically assess the impact of endorsement of traditional masculinity ideology on change in psychosocial functioning from pre- to post-treatment *and* from post-treatment to 18-month follow-up for veterans who participated in a group-based program.

Consistent with other research focused on traditional masculinity ideology (e.g., Scheinfeld et al., 2017), we parse the effects of endorsement of each individual facet of masculinity on treatment outcome and change post-treatment, as opposed to examining a composite effect of masculinity ideology endorsement. This approach provides more specificity in results upon which to inform treatment strategies and interventions. Here we include those facets of masculinity which have theoretical and empirical associations with mental health and psychological treatment process (see Levant, Hall, & Rankin, 2013): (a) restrictive emotionality (the belief that men should disconnect from emotionally charged situations and be emotionally stoic); (b) self-reliance (the belief that men should be independent); (c) avoidance of femininity (the belief that men should not engage in traditionally feminine activities and behaviors); (d) dominance (the belief that men should always be in command); and (e) toughness (the belief that men should be willing to take risks).

By better understanding the association between traditional masculinity ideology and psychotherapeutic treatment outcome, we can further the development of gender-sensitive clinical practices for veteran men.

4.2 Methods

4.2.1 Participants & Procedures

Participants were Canadian veteran men (N = 178) who attended an all-male multimodal group therapy program aimed at supporting veterans who were experiencing PTSD symptoms and interpersonal difficulties. Veterans attended the program for a total of 10 days, over three separate weekends. Referral to the program was via word of mouth (e.g., health care providers). Treatment groups, consisting of six to eight participants, were facilitated by two leaders (either psychologists or counsellors) and two paraprofessionals – veterans who completed a therapeutic skills training course. Components of the treatment program included peer support, psychoeducation, emotion

regulation skills training, psychodrama, addressing barriers to care, and identifying and working on future goals. A detailed description of the treatment program phases can be found in Cox et al. (2014).

Veterans experiencing self-defined difficulty due to exposure to military-related trauma(s) were eligible to participate in the group program. A formal mental health diagnosis was not required for program enrollment. Nevertheless, reflecting the clinical nature of the sample, 92.6% of participants scored above the clinical cut-off (63 or greater; Beckstead et al., 2003) on the Outcome-Questionnaire 45 (OQ-45) at baseline. Veterans experiencing active psychosis, suicidality, and those who would not commit to abstaining from drugs and alcohol during treatment were not eligible for the program.

At the onset of treatment, veterans were informed about the opportunity to participate in a research component of the program. It was emphasized that their willingness to do so was completely voluntary and that their access to the program and/or their treatment process was not contingent upon their participation in research or the outcome of their questionnaire responses. Less than one percent of veterans who registered for the program declined research participation. Those who consented completed a battery of questionnaires at baseline (i.e., morning before first day of treatment; [t_1]), at the end of treatment (t_2), and at three time points following treatment completion: three months post-treatment (t_3), 12 months post-treatment (t_4), and 18 months post-treatment (t_5). Traditional masculinity ideology endorsement was measured at baseline and psychosocial functioning was measured at all timepoints.

Over 300 veterans have participated in the above-described veteran treatment program; the N = 178 represented in this study include those that identified as male, completed a baseline measure of traditional masculinity ideology, as well as baseline, post-treatment and at least one

follow-up Outcome Questionnaire – 45 (see Measures for more details). As is common in longitudinal studies, attrition was observed with each additional time-point: t_1 (n = 178), t_2 (n = 173), t_3 (n = 151), t_4 (n = 109), t_5 (n = 68); dealing with missing data is discussed below.

As for sample demographics, participants' ages ranged from 23 to76 (M = 47.53; SD = 11.23). The sample was 89.4% Caucasian, followed by 3.4% Aboriginal, and 0.6% East Asian; 59.2% had completed high school or some post-secondary education; and 30.7% had received a college degree or more; 66.5% were married or common law, 22.2% were divorced or separated, 8.4% were single, and 0.6% were widowed. In terms of military service branch, 62.6% served in the Army, 10.6% served in the Air Force, and 5.6% in the Navy, and 21.2% reported multiple branches of service.

4.2.2 Measures

The Outcome Questionnaire-45 (OQ-45). The OQ-45 (Lambert et al., 1994) is a validated measure of psychotherapy outcome that is suitable for patients with a wide range of diagnoses. The scale consists of 45 self-report items that require patients to rate their functioning on a 5-point Likert scale from 0 (*never*) to 4 (*almost always*). The OQ-45 assesses common symptoms across a wide range of adult mental disorders and syndromes, including stress-related illness. Specifically, the OQ-45 is designed to measure broad areas of functioning considered to be of critical importance in measuring patient status and psychotherapy outcome. These include symptoms characteristic of anxiety and depression (i.e., symptom distress), difficulties with family, friends, and marital relationships (i.e., interpersonal relations), and problems in the context of employment, education, and leisure pursuits (i.e., social role performance). Total scores, which represent a measure of psychosocial functioning, were derived from summing all items. Scores may range from 0 to 180, with higher scores indicating greater distress/lower psychosocial functioning. Research indicates

that the OQ-45 has adequate internal consistency and is sensitive to change over a short period of time. The Cronbach's alpha in the current sample for the five times points ranged from .79 - .86.

Male Role Norms Inventory-Short Form (MRNI-SF). The MRNI-SF is a 21-item self-report questionnaire that measures the degree to which an individual endorses traditional masculinity ideology (Levant et al., 2013). On a 1 (*strongly disagree*) to 7 (*strongly agree*) scale, respondents report how much they believe men should adhere to behaviors associated with traditional masculinity. The item responses are summed to derive total scores, with higher scores indicating a greater degree of endorsement of traditional masculinity ideology. The scale consists of seven subscales, five of which were utilized for the purposes of this study on the basis of their theoretical links with veteran mental health. These subscales include: (a) restrictive emotionality, (b) self-reliance, (c) avoidance of femininity, (d) dominance, and (e) toughness. The Cronbach's alphas for these subscales ranged from .70 for toughness to .87 dominance.

4.2.3 Data Analysis

We used multi-level modelling to account for the nested nature of our data; time (within-person effect, Level-1), person (between-person effect, Level-2), and group (between-group effect, Level-3). Initially, we used a three-level model; however, this caused the models to become unstable, likely due to the little between-group variance (< 1%). Therefore, we removed the between-group effect, and ran all subsequent analyses using a two-level model. SPSS MLM (version 27) was used to conduct all analyses.

To assess the degree to which endorsement of individual facets of traditional masculinity ideology moderated change in treatment outcome, we first examined the degree to which there was statistically significant change in psychosocial functioning between each time point. We selected t_2 (post-treatment) as the reference point to demonstrate (a) change in psychosocial functioning from

pre-treatment to post-treatment and (b) change in psychosocial functioning occurring after treatment (3 months, 12 months, and 18 months post-treatment). We then modeled the effects of each individual facet of masculinity on psychosocial functioning. When a significant effect of a masculinity facet on psychosocial functioning was indicated, interactions between the masculinity facet and change in psychosocial functioning between each time point were assessed. This method was selected to model the effects of individual masculinity facets on change in psychosocial function—a cross-level interaction (i.e., moderating effect)—as it accounts for the hierarchical structure of the data (i.e., repeated measurements nested within the individual). MLM is considered to be well suited to handling the nested structure of group therapy data (Selig, Trott, Lemberger, 2017) and the inherent dependence of repeated measures, as it does not assume independence of observations (Raudenbush & Bryk, 2002).

A total of five models were fitted; one for each facet of masculinity (i.e., restrictive emotionality, self-reliance, avoidance of femininity, dominance, and toughness). In each model, random intercept within- and between-person effects were included. The repeated measurements of psychosocial functioning were nested within each participant and time was treated as a categorical variable allowing for each time point to independently predict change relative to the reference time point; here time two (i.e., post-treatment). We freely estimated each time point to facilitate a more flexible model; one that does not assume linearity in change overtime nor that the effect of masculinity on change in function would occur in a single direction (i.e., only negative or positive).

In all five models, we evaluated the main effect of time (the within-person factor) by including the measure of psychosocial functioning as the outcome variable and time as the Level-1 predictor. A single facet of masculinity was included in each model as the between-person factor, or Level-2 predictor. Interaction effects between time and masculinity facets were examined to

assess the degree to which restrictive emotionality, self-reliance, avoidance of femininity, dominance, and toughness, respectively, moderated treatment outcome (i.e., $t_1 - t_2$) and change in psychosocial functioning overtime (i.e., changes from $t_2 - t_3$; $t_2 - t_4$; and $t_2 - t_5$). In all models, full maximal likelihood estimates were used to account for missing data (Enders & Bandalos, 2001). Because the likelihood of type one error increases when multiple analyses are conducted on the same dependent variable, we considered only *p* values less than .01 as indicating significance. Models are presented in Table 1.

4.3 Results

4.3.1 Main Effects of Time

We first examined change in psychosocial functioning between each timepoint. When we examined change in psychosocial functioning between pre-treatment and post-treatment, we observed that on average, participants' scores decreased by 21.37 points ($p < .001$; $d = .88$), indicating improvement (see Main Effects of Time in Table 1). When we examined change in psychosocial functioning between post-treatment and three follow-up timepoints, we observed there to be no significant change between post-treatment and the 3-month follow up ($p = .339$, $d = .07$) nor between post-treatment and the 18-month follow-up ($p = .461$, $d = .07$). Between post-treatment and the 12-month follow-up however, we observed a significant change ($p = .019$, $d = .20$), indicating a decline in psychosocial functioning.

Next, we examined the effects of the five masculinity facets. We examined the between-person effects (i.e., Level-2) of masculinity on psychosocial functioning and the moderating effects of masculinity on change in psychosocial functioning between time points (i.e., cross-level interaction). Table 1 includes all models – first indicating the between-person effect and then the cross-level interaction for change between each time point.

4.3.2 Restrictive Emotionality

Restrictive emotionality had a significant association with psychosocial functioning (b = 5.38, $p < .001$) such that participants who reported more endorsement of restrictive emotionality reported, on average across all time points, lower levels of psychosocial functioning. No significant moderating effects of restrictive emotionality on change in psychosocial functioning were observed between the other time points.

4.3.3 Self-Reliance

Self-reliance had a significant association with psychosocial functioning (b = 3.54, p = .002) such that participants who reported more endorsement of self-reliance reported lower levels of psychosocial functioning when averaged across all time points. When the moderating effect of self-reliance on change in psychosocial functioning was examined, a significant interaction was observed between pre- and post-treatment (see Figure 1), such that the difference in level of psychosocial functioning was predicted to be 3.30 points less for every one-point increase in self-reliance (p = .003). Hence, clients who reported greater endorsement of self-reliance also reported, on average, less improvement in psychosocial functioning at post-treatment. No moderating effect of self-reliance on level of psychosocial functioning was observed between the other time points.

4.3.4 Avoidance of Femininity

Avoidance of femininity had a significant association with psychosocial functioning (b = 4.64, $p < .001$) such that participants who reported more avoidance of femininity reported, on average across five time points, lower levels of psychosocial functioning. No significant moderating effects of avoidance of femininity on change in level of psychosocial functioning were observed between any time points.

4.3.5 Dominance

Dominance was significantly associated with psychosocial functioning ($b = 3.22$, $p < .001$) such that participants who reported greater endorsement of dominance reported lower levels of psychosocial functioning when averaged across the five time points. No significant moderating effects of dominance on change in level of psychosocial functioning were observed between any time points.

4.3.6 Toughness

Toughness had a significant association with psychosocial functioning ($b = 4.49$, $p = .002$) such that participants who reported more endorsement of toughness reported lower levels of psychosocial functioning when averaged across the five time points. While toughness was associated with an average lower measure of psychosocial functioning, it was associated with greater improvement in psychosocial functioning from post-treatment to 18-months follow-up. Specifically, a significant interaction was observed between post-treatment and the 18-month follow-up (see Figure 2), such that the drop in score was predicted to be 4.92 points greater for every one-point increase in toughness ($p = .004$). Hence, those who reported greater endorsement of toughness at pre-treatment were predicted to have lower scores, on average, at 18-months post-treatment (indicating greater improvement in psychosocial functioning). No moderating effect of toughness on change in level of psychosocial functioning was observed between the other time points.

4.3.7 Summary

In sum, our findings indicated that higher endorsement of the self-reliance facet of masculinity may impede treatment outcome and that endorsement of the toughness facet of masculinity may improve outcomes overtime. These findings support the evidence (e.g., Spector-

Mersel & Gilbar, 2021) that differing aspects of traditional masculinity norms have varying impacts on psychotherapeutic treatment outcome—some negative, and others protective.

4.4 Discussion

While there are indications that adherence to traditional masculinity can have both maladaptive and adaptive impacts on treatment *processes* (e.g., Green et al., 2010), the consequences of traditional masculinity on treatment *outcome* have been scarcely studied. In this study, we sought to build upon the existing literature by examining the associations between endorsement of traditional masculinity ideology and treatment outcome, longitudinally (post-treatment to 18-month follow-up). Treatment outcome was represented as change in psychosocial functioning.

Results indicated that those with higher endorsement of the self-reliance facet showed less improvement from pre- to post-treatment, and that those with higher endorsement of the toughness facet showed greater post-treatment improvement. We also found that all masculinity facets examined were associated with lower, on average, levels of psychosocial functioning. The latter finding is consistent with research pointing to the detrimental impacts of traditional masculinity ideology on psychological and social wellbeing (e.g., Wong, Ho, Wang, Miller, 2017). This finding indicates rigid endorsement of traditional masculinity ideology to be an important intervention point to support veteran wellbeing.

While there are indications that restrictive emotionality is likely to interfere with psychotherapeutic treatment (for review, see Rochlen, Land & Wong, 2004), we did not find this to be so. A possible explanation for this outcome is that despite endorsement of restrictive emotionality, participants were willing to engage in emotional disclosure about interpersonal and contextual variables that were shared by the other participants and drew all of them to participate in

the group program. These shared experiences may have made such disclosure more permissible and protected masculinity from threat. For example, camaraderie—a factor associated with emotional support and solidarity (Green et al., 2010)—was likely well-facilitated by the gender-specific, retreat style, group therapy modality participants engaged in. It may also be the case that certain techniques used during this treatment program, for example, psychodrama, were less susceptible to the negative effects of restrictive emotionality as it doesn't rely directly on emotional insight or disclosure.

We also found that greater endorsement of self-reliance attenuated positive treatment outcome. While men in this sample sought, or agreed to, treatment despite their endorsement of self-reliance, it is possible that higher endorsement of self-reliance interfered with group therapy processes associated with positive treatment outcomes. Namely, interpersonal exchange between group therapy participants, which accounts for a large part of effective treatment outcome (Yalom & Leszcz, 2005), may have been limited in those who held the belief that men should not rely on others to address distress. Less willingness to connect with or rely on others may have resulted in these participants experiencing a lesser sense of belonging within the group (i.e., cohesion), and in turn, reduced their treatment involvement (Ogrodniczuk & Piper, 2003).

A significant contribution of this study is the finding that veterans with elevations in toughness had lower overall levels of psychosocial functioning, but greater improvement in psychosocial from post-treatment to 18-month follow up. This finding is consistent with research and theory suggesting that treatment efforts are best informed by acknowledging the possibility that masculinity has both adaptive and maladaptive components (e.g., Englar-Carlson & Kiselica, 2013) and that cultivating adaptive aspects of masculinity will improve treatment outcomes (Garcia et al., 2011). A possible explanation for this finding is that higher levels of toughness facilitated long-

term post-treatment improvement through aspects of the facet that relate to perseverance, ambition, or grit—a trait associated with persistence toward a goal, despite the presence of obstacles or challenges (Duckworth, Peterson, Matthews, & Kelly, 2007). In other words, it is possible that those who endorsed higher levels of toughness demonstrated greater commitment toward continued implementation of their treatment gains (e.g., learned skills) and were more likely to persist if obstacles or challenges were encountered. In support of this interpretation is the finding that the masculinity facet of "success dedication," which similarly relates to perseverance, may protect veteran mental health via motivation toward goal-seeking (Garcia et al., 2011).

4.4.1 Practical Implications

Results of this study indicate that endorsement of the self-reliance facet of traditional masculinity may attenuate improvement in post-treatment psychosocial functioning. To protect against this effect, it is worth noting that self-stigma is likely to occur when men who endorse self-reliance are required, or opt, to undergo psychological treatment (McDermott et al., 2017). Thus, utilization of approaches aimed to interrupt self-stigma may protect against the detrimental impact of self-reliance on treatment outcome. One such approach, enhancing self-compassion, has been shown to attenuate help-seeking self-stigma through increased self-worth and reductions in self-criticism related to a sense of not living up to traditional masculine expectations (Heath et al., 2017b). As noted above, it is possible that self-reliance reduced treatment outcomes in this sample through interruptions to connection or cohesion between groups members. With this in mind, the common humanity component of self-compassion—seeing struggles and difficulties as core components of the human condition rather than as personal failings that isolate us from others (Germer & Neff, 2013)—may be utilized to support greater interaction between group members.

Although the body of literature is small, positive treatment effects have been indicated for men who, throughout the therapy process, construct a hybrid masculinity; one in which some aspects of traditional masculinity are maintained while others are resisted (e.g., Spector-Mersel & Gilbar, 2021). This approach, which emphasizes the multidimensionality of masculinity, may support treatment engagement via preservation of certain aspects of masculinity that form a part of a veteran's identity. The findings from the current study may help to specify which masculinity facets are favorable to be retained versus those which may be detrimental and are best resisted. For example, narratives and behaviors associated with the masculinity norm of self-reliance may be important for clinicians to address and discourage in the construction of a new or hybrid masculinity. In the context of therapy for veteran men, it may be that gender- and [military] culture-congruent language of a "band of brothers" or references to camaraderie may be helpful to communicate the value of relying on trusted others. Our finding that the toughness facet of traditional masculinity was associated with improvements in psychosocial functioning indicates that it may be beneficial for clinicians to affirm this masculinity norm and toughness-related behaviors. This may be accomplished by integrating language into the therapy process associated with the aspects of toughness most likely to be responsible for facilitating change (e.g., ambition, perseverance, persistence, etc.). For example, it may be reflected by clinicians that the tough are well suited to the therapy process because it is highly challenging; it takes strength and commitment; obstacles will be encountered and those that are tough are the ones who stay the course. Similarly, military ethos may be reflected by referring to the treatment of mental health difficulties as "fighting a battle." Likewise, motivation to seek treatment gains may be supported through references to winning the fight. Some of the features of hardiness (Kobassa, Maddi, & Kahn, 1982), a related and masculinity-congruent personality construct, may also be drawn upon to

bolster the toughness facet of masculinity. For example, clinicians may support treatment attendees to make meaning of the challenges they have encountered and to reconceptualize them as opportunities for growth (Bartone, 2006).

4.4.2 Limitations

It is important to consider the implications of our findings within the limitations of our study. First, Caucasian men who served in the Canadian Armed Forces made up the majority our sample; thus, we cannot assume that results can be generalized to veterans from other countries and ethnicities. Second, this sample consisted of men who sought or accepted treatment. That there is a strong association between traditional masculinity ideology and refusal to seek help (Yousaf et al., 2015) suggests that the men who made up the current sample may not reflect a typical presentation of veteran men who endorse traditional masculinity ideology. Finally, all measures used in this study were self-report measures. Thus, response bias or limitations in introspective abilities may have skewed the information collected.

4.4.3 Conclusion

The results of this study, which examined how treatment outcomes and changes in psychosocial functioning that occurred over an 18-month period post-treatment, extends our understanding of how treatment is impacted by endorsement of masculinity. Understanding the facets of traditional masculinity that may be most detrimental to treatment outcome, as well as those that may facilitate improvement, can assist clinicians in developing strategies and interventions that are congruent with the emotional and relational style of veteran, and other men, who endorse traditional masculinity.

Table 4.1

Time, Masculinity Facets, and Interaction Effects from Random Coefficient Analysis Models for Level of Functioning at Pre-treatment (t_1), Post-treatment (t_2), 3-Month Follow-up (t_3), 12-Month Follow-up (t_4), and 18-Month Follow-up (t_5).

Variable	*B*	*SE*	*p*	95% CI for *b*
t_1: Pre-Treatment	21.37	1.65	< .001***	[18.12, 24.61]
t_2: Post-Treatment (Reference)	72.70	2.03	< .001***	[68.71, 76.70]
t_3: 3 Month F/U	1.67	1.74	.339	[-1.75, 5.09]
t_4: 12 Month F/U	4.61	1.96	.019*	[0.76, 8.45]
t_5: 18 Month F/U	-1.72	2.34	.461	[-6.31, 2.87]
RE	5.38	1.28	< .001***	[2.85, 7.90]
Time (t_2-t_1) x RE	-0.66	1.25	.600	[-3.12, 1.80]
Time (t_2-t_3) x RE	-0.28	1.32	.833	[-2.88, 2.32]
Time (t_2-t_4) x RE	0.87	1.63	.593	[-2.34, 4.08]
Time (t_2-t_5) x RE	0.40	1.89	.832	[-3.30, 4.11]
SR	3.54	1.15	.002**	[1.27, 5.82]
Time (t_2-t_1) x SR	-3.30	1.10	.003**	[-5.47, -1.14]
Time (t_2-t_3) x SR	-1.30	1.17	.267	[-3.60, 1.00]
Time (t_2-t_4) x SR	-2.29	1.34	.087	[-4.91, 0.33]
Time (t_2-t_5) x SR	-2.76	1.73	.112	[-6.16, 0.64]
AF	4.64	1.10	<.001***	[2.46, 6.81]

Time (t_2-t_1) x AF	-2.36	1.07	.028	[-4.46, -0.25]
Time (t_2-t_3) x AF	-1.73	1.15	.134	[-3.99, 0.53]
Time (t_2-t_4) x AF	-0.45	1.32	.734	[-3.04, 2.15]
Time (t_2-t_5) x AF	-1.69	1.62	.295	[-4.87, 1.48]
DO	4.49	1.43	.002**	[1.66, 7.31]
Time (t_2-t_1) x DO	-2.06	1.38	.136	[-4.76, 0.65]
Time (t_2-t_3) x DO	-2.56	1.43	.074	[-5.37, 0.25]
Time (t_2-t_4) x DO	-1.25	1.80	.488	[-4.78, 2.28]
Time (t_2-t_5) x DO	-1.62	1.99	.417	[-5.53, 2.30]
TO	3.22	5.35	<.001***	[0.86, 5.58]
Time (t_2-t_1) x TO	-0.33	1.13	.773	[-2.55. 1.90]
Time (t_2-t_3) x TO	-1.70	1.21	.159	[-4.07, 0.67]
Time (t_2-t_4) x TO	-1.33	1.43	.353	[-4.14, 1.48]
Time (t_2-t_5) x TO	-4.92	1.68	.004**	[-8.23, -1.61]

Note.

t_1 = pre-treatment; t_2 = posttreatment (reference); t_3 = 3-month follow-up; t_4 = 12-month follow-up; t_5 = 18-month follow-up; CI = confidence interval. All models had random intercepts.

** $p < .01$, *** $p < .001$.

Figure 4.1. Simple slopes of pre- to post-treatment change in OQ45 score for participants that were low and high in self-reliance.

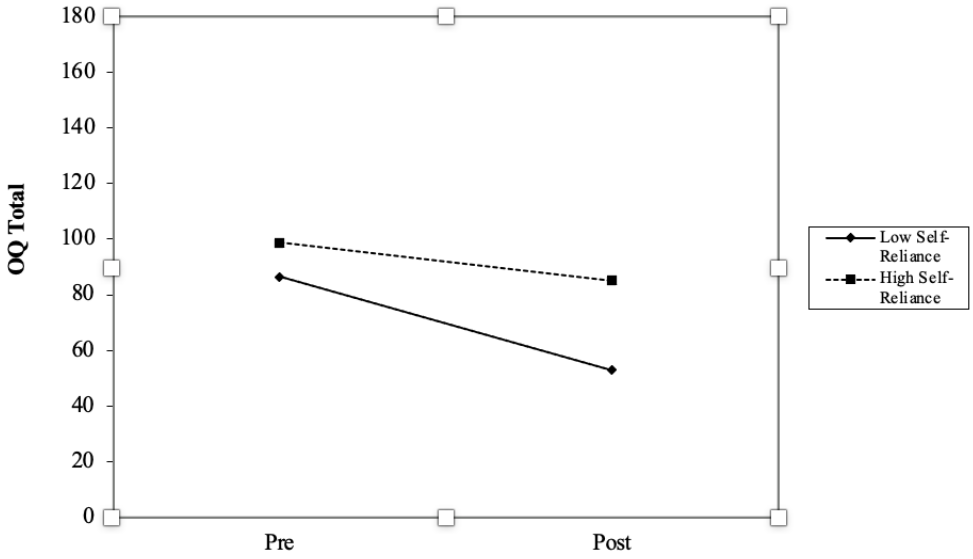
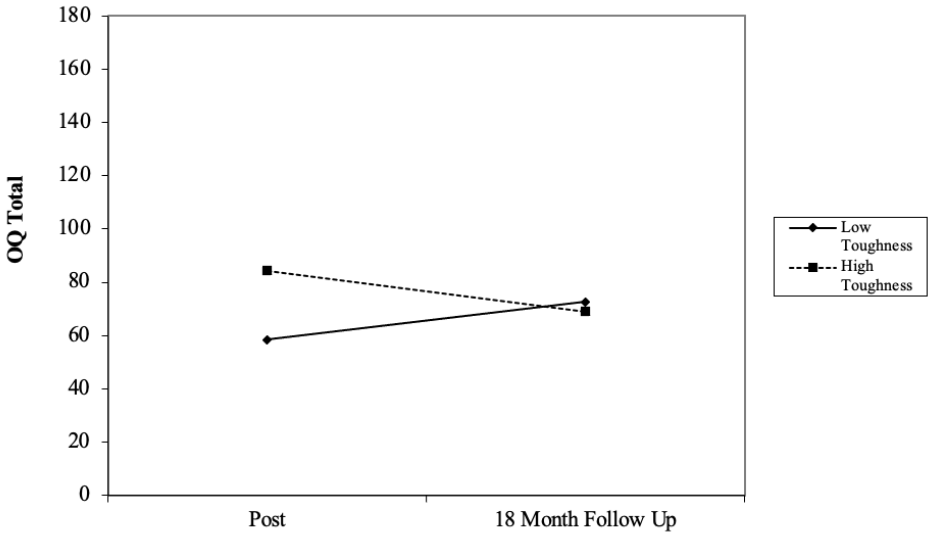


Figure 4.2. Simple slopes of post-treatment to 18-month follow-up change in OQ45 score for participants that were low and high on toughness.



Chapter 5: General Discussion

The overarching purpose of this dissertation was to examine the intersections between traditional masculinity ideology, mental health, and psychotherapeutic treatment outcomes among Canadian veteran men. Combined, the results from these studies indicate that interrupting rigid endorsement of traditional masculinity ideology may facilitate veteran wellbeing via reduced mental health difficulties and improved treatment outcomes. In particular, restrictive emotionality and self-reliance appear to be important targets due to their association with increased mental health difficulties and poorer treatment outcomes, respectively. Results from this dissertation additionally support the research and theory that point to masculinity not being categorically negative for men's mental health or treatment processes (e.g., Kiselica, Benton-Wright, & Englar-Carlson, 2016). Indeed, findings suggest that certain facets, namely toughness, may support treatment improvement overtime.

The purpose of this chapter is to (a) synthesize the research findings in the three studies presented, (b) discuss the theoretical and practical implications of the findings, (c) summarize study limitations, and (d) provide suggestions for directions of further research.

5.1 Synthesis of the Research Findings

The findings outlined in this dissertation relate primarily to the impact of traditional masculinity ideology on veteran men's mental health during transition to civilian life. We examined this by assessing the degree to which endorsement of traditional masculinity ideology impacted the military to civilian transition trajectory via an influence on mental health and psychotherapeutic treatment outcome. Each study accounted for the multidimensional nature of traditional masculinity ideology by parsing the effects of individual masculinity facets (i.e., restrictive emotionality, self-reliance, avoidance of femininity, dominance, and toughness).

With regards to the impact of traditional masculinity ideology endorsement on veteran men's mental health, we found that, of the masculinity facets studied, restrictive emotionality posed the greatest risk factor. Specifically, it was observed that restrictive emotionality predicted PTSD, depression, and lack of social support. Additionally, endorsement of avoidance of femininity predicted more alcohol use.

When we examined the individual facets of masculinity on treatment outcome (outlined in chapters 3 & 4, respectively), we found that different facets were relevant. In our examination of the impact of traditional masculinity ideology endorsement on pre- to post-treatment change in PTSD symptomatology, we found that the self-reliance and dominance facets attenuated treatment effects. Subsequently, when we expanded the criteria for assessing treatment outcome by focusing on changes in broad clinical symptomology (i.e., general psychosocial functioning), we again, saw that self-reliance attenuated treatment outcome. In this same study, we unexpectedly found that greater endorsement of the toughness facet of masculinity predicted more post-treatment improvement overtime (here, an 18-month period). Additional findings with relevance from these works include the observation that an individual's degree of endorsement of traditional masculinity ideology has a significant impact on treatment outcomes, over and above, the degree to which other group members endorse traditional masculinity ideology. Additionally, all masculinity facets studied, regardless of their impact on post-treatment changes, were associated with lower levels of psychosocial functioning.

5.2 Novel Contributions of Research

While there is a considerable body of literature examining the relationship between traditional masculinity and veteran mental health, less is known about the interactions between these variables. Moreover, while there is evidence that traditional masculinity ideology may

complicate psychological treatment process and engagement (e.g., Neilson et al., 2020) little is known about its impact on treatment outcome specifically. This dissertation sought to build on previous research findings and theory to extend what has been learned thus far.

Our first study was designed to assess variables that had been previously examined in the context of masculinity and military transition, respectively, but not with respect to their influence on one another. By looking at the relationship between masculinity and multiple transition risk factors within a single study, we also sought to examine the relative impact of varying masculinity factors on transition to determine if any facets appear to contribute over and above the others. Overall, the findings from this study, which found that some masculinity facets predict factors mental health challenges that are associated with a difficult military to civilian transition, built on the extant literature. An important contribution of this research is the indication that restrictive emotionality has particular salience with respect to potentiating factors associated with a difficult transition to civilian life. Another contribution from this research is that it supports the notion that traditional masculinity endorsement is highly relevant for military to civilian outcomes.

The questions posed in the second study were similarly designed to build on findings from extant literature. In this case, our goal was to improve an understanding of how traditional masculinity ideology impacts veteran mental health by assessing whether the relationship between the two variables extends to treatment outcome. In this study, we opted to index treatment outcome according to change in PTSD symptomatology as there is evidence that traditional masculinity ideology potentiates the development of PTSD (e.g., Jakupcak et al. 2014). This study also sought to build on research indicating that the effects on masculinity on treatment process may be variable based on contextual and situational factors. Specifically, that a shared masculinity among veteran men may encourage emotional disclosure as opposed to impede it (e.g., Green et al., 2010). To

account for the possible effect of a shared masculinity between group therapy participants, we assessed how endorsement of masculinity ideology at the group level (i.e., the degree of masculinity endorsement among individuals attending group therapy together) impacts PTSD symptom change for individual group members.

Finally, the questions posed in the third study were designed to extend what we learned in the second study about the impact of masculinity on treatment outcome by determining if similar results would be observed when measurement of treatment outcome was expanded beyond a single mental health category. To do so, treatment outcome was indexed according to changes in general psychosocial functioning. We also extended what has been learned from research using a pre- to post-treatment design by additionally assessing the impact of traditional masculinity ideology on change from post-treatment to 18-month follow-up.

All research studies were designed with the concerns raised in recent research studies about perpetuating the perspective of traditional masculinity as inherently problematic in the context of mental health (e.g., Caddick et al., 2015). To account for the possibility that traditional masculinity ideology endorsement may impact mental health and psychological treatment outcomes in variable ways (i.e., helping, hindering, or neutral), all studies examined individual facets of masculinity (as opposed to total endorsement of traditional masculinity ideology alone). From a treatment perspective, this multidimensional approach is paramount, as it increases the specificity of findings and leaves space for an understanding of the differential effects (i.e., negative, neutral, or positive) that varying aspects of masculinity may have on mental health and treatment outcome.

5.3 Theoretical Implications

One important theoretical implication of this research is the support it provides for the military transition theory (Castro & Kintzle, 2014). This support can be seen in the results of the

first study (presented in chapter 2) which, consistent with the theory, indicate that endorsement of traditional masculinity ideology— a personal and (military) cultural factor—effects outcomes associated with transition (i.e., mental health and social engagement).

Another significant theoretical implication concerns the results of the third study (presented in chapter 4). The finding that toughness is associated with more psychosocial post-treatment improvement lends support to the positive psychology-positive masculinity paradigm (Kiselica, Englar-Carlson, & Fisher, 2006). Specifically, it supports the notion that there may be aspects of masculinity that can be adaptive. Moreover, this finding provides support for the theoretical explanation used in one of the few other empirical findings relating a specific masculinity facet (i.e., success dedication) to potential mental health benefits (Garcia et al., 2011). In this study, motivation-seeking was suggested to be theoretically responsible for the effect of success dedication on mental health benefits. As perseverance is similarly represented within the toughness facet of traditional masculinity ideology, our finding provides support for this theoretical explanation. Moreover, Garcia et al. (2011) suggested that treatment outcomes would be improved if adaptive aspects of masculinity were acknowledged and integrated into the therapy process. While findings from study three cannot speak to the effect of integrating acknowledgment and affirmation of toughness into the therapy process, our results support the assertion that adaptive components of masculinity may facilitate improvements in treatment outcomes. These may be integrated through intentional use of toughness-congruent language (e.g., treatment as a process that requires strength and determination to overcome obstacles) and from support programs drawing upon skills utilized in military programs focusing on mental toughness or aspects the reflect hardiness (e.g., making meaning out of challenges and reconceptualizing them as opportunities for growth).

5.4 Practical Implications

Combined, the three studies presented in this dissertation have several practical implications. These are most applicable to clinical considerations for preparing military members for transition to civilian life and for veteran psychotherapeutic treatment.

The results of the three studies presented in this dissertation highlight the value and importance of conceptualizing traditional masculinity as a multidimensional construct with situational impacts. This perspective allows for recognition that differing aspects of traditional masculinity can have varied impacts on veteran mental health and treatment, and that these variable impacts may be moderated by context. The findings that emphasize the importance of situating masculinity as a multidimensional construct align well with the suggestion that men who endorse traditional masculinity may benefit from therapy processes via formation of a hybrid masculinity (Spector-Mersel & Gilbar, 2021; Bridges & Pascoe, 2014). This approach may support treatment engagement by preventing attendees from feeling pressured to wholly abandon masculinity and in turn, lose, or have invalidated, integral components of their identity. With the latter in mind, considering the results of the three studies within this dissertation together may help to inform clinicians which aspects of masculinity facets may be beneficial to bolster during therapy (i.e., those that are adaptive and supportive of treatment process) versus those to focus on reconceptualizing (i.e., those that are linked with mental health difficulties and poorer treatment outcome). Our study results point to restrictive emotionality and self-reliance being the facets of traditional masculinity that are most likely to impede veteran men's wellbeing. These are indicated as beneficial intervention points for treatment attendees or considerations for military members approaching transition and veterans experiencing mental health challenges. As toughness was indicated to be

facilitative of post-treatment improvement, it may be that affirming this aspect of masculinity during the therapy process would improve mental health treatment outcomes.

As endorsement of restrictive emotionality predicted PTSD, depression, and lack of social support, intervening in this facet is best indicated for programming aimed at preparing for, or supporting, military to civilian transition. This may help to protect veteran men from sequalae associated with a difficult transition to civilian life. To address restrictive emotionality endorsement, programming may draw upon treatments recommended to address alexithymia, a construct similar to restrictive emotionality and also associated with masculinity (Levant et al., 2009). For example, psychoeducation and facilitation of skills that support an increased understanding of emotional responding and development of vocabulary for emotions may be useful to integrate into programing (see Levant, Halter, Hayden & Williams, 2009 for a review).

While negative effects of self-reliance endorsement were specific to attenuation of treatment outcomes in these studies, these findings point to social connection being an important component of wellbeing. Thus, it may be beneficial for veterans to join activity-based peer groups as this informal support can parallel familiar military cultural norms such as unit cohesion and camaraderie (Caddick et al., 2015; Scheinfeld et al., 2017). This may facilitate a permissibility toward support-seeking even among those who endorse self-reliance.

Clinically, interrupting self-reliance appears to be particularly important for attendees of group therapy treatment programs as attenuation of treatment effects may occur through a lack of bonding between participants (Clough, Spriggens, Stainer, & Casey, 2022) or poor interpersonal group cohesion (Burlingame et al., 2001). Thus, it is recommended that group therapy clinicians focus on disconfirming beliefs that influence resistances to help-seeking or social support (e.g., mental health problems should be addressed on one's own; (Hoge et al., 2014). One approach that

may be used to achieve this is Motivational Interviewing (Miller & Rollnick, 2002). This type of enquiry has been found to help patients attach personal relevance to therapy, thereby encouraging greater motivation for treatment engagement (Murphy, Thompson, Murray, Rainey, & Uddo, 2009). Another approach that may be beneficial to address self-reliance is integrating language into the therapy process that reflects military ethos related to camaraderie. Doing so can facilitate a therapy process that is culturally consistent and with which participants may better identify. Thus, using terminology such as a "band of brothers" may help to communicate the value of relying on trusted others and facilitate the conditions that are likely to improve group therapy outcomes (i.e., cohesion; (Burlingame et al., 2001).

Similarly, to bolster toughness as a means of facilitating continued post-treatment improvements, language associated with the aspects of toughness that are theoretically responsible for facilitating change (e.g., ambition, perseverance, persistence, etc.) may be intentionally integrated into the therapy process. Positioning the treatment of mental health difficulties as akin to fighting a battle and motivating participants to seek treatment gains through references to winning the fight may improve the cultural congruence of treatment programs. It may also be beneficial for veterans to engage in skills that are associated with mental toughness training to draw out the aspects of toughness that may be protective including, perseverance, and grit. For example, emphasizing the importance of goal setting, encouraging a regular check in with progress and reassessment of what changes need to be made to support additional gains may be approaches that are congruent for veterans based on their military training (e.g., Fitzwater, Arthur, & Hardy, 2018).

5.5 Limitations

It is important to consider the implications of the findings presented in the three studies that make up this dissertation within the limitations of the research. First, this sample consisted

predominantly of Caucasian men who served in the Canadian Armed Forces. The sample's relative homogeneity prevents extrapolation of results to veterans from other countries and of different ethnicities. Further, it is important to recognize that the majority of the literature cited regarding masculinity in the military was written in the context of American military culture. Although we do not intend to imply American military values and culture are synonymous with that of the Canadian military, both organizations have been characterized as a hypermasculine (see Taber, 2018, for a review). Another limitation involves the fact that all measures used in this study were self-report measures. Thus, response bias or limitations in introspective abilities may have skewed the information collected. Moreover, all participants were recruited from a veteran transition program meaning the sample was made of men who sought or accepted treatment. The strong association between traditional masculinity ideology and refusal to seek help (Yousaf et al., 2015) suggests that the men who made up the current sample may not reflect a typical presentation of veteran men who endorse traditional masculinity ideology.

5.6 Future Directions

While there is a large body of research examining the impact of traditional masculinity ideology endorsement on veteran men, problematically, there is no similar line of inquiry for veteran women. While veteran women are less likely to have endorsed traditional masculinity ideology via early life gender socialization processes, they, like their male counterparts, undergo a secondary socialization process during military training and service (Arkin & Dobrofsky, 1978). Thus, it is possible that their mental health and treatment processes could be similarly impacted by endorsement of traditional masculinity. Without research to determine this, the information is lacking as to whether programs that prepare military members for transition to civilian life, or those aimed as supportive veteran mental health, should be tailored in gender-specific ways. Information

that indicates if veteran women are negatively impacted by traditional masculinity ideology endorsement, and if so, via which specific facets, may help to improve the programs aimed at supporting these individuals.

Additionally, based on the findings of the three studies presented within this dissertation, several clinical recommendations were made for the purposes of enhancing programing aimed at preparing military members for transition and for supporting the mental health of veteran men. These include efforts to mitigate restrictive emotionality endorsement during preparation for transition to civilian life using techniques used for treatment of alexithymia, mitigating endorsement of self-reliance in veteran mental health programming via Motivational Interviewing (to enhance personal relevance of treatment) and self-compassion (to intervene in help-seeking stigma), and using masculinity congruent language to enhance engagement and support development of a hybrid masculinity in which toughness is bolstered and self-reliance is mitigated. A next important step would be to empirically assess the efficacy of these suggested programming amendments.

5.7 Summary

In conclusion, this dissertation consists of a set of studies that represent an examination into the intersections between traditional masculinity ideology, mental health, and psychotherapeutic treatment outcome among Canadian veteran men. We found that some facets of traditional masculinity predict factors linked with mental health challenges that are associated with a difficult military to civilian transition. Specifically, that restrictive emotionality predicted PTSD, depression, and perceived social support, whereas avoidance of femininity predicted alcohol-related problems. Additionally, we found that, with respect to the impact of traditional masculinity ideology endorsement on pre- to post-treatment change in PTSD symptomatology, self-reliance and dominance at the individual level attenuated positive treatment outcomes. Furthermore, we

observed that individual's endorsement of traditional masculinity, as opposed to the amount of shared masculinity endorsement between group members, accounted for the attenuation of treatment gains. Finally, when examining the impact of traditional masculinity ideology endorsement on post-treatment improvements in psychosocial functioning, we found that higher endorsement of self-reliance was negatively associated with treatment outcome, whereas higher endorsement of toughness was associated with greater improvements overtime.

Taken together, the findings from these three studies point to the fact that traditional masculinity ideology can negatively impact veteran transition trajectories and treatment outcomes, but that it is not wholly negative. To the contrary, aspects of masculinity, namely toughness, may be protective within the context of treatment and result in improved outcomes. These findings contribute to the field by providing support to theoretical frameworks and theory-driven explanations for past research findings concerning masculinity and veteran mental health. Furthermore, the findings from the studies presented in this dissertation provide several clinical suggestions which may assist clinicians in developing strategies and interventions that are congruent with the emotional and relational style of veteran, and other men, who endorse traditional masculinity.

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Appendix A – Informed Consent

Program Evaluation of the Veterans Transition Program

Consent for Participation

Principal Investigator

Dr. Daniel Cox, Department of Educational and Counselling Psychology, The University of British Columbia. Dr. Cox can be contacted at: (XXX) XXX-XXXX.

Co-Investigators

Dr. John Oliffe, School of Nursing, Applied Science, The University of British Columbia; Leah Baugh, Department of Educational and Counselling Psychology, The University of British Columbia; Katharine McCloskey, Faculty of Psychiatry, The University of British Columbia

Brief Overview of this Evaluation

This evaluation consists of several survey questionnaires (e.g., measures of traumatic stress symptoms) that will be administered before the program begins, immediately afterwards, 3 months, 12 months, and 18 months post-program. The surveys will be delivered by paper, electronic or telephone format.

Purpose of this Evaluation

This evaluation is taking place to assess and improve the Veterans Transition Program. This is accomplished by examining which domains (e.g., symptoms of depression and trauma) are affected by program participation. A second goal of this evaluation is to create a research database (i.e., data collected through questionnaires) that will be used to address future research questions that will help support recovery and wellness in the veteran population.

Research Confidentiality

Paper copies of consent forms and surveys will be retained in a locked file cabinet in the principal investigator's locked research office. The consent form will be stored separately from the survey

responses to ensure anonymity. Follow-up surveys will be assigned a participant number to ensure confidentiality. Additionally, all digital files of online surveys and backups of the surveys will be password protected and encrypted. Only people directly involved in the evaluation will have access to these.

Risks and Benefits of this Evaluation

While completing questionnaires, participants may experience physiological arousal (e.g., increased heart-rate) or heightened emotionality (e.g., feelings of elation or sadness). While there is the possibility of some distress, a counsellor is always available.

Benefits of participating in this evaluation include a greater understanding of the transition process for veterans returning to civilian life. Previous participants have reported experiencing new insights related to psychological well being while completing questionnaires. In addition, results generated from research may benefit future programs for veterans.

Let it be clear that your participation in this evaluation is ***not*** necessary to participate in the VTP. Your decision to not participate in our evaluation will in ***no way*** affect your involvement in the program or any related events. Further, you are free to withdraw at any time without question or impact on the care you receive.

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Consent Form

Title: Program Evaluation of the Veterans Transition Program

I have read and fully understand the information contained in this document. Any and all questions I have regarding the contents of this document have been answered to my satisfaction and I would like to participate in this evaluation of the Veterans Transition Program. I have been given a copy of this informed consent for my own records.

Name: (please print): _____

Signature: _____

Date: _____

Preferred telephone number: _____

E-mail: _____

Mailing address (include city and postal code): _____

Best method of follow-up contact (circle one below): _____

Phone Email Paper mail Other: _____

You may contact me in the future in the event that Dr. Cox conducts additional research with veterans.

- Yes
- No

Keep this form for own records.

All responses will be held confidential

Appendix B – Study Measures

B.1 Demographic Questionnaire (Measure used in study #1, #2, & #3)

BACKGROUND INFORMATION

Please answer the questions below by filling in the blanks or circling the number of the response that best applies.

A 1. Today's Date: __ __ / __ __ / __ __
D D M M Y Y

A 2. Your Age: ___ ___ years

A 3. Your Sex: 1. Male 2. Female

A 4. Your type of service (circle one):

1. Regular Forces
2. Reserve Forces
3. Regular and Reserve

A5. Total time in Canadian Forces: ___ ___ years

A6. Which branch did you serve in? (circle one)

1. Army
2. Navy
3. Air Force
4. Other _____

A7. Your Highest Rank: _____

A8. Highest level of education you have completed (circle one):

1. Less than 12th grade
2. High School or Equivalent
3. Some College/Technical School
4. College/university graduate (received degree)
5. Graduate Degree (Masters or doctoral)
6. Other: _____

A9. Racial/Ethnic Background (circle one):

1. Aboriginal/First Nations
2. South Asian
3. East Asian
4. Middle Eastern
5. Black
6. Hispanic
7. White
8. Other: _____

A10. Are you currently (circle one):

1. Married/common-law? If yes, number of years: _____
2. Divorced/separated? If yes, number of years: _____
3. Widowed? If yes, number of years: _____
4. Single (never married)?
5. Other: _____

A11. Do you have children (e.g., biological, adopted, step-children, etc.)? (circle one)

1. Yes, how many: _____
2. No

A12. What is your sexual orientation? (circle one)

1. Heterosexual

2. Homosexual
3. Bisexual
4. Other _____

A13. Over the past 12 months, what was your household income? (circle one)

1. $19,999 or less
2. $20,000 to $39,999
3. $40,000 to $59,999
4. $60,000 to $79,999
5. $80,000 or more

A14. What is your religious affiliation? (circle one)

1. Christian
2. Jewish
3. Latter-Day Saint
4. Muslim
5. Hindu
6. Buddhist
7. Agnostic
8. Atheist
9. Other _____

A15. Who referred you to the Veterans Transition Program (VTP)? (circle one)

1. Friend in the military
2. Military Commander
3. Physician
4. Psychologist
5. Other _____

A16. Was the person who referred you to the VTP a graduate of the VTP? (circle one)

1. Yes
2. No

B.2 – Masculine Role Norms Inventory (Measure used in study #1, #2, & #3)

Please complete the questionnaire by circling the number which indicates your level of agreement or disagreement with each statement.

		Strongly Disagree	Disagree	Slightly Disagree	No Opinion	Slightly Agree	Agree	Strongly Agree
1.	Homosexuals should never marry.	1	2	3	4	5	5	7
2.	The Prime Minister of Canada should always be a man.	1	2	3	4	5	5	7
3.	Men should be the leader in any group.	1	2	3	4	5	5	7
4.	Men should watch football games instead of soap operas.	1	2	3	4	5	5	7
5.	All homosexual bars should be closed down.	1	2	3	4	5	5	7
6.	Men should have home improvement skills.	1	2	3	4	5	5	7
7.	Men should be able to fix most things around the house.	1	2	3	4	5	5	7
8.	A man should prefer watching action movies to reading romantic novels.	1	2	3	4	5	5	7
9.	Men should always like to have sex.	1	2	3	4	5	5	7
10.	Boys should prefer to play with trucks rather than dolls.	1	2	3	4	5	5	7
11.	A man should not turn down sex.	1	2	3	4	5	5	7
12.	A man should always be the boss.	1	2	3	4	5	5	7
13.	Homosexuals should never kiss in public.	1	2	3	4	5	5	7

14.	A man should know how to repair his car if it should break down.	1	2	3	4	5	5	7
15.	A man should never admit when others hurt his feelings.	1	2	3	4	5	5	7
16.	Men should be detached in emotionally charged situations.	1	2	3	4	5	5	7
17.	It is important for a man to take risks, even if he might get hurt.	1	2	3	4	5	5	7
18.	A man should always be ready for sex.	1	2	3	4	5	5	7
19.	When the going gets tough, men should get tough.	1	2	3	4	5	5	7
20.	I think a young man should try to be physically tough, even if he’s not big.	1	2	3	4	5	5	7
21.	Men should not be too quick to tell others that they care about them.	1	2	3	4	5	5	7

B.3 Beck Depression Inventory – II (Measure used in study #1)

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully. And then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1.	0	I do not feel sad
	1	I feel sad
	2	I am sad all the time and I can't snap out of it
	3	I am so sad and unhappy that I can't stand it
2.	0	I am not particularly discouraged about the future
	1	I feel discouraged about the future
	2	I feel I have nothing to look forward to
	3	I feel the future is hopeless and that things cannot improve
3.	0	I do not feel like a failure
	1	I feel I have failed more than the average person
	2	As I look back on my life, all I can see is a lot of failures
	3	I feel I am a complete failure as a person
4.	0	I get as much satisfaction out of things as I used to
	1	I don't enjoy things the way I used to
	2	I don't get real satisfaction out of anything anymore
	3	I am dissatisfied or bored with everything
5.	0	I don't feel particularly guilty
	1	I feel guilty a good part of the time
	2	I feel quite guilty most of the time
	3	I feel guilty all of the time
6.	0	I don't feel I am being punished
	1	I feel I may be punished
	2	I expect to be punished
	3	I feel I am being punished
7.	0	I don't feel disappointed in myself
	1	I am disappointed in myself
	2	I am disgusted with myself
	3	I hate myself
8.	0	I don't feel I am any worse than anybody else
	1	I am critical of myself for my weaknesses or mistakes
	2	I blame myself all the time for my faults
	3	I blame myself for everything bad that happens
9.	0	I don't have any thoughts of killing myself
	1	I have thoughts of killing myself, but I would not carry them out
	2	I would like to kill myself
	3	I would kill myself if I had the chance

10.	0	I don't cry any more than usual
	1	I cry more now than I used to
	2	I cry all the time now
	3	I used to be able to cry, but now I can't cry even though I want to
11.	0	I am no more irritated by things than I ever was
	1	I am slightly more irritated now than usual
	2	I am quite annoyed or irritated a good deal of the time
	3	I feel irritated all the time
12.	0	I have not lost interest in other people
	1	I am less interested in other people than I used to be
	2	I have lost most of my interest in other people
	3	I have lost all of my interest in other people
13.	0	I make decisions about as well as I ever could
	1	I put off making decisions more than I used to
	2	I have greater difficulty in making decisions more than I used to
	3	I can't make decisions at all anymore
14.	0	I don't feel that I look any worse than I used to
	1	I am worried that I am looking old or unattractive
	2	I feel there are permanent changes in my appearance that make me look unattractive
	3	I believe that I look ugly
15.	0	I can work about as well as before
	1	It takes an extra effort to get started at doing something
	2	I have to push myself very hard to do anything
	3	I can't do any work at all
16.	0	I can sleep as well as usual
	1	I don't sleep as well as I used to
	2	I wake up 1-2 hours earlier than usual and find it hard to get back to sleep
	3	I wake up several hours earlier than I used to and cannot get back to sleep.
17.	0	I don't get more tired than usual
	1	I get tired more easily than I used to
	2	I get tired from doing almost anything
	3	I am too tired to do anything
18.	0	My appetite is no worse than usual
	1	My appetite is not as good as it used to be
	2	My appetite is much worse now
	3	I have no appetite at all anymore
19.	0	I haven't lost much weight, if any, lately
	1	I have lost more than five pounds
	2	I have lost more than ten pounds
	3	I have lost more than fifteen pounds
20.	0	I am no more worried about my health than usual
	1	I am worried about physical problems like aches, pains, upset stomach, or constipation
	2	I am very worried about physical problems and it's hard to think of much else
	3	I am so worried about my physical problems that I cannot think of anything else

21.	0	I have not noticed any recent change in my interest in sex
	1	I am less interested in sex than I used to be
	2	I have almost no interest in sex
	3	I have lost interest in sex completely

INTERPRETING THE BECK DEPRESSION INVENTORY

Now that you have completed the questionnaire, add up the score for each of the twenty-one questions by counting the number to the right of each question you marked. The highest possible total for the whole test would be sixty-three. This would mean you circled number three on all twenty-one questions. Since the lowest possible score for each question is zero, the lowest possible score for the test would be zero. This would mean you circles zero on each question. You can evaluate your depression according to the Table below.

Total Score_____ Levels of Depression

1-10	These ups and downs are considered normal
11-16	Mild mood disturbance
17-20	Borderline clinical depression
21-30	Moderate depression
31-40	Severe depression
Over 40	Extreme depression

B.4 Multidimensional Scale of Perceived Social Support (Measure used in study #1)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7	SO
2.	There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	SO
3.	My family really tries to help me.	1	2	3	4	5	6	7	Fam
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7	Fam
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7	SO
6.	My friends really try to help me.	1	2	3	4	5	6	7	Fri
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7	Fri
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7	Fam
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	Fri
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7	SO
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7	Fam
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7	Fri

B.5 Posttraumatic Stress Disorder Checklist-5 (Measure used in study #1 & #2)

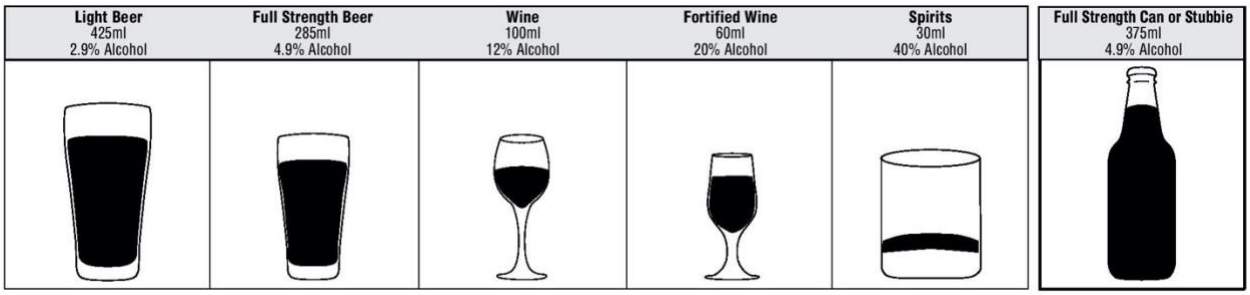
Instructions: Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem **in the past month**.

	Not at All	A Little Bit	Moderately	Quite a Bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	1	2	3	4	5
2. Repeated, disturbing dreams of the stressful experience?	1	2	3	4	5
3. Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?	1	2	3	4	5
4. Feeling very upset when something reminded you of the stressful experience?	1	2	3	4	5
5. Having physical reactions (like heart pounding, trouble breathing, sweating) when something reminded you of the stressful experience?	1	2	3	4	5
6. Avoiding internal reminders of the stressful experience (for example, thoughts, feelings, or physical sensations)?	1	2	3	4	5
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, objects, activities, or situations)?	1	2	3	4	5
8. Trouble remembering important parts the stressful experience.	1	2	3	4	5
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	1	2	3	4	5

10. Blaming yourself or someone else for the stressful experience or what happened after it?	1	2	3	4	5
11. Having strong negative feelings such as fear, anger, horror, guilt, or shame?	1	2	3	4	5
12. Loss of interest in activities that you used to enjoy?	1	2	3	4	5
13. Feeling distant or cut off from other people?	1	2	3	4	5
14. Having trouble experiencing positive feelings (for example, being unable to have loving feelings for those close to you, feeling emotionally numb)?	1	2	3	4	5
15. Feeling irritable, or angry, or acting aggressively?	1	2	3	4	5
16. Taking too many risks or doing things that cause you harm?	1	2	3	4	5
17. Being “super alert” or watchful or on guard?	1	2	3	4	5
18. Feeling jumpy or easily startled?	1	2	3	4	5
19. Having difficulty concentrating?	1	2	3	4	5
20. Trouble staying or falling asleep?	1	2	3	4	5

B.6 Alcohol Use Disorders Identification Test (Measure used in study #1)

Because alcohol use can affect health and interfere with certain medications and treatments, it is important that we ask you some questions about your use of alcohol. Your answers will remain confidential, so please be as accurate as possible. Try to answer the questions in terms of '**standard drinks**.' Please ask for clarification if required. Please circle the number that best describes your drinking.



*The guide above contains examples of **one standard drink**.* A full strength can or stubbie contains ***one and a half standard drinks***.

		Never	Monthly or less	2-4 times a month	2-3 times a week	4 or more times a week
AUD-1	How often do you have a drink containing alcohol? (if never, only complete questions 9 and 10)	1	2	3	4	5
		1 or 2	3 or 4	5 or 6	7 to 9	10 or more
AUD-2	How many standard drinks do you have on a typical day when you are drinking?	1	2	3	4	5
		Never	Less than monthly	Monthly	Weekly	Daily or almost daily
AUD-3	How often do you have six or more standard drinks on one occasion?	1	2	3	4	5
AUD-4	How often during the last year have you found that you were not able to stop drinking once you had started?	1	2	3	4	5
AUD-5	How often during the last year have you failed to do what was normally expected of you because of drinking?	1	2	3	4	5
AUD-6	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	1	2	3	4	5
AUD-7	How often during the last year have you had a feeling of guilt or remorse after drinking?	1	2	3	4	5
AUD-8	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	1	2	3	4	5

		No		Yes, but not in the last year	Yes, during the last year	
AUD-9	Have you or someone else been injured because of your drinking?	1		2	3	
AUD-10	Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	1		2	3	
		No	Probably not	Unsure	Possibly	Definitely
AUD-11	Do you think your presently have a problem with drinking?	1	2	3	4	5
		Very easy	Fairly easy	Neither difficult nor easy	Fairly difficult	Very difficult
AUD-12	In the next 3 months, how difficult would you find it to cut down or stop drinking?	1	2	3	4	5

B.7 Outcome Questionnaire – 45 (Measure used in Study #3)

INSTRUCTIONS: Looking back over the last week, including today, help us understand how you have been feeling. Read each item carefully and circle the number which best describes your current situation. Circle only one number for each question and do not skip any. If you want to change an answer, please "x" it out and circle the correct one.

Circle the "0" for **Never**
Circle the "1" for **Rarely**
Circle the "2" for **Sometimes**
Circle the "3" for **Frequently**
Circle the "4" for **Almost Always**

0 1 2 3 4	1. I get along well with others.
0 1 2 3 4	2. I tire quickly.
0 1 2 3 4	3. I feel no interest in things.
0 1 2 3 4	4. I feel stressed at work/school.
0 1 2 3 4	5. I blame myself for things.
0 1 2 3 4	6. I feel irritated.
0 1 2 3 4	7. I feel unhappy in my marriage/significant relationship.
0 1 2 3 4	8. I have thoughts of ending my life.
0 1 2 3 4	9. I feel weak.
0 1 2 3 4	10. I feel fearful.
0 1 2 3 4	11. After heavy drinking, I need a drink the next morning to get going (If you do not drink, mark "never").
0 1 2 3 4	12. I find my work/school satisfying.
0 1 2 3 4	13. I am a happy person.
0 1 2 3 4	14. I work/study too much.
0 1 2 3 4	15. I feel worthless.
0 1 2 3 4	16. I am concerned about family troubles.
0 1 2 3 4	17. I have an unfulfilling sex life.
0 1 2 3 4	18. I feel lonely.
0 1 2 3 4	19. I have frequent arguments.
0 1 2 3 4	20. I feel loved and wanted.
0 1 2 3 4	21. I enjoy my spare time.
0 1 2 3 4	22. I have difficulty concentrating.
0 1 2 3 4	23. I feel hopeless about the future.

0 1 2 3 4 24. I like myself.

0 1 2 3 4 25. Disturbing thoughts come into my mind that I cannot get rid of.

0 1 2 3 4 26. I feel annoyed by people who criticize my drinking (or drug use) (if not applicable, mark “never”).

0 1 2 3 4 27. I have an upset stomach.

0 1 2 3 4 28. I am not working/studying as well as I used to.

0 1 2 3 4 29. My heart pounds too much.

0 1 2 3 4 30. I have trouble getting along with friends and close acquaintances.

0 1 2 3 4 31. I am satisfied with my life.

0 1 2 3 4 32. I have trouble at work/school because of my drinking or drug use (if not applicable, mark “never”).

0 1 2 3 4 33. I feel that something bad is going to happen.

0 1 2 3 4 34. I have sore muscles.

0 1 2 3 4 35. I feel afraid of open spaces, of driving, or being on buses, subways, and so forth.

0 1 2 3 4 36. I feel nervous.

0 1 2 3 4 37. I feel my love relationships are full and complete.

0 1 2 3 4 38. I feel that I am not doing well at work/school.

0 1 2 3 4 39. I have too many disagreements at work/school.

0 1 2 3 4 40. I feel something is wrong with my mind.

0 1 2 3 4 41. I have trouble falling asleep or staying asleep.

0 1 2 3 4 42. I feel blue.

0 1 2 3 4 43. I am satisfied with my relationships with others.

0 1 2 3 4 44. I feel angry enough at work/school to do something I might regret.

0 1 2 3 4 45. I have headaches.