WHAT HELPS AND HINDERS WOMEN DOING WELL IN HISTORICALLY MALE-DOMINATED CAREERS: A CRITICAL INCIDENT STUDY

by

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Abstract

Women working in historically male-dominated careers experience a unique work environment. To date, some research has been conducted on this population, however most studies focus on challenges and barriers to success. Few studies have examined the women who have found success in their work in male-dominated environments. This study explored the experiences of women working in fields dominated by men and aimed to elucidate how these women understand success in their work.

The enhanced critical incident technique was used to explore what factors help and hinder the success of 9 women participants working in historically male-dominated careers. Results highlight three main areas: a) the importance of supports outside of work, b) the role that attitude and self-concept has in feeling successful, and c) the relevance of a relational theory of career when working with this population. These results will serve to inform counsellors working in career, policy developers and future research.

Preface

The following is original, unpublished, independent work by the author, C. Moran.

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Dedication

They say that it takes a village to raise a child but I believe it also takes a village to raise a thesis student. This project has been long and transformative and there are so many people who served as sounding boards, motivators, loving arms and essential supports. I would like to thank you all.

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I dedicate this work to my grandmothers, women who showed me how feminism and strength can take many forms.

Chapter I

Introduction

In the 2011 federal election, Canadians elected 77 women to the House of Commons.
These women made up 25% of parliamentary members and represented the largest number of
women Members of Parliament in Canadian history (McInturff, 2013). Although this is worthy
of celebration, it is also an indication that there is still much progress to be made.   Women make
up 50.4% of the Canadian population (Government of Canada, 2011) and yet they make up only
a quarter of the body of government that was created to proportionally represent Canadians.

Canada's parliament is not the only place where women are underrepresented.
According to a 2013 Statistics Canada survey, women represent less than 30% of those
employed in a number of different sectors, most notably agriculture (29%), forestry, fishing,
mining, quarrying, oil and gas (18%), construction (11%), manufacturing (27%), transportation
and warehousing (24%), and production of goods (21%) (Government of Canada, 2013). The
disparity becomes even more apparent when one examines particular areas within a sector. For
example, in Saskatchewan there are fewer than 18% of women in any given trade throughout the
province (Scullen, Saskatchewan Apprenticeship and Trade Certification Commission, & Ebrary
Ebook Collection, 2008). In the Canadian film industry, women represent fewer than 20% of all
screen writers and directors (Coles, 2013). Out of Canada's top 100 CEO's, only one is a
woman (McInturff, 2013).

Why does this matter? Why is it a problem that women are underrepresented in
particular sectors or fields? Recently, the Canadian Centre for Policy Alternatives (CCPA)
released an analysis of the World Economic Forum's Gender Gap Report, an international
analysis that gave Canada a mark of B- in its efforts to minimize the gender gap in Canada. The

CCPA argues that when women are not appropriately represented in a given field, they are less likely to hold political and economic interest or resources. When women are in the minority, their needs and experiences are not heard or valued (McInturff, 2013). For example, women working in historically male-dominated work report higher rates of sex discrimination (Greenfeld, Greiner, & Wood, 1980; Scullen et al., 2008; Shroedel, 1990; Steele, James, & Barnett, 2002) and more stressful work environments than women working in other fields (Marshall, 1995; Scullen et al., 2008). The CCPA further argue that conditions in the workplace are extrapolated outside of work promoting inequality in the home and in our society at large (McInturff, 2013). In other words, if women do not hold equal status in the workforce, gender equality and equity become less viable in every aspect of women's lives.

This idea was particularly well illustrated in a recent report on the status of women in the Canadian film industry. The report, released by Canadian Unions for Equality on Screen, argues that women's presence off-screen has a large effect on what appears on-screen. For example, they argue that a woman casting director is more likely to cast a woman lead. A woman props artist is more likely to include science books and detective novels in the set of a teenage girl's room. Women directors are more likely to create fully developed women characters and are less likely than their male counterparts to cast women characters that follow stereotype (Coles, 2013). The film industry, more than others, plays a role in the ideas that society holds about women. Therefore a gender balance in the industry promotes a gender balance on a societal scale.

It is important to state that for men who are underrepresented in particular fields, their experience is quite different. Studies show that men in female dominated work are less likely to report discrimination on the job (Steele et al., 2002). They also tend to be more likely to progress through the ranks and tend to earn higher wages (Martin & Barnard, 2013). For men in

female dominated work, it is less likely that they will go unheard, as they tend to attain more powerful positions and are often heralded for doing the work of women (Martin & Barnard, 2013). Generally speaking, in Canada men still hold an economic advantage. Across fields, on average, women employed full-time, earn 72% of what men earn, a gap that can only partially be explained "by factors measured in Canadian labour market surveys" (Cooke-Reynolds & Zukewich, 2004, p. 27).

Given the above facts, it is clear that a stronger presence of women in historically male-dominated fields would be beneficial to all. This research study aims to explore factors that support women's presence and success in male-dominated fields using the Enhance Critical Incident Technique. This is a qualitative research study based in the counselling psychology field, with a focus on well-being, self-concept and psychological supports.

Research in this area

Research in this area seems to have its roots in studies conducted in the 1970's and early 1980's, which focused on characterizing women who work in historically male-dominated careers. Lemkau (1979) examined the personality traits and background of women in male-dominated work and Peng and Jaffe (1979) examined variables correlated with women entering male-dominated work. In 1980, Greenfeld and colleagues examined the background and childhoods of women in male-dominated work. This focus on broad traits that led women to follow a non-traditional path is an important piece in understanding what supports this choice. This research trend, however, did not continue. Research that followed had a larger focus on why women leave male-dominated careers and the challenges that they face in their work (e.g. Clark, 1998; Gomez-Mejia, 1990; Jagacinski, 1987; Marshall, 1995). To date, research on the

leaky pipeline[1] and the glass ceiling[2] has been extensive. The results suggest a number of explanations for the lack of women in particular careers or positions. Barriers include issues of tokenism and stereotype threat (De Welde & Laursen, 2011), different work-life balance needs (Harris & Giuffre, 2010), differences in self-concept and self-confidence (Frome, Alfeld, Eccles, & Barber, 2006) and the lack of job security in male-dominated work (Harris & Giuffre, 2010), to name just a few.

To date, the small body of research on women who are doing well in historically male-dominated work has examined women working in particular careers, such as architecture (Caven, 2004), engineering (Buse, Bilimoria, & Perelli, 2013) female board members (Sheridan, 2002) and university professors (Tomas & Castro, 2013). Across these studies two common findings emerged. First, the fact that career theory does not appropriately capture the experiences of women in these and second, perhaps because of this, women in these positions often diverge from traditional career paths or have chosen to define their work very differently from men.

Purpose and significance

The intent of this research study was to deepen our understanding of the factors that support women in attaining and maintaining careers in historically male-dominated fields. As mentioned above, the research that has been conducted to date has, for the most part, focused on the challenges that women face in historically male-dominated careers. As a result, there is less research available on the experiences of women who broke through the leaky pipeline and shattered the glass ceiling. Therefore, our understanding of what could support a woman in attaining and maintaining a male dominated career has not been thoroughly embellished. When

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[1] The phenomenon where women and girls drop out at each level of education particularly in the science, technology, engineering and math (STEM) fields (De Welde & Laursen, 2011)

[2] The system of barriers that prohibit women from gaining higher status or roles in the workplace (De Welde & Laursen, 2011)

this kind research was conducting on these factors, it often focused on a particular field where women were in the minority. Accordingly, there is excellent data available for a particular field but there is much less data available on the common experiences that women have when working as a minority. Some studies do exist (e.g. Greenfeld, Greiner & Woods, 1980) but they are rare and some are out-of-date. I believe that research that concentrates on women working across sectors and fields would capture broader themes or factors related to women working in historically male-dominated work. Consequently, my hope for this study was to address these two gaps by looking at positive factors for women across a variety of male-dominated careers.

I chose to examine what helps and hinder women working in male-dominated careers, using the enhanced critical incident technique. The study examined 4 concepts: a) how women in male-dominated work define the concept 'doing well', b) factors that facilitated success c) barriers to doing well, and d) strategies that could be implemented that would support women achieving positions in male-dominated work and maintaining those positions.

It is my belief that this information could be beneficial to future generations of women, policy developers and employers wishing to attract a more diverse, equitable workforce. Furthermore, because this research was conducted through a program in counselling psychology, this research focused particularly on how the knowledge gained from this study could be used in counselling practices. The contribution of this research on counselling practices is that it gives counsellors and other mental health practitioners insights into a) the kinds of supports women require when working in male-dominated careers and b) the unique experiences and needs of women working in male-dominated careers.

Rationale for methodology

For the last 60 years, Enhanced Critical Incident Technique (ECIT) has been used to capture complete comprehensive incidents that contribute to success or well being, in a wide variety of areas. Given that I chose to examine success and the factors that contributed to success for this study, ECIT seemed the appropriate choice. Furthermore, using ECIT allowed me to elicit rich and relevant stories of success and hindrances to success through interviews. These stories provided a wealth of information about participants' well-being and context, which can be immensely helpful to the understanding of participant experiences. Also, ECIT is a well-established methodology commonly used to generate concrete results that could be applied to a particular area. Because the questions in ECIT are used to elicit suggestions for future practice, it is often used in counselling psychology studies, as the results can easily be translated in applicable areas of knowledge or skills. Given this, ECIT seemed appropriate as it gave us the opportunity to identify particular strategies or supports that could be implemented for or by women working in male-dominated careers. Finally, because ECIT takes a grounded approach, the methodology allows patterns and theories to emerge. Given the fact that a number of studies lament the lack of career theory that focuses on women, particularly in male-dominated work (e.g. Caven, 2004; Martin & Barnard, 2013), it is our hope that some of our findings could contribute to the field of career theory.

A note on language

Before continuing on to a review of the literature, it is important to highlight some of the choices that were made regarding terminology used in this study. There is no single term used to describe women working in minority careers. Over time, researchers have used different terms to describe experiences of women working in these careers. Crisp and colleagues (2009) as well

as Asgari and colleagues (2012) use the term 'gender counterstereotypic domains'. Martin and Barnard (2013) talk about 'historically male-dominated' fields. Shroedel (1990) described 'sex-skewed work environments'. And in Lemkau's important 1979 work, she uses a number of different terms including women working in 'divergent occupations' or 'masculine fields', 'occupationally atypical women' and 'non-traditional women'. For my research, I have chosen to use Martin and Barnard's term, 'historically male-dominated', as it hints at the possibility of change. Although men have historically held certain positions, the hope is that this will not be the case in the future.

Finally, throughout this text, I have tried to avoid the use of terms like 'male' and 'female' as they are intended to refer to an individual's sex rather than gender. There are a few examples where this was not possible, particularly in phrases like 'male-dominated' or 'female-dominated' which have become part of our discourse and are the clearest terms available.

Intersectionality

All of these systemic barriers must be understood through a lens of intersectionality. While research on women in traditionally male-dominated careers is relatively small, there is even less research examining the experiences of women of who also identify with another minority identities like race, ethnicity, sex, sexuality, ability, social position, age or socioeconomic status. Intersectionality theory states "that multiple marginalisations, ... [are] mutually constituted and [can] not be understood or ameliorated by approaches that treat race and sex/gender as distinct subjects of inquiry" (Bauer, 2014, p. 11). Furthermore, it argues that when examining multiple identities, they should be understood "under an additive assumption that treats multiple marginalisations or privileges as individual categories that can be layered"

(Hancock, 2007 as cited in Bauer, 2014, p. 11). There are very few studies that focus on women in male-dominated careers that examine how other identities that women hold intersect with their gender but there are some (e.g. Martin & Barnard, 2013; Shroedel, 1990). In my search through the literature, I found it very difficult to identify articles that examined the experiences of women working in male-dominated work through an intersectional lens. Some articles exist that examine the experiences of women in minority groups at work but these studies rarely looked at women in male-dominated careers. Although this current study did not capture many stories of intersecting identities, it has been an important lens to maintain throughout.

Chapter II

Review of the Literature

Women working in historically male-dominated fields have recounted exceptional and varied experiences. The following chapter is a review of the literature conducted to capture these experiences. Although, literature on the women doing well in their male-dominated careers is small, conclusions from studies that examined other factors captured some of the important themes that emerged in the following pages. The review examines three main areas:

- Ways in which women define success in their careers

- Factors that promote success for women working in historically male-dominated careers

- Barriers to success for women working in historically male-dominated careers

Defining success

On a half-sheet of plywood in letters one foot high, someone has written, 'CAUTION: MEN AND WOMAN WORKING ABOVE.' I feel ridiculously proud. I exist!

-Kate Braid, *Swinging a Hammer in a Woman's World*

Belonging. The above quote is from Kate Braid's autobiography of her experiences as a woman carpenter in British Columbia. For Braid, success at work is defined by recognition, by a sense of belonging. This emphasis on relationships is a common theme for women working in historically male-dominated work. Research which explored why women engineers stayed in their professions found that women who felt that they had experienced "reciprocal engagement" (Buse et al., 2013, p. 145) felt more satisfied with their careers. For this group of women positive interpersonal relations were seen as more important than individual achievement or

promotion. These women also emphasized the need to feel that they were making a difference or that they were helping or supporting others (Buse et al., 2013).

Similar results were found in Greenfeld, Greiner and Wood's (1980) work on a group of women from an array of male-dominated careers. They found that women in historically male-dominated work tended to hold more traditional success values than women in female-dominated work (e.g. promotions, salary) however, compared to their colleagues who were men, women in male-dominated work still tended to place a much higher priority on "being well liked" (Greenfeld et al., 1980, p. 294). Finally, a study examining women lead investigators in academia stated that women highlighted their social connections at their current universities and other academic institutions as essential to their success. They further emphasized the importance of strong relationships in their research teams, stating that these relationships allowed them to feel more confident in their roles (Tomas & Castro, 2013).

Following one's passion. Another important aspect of success for women in historically male-dominated work is for women to feel that they are pursuing a career that was not only in line with their skill set but that also matched their interests. It is possible that this may be the case for any career however, for women in historically male-dominated work, pursuing a passion is one of the main reasons that they stay in their positions. Women engineers who perceived a link between personal achievement and their professional passion were much more likely to stay. If these women felt that their career was not in line with their other life goals, they were more likely to change careers (Buse et al., 2013). Caven's research on women architects (2004) also found that if women reported a passion for their career, especially from a young age, they were much more likely to stay in their profession. It may be that for women who hold such a passion

from a young age, they were more likely to have a strong support group that reinforced their chosen career (Caven, 2004).

Control. Women in historically male-dominated work also reported that key to their success was having a sense of control in their career (Buse et al., 2013; Caven, 2004; Frome et al., 2006; Marshall, 1995). Women architects who were self-employed reported higher career satisfaction than those who worked in firms. The researcher hypothesized that this was because women who worked for themselves were better able to define their current career and the trajectory that it would take (Caven, 2004). Research on women engineers produced similar findings, explaining that women who felt that they could control their time and the way in which they worked reported higher work satisfaction (Buse et al., 2013). Further, research on women in senior management roles found that if women felt that they were in a position to judge their own work, this contributed to a sense of being in control (Marshall, 1995). Both pieces of research indicate that women who built careers outside of the traditional career structure (e.g. working for oneself, setting one's own hours, working from home) felt more in control and more satisfied with their work. They argue that this is likely because women who are in control of their workday will find it easier to maintain a quality work-life balance.

Career theory. These characteristics of success touch on an interesting concept that often emerges in research on women and career. The way in which women measure their success in their work differs greatly from how men often define success. To date much of career theory has focused on the experience of men in career, how men define success and the trajectory that men believe their career should take (O'Neil, Bilimoria, & Saatcioglu, 2004; Spain, Bedard, & Paiement, 1998) . In their study on women working in the trades in South Africa, Martin and Barnard (2013) found that women perceive success differently than

men. They base it more on "internal and intangible" criteria whereas men base it on hierarchical and financial gain (Martin & Barnard, 2013, p. 11). Research on career counselling with women found that many of the metaphors that we use to describe career might not fit with the perception that women hold of career. Images of ladders, pyramids and upward motion are central in career planning but often reflect "the male career experience" (O'Neil et al., 2004, p. 479). Further, metaphors in the workplace are often grounded in military or sports themes (e.g. keep your eye on the ball, target sales, price wars) which for some women are only idioms and hold little tangibility (Tannen, 1994).

In research done by Gersick and Kram (2002), they found that women often described their career in one of two ways. Some described their career as a zigzag pattern, which speaks to women's tendency to deemphasize promotion and emphasize collaboration and interaction. Others described themselves as pieces on a game board, highlighting the importance that women place on context, societal barriers and supports (as cited in O'Neil et al., 2004). Spain and colleagues (1998) found that using the metaphor of a tree when working with women in career counselling proved more effective than the traditional metaphors. In using the image of the tree, participants could use metaphor to define their roots, their trunk, the soil, the leaves and the sap. They chose a tree because they believe that it symbolizes a person in transition and illustrates the complexity of the interaction between psychological processes and diverse contexts.

Summary of defining success. In short, although traditional measures of success are important for women in their careers, it seems that they often attribute other aspects of work to their success. For women, in particular, having a sense of belonging and a sense that they can dictate their path are important factors in feeling successful. Furthermore, women who feel that

they are following their passion tend to feel more successful and stay in their careers. Given the different priorities that many women hold, it is important to understand that much of career theory may not appropriately capture the experiences of women in their work. I will come back to this in chapter 5, once the results of this study have been described.

Factors promoting success

       Thinkability. Having a belief in one's ability to succeed and perform is a concept that is often highlighted in research on women working in historically male-dominated fields and more generally, in feminist theory. Deborah Tannen is a sociolinguist whose research focuses particularly on how men and women interact and speak to each other in different contexts. Her research on how individuals communicate at work highlights an essential concept for women in the workforce: thinkability. Thinkability was originally introduced by Judith Butler, a prominent philosopher and gender theorist, in her seminal book "Gender trouble: Feminism and the subversion of identity". It is the idea that through our "cultural matrix" (Butler, 1990, p. 24), certain identities do not exist. If we are unable to conceptualize a particular gender in a particular role, that idea becomes unintelligible and therefore is an impossibility in our minds (Butler, 1990). In the case of women in historically male-dominated work, the challenge for them is to be able render the idea of women working in a male-dominated role 'thinkable', in order take on such a role and succeed. In other words, before women can achieve a position in a male-dominated profession, the idea that they could hold that position must be established first. Furthermore, women need to be able to conceptualize their presence in a male-dominated career as possible, as well. In order for women to believe in their own self-efficacy, they need to be able to see their goals and actions as thinkable.

Tannen (1994) highlights a number of reasons why women may not always see themselves as thinkable in certain roles. Her main argument is that because women entered a workforce that had already defined itself around men, we see man as the standard worker and woman as the non-standard. Using linguistic theory, Tannen explains that "being male is the unmarked case" and women are the "marked case" (Tannen, 1994, p. 109). In linguistic terms, a word becomes marked when it is changed by an addition. She illustrates this by pointing to examples of job titles where one adds "ette" or "ess" to indicate that the job is held by a woman. For example, an actor is the standard and an actress is marked. (Not to mention terms like "fisherman", or "chairman" where the female or gender neutral equivalents have not yet entered mainstream discourse).

According to Tannen, in the workforce "there is no unmarked woman" (Tannen, 1994, p. 110), since men represent the standard in clothing, expected personality traits and valued qualities. Naomi Wolf also emphasizes this concept in her book, "The Beauty Myth", in which she explores the way in which women are defined by their physical appearance in the workplace. She states that women attempt to emulate the male uniform but it is not the same. What women wear is an "accessorization" of the male uniform (Wolf, 1992, p. 45); they wear a marked form of what men wear.

It is for this reason that the concept of women in historically male-dominated work may not always seem thinkable. Women in these roles are more likely to be seen as marked due to their minority status. A number of studies in historically male-dominated careers have shown that both women and men conceptualize their work as masculine and that women do not always feel that they belong. As a result, women in these professions tend to be more aware of their gender and how their gender relates to their work (Fotaki, 2013; Harris & Giuffre, 2010;

Hirshfield, 2010a). Fotaki's (2013) research on women in academia in the United Kingdom indicated that these women feel marked as "visibly different" (Fotaki, 2013, p. 1267) and that they hold "a tacit knowledge that the imaginary body dominating knowledge production is a male body" (Fotaki, 2013, p. 1266). Through formal and informal conventions in the workplace, women in academia often report feeling left out and unwelcome (Fotaki, 2013). Similarly, when women chefs were interviewed about their careers, they indicated that they felt that did not fit the mould of chef. When these women were asked to describe the ideal chef, they described an individual who committed all of their time and resources to their profession, a concept that most of the women interviewed indicated was more in line with their concept of a father who works rather than a mother who works (Harris & Giuffre, 2010). In other words, for these women, being an ideal chef was not compatible with being a woman.

Other research indicates that women in male-dominated work feel that they are interrupting the work of men when they enter a position in historically male-dominated work (Marshall, 1995). In Marshall's (1995) research on women in senior management, she found that women reported feeling isolated as they progressed in their work because men seemed to indicate that they were not sure how to respond or interact with women in senior management. The concept of women working in senior management was unthinkable. These women reported seeing a sense of kinship amongst men in senior management that never fully included their women colleagues (Marshall, 1995).

A review of the literature on women working in trades found that tradeswomen reported similar experiences. One of the main challenges that they reported was that Employment Equity quotas made it harder to fit in because men saw them as taking jobs of other men or simply filling a gap (Scullen et al., 2008). Employment equity strategies marked these women as

different, as anomalous and unwelcome. As Wolf explains it, when society decided to allow women into the workforce, we only changed the 'machine' enough so that women could be accommodated "to suit the power structure that already exists" (Wolf, 1992, p. 21). We did not recreate the "machine" so that both men and women could both be thinkable mechanisms within it (Wolf, 1992). To conclude, in order for women to feel successful in the workplace, their role must feel and be perceived by themselves and others as thinkable.

Bilingualism.

I've learned to fake confidence, and more and more I'm not faking it. The banter, the one-liners, the getting tough when you have to, are all just part of the culture. I'm almost bilingual now in this male language, can even appreciate its focus on fewer words and more action.

-Kate Braid, *Swinging a Hammer in a Man's World*

It is fatal to be a man or a woman pure and simple; one must be woman-manly or man-womanly.

-Virginia Woolf, *A Room of One's Own*

According to Judith Butler, gender is not something that we have, it is something that we do. "Gender is in no way a stable identity or locus of agency from which various acts proceed; rather, it is an identity tenuously constituted in time – an identity instituted through a stylized repetition of acts" (Butler, 1988, p. 519). For Butler, gender is something that we perform. The concept of bilingualism, or the ability to perform both masculine and feminine acts is a common thread that runs through much of the literature on women in historically male-dominated work. Often, women who are able to strike a balance between traditionally masculine and feminine performance in their male-dominated workplace tend to fair better psychologically than those

women who were unable to perform in this way (Denissen, 2010; Harris & Giuffre, 2010; Martin & Barnard, 2013; Scullen et al., 2008). For example, women in the trades indicated that dressing more like men helped them feel that they belonged and yet they also found that acting in more feminine ways sometimes made it easier to get along with co-workers (Denissen, 2010).

Most of the research indicates how challenging it is to strike a balance between masculine and feminine performance at work. Because the workplace has a "masculine work ideal" (Peterson, 2010, p. 68), women in male dominated work are "held accountable to contradictory expectations for a feminine presentation of self and a masculine performance of work" (Denissen, 2010, p. 1051). They must comply with contradicting norms: professional norms and gender norms. In historically male-dominated work, there is less overlap between these two norms; when paired together, they are less 'thinkable'. According to Tannen, a woman working in a historically male-dominated career will find herself in a double bind. "Everything she does to enhance her assertiveness risks undercutting her femininity, in the eyes of others. And everything she does to fit expectations of how a woman should take risks undercuts the impression of competence that she makes" (Tannen, 1994, p. 203). Women in these professions feel contradictory pressures to be "competent but feminine first" (Lemkau, 1979, p. 222). For many women there appears to be a double standard as they are forced to chose between 'defeminization' or 'deprofessionalization' (Denissen, 2010). Regardless of the decision, women are likely to face stigma and endure social costs as it is particularly challenging to adhere to both workplace and gender scripts (Denissen, 2010).

Also, for many women working in historically male-dominated work, performing in masculine ways can sometimes be detrimental to their psychological well-being. Women in the trades reported that emulating masculine characteristics allowed them to fit in but it had a

negative effect on their self-confidence and sometimes forced the women to question their mere

presence in the trades (Scullen et al., 2008). Women working in the police force in Holland

indicated that acting in more masculine ways was professionally beneficial but these

performances also isolated them from other women in their workplace (Derks, Van Laar,

Ellemers, & de Groot, 2011). Women professional chefs stated that they found it helpful to

collude with sexist jokes while at work but doing so created a disconnect from their sense of self

(Harris & Giuffre, 2010). Furthermore, women who do not perform in feminine ways are often

stigmatized by both men and women in the workplace (Peterson, 2010). So workplace

expectations to perform in masculine ways are challenged by social expectations for women to

perform in traditionally gendered ways.

The research indicates that in order to minimize this outcome, women have to

consciously shift between masculine and feminine performances of self (Bury, 2011; Buse et al.,

2013; Denissen, 2010; Martin & Barnard, 2013). In order to feel successful, women have to

knowingly and intentionally perform masculinity and femininity. Research looking at women

who work in the IT industry explained that women are unsure of how to perform because the

way in which society understands geeks is at odds with the feminine ideal (Bury, 2011),

therefore, if women are performing femininity, how can they take on a geek identity? The

research indicated that successful women in IT practiced "a careful negotiation of femininity"

(Bury, 2011, p. 48) in that they were able to balance geek performance and feminine

performance. For example, one woman bought a pair of glasses that appeared geeky from the

front and feminine from the sides (Bury, 2011). Similarly women academics highlighted the

importance of learning the language of academic men in order to switch back and forth between

their own way of speaking and the language of their workplace (Fotaki, 2013).

These studies indicate that women who perceive their performances of both genders as tools that they can use in the workplace, find it easier to counter the expectations and constraints placed on them. Those who see gender as a tool and not as a fixed concept of self feel more empowered in their work (Denissen, 2010). For example, a second study on women working in IT indicates that some women would place themselves in subordinate positions so as not to provoke colleagues and to minimize the risk of exclusion (Peterson, 2010). This was a conscious performance of femininity that allowed these women to feel accepted in a male-dominated space. Kate Braid, who worked as a carpenter, found that if she lowered her voice when asking for tools or equipment, co-workers were more likely to assist her and that smiling sweetly when asking for advice was the best strategy when she was not sure about how to do a particular job (Braid, 2012). These women found a way use both feminine and masculine performances to their advantage.

Denissen (2010) takes this concept one step further, arguing that when women working in historically male-dominated work are able to consciously switch between performances of masculinity and femininity, they are challenging our societal construct of the gender dichotomy. When women challenge gender norms by acting like men their actions bring the definition of 'masculine' into question. They also challenge how their work is defined by proving to their colleagues that there is more than one way to do the job. Denissen's research on women in trades indicates that women can bring in their own style and in doing so, they show their colleagues that they can do the work in a 'feminine' way and still succeed (Denissen, 2010). Bury calls this the occupation of "a third space" (Bury, 2011, p. 47), and indicates that women who strike this balance have successfully created and found a space of comfort in an "emergent, hybridized alternative feminine identity" (Bury, 2011, p. 37).

Agents of change. Denissen's point speaks to another important factor that often promotes success for women in historically male-dominated work. As was indicated earlier, success for some women is defined by one's sense of control in one's work. Some research indicates that in addition to a sense of control, women in historically male-dominated roles who feel that they are agents of change in their profession are more likely to persist in their work (Bagilhole, 2006; Buse et al., 2013). This is best exemplified in research done on the first group of women who were allowed to become women priests in the Church of England following a change in regulations in 1994. A common trait amongst all women who pursued this career choice and persisted in their careers was that these women believed that they were transforming the role of priest. They indicated that they felt that they were bringing a woman's perspective to the work, with a larger focus on teamwork, and with different communication styles that encouraged vulnerability and openness in their parishioners. These women felt that they were redefining the function and role of priests (Bagilhole, 2006).

A number of studies on successful women in business have indicated similar findings. Marshall (1995) compared women who chose to stay employed in senior management roles to women who left senior management and found that the women who stayed perceived themselves as change-agents, often spearheading contentious changes within an organization. Also, Sheridan's work on women board members found that successful women believed that they were bringing unique "perspectives, grounded in different experiences, to bear on organisational strategy and problem solving" (Sheridan, 2002, p. 209). In the case of all of the above examples, these women felt that they were bringing something unique and valuable to historically male-dominated work. What underlies the perspective that many of these women hold is the fact that they value feminine contributions and believe in the merit of these contributions.

Support from other women. Much of the research on women working in historically male-dominated work emphasizes the importance of emotional support in promoting psychological well-being. Women working in male-dominated careers have indicated that they often feel very little support from their co-workers or supervisors in male-dominated work. In Shroedel's (1990) research on 25 women working in the trades, a quarter of the women reported having bad work relations with most of their colleagues and 76% women indicated that their managers did not support them. Moreover, they reported that their managers often supported acts of discrimination towards women and other minorities in the workplace. This same group of women also reported that they did not feel well supported by their spouses or by their unions, especially when they experienced discrimination in the workplace. In fact, many of these women indicated that when they told their spouses about discrimination, their spouses often indicated that the women were to blame because they chose to pursue a career in the trades. Some of these women also reported that their spouses were resentful about the fact that their wives were often making more money than they were (Shroedel, 1990). Studies also indicate that women rarely find support in women colleagues, partly because they work with very few women. According to a study on 12 women in senior management positions, many of the women reported feelings of isolation from other women as they progressed up the company ladder and spent more time amongst men (Marshall, 1995).

The fact that women do not turn to each other for support in historically male-dominated work can also be explained by a phenomenon called the 'queen bee effect', a theory that argues that women are successful in male-dominated work because "they defend the status quo" (Derks et al., 2011, p. 1243) of an organization. Queen bees are described as "women in male-dominated organizations who have achieved success by emphasizing how they differ from other

women" (Derks et al., 2011, p. 1243). In other words, women in historically male-dominated work may chose to distance themselves from the label of 'woman' in order to succeed. This means that women see each other less as supports and more as competition or opponents.

In Holland, researchers looked at a group of 63 women police employees in senior management roles. They primed half of the women with a gender bias by making them more conscious of their gender and found that these women were more likely to enact queen bee responses, as described above. Through interviews, they found that this group of women tended to emphasize their own masculine traits, chose not to see themselves as typical women and were likely to perceive their gender as a "liability" (Derks et al., 2011, p. 1244). Furthermore, they found that, compared to the men on the force, these women were less supportive and less encouraging of advancement of other women and that they tended to hold more gender-biased perceptions of women. This group of women were also less supportive of gender equity programming, often denying the existence of sexism in their workplace. This tended to be more often the case as women progressed through the ranks of the police force. The researchers argue that the results of the queen bee response are a reinforcement of the status quo, minimizing opportunities for other women to advance, potentially more so than if men were to conduct themselves in the same way. Queen bee responses benefit women on an individual level but their actions are less beneficial to a cohort of women peers (Derks et al., 2011).

Women working in senior management roles in other sectors also reported that they often experienced hostility from women in subordinate roles as well as conflicts with other women in management (Marshall, 1995). Researchers argue that this is mainly because these women had learned how to function in a male world and do not necessarily know how to be compatible with other women. Some of these women indicated that they did not like being put in the same

category as other women who they perceived as "overadaptive or used a sexualized self-presentation" (Marshall, 1995, p. 24), a common response from 'queen bees'. Many of these women indicated that at the beginning of their career, they chose not to associate with other women because they wished to distinguish themselves from peers of the same gender. Some of the women reported feeling hurt by women who had seemed like allies but then later abandoned them. The result of this choice was that later on in their careers, these women felt unsupported and isolated from other women in their organization (Marshall, 1995).

Although these senior managers did not feel support from other women at work, they did find support from women outside of work. This is a common theme that runs throughout research on women in historically male-dominated work (e.g. Hirshfield, 2010a; Marshall, 1995; Shroedel, 1990; Tomas & Castro, 2013). Women in senior management indicated that "networks of friends were highly significant reference groups for discussing career aspirations and work challenges, and gaining a more distanced perspective" (Marshall, 1995, p. 24).

Women in academia also highlighted the importance of social connection, indicating how essential it is to have women mentors and a network of women academics to provide support (Tomas & Castro, 2013). This is further supported by research on women academics working in the field of physics. Many of these women stated that having an awareness of their gender prompted them to share their accomplishments or to prove that women are capable and therefore sought out spaces in which to do this (Hirshfield, 2010a). Shroedel's (1990) work on women in trades found that when women were asked who their main supports were, they often cited other women outside of work. Kate Braid emphasizes this as well in her autobiography. She says that she found refuge and solidarity in a group that she founded, called Women in Trades. Through

this group, she felt supported by other women who were going through similar experiences (Braid, 2012).

Summary of factors promoting success. The above research indicates that some of the main features that support success for women in historically male-dominated work are (a) the ability to see oneself as capable in one's role, (b) the ability to balance masculine and feminine performance, (c) a sense of control or ability to bring positive change to one's work, and (d) the support of other women.

Although this study focused on markers of success, participants shared a number of stories where they felt challenge in their work. In the next section, I would like to highlight some of the challenges that women encounter in historically male-dominated work, as some of these themes parallel the results from the interviews.

Barriers to success

Higher standards.

If you stop to curse you are lost, I said to her; equally, if you stop to laugh. Hesitate or fumble and you are done for. Think only of the jump, I implored her, as if I had put the whole of my money on her back; and she went over it like a bird. But there was a fence beyond that and a fence beyond that. Whether she had the staying power I was doubtful, for the clapping and the crying was fraying to the nerves.

-Virginia Woolf, *A Room of One's Own*

Studies on women in historically male-dominated work have indicated that women often feel that they are being held to higher standards than their co-workers who are men (e.g. Davey & Davidson, 2000; Hirshfield, 2010; Marshall, 1995). These higher standards appear to be both internally and externally imposed. Women in historically male-dominated work have indicated

that they need to prove to themselves and to others that they belong in a masculine profession. For example, women in a senior management roles reported feeling more challenged than their peers who were men, often reporting feeling tested and bullied to see how they responded, especially early in their roles. They often reported that in times of change (e.g. company takeovers or new management), positions held by women were often more likely to be questioned (Marshall, 1995). Women academics also commented on the higher standards that men held them to, compared with the standards men held for each other. These women reported that women's mistakes were seen as proof that they didn't belong, whereas men's mistakes were understood as simple mistakes with no further interpretation from colleagues (Hirshfield, 2010). Scullen and colleagues (2008) argue that this is because women are still seen as tokens. If one woman errs, often the assumption by her colleagues is that all women are incapable of doing the work.

Because of this double standard, many women feel that they have to work even harder than their colleagues in order to succeed. Women chefs shared that they had to give up even more than their colleagues in order to appear serious and motivated, putting in longer hours and dedicating more time to training (Harris & Giuffre, 2010). Research on women working in trades found that women are more likely to go to trade school to gain their skills whereas men are more likely to gain their skills on the job. Trade school gave the women more confidence and proof that they had learned the skills that men are more inclined to gain growing up (Shroedel, 1990). In another study on commercial pilots in Europe, men indicated that once they completed their training, they felt that they belonged and had proven themselves. Women pilots, on the other hand, felt they still had to prove that they belonged and deserved to be doing the job many months after completing their training (Davey & Davidson, 2000).

For women working in IT, one study indicates that not only do colleagues hold women to higher standards but clients do as well. Women in this study expressed a need to work much harder than their colleagues in order to gain the trust of their customers, especially around technical issues (Peterson, 2010). Another study on women working in IT indicated that because of these high standards, women tend to shy away from the term 'geek' and prefer terms like 'tech wizard'. The author argues that this is because of a fear of evaluation. By taking on the title of 'geek', women feel that they have to prove their hard skills and technical understandings. It seems that this fear of not being as good as the men is common to feminine geek identity (Bury, 2011).

Some of this can be explained by a well-studied psychological phenomenon called the "imposter syndrome". First explored in 1978 by Clance and Imes, imposter syndrome is described as "an internal experience of intellectual phoniness" (Clance & Imes, 1978, p. 241). In their research of over 200 women, they indicated that imposter syndrome is "particularly prevalent and intense among a select sample of high achieving women." (Clance & Imes, 1978, p. 241) and that it resulted in higher levels of anxiety and self-doubt. They go on to say that "since success for women is contraindicated by societal expectations and their own internalized self-evaluations, it is not surprising that women in our sample need to find explanations for their accomplishments other than their own intelligence—such as fooling other people." (Clance & Imes, 1978, p. 242). The basic premise is that these women feel that they do not deserve the status that they have attained and thus need to continue to prove their value in their work. Although, in the above examples, it is clear that many of the women are receiving similar messages, externally, there does seem to be an internal struggle that women who are doing well often contend with.

Tokenism and the maintenance of the status quo.

Women have served all these centuries as looking-glasses possessing the magic and delicious power of reflecting the figure of man at twice its natural size.

-Virginia Woolf, *A Room of One's Own*

In addition to being held to a higher standard, women in historically male-dominated work indicate that they are also held to a standard of femininity in their work. Earlier in this review, it was specified that women tend to feel successful when they see themselves as agents of change, when they feel that they are transforming their profession, particularly around gender norms and expectations. This can be challenging as women often feel an immense pressure to maintain the status quo around gender performance in their work environments (Bagilhole, 2006; Buse et al., 2013; Sheridan, 2002).

In 1977, Rosabeth Kanter published her seminal work on a group of women who held highly ranked positions in an industrial supply corporation. Of the 300-person sales force, only 20 were women and none of them worked closely with more than one other woman. Kanter found that because these women were so rare within their organization, they became tokenized and were perceived as representatives of all women. She argued that "tokenism, like low opportunity and low power, set in motion self-perpetuating cycles that served to reinforce the low numbers of women and, in the absence of external intervention, to keep women in the position of token" (Kanter, 1977, p. 383). Kanter contends that because people tend to highlight perceived differences and commonalities between the majority and the token, tokens receive more attention and are often more self-conscious. It is also tends to be easier to paint tokens with stereotypes because colleagues find it easy to generalize when only one or two people represent a particular minority. She indicates that because of these three trends, "tokens are

ironically, both highly visible as people who are different and yet not permitted the individuality of their own unique, non-stereotypical characteristics" (Kanter, 1977, p. 384).

Kanter reported that the women that she observed in her study felt closely watched and were more concerned about making mistakes than their colleagues. She explained that women suffered from a phenomenon called the 'tokenism eclipse" wherein women only captured the attention of others when their actions were discrepant, not when they were doing well. Their achievements were rarely noticed because their token status dictated how their colleagues expected them to perform. Therefore, in interviews, the women indicated that they had to work extra hard in order to be perceived as competent. These women also indicated that they could not outperform the men that they worked with because they feared being ostracized by the majority. As a result, these women felt the need to find a balance between "doing just well enough and too well" (Kanter, 1977, p. 386) in order to be perceived as part of the team.

Most importantly, Kanter explains that the women in this organization felt that they were defined by their gender. Men in the workplace held a predefined notion about the actions that women could perform and this placed limits on the roles that women could have within the organization. Particular jobs within the organization were perceived as 'women's jobs'. Women perceived these as dead-end jobs that provided little upward mobility or status. Finally, Kanter argued that token women were expected to take on stereotypically feminine roles, which she called "informal role traps" (Kanter, 1977, p. 392). These expectations helped the men that they worked with to render the women that they worked with as thinkable; to place women into roles that they could understand and interact with. Kanter observed 4 different roles: mother (the nurturer, the good listener), seductress (the sexual object), pet (the non-threatening cheerleader, the little sister) and the iron maiden (the tough and dangerous one). The first three of these roles

often resulted in protective responses from men which were seen as helpful but which kept women from demonstrating their own competence or progressing through the ranks. The iron maiden role, on the other hand, resulted in isolation and abandonment by the rest of the team (Kanter, 1977).

Although Kanter's study is almost 30 years old, many of themes she highlights are still relevant today. In their analysis of women working in historically male-dominated work, Martin and Barnard (2013) argue that even though women have attained more equality in the workforce, the home still holds a traditional structure that keeps males in dominant roles. This results in a 'spill over' into the workplace whereby men and women feel inclined to maintain the status quo in all professions, not just male-dominated ones (Martin & Barnard, 2013).

A number of studies on women in the trades indicates that women continue to follow stereotypically feminine roles in their workplace (e.g. Denissen, 2010; Martin & Barnard, 2013; Scullen et al., 2008; Shroedel, 1990). Of the 25 tradeswomen that Schroedel interviewed, 10 described their relationships with others based on sex-roles, not work-roles. In findings that match Kanter's observations, the most common descriptor that women used was 'little sister' followed closely by 'mother'. Shroedel (1990) argued that women receive the message that they cannot be accepted based on performance, but also recognize that pressure to adhere to their sex-role may be detrimental to their work-role. The fact that men at work expect women to adhere to gender roles can be detrimental if women are deemed unable to pick-up new skills or do certain activities. This makes them appear less competent to themselves and to others (Denissen, 2010). In her research on tradeswomen, Scullen (2008) indicates that a wage gap of almost $23,000 exists between tradeswomen and tradesmen working in Saskatchewan. She argues that this is partly the case because women in trades are still more likely to pick more feminized jobs within

their sector, which often pay less. This is the case across industry jobs. "In 2002, on average, Canadian women in primary industry jobs had hourly wages that were 63% those of men's; in manufacturing jobs, 71% those of men's; and across all occupations, 82% those of men's" (Cooke-Reynolds & Zukewich, 2004, p. 26).

Another example of this is found in the film industry where women are more likely to take on roles like hair, makeup, administration and public relations, whereas men are more often found in more technical roles: camera, lighting, construction, special effects and editing (Coles, 2013). The most explicit example of this trend can be found in the tree-planting industry, an area that has recently been attracting higher numbers of women. In a study of a crew of tree-planters in Northern British Colombia, Clark (1998) found that gender, more than skill, appeared to define role expectations within the crew. She indicates that regardless of productivity levels, women were still perceived as slow planters and given lower jobs. She found that even though women were often described as the most hardworking, the men on the crew attributed this to qualities that were expected of a woman. This meant that the work of women went underappreciated. Furthermore, Clark indicated that managers chose to hire women not for their competencies but to support the camp. Managers shared that they often hired women to keep the peace and that they expected women to be the caretakers, providing mothering, emotional support and even sexual release to the men (Clark, 1998).

The second shift.

For all the dinners are cooked; the plates and cups washed; the children sent to school and gone out into the world. Nothing remains of it all. All has vanished. No biography or history has a word to say about it.

-Virginia Woolf, *A Room of One's Own*

The expectation to conform to traditional feminine roles not only occurs in the workplace, it also occurs in the home. Coined by sociologist, Arlie Hochschild in the 1980's, the term, 'second shift' refers to the unpaid housework and childcare that awaits most working women when they arrive home from work (Hochschild, 1989). Hochschild's research indicates that the average working woman completes on average 15 more hours of housework than her partner per week. Over the course of a year, this is the equivalent of a month of 24-hour days. Her research indicates that regardless of how well housework is distributed between spouses, women tend to feel a larger responsibility for the home and the children than their partners (Hochschild, 1989). Recently, Statistics Canada reported a trend in changing dynamics around household work and childcare based on the last three generations of families towards a more balanced workload. Women, however, are still doing more of the work. In Canada women report an average of 50.1 hours of childcare per week and men report committing 24.4 hours of their week to childcare. Also, women reported an average of 13.8 hours a week of domestic work, a statistically significant difference from the 8.3 hours reported by men. Finally, women are more likely to spend time caring for seniors, especially when the senior lives outside the home. The survey indicates that women are more likely (49%) to spend more than 10 hours per week caring for seniors than men are (25%) (Government of Canada, 2011).

Some argue that the second shift is partly the reason that such a large gender divide still exists in the workplace. This concept is best explained by Ceci and colleagues (2009) who researched women working in STEM (science, technology, engineering and mathematics) careers in academia. They state that, although systemic barriers exist that limit women's entry into historically male-dominated work, "there is no compelling evidence that removal of these barriers would result in equalization of sex ratios, given the evidence that women's lifestyle choices, societal expectations associated with child rearing, and career preferences tilt toward other careers, such as medicine, teaching, law, and veterinary medicine, over engineering and physics." (Ceci, Williams, & Barnett, 2009, p. 247)

The second shift is a particularly large concern for women in historically male-dominated work because many male-dominated careers are less accommodating of home and family commitments. Male-dominated professions expect a fuller commitment to the profession whereas female-dominated professions tend to accommodate for the second shift (Martin & Barnard, 2013).   Of the 33 women chefs interviewed for a study on work-life balance, many of the women indicated that the hours expected of chefs did not match family life hours. They said that they had received the message that the ideal chef is someone without a life outside the kitchen. As a result, many women reported giving up large parts of their social life, in order to accommodate their career. Some women stated that they felt that had to give up even more than the men that they worked with in order to appear serious and motivated. A number of the women interviewed argued that they experienced more guilt than the men that they worked with about the amount of time that they were able to spend with their children. Some women even indicated that their job made it impossible to have children, that motherhood was not compatible with being a professional chef. Some of the women who were interviewed had already left the

profession and many of them stated that they had done so in order to marry and have children. They indicated that because the profession had few benefits or job security, they felt that they could not have children until they found a more stable profession.

In their research on women clergy members in England, Bagilhole (2006) found that the majority of clergy members have wives who work as unpaid assistants in order to accommodate the needs of the congregation. For women clergy members this was rarely the case. Often, these women were single or they had partners who worked outside the home. As a result, these women often returned home to complete a "second shift" or they felt that they had to hire au pairs and cleaners to support them. In her research on women in the trades, Shroedel argues that women "pay" (Shroedel, 1990, p. 257) at home and at work when they hold historically male-dominated jobs. She found that because women had longer time-commitments at work, they struggled to keep on top of household chores, an issue that was often detrimental to their marriages. She indicated that because women held more masculine roles in the workplace, their partners (most often men) were resistant to the idea that the they should have to take on more work in the home as this would mean that partners were taking on more feminine work. Of the women interviewed, 40% indicated that since starting their work in the trades, they had divorced. Around 56% reported problems in the relationships as a result of the their inability to better balance their home lives (Shroedel, 1990).

Not only do women place this responsibility on themselves, colleagues tend to also make assumptions about women's ability to balance work and home life. In Fotaki's (2013) research on women academics, women stated that they felt like an outsider not simply because of the gender differences but because of the work allocated to women. Some women gave examples of being overlooked for promotions or being told that their research was too complex with the

underlying message being that they had priorities (mothering, housekeeping) outside of work that would limit their ability to be as productive as their colleagues who were men. This means that women are often placed in supporting roles because, regardless of what these women have indicated, others deem their home life responsibilities to be more important (Fotaki, 2013).

Systemic barriers. Before concluding this review, it is important to examine the theme of systemic barriers that women in historically male-dominated work face. Although much of what has already been discussed touches on this important issue, I have chosen to highlight some important motifs for women working as minorities. Throughout the literature on women in historically male-dominated work, themes of lack of confidence and a lack of a sense of belonging continue to arise (e.g. Davey & Davidson, 2000; De Welde & Laursen, 2011; Simpson, Sturges, Woods, & Altman, 2004). Wolf (1992) argues that these themes are common because, for the last few decades, women have received the message that they can do anything when in fact, this is still not the case. As a result, when women fail, they conclude that systemic failures are actually personal failures.

Researchers indicate that the best way to counteract this internalization of systemic barriers is formal education. Women in trade schools and universities alike indicated that schooling works as an inoculation against personal barriers and that schooling often functioned as a gender equalizer, proving that women could do the same things that men believed they could do naturally (Shroedel, 1990; Simpson et al., 2004).

While many women reported that schooling was helpful, many women in historically male-dominated workplaces indicated that legislative frameworks and workplace policies were, for the most part, unhelpful. Some indicated that hiring policies tended to mark them as different

and that these policies sent a subtle message that women were not being hired for their skills but in order to fulfill gender equity quotas (Scullen et al., 2008; Shroedel, 1990; Steele et al., 2002).

      Workplace harassment. Workplace harassment exists as another common systemic piece that women encounter in their male-dominated workplace. Women in historically male dominated work often report that when they experience harassment, they rarely follow workplace harassment protocols as it highlights their gender and makes them stand out. This is unfortunate as the majority of studies on women working as minorities highlight workplace discrimination and sexual harassment as very common concerns (Davey & Davidson, 2000; De Welde & Laursen, 2011; Greenfeld et al., 1980; Shroedel, 1990). In De Welde and Laursen's (2011) study of women PhD students in STEM fields, one third of participants reported sexual objectification and harassment. Similar results were found in Steele and colleagues (2002) research on undergraduate students in STEM fields, where women reported much higher rates of assault than their peers who were men. In research on tradeswomen in Saskatchewan, more than half reported sexual assault but none indicated they had reported the assault (Scullen et al., 2008).

      Shroedel (1990) conducted extensive research on women in working in the trades and found 20% of women reported sexual harassment from supervisors and 28% reported physical or sexual harassment from co-workers. Of the women interviewed, 88% percent reported verbal harassment on the job. Few of these women reported feeling supported by men at work when they experienced harassment of any kind and 28% indicated that they believed that the best way to deal with the harassment was to ignore it. They stated that the discrimination and the lack of support that followed made them feel incompetent in their work and made them question their career choice (Shroedel, 1990).

Summary of barriers to success. The above research indicates that women in historically male-dominated work can face a number of barriers to success. Barriers like tokenism, imposter syndrome and the second shift have been well documented in a feminist discourse as well as large scale psychological studies and indicate our emphasis on the challenges that women encounter rather than their experiences of success. Further challenges related to systemic barriers, including workplace harassment and legislative policies, also contribute significantly to negative experiences for women working in male-dominated careers and will continue to be considered in the remaining chapters.

Chapter summary

This review of the literature indicates that women in historically male-dominated careers often experience and conceptualize their work very differently from their male colleagues. It seems that women in male-dominated careers, social connection is paramount to their sense of doing well. The majority of studies above highlight how important supportive colleagues, bosses and spouses can be for women, particularly those working in male-dominated careers. Also, having a sense of inclusion, belonging and value seemed incredibly important to many of the women in the above studies, as it was the strongest indicator to them that they had a right to work in their chosen field. Having a sense of one's value is closely connected to another theme that many women indicated was an important factor in their success: autonomy. When women in male-dominated careers had the sense that they could choose their career and define their workday, they were more likely to stay and felt more satisfied. Furthermore, women who felt that they could use their feminine qualities as tools also felt more in control and more successful in their work. Given the importance of social connection and autonomy, it is important to note that many women in the studies above indicated that their work included extensive efforts to

simply prove that they exist and that they had something valuable to offer. Much of the research seems to indicate that women working in male-dominated careers perform a complex balancing act in order to succeed. Internal and external expectations to perform well, to not be too competitive, to display feminine traits, to display masculine traits, to fulfill duties at home, to ignore harassment, to change the world, are all part of a complex performance. This study will continue to explore these themes as well as others that emerged through my research.

Chapter III

Methodology

The literature in the previous chapter indicates that there is much to explore in the area of women working in historically male-dominated fields, and particularly around those women who are succeeding. Because the qualitative research on this topic has been so minimal, I chose to explore the experiences of women working in male-dominate careers using the Enhanced Critical Incident Technique, a method that explores themes linked to participants perceived success. The research question that I chose to explore was the following: What helps and hinders women doing well in historically male-dominated careers?

In this chapter, I will explain the methodology (Enhanced Critical Incident Technique) used in this research study and I will summarize participant recruitment, interview procedures, data analysis, and credibility checks. Also, given that this is a qualitative study using grounded theory, which sees the researcher as an important tool in the procedure, this chapter will also endeavour to "situate" the researcher in the study process.

History of the Enhanced Critical Incident Technique: CIT versus ECIT

Critical Incident Technique (CIT) was originally outlined by Flanagan in his important 1954 description of his use of the technique in studies done with pilots in the United States Air Force. He described the technique as a "a set of procedures for collecting direct observations of human behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles" (Flanagan, 1954, p. 327). These observations of human behaviour were then classified into 'critical incidents', which could further be classified into 'helping' and 'hindering' incidents. In his work, Flanagan described an 'incident' as "any observable human activity that is sufficiently complete in itself to permit

inferences and predictions to be made about the person performing the act" (Flanagan, 1954, p. 327). He indicated that in order for an incident to be defined as 'critical', the "incident must occur in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects" (Flanagan, 1954, p. 327).

Enhanced Critical Incident Technique (ECIT), a post-structuralist research paradigm, is a further development of Flanagan's technique and has been outlined in articles by Butterfield Borgen, Amundson, and Maglio (2005 & 2009). In their 2009 article they state that ECIT is a series of "enhancements" (Butterfield, Borgen, Maglio, & Amundson, 2009a, p. 266) made to CIT and that ECIT is particularly useful for research in counselling psychology because results are practical and can easily be translated into counselling interventions. They indicate that where CIT focuses on the observations of the researchers, ECIT identifies critical incidents based on the reports of participants. ECIT is based on information that comes from a particular group of people who are experts in their specific area.

Two other major differences exist between CIT and ECIT. First, in addition to identifying critical incidents, researchers also identify 'wish list items', "those people, supports, information, programs, and so on, that were not present at the time of the participant's experience, but that those involved believed would have been helpful in the situation being studied" (Butterfield et al., 2009a, p. 267). Secondly, ECIT employs the use of 9 credibility checks (to be outlined below) in order to ensure the quality and reliability of the research.

ECIT follows five steps:

1. "Ascertaining the General Aims of the Activity Being Studied" (Butterfield et al., 2009, p. 268): This includes defining the psychological process and context of the participants being studied and expected goals of the participants.

2. "Making Plans and Setting Specifications" (Butterfield et al., 2009, p. 269): This includes the development of an interview guide (See Appendix D) and the definition of standards for what is actually being studied.

3. Data Collection: Participants are recruited and interviewed until exhaustiveness or redundancy occurs in the data.

4. Data Analysis: This includes the identification of helping and hindering critical incidents as well as wish list items. This also includes placing all incidents and wish list items into thematic categories.

5. Interpreting Data and Reporting Results

Reliability and validity of the CIT

The critical incident technique has been used in a number of areas of research over the last 50 years, including nursing, quality of life, motivation and cognitive emotion process studies, to name just a few (Woolsey, 1986b). In 1960, researchers Andersson and Nilsson conducted an enhanced critical incident study in a Swedish grocery company, and in doing so, chose to examine the validity and reliability of the technique. The aim of the study was "to determine the job and training requirements of store managers" (Andersson & Nilsson, 1964, p. 398) by interviewing superiors, store managers, assistants and customers. Five researchers interviewed 410 individuals and identified 1847 critical incidents that they classified into 86 subcategories and 17 categories.

In order to establish whether all types of behaviour had been captured, they saved the last 215 incidents to be categorized once the categories had been defined. This is a technique that continues to be used in CIT and ECIT. The researchers found that the last 215 incidents could all be placed in to the existing categories and that no further categories were necessary. In order to establish the reliability of the interview techniques, they conducted a number of quantitative methodological calculations, concluding that reliability of the interviewers was sufficient.

The researchers conducted a number of validity checks. For them to discover the validity of their categorization, they asked 24 psychology students to place 100 randomly selected incidents into the list of categories that they had defined. They found that the students struggled to place the incidents into matching subcategories but they found it relatively easier to place the incidents in the identified categories. From this, they concluded that the "category system chosen is plausible and not too subjective" (Andersson & Nilsson, 1964, p. 401). Finally, they established a ranking scale for the incidents that they gave to all employees as well as a group of psychology students. All respondents were asked to rate the incidents on a 6-point scale, where 0 indicated "of no importance" and 5 indicated "of great importance to the managers work". When the results from all groups were examined together, there were a number of categories that were deemed unimportant, however, it was found that particular groups rated these lower scaled categories as very important. This indicated that the rating scale had helped the researchers to identify categories that were helpful to specific groups within the supermarket. The researchers concluded that the aspects of the CIT study were both reliable and valid (Andersson & Nilsson, 1964).

Suitability of ECIT for this area of research

In Woolsey's 1986 article on CIT, she identified the method as a "research methodology unique to counselling as a discipline" (Woolsey, 1986a, p. 243). In a number of her articles, Woolsey argues that counsellors often experience a "conflict between values underlying counselling practice and those underlying traditional approaches to research" (Woolsey, 1986b, p. 84), in that research emphasizes objective measurement through experiment and counselling examines inner experiences that are not always easily captured through such means (Woolsey, 1986a, 1986b). In her article on CIT, she states that the method is "entirely consistent with the skills experiences and values of counselling psychology practitioners" (Woolsey, 1986a, p. 253) given its flexibility and the fact that it can be used to capture a wide range of incidents that relate to process as well as content. Butterfield and colleagues confirm this argument, and further maintain that using CIT to identify psychological processes allows for the development of clinical tools for counsellors and other mental health practitioners.

Woolsey goes on to say that CIT is particularly helpful in that it can be used for "criterion development" and to "generate both exploratory information and theory or model-building" (Woolsey, 1986a, p. 252). As a result, it is particularly effective for early stages of research, when little is known about a topic. Others have also found that CIT is appropriate when a gap exists in the literature and the researcher wants to discover more (e.g. Butterfield, Borgen, Amundson, & Maglio, 2005; Butterfield et al., 2009).

Butterfield and colleagues assert that CIT is designed to answer questions of helping and hindering in the "effective performance" (Butterfield et al., 2005, p. 483) of a specific experience. In other words, CIT looks at "a particular set of individuals who [have] expertise in a particular area" (Butterfield et al., 2005, p. 268) in order to better understand their

accomplishments. The method has been used to study 'effective performance' in a number of

areas in psychology, a significant number of which have focused on the topic of career

(Butterfield et al., 2005).

Given the assertions cited above ECIT was chosen as the most appropriate method for the

following reasons: a) this study examined the 'effective performance' (doing well or success) of

a specific group (women working in historically male-dominated careers), b) this study

examined an area that has not had much attention in the literature and therefore would benefit

from both exploratory knowledge and data that could contribute to theory development, c) this

study has a practical focus of supporting the development of tools appropriate to career

counselling and working with this population of women and d) this method has been identified

as an appropriate methodology for studies that align with the values of the practice of

counselling psychology.

It is worth mentioning that, although this study may take on a feminist lens, or at the

least, a woman-focused approach, I chose not to pursue a feminist methodology. The reasons for

this are twofold. First, given that much of the current literature in this area focuses on the

challenges and deterrents for women in male-dominated work, I had the intent of using an

approach from positive psychology that would capture alternate data. Second, I wished to

identify concrete supports for women that could be applied to counselling, in particular, as well

as policy and ECIT proved the most relevant method for such goals.

Method

Description of participants. Nine women in a wide array of careers were selected to

participate in this study. All participants met the inclusion criteria. It is important to note that

eight of the participants were Caucasian of European decent and one participant indicated that

she was of Asian background. Even though attempts were made to recruit individuals from a number of different backgrounds, it proved rather difficult to represent these women. It is not clear why the recruitment procedure failed to recruit more women from cultural minorities but this may reflect the small a number of women minorities who feel that they are succeeding in male-dominated work. This is discussed as a limitation of the study.

Inclusion criteria for participants. The following criteria was used to identify participants:

1. The participant must self-identify as a woman.

2. The participant will have worked in her field for at least five years and wishes to continue.

   Rationale: Jagacinski's (1987) work on engineers found that when individuals were first hired in their roles, very few differences based on gender existed. Five years later, however, the research indicated that men were more likely to have received promotions and tended to have higher wages. It is for this reason that I chose to only interview women who had stayed in their careers long enough to have a clear concept of what challenges and supports exist over the long-term.

3. The participant should be working in a position that employs no more than 35% of women.

   Rationale: According to Kanter's (1977) work on tokenism in a large corporation, groups can be categorized into four different types. 'Uniform groups' (100:0) contain "one significant social type... with respect to salient external master statuses such as sex, race or ethnicity" (Kanter, 1977, p. 382). 'Skewed groups' (85:15) contain a majority of one type called the 'numerically dominant type'. This type tends to

control the culture of the group. Those in the minority are categorized as the token members. 'Tilted groups' (65:35) have a "less extreme distribution and less extreme negative effects" (Kanter, 1977, p. 382) because "minority members have potential allies among each other, can form coalitions and can affect the culture of the group. They can become individuals differentiated from each other as well as a type differentiated from the majority." (Kanter, 1977, p. 382). Balanced groups (60:40-50:50) are not defined by subgroups and instead outcomes are defined by structural and personal factors (Kanter, 1977). Based on these ratios, women employed in groups with less than 35% of women could be defined as individuals working in historically male-dominated work. I used data from the "National Occupational Classification for Statistics (NOC-S) 2006 for the Employed Labour Force Aged 15 Years and Over, in Private Households of Canada, Provinces, Territories, Census Metropolitan Areas and Census Agglomerations, 2011 National Household Survey" from Statistics Canada (2011). The survey indicates the number of women in the majority of occupations as well as the number of people employed in each occupation so rates of employment can be easily calculated.

4. Based on ECIT protocols, the participant must see herself as doing well in her career.

Additional factors. All possible attempts were made to recruit women who represented a broad range of characteristics. As a result, every effort was made to recruit women that represented differing a) careers, b) age groups, c) cultural backgrounds d) positions within an organization and e) levels of educations. As was mentioned above, it was challenging to find women of differing cultural backgrounds as was identifying women who represented older demographics.

The following is a list of the occupations represented in this study. The percentage that accompanies each number indicates the percentage of women found in each career based on federal data from Statistics Canada (Goverment of Canada, 2011)

- Architect – 28.5%

- Engineer – 15.3%

- Facilities Manager – 6.4%

- Vice-president of operations – 13.0%

- Small business owner – 17.1%

- Pilot – 6.3%

- Heavy Machine Operator – 3.3%

- Firefighter – 3.7%

- Science, Technology, Engineering or Math (STEM) professor – 19%

Table 1

Summary of Demographic Information

	Range	Median
Age	27-42	32.1
Years working	5-14	8

Figure 1

Participants by Education Level
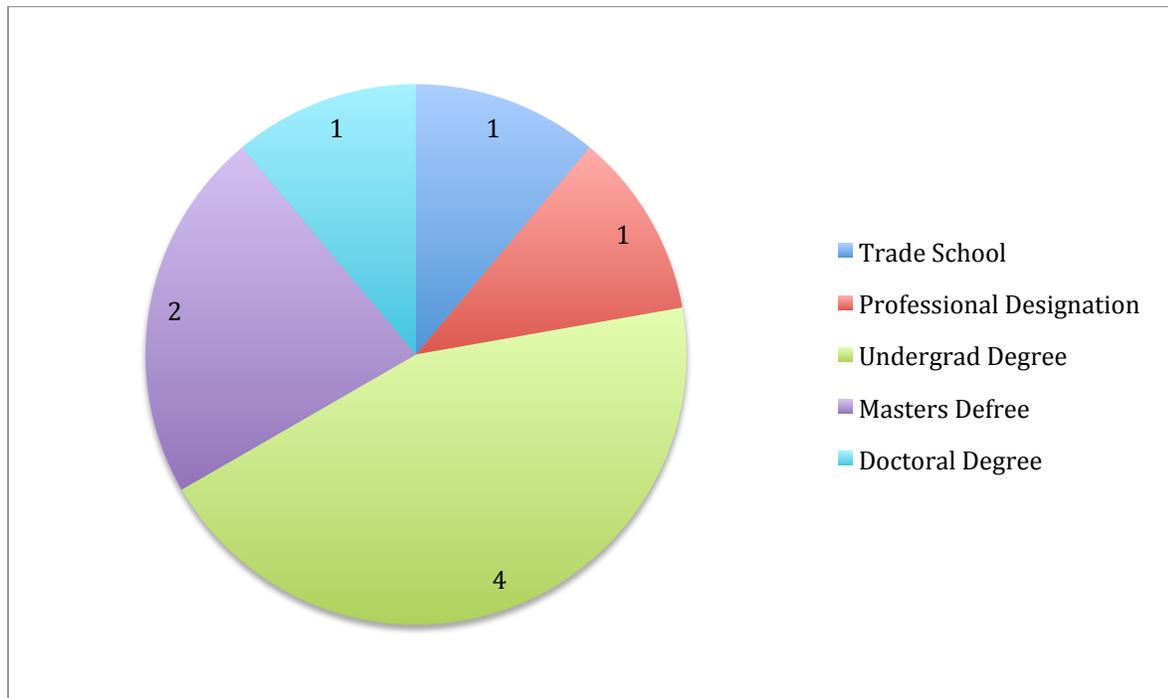
Figure 2

Participants by Position
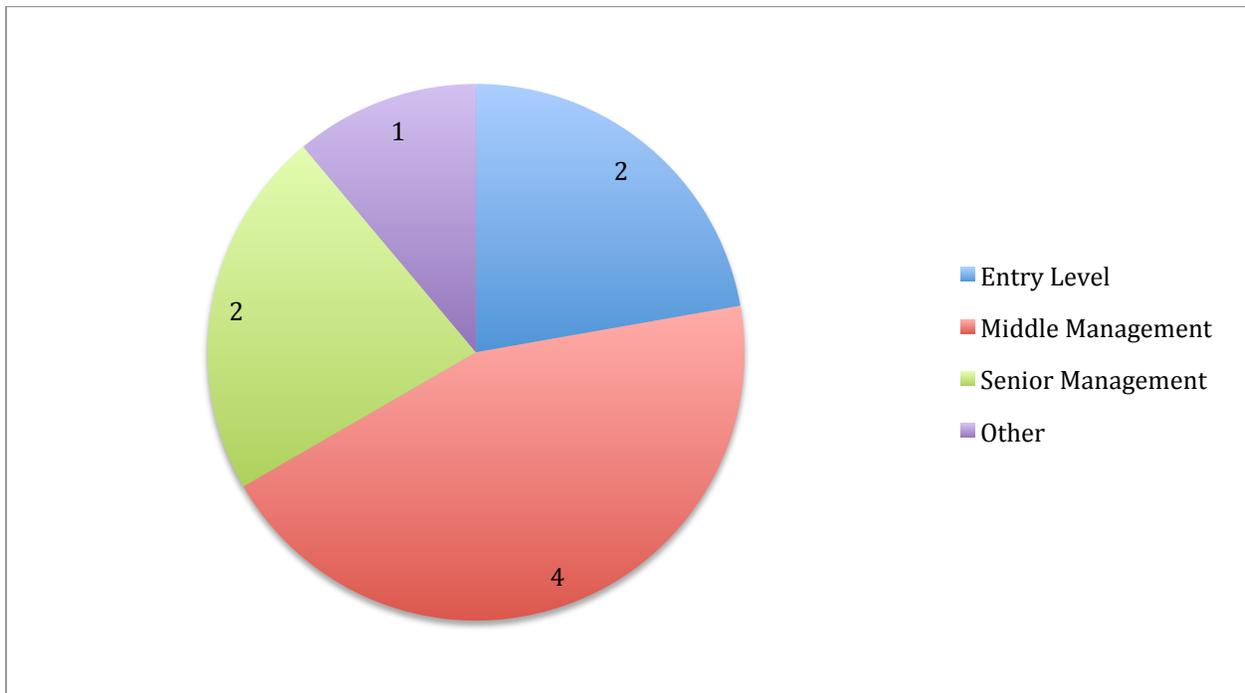
Based on the demographics forms collected, 2 participants had children and 6 indicated that they had significant others.

Recruitment. Participants were recruited through email. Recruitment letters (See Appendix B and Appendix C) were sent to the researchers professional contacts as well as to a number of women's organizations throughout Canada (e.g. The Society for Canadian Women in Science and Technology, Women in Film and Television Vancouver). Recruitment emails were sent out in early July 2014 and interviews were conducted from late July until mid-September 2014. Snowball recruitment occurred, as many women chose to share the recruitment letter with organizations in which they participated. Respondents communicated by email and yielded an incredibly high response rate in the first week, with over 30 respondents expressing interest. Participants were included and excluded based on the inclusion criteria. Although the response rate was high, I received a number of emails from individuals in the same professions (e.g. engineering and operations management). Attempts were made to recruit from film and television, IT and police/fire/ambulance but I received no response. The final selection of participants was based on the need for an array of professions in an array of management levels.

Before meeting with participants for interviews, candidates were emailed an overview of the study as well as a consent form, in order to give them a better idea of what the interview would entail and the commitment expected of them. I answered all questions from participants, stressing their right to withdraw at any moment. Given the fact that participants already represented a significant minority group, significant attention was paid to ensuring confidentiality and privacy. Once questions were addressed, participants who were still interested were given the opportunity pick the location for the interview. All interviews were scheduled at least a week prior to our meeting and I sent a reminder email one day before. This

was to ensure that participants had time to reflect on their participation and withdraw if they wished. No participant chose to withdraw at any point during this study. A waiting list consisting of individuals who were interested in participating in further studies was compiled.

Procedure for data collection. Of the 9 participants, 4 chose to meet in coffee shops, 3 chose to participate by Skype, 1 chose to meet in her home and 1 chose to participate on the phone. Many participants shared their excitement and appreciation that research was being done on women working in male-dominated careers. All interviews were digitally recorded and supported by notes taken during the interview. Following the first interview, phrasing in the interview guide (See Appendix D) was lightly tweaked in order to better capture participant experiences. The interview guide follows ECIT protocols with the intent of pulling out incidents that are most relevant to each participant. Prior to the beginning of all interviews, the consent form was reviewed and signed, if this had previously been completed. Questions focused on five broad areas: a) Contextualisation of participant experience, b) defining 'doing well', c) eliciting examples of 'doing well' d) eliciting examples of hindrances to 'doing well' and e) wish list items. The interview guide ensured consistency across interviews. Paraphrasing and prompts were used to explore or understand particular areas that participants could expand on.

For this study, I chose to follow a new procedure for ECIT called 'the listening method'. Using this method, the researcher paraphrases the incidents back to participants at certain points throughout the interview in order to ensure understanding and to support recall. As interviews progressed and themes began to emerge, this served as an important validity check, allowing me to ensure that I was appropriately capturing participant experiences. Towards the end of each interview, I paraphrased everything that I had heard so far and invited participants to share any other incidents or thoughts. The method proved very useful for both participants and myself as it

ensured accuracy and helped to capture participant narratives. After the interview was complete, participants completed a demographics form (see appendix E)

Procedure for data analysis. The first seven interviews were transcribed verbatim and targeted transcription was used on the final two. The interviews were analyzed using NVivo Qualitative Software for Mac. Critical incidents were pulled out and grouped thematically until distinct categories emerged. The categories underwent the following nine credibility checks.

Trustworthiness: Nine credibility checks. Butterfield and colleagues identified nine credibility checks that must be followed in order to ensure the reliability of a study using the Enhanced Critical Incident Technique (Butterfield et al., 2009a).

1. Audiotaping interviews: All interviews were audiotaped in order to ensure accuracy.

2. Interview fidelity: Interview fidelity ensures that appropriate Enhanced Critical Incident technique protocols (e.g. adhering to the pre-established interview protocols) are being followed.

3. Independent extraction of critical incidents: Transcripts were independently reviewed by a secondary coder. All discrepancies were discussed and incidents were re-categorized if necessary.

4. Exhaustiveness: Participants were recruited until no new themes were identified. Emergence of new categories was documented as each interview was analyzed. New categories continued to emerge until the sixth interview in which all incidents fell into previously identified categories. Three more interviews were conducted in order to enrich the data.

5. Participation Rates: Participation rates go up as more participants identify a particular category. A minimum rate of 25% participation is suggested (Butterfield

et al., 2009). Categories that were identified in this study had participation rates between 33% and 89%.

6. Placing incidents into categories by an independent judge: An independent coder was provided with all 12 of the categories that emerged from the analysis and was asked to place 25% of the critical incidents and wish list items into the categories.. Only one incident was placed in a different category.

7. Cross-checking by participants: It is essential to verify one's conclusions by conducting a second shorter interview with participants during which they review lists of determined critical incidents and wish list items (See Appendix F). Participants were sent follow up emails with a list of their extracted quotes, categorized by helping incident, hindering incident and wish list items. Participants were asked to review the document and provide feedback. Of the nine participants, six responded, all of whom indicated that the results were accurate and that they had no suggestions for adjustments. I am not sure why not all participants responded. It may be that when I conducted the interviews, I indicated to participants that I would be contacting by late August when, in fact, I did not contact them until late October.

8. Expert opinions: A professor from the Counselling Psychology program read this document and indicated that the categories were "realistic", "made sense" and were "well conceived".

9. Theoretical Agreement: It is important to return to the literature in order to discover the extent to which one's findings and one's assumptions are congruent with the research to date (Butterfield et al., 2009). Chapter V comprises this final validity check and explores further areas of research.

Finally, although, it is not listed as a credibility check, Butterfield and colleagues (2009) insist that researchers should, as Flanagan (1954) also indicated, ensure that identified incidents are specific and clear. "The criteria for incidents to be included in a study are commonly thought to be: (1) they consist of antecedent information (what led up to it); (2) they contain a detailed description of the experience itself; and (3) they describe the outcome of the incident" (Butterfield et al., 2005, p. 488). I followed these guidelines in my work.

Ethical concerns. A key component in describing the findings for study was confidentiality. Because women working in historically male-dominated careers are a minority group, it is more challenging to protect their identity. Little information would necessary to recognize participants, especially those in fields where they represent less than 10%. Also, some of the incidents that participants identified highlighted challenges with co-workers or peers, stories that participants would likely prefer to remain anonymous for their safety and integrity at work. As a result, extra precautions were taken to protect identities. This included the omission of any identifying data or the omission of a quote if it seemed to revealing.

Situating the researcher. As with many qualitative methodologies, in ECIT "the researcher is the key instrument of data collection" (Butterfield et al., 2005, p. 482) and as with any instrument, it is important to elucidate how the researcher functions. Given the qualitative nature of this study, I, as the researcher, have a particular lens through which I understand the world and through which I understood and interpreted the data from this study. As a result, I believe that it is important for me to 'situate' myself in this study. For the last 5 years, much of my work, as a student and in the community, has focused on advocacy for women. I identify as a feminist and much of my work has been focused on supporting women in acknowledging and understanding the deeply rooted systemic issues that our culture and society have shaped for

women. I grew up in a home that promoted gender equity and social justice. From a very early age, I was encouraged to explore all possible career options, with the understanding that they were all available to me. As a child, I dreamed of being a pilot and as a teen, I wanted to be a surgeon. Given that this was the messaging that I received, I am sometimes perplexed that I found myself in a profession that is 75% women (Goverment of Canada, 2011). It is for this reason that I chose to study this area of research, as it seems to me that there is more at play than a loving family and a supportive upbringing.

I recognize that my values and my upbringing bring a particular lens to this study. Throughout the interviews, I endeavoured to ensure that I followed my interview protocols and that my prompts were not biasing the participants in any way. It was important to remember that my feminist perspective is not held by all and that in fact, the research indicates that not identifying as a feminist can be helpful in many male-dominated careers (Derks et al., 2011; Maremmani et al., 2011). I also strove to be continually reflexive in my process, keeping careful notes and frequently considering my assumptions and biases. For example, I found that towards the beginning of my research I went into interviews and early analysis with the expectation of hearing stories of harassment and exclusion and I had to challenge myself to stay true to the stories that my participants told.

Chapter IV

Results

The following chapter outlines the results of my analysis of the 9 interviews conducted

with participants. In this chapter, I will outline the 12 categories identified through thematic

analysis of the critical incidents and provide examples of incidents identified by participants in

each category. I have organized the categories by participation rate, presenting the categories

that were identified by most of the participants first, followed by categories identified by fewer

participants. This chapter concludes with the description of two final categories: a) luck and b)

happenstance. These final categories were not identified as helping or hindering instances but

they emerged as common themes that many participants shared and seemed worthy of

consideration.

The results of the thematic analysis identified 196 helping incidents, 62 hindering

incidents and 37 wish list items, totalling 295 incidents. Based on analysis of these incidents and

in conjunction with the application of credibility checks, 256 items were placed into 12 distinct

categories (177 helping incidents, 51 hindering incidents, 28 wish list items). The following is a

break down of the categories identified as helping or hindering women working in historically

male-dominated careers.

The following table lists the 12 categories identified by participants, ordered from highest

participation rate to lowest participation rate. It is worth noting that the categories presented

below do have some overlap. Although these categories identify similar incidents, they have

been separated into unique categories because each category holds a different focus. The fact

that overlap occurs can be mediated by the fact that these categories were subject to external

review by another researcher, as part of the trustworthiness checks, who deemed each category to

be unique.

Table 2

Incidents that contributed to success for participants (N = 9) working in male-dominated work

Category of Incident	Helping Incidents N = 177	Number of Participants (% of total)	Hindering Incidents N = 51	Number of Participants (% of total)	Wish List Items N = 28	Number of Participants (% of total)
1. Recognition from peers	32	8 (89%)	5	2 (22%)	0	0
2. I'm making a difference	23	8 (89%)	0	0	0	0
3. Traditional Success Markers	16	7 (78%)	0	0	0	0
4. Belonging	19	6 (67%)	9	6 (67%)	4	4 (44%)
5. Self-Supplied Recognition	12	6 (67%)	0	0	0	0
6. Being Seen for one's strengths	9	6 (67%)	18	9 (100%)	2	2 (22%)
7. Believing in the unique qualities of women	16	5 (56%)	4	3 (33%)	0	0
8. Creating a sense of family	14	5 (56%)	1	1 (11%)	0	0
9. Brush It Off	15	4 (44%)	6	3 (33%)	2	2 (22%)
10. Support from Parents	7	4 (44%)	0	0	0	0
11. Support from female colleagues	12	3 (33%)	3	1 (11%)	6	3 (33%)
12. Mentors	3	3 (33%)	0	0	8	5 (56%)

Category 1: Recognition from peers

This category pertains to feedback that participants received from peers or colleagues related to their work.

Helping incidents. There were 32 helping incidents identified by 8 participants (89% participation rate) in this category. These incidents identified positive feedback from colleagues or other individuals in their area of work as an indication that they were doing well. These participants shared that meeting standards that peers had set was important to their success. Most often, this recognition was framed as respect from peers or colleagues. In fact, the term respect was mentioned 42 times throughout all interviews. Examples of this focus on respect include the following:

> P7: I remember when I first got on the bulldozer. That's the end of the line for training, like bulldozer, is the last thing you learn and I was the first female bulldozer operator there and they were so proud of me and they were so… I got such good feedback, which is incredible, haha. That's the thing, and they just don't ever say anything nice. So I think, that's when I realized that actually, I'm pretty good at doing this and I seem to pick it up very quickly.

> P6: [Doing well is] just the, the sort of, it's less tangible, I feel that amongst, definitely amongst my peer group and people I've flown with, I have, you know, their respect and support.

> P2: Umm... doing well... I think the most important is how you're treated. If you feel like people perceive you as a knowledgeable individual and you get respect from everyone around you, then you feel like you're contributing and the company's taking you seriously and so, it feels like you're making a difference and that's I guess to me, that would be success. Just you're making a difference (a difference). Yeah.

Two sub-themes emerged around the importance of respect for these participants: a) turning to me and b) being singled out.

Turning to me. Being respected by others was particularly important when the respect was coming from someone in authority, someone with more experience and knowledge than the

participant. Four participants shared how important it was to have someone with more

experience or knowledge validate or corroborate the participants' work. These participants

indicated that recognition from individuals in a place of power not only felt good, it was also a

clear indication of progress and accomplishment:

> P1: and you know, I think that it's very satisfying to have some rough and tumble contractor treat you as a peer, as an equal and ask for your advice politely, you know, that's an accomplishment. And likewise you know. I think a big part of that is that I won't be shy to pick up the phone and ask him a question if I'm working on something. You know, 'we can do A or we can do B, what's your feeling? Which would be easier for you to build?' It's a give and take.

> P2: But I think most importantly it's just pure communication on a one on one level. If you're, if people are listening to what you're saying, they're turning to you with questions, then you feel like, oh, I've made it. This person came up to me and asked me a question and not 30 other people they could have asked.

Being singled out. Four participants highlighted moments when they had been singled

out to represent their company or their work, as examples of recognition from peers. For these

participants, being the face of their organization gave them the indication that others saw their

accomplishments and respected their work:

> P2: Yeah, I think anytime when people in the company suggest for me to attend a certain event. I always feel good about that. It make me feel like, 'ok, obviously they recognize that I can represent the face of the company, go look for clients. So anytime there's a lunch, or dinners or some sort of like a business developing event or the mayor's talking somewhere and we have to go and mingle with all the developers or something like that. That always makes me feel successful, just because, yeah, they're putting me out there, they think, they see me as the brand for their company.

> P5: The business school I went to here in town, they ask me to a lot of events to talk to them and that's nice to be recognized by them as well. Like, ok you're actually legit enough that we want you being the expert for our new students on entrepreneurship. […] That's important because I could be really deluded. I need some kind of objective criteria. Someone external telling me it's going ok as well.

Hindering incidents. Only 2 participants identified hindering incidents (N = 5) therefore

the 25% participation criterion was not met.

Wish list items. No Wish List Items were identified for this category.

As can be seen all of the above quotes, the theme that runs throughout is a sense that others value and respect a participant's work. Women in this category had the sense that they were being treated as a peer or as an individual who had enough value to be in the workplace.

Category 2: I'm making a difference

This category pertains to participants' sense that they were contributing significantly to their workplace. Participants in this category indicated that they felt that the work that they were doing was important and that it was contributing to something greater than themselves.

Helping incidents. There were 23 helping incidents identified by 8 participants (89% participation rate) in this category. These participants indicated that they felt fulfilled by their sense of meaningful contribution in their work.

> P2: then you feel like you're contributing and the company's taking you seriously and so, it feels like you're making a difference and that's I guess to me, that would be success. Just you're making a difference.

All participants in this category indicated that playing a role in work that was important to one's organization, and ideally to the greater community, gave them a sense of doing well:

> P9: So I'm not proposing to change the world or anything but I'm kind of hoping to make a small shift towards the ideals that I feel are important for these people [the academic community]. If I could be a small percentage of that, I'd be happy.

> P3: I do feel like it was successful because I know that what the project was for was for something bigger than just my unit or even building operations for all of [the business], and even one day, the public too.

Making a meaningful contribution was particularly relevant when participants were aware of the extent to which their individual actions had made a significant impact. 6 participants (67% participation) shared incidents in which they felt that they had worked independently to achieve an important goal or significant impact.

P3: In fact, it felt like a big success to get going again the year after that. Kind of single handedly, I feel. There were a lot of important bodies around the table, that helped quite a bit, but yeah, I felt like the project could have died for good if I hadn't decided to step up and try.

P4: There was three big projects that came up for tender and we put in our bids, and following that they wanted to meet with all the contractors that were involved and I worked really hard at putting together a really good presentation and went in for the presentation for the three projects and got all three of them, so it was a very busy year and I'd like to think it was because I put all that work in.

Three participants spoke to making a difference in the way that women were perceived or represented in their field. In particular they took pride in being visible to young girls and providing them with models for alternate career options:

P6: I mean it's, it's something that because I've worked so hard at it, I am, you know, I'm proud of what I'm doing. It feels good in the sense that it's still something, when I'm walking through the terminal in uniform, I still have people point and say, 'look, it's a female pilot', and it's, sometimes, you feel, a bit like a Disney character, haha, sticking out like a sore thumb but it's also neat in the sense that, you know, moms or fathers say to their young girls, like, 'look there's a female pilot' and they'll come up and they'll ask me questions.

P7: One thing I've loved is being in the machines and seeing the kids looking out the windows of the cars and they're so entranced by the machine and I just love that they can see a woman in that machine and not just a man so the boys and the girls can get excited and I like that.
C: Absolutely, and what is it about that, that you like?
P7: Well, that it's not a norm, that it's not a norm for it to be only men, that it actually can be a woman as well.
C: So you're changing what the norm is?
P7: Yeah, I hope to think so. So little girls could grow up to want to be a machine operator.

In all of the above cases, the women in this category felt that they were doing well when their actions or work resulted in significant and meaningful change. Often, this change had less to do with personal achievement and more to do with the greater good or a dream of a different future. Often, these changes had to do with transforming the way in which women were perceived or treated in male-dominated work.

Hindering incidents. No hindering incidents were identified in this category.

Wish list items. No wish list items were identified in this category.

Category 3: Traditional success markers

Participants in this category identified traditional success markers as indications that they were doing well. Examples of these include raises, change in job title, academic success or project success and positive performance reviews.

Helping incidents. There were 16 helping incidents in this category identified by 7 participants (78% participation). Examples of traditional success markers included: promotions (P2, P9), income (P2, P5), doing well during performance reviews (P3, P6, P9), having one's work recognized as important (P3, P9) and completing projects on time and satisfactorily (P1, P3, P7). Here are some examples:

> P9: Oh and the other thing is that when the department last year actually did vote to give me tenure, that felt really good. I thought 'ok, well they want to keep me', that's good. Cause I do very much respect my colleagues and I wanted them to be happy with me. They felt that I should stay in the department.

> P2: People say, 'Oh, you're project engineer now', oh ok, so you're obviously better than the design engineer so you must have more experience. So yeah you just get more respect again, that comes with that and makes it easier to keep going, I find, so yeah promotions, that's a really big one.

> P1: Success is a happy client.

Hindering incidents. No hindering incidents were identified in this category.

Wish list items. No wish list items were identified in this category.

Category 4: Belonging

This category pertains to having a sense or belonging or feeling that one is part of the team.

Helping incidents. There were 19 helping incidents identified in this category by 6 participants (67% participation rate).   The incidents identified moments when participants felt that they were included and valued as part of their group of peers or colleagues. Participants used different terms to describe this sense of belonging including "being one of the guys" (P5) and "fitting in" (P9). Most often, belonging was described in terms of mutual respect. Four participants indicated that they felt that they were succeeding when they were able to give and receive respect from colleagues. This gave participants the sense that they were part of a team.

> P3: [Success is] being able to help, respecting them and having them respect me.

> P7: When I'm around the men, they all soften up, which is such a nice thing that they are willing to bend for me and uh, yeah, I guess that's what it is.
> C: They're willing to bend.
> P7: Yeah, yeah and I think it's because I'm willing to bend for them. I'm pretty tolerant of them too so it's a pretty reciprocal relationship I guess.

These incidents seemed particularly poignant when participants felt that they were improving the work experience for others. Three participants indicated that supporting others in their goals helped them to feel successful in their own work as well. This was sometimes described as having 'healthy relationships" (P7) or helping someone to gain confidence in their work:

> P9: I sometimes feel very successful when I start talking to some student at the beginning of the term and they say that they're not good at [subject] and they're not sure how they're going to pass this course and whatnot and then towards the end of the course they do really well and they don't talk about the fear anymore. [...] One more person who's ready to face the world.

Hindering incidents. A total of 9 hindering incidents were identified in this category by 6 participants (67% participation rate). This was a category where a relatively high number of incidents were categorized as hindering incidents. All participants in this category identified hindering incidents that reflected very overt exclusion or a clear sense of not feeling welcome.

One participant described an experience she had where she felt that she had done the majority of work on a project while another colleague took credit for her work:

> P1: And the two senior architects and him would have a meeting and I would be the only person not in the meeting, yeah, I'd be like, 'huh, interesting, we are a team of 4 and we're having a 3 person meeting and I'm the only person who's actually looked at these drawings cause I produced them.

P1 is one of four participants who described meetings or opportunities from which they were excluded. In all cases these participants indicated that they not only felt left out, they also felt that they were missing out on important career opportunities because they were excluded.

Three participants described more subtle forms of exclusion in which they felt targeted for their gender:

> P8: They tried to force me into working on the fire trucks, even though I was pregnant and didn't want to and I had a note from my doctor and so it was very frustrating and stressful time and meeting after meeting, they made me feel like I had done something wrong. Just because they had never dealt with it before and in my mind, after having been there for you know, 9½ years, they should have thought that this was a possibility.

Wish list items. There were 4 wish list items identified in this category by 4 participants (44% participation). In these four incidents, women described situations in which they felt that they did not belong because they did not hold a particular skill set. These skills were often seen as interests that men were more likely to have due to upbringing and socialization. The participants indicated that having these kinds of skills or interests would have been beneficial. Two participants indicated that they wished that they knew how to golf (P2, P4), while another participant explained that she simply had not been "exposed" to the same things that her male colleagues had, as little boys, which put her at a disadvantage and often meant that she felt left out:

> P6: I went to school with a lot, a lot of the males were coming off the farm and so they, they sort of like, they'd grown up with machinery and working on machinery and driving,

you know various vehicles or tractors and I definitely didn't have that exposure, umm, so that was a bit of a struggle, sort of, in terms of learning.

Category 5: Self-supplied recognition

This category pertains the fact that participants felt that it was important to hold a clear definition in one's own mind of success.

Helping incidents. A total of 12 helping incidents were identified in this category by 6 participants (67% participation). All incidents referred to participants establishing personal definitions of success. Although other categories in this study indicate that participants often define their success based on responses or judgements from others, it also seems that many have the ability to hold a clear definition of success in their own minds. Given the high participation rate and based on the examples in this category, it seems that self-supplied recognition becomes a supportive factor when other forms of support or recognition are not available. Four participants indicated that they worked in environments where encouragement or positive feedback was rarely provided and as a result, they had to rely on their own evaluations:

> P1: It's pretty competitive and critical. It's a criticism-based profession really, so you have to figure out your own value or you're just not going to, keep doing it.
> C: And how have you found you've been able to do that?
> P1: Umm, by developing, I'd say, a healthy sense of self-critique. Cutting them to the chase. Get there first. Pick out the bad ideas so that they don't have to. It's building up your sense of what's good and not good in your work.

> P7: Sometimes you don't always get the recognition so you, you have to find that, supply it on your own too, which I do. Like today I was compacting in the morning and I felt really happy because everything looked messy and then I just smoothed it out and compacted, and I was like, 'oh, I know what I'm doing now. This feels really good'.

Three participants in this category shared that because they were using self-supplied definitions of success, they often identified a symbol or a sign as an indicator of doing well. For example, one participant described an incident where her boss chose to bind and laminate a report that she

had completed, and she said "that felt like a big accomplishment. I know I played a big part in the decision-making, at least in [a particular area] (right) of the [program]" (P3). And another participant shared that for her, working on a construction site with the Empire State Building in the background was a sign that she had succeeded:

> P2: There I am standing, obviously the only girl and I can see the Empire State Building from where I stand and it's just, you kind of feel really good about it. […] I could look at myself if I escaped my own body 'wah, here I am, on a construction site in New York and there's the Empire State Building', right. Yeah, so definitely one of those moments where I felt really good.

All of the examples in this category speak to the importance of a certain degree of self-confidence and self-reliance on the part of participants. These participants needed to have the skill to provide their own encouragement and an ability to understand the context of their workplace as well as a balanced sense of self-criticism.

Hindering incidents. No hindering incidents were identified in this category.

Wish list items. No wish list items were identified in this category.

Category 6: Being seen for one's strengths

This category pertains to participants' ability to display their strengths and be acknowledged for those strengths.

Helping incidents. In this category, 9 helping incidents were identified by 6 participants (67% participation). Participants indicated that when they were seen for their unique skills, they felt appreciated and important. More specifically, the incidents identified indicate that participants felt that they were doing well when their own perception of their strengths matched the perceptions of others. In other words, participants felt that they were doing well if they were allowed to apply their strongest skills.

> P4: Well I want them to know that I'm educated, I know, I know what I'm doing. It's not that I'm this girl in the industry who has no idea what's going on, cause I do know about

mechanical systems and I know what your building needs and I'm not an engineer but I have been the, in this field for 8 years, it's not that you don't have to look somewhere else. I basically can help you with everything that you want and need.

Hindering incidents. There were 18 hindering incidents identified in this by 9 participants (100% participation). This is the only category where every participant identified a critical incident, highlighting the importance participants placed on being acknowledged for one's skills. This is also an indication that participants were less likely to notice when their strengths were being applied and more likely to notice when their strengths were not being acknowledged. Incidents that highlighted a desire to be seen for one's strengths often centered around projects or positions that participants were not considered for. One participant gave an example of being assigned to build a set of stairs while a group of men were brought outside to learn how to build a bridge. She explained that the hardest part about this experience was "knowing that they didn't think I could do it. Yeah, that's what pissed me off and upset me the most. Umm, yeah, that no one had the faith that I could also build a bridge". (P3). Other participants shared similar stories:

> P2: I felt like I was restricted, I wasn't allowed to cross this invisible line and meet with [clients] more, have more face time with them and build a relationship. Umm, so yeah, that, I guess, that point where I felt like I wasn't seen for my strengths, that made me feel in a rut, felt like 'oh, where am I going with this? I know what I'm good at, why doesn't this person recognize what I'm good at?

> P4: I think the biggest thing in our industry is when you lose out to big contracts and sometimes I feel it's because of my qualifications or who I am.

In the last interview quoted, the participant, P4, head of operations for a construction company, went on to explain that sometimes she brings an older male colleague with her when she goes to meet prospective clients. She explained that although his presence gave her more clout with clients, she felt disappointed that her presence alone was not enough to convince clients to sign on with her company.

P4: I guess just overall I think it sucks when I have to think like that but it's just the way it is, that he needs to be there and, and, it needs to go that way.

One participant shared the story of how she had been hired and indicated that she struggled to accept the position because it had not been awarded to her based on her strengths but because of affirmative action policies in her workplace. Because of this, she did not feel that her abilities were being acknowledged:

P9: I myself had some qualms about this affirmative action jobs because it felt like it was unfair. I wanted to be hired based on merit rather than, because of sex but then I figured this is my one chance to get a job in [city]. [...] I have a friend who was offered a position and she refused to take up the position because she said it was humiliating.

Interestingly, this participant was the only one who made reference to affirmative action or policy measures, in a positive or negative context. Three participants in this category shared how difficult it could be to experience these incidents. When they described occasions where they did not feel appreciated for their strengths, the language that they often used was quite sombre, reflecting how difficult these kinds of experiences could be. The following is another excerpt from the story P1 told about a co-worker taking credit for her work:

P1: He was basically the principal of the firm when the principal of the firm wasn't around and was not very productive or talented, so there was a lot of 'ok [P1], you have to do this work and I'm going to take it and tell everyone it's mine' and just a really crappy atmosphere and it was pretty isolating because I didn't really know the people I was working with as well. Yeah, so that was crappy, it felt properly dark for a while and you know it was 17 hour days at times too, it was quite grim.

Other participants described similar emotional responses:

P2: Then you get frustrated and yeah, like, an empty person inside, it's awful, no one seems to care about you which is not true actually, it's just it was that situation. Yeah, so not being heard, not being utilized properly. That was big for me.

Wish list items. Only 2 participants identified hindering incidents (N = 2) and therefore the 25% participation criterion was not met.

Category 7: Believing in the unique qualities of women

This category pertains to the extent to which participants valued perceived 'feminine' qualities and saw them as beneficial to their work role.

Helping incidents. There were 16 helping indigents identified by 5 participants (56% participation) in this category. In these incidents participants described an appreciation for the skills and characteristics that women traditionally hold and believed that these qualities had value in their work. Four participants highlighted particular skills that made them better at their jobs than men:

> P4: Umm, it's not too often that you see women manage projects in the construction industry and I sort of want to expand on that. I feel like women are able to do better. They're more detailed, they are more... comforting, they, I don't know, I feel like they just really understand the projects a little bit more, whereas, I've met male project managers who, it's kind of just another workplace.

> P7: Actually women are in demand for operating machines cause their much gentler on the machines.

Two women spoke to the fact that the ratios were to their advantage. They explained that working in a male-dominated field allowed them to stand out in a way they never could if they were working in another field. In this first example below, the participant explains that being a woman is not only beneficial to her but to her company as well:

> P2: Yeah, it's a huge benefit. People pay attention to you. I'll go to events and someone will come up to me and say, 'I saw you at this other event' and you, 'I've never talked to you', but because I'm more noticeable, you notice me, so, it makes it easier for me to make friendships and make business connections and yeah, it makes me more memorable therefore, it makes the company more memorable and it gives our clients a feel that we're, we're driven by the changes in society. They're open to new concepts. It kind of makes us look younger and hipper, a more hip company to work for and the clients want to be around that.

Hindering incidents. There were four hindering incidents identified by 3 participants (33% participation) in this category. These incidents highlighted moments when participants felt

that their feminine qualities were not of value in the workplace. These participants shared that

they felt that had to suppress some of their feminine qualities in order to exist in their workplace.

Participants who highlighted these experiences acknowledged that regardless of one's

profession, there is often an aspect of self that is suppressed in the workplace, but these examples

seemed particularly challenging given that these women worked in male-dominated fields.

These participants shared that they modified how they presented themselves, often taking on

personas or choosing to present more male aspects of self:

> P6: I'd be lying if I didn't say that I sort of act differently at work then I would at home. At home, I might be more carefree and laugh a little more or, I recognize that, at work, I do try hard to maybe conform to, not just the image of a male pilot, but I think that, I guess there is a part of that. I think because there's been so few female pilots, it's sort of this, I mean, I go to work and I wear a tie and epaulettes and it's a costume that traditionally a man would wear umm and so, I feel sometimes like I go to work and I almost assume this other persona like this, I don't maybe giggle like I just did or, I'm a lot more serious and I think than most people are at their workplace, but it might be just an extra level, given that, I'm working with males.

> P7: I am still very much myself and I just don't, I'm just not my sensitive self, you know, haha. Yeah, I'm a part of myself. Parts of myself, I allow to be there. There are other parts that I just don't really bring.

Wish list items. No wish list items were identified in this category.

Category 8: Creating a sense of family

This category pertains to a participant's sense of family dynamics in the workplace.

Helping incidents. There were 14 helping incidents identified by 5 participants (56%

participation) in this category. Participants in this category indicated that creating an

environment that fostered a sense of family in the workplace was important. They indicated that

developing relationships that resembled those between siblings or parents was not only important

to their sense of belonging but that it also contributed to their success. In all examples cited

below, participants seemed to naturally use terms related to family relations to describe their

workplace. Two participants referred to their male-coworkers as their brothers and framed these

relationships as beneficial:

> P8: So now that I've been there for a while, it's like having a bunch of older brothers so, that's a lot of fun, but at the beginning, it can be kind of tough.

> P4: Yeah definitely and that's one thing that I've done different from my [predecessor] is he was just more, 'go there, do work' but I really like the family aspect of things, you know like I like to, all my workers, they're like my brothers now. I treat them like my brothers and although they are my workers still. I have to draw that line. Yeah, no, that's pretty much what I look for in success.

It is interesting to note is that the participant quoted above, P4, later refers to herself as 'the

mother' of the organization:

> P4: I see sort of other people in their work places and they get to do all these activities and all these things, and at first we weren't doing that so that's why I wanted to change as well, to get everyone involved and people always say as the woman in the company, it was bound for you to do something like that, so, I'm like the mother.

Paralleling the company to a family, as P4 does here, was common throughout all participants in

this category. All participants in this category indicated that creating that sense of family and

healthy relationships was paramount in their workday:

> P3: Yeah, to be able to care about them as people, it's almost more important to me, to take care of my little utilities family than[the focus of her role at work].

As an extension of this, a number of participants in this category emphasized that being social

and developing deeper relationships was key to the success of their work. Four out five

participants in this category shared that when they had a more personal connection with co-

workers or clients, they could use the information that they had gained to inform their work:

> P2: If you work with people that you know on a personal level then they want to help you more because they know that, oh she has a dog, she has to take care of her dog, oh I'll help her out on this. Or if you, it also really helps to be social, not just to people inside the office but with clients, the more you know about them, the more you know about how they work, the more you know what they cherish, what matters to them, the more you can cater to that. So, I think it's very important to be social.

Finally, 2 participants in this category shared that when they had experienced challenging circumstances in the past, they stayed in their position because of the 'family' that they had developed at work:

> P3: Well it's been so long now too, I guess. We are kind of a happy family so. We love each other warts and all. Oh, I definitely stay for the people, more than the work. So that kind of makes sense then that it would be important, that they're taken care of.

Hindering incidents. Only 1 participant identified a hindering incidents (N = 1) in this category and therefore the 25% participation criterion was not met.

Wish list items. No wish list items were identified in this category.

Category 9: Brush it off

This category pertains to a participant's ability to never take comments or feedback personally in the workplace.

Helping incidents. There were 15 helping incidents identified by 4 participants (44% participation) in this category. Each incident described philosophies that participants held about the importance of being able to 'brush off' negative feedback or personal attacks. In particular, they shared that their confidence and a positive attitude were key to doing well in their workplace:

> P2: Um, I just tend to laugh it off because, umm, I mean if you don't laugh things off, if you don't find humour in everything than what's the point in living so I just think it's funny. Yeah, I mean I just think the most important thing that I picked up is that you can't take anyone's comments seriously. I just tend to brush things off. I just focus on the positive things.

> P4: Yeah, well that's the thing, I do take things to heart. I think I met 2500 people last year with all the projects and if I let every single negative comment that we ever hear, be a result of our work then I would be depressed but you have to realize, you know what, everyone is different, everyone might have a bad day. Someone might have not have known what was going on, cause we're kind of a very unique thing to happen to a building and what has to happen, has to happen fast, so I just have to take it with a grain of salt and keep going.

Three participants in this category indicated that the ability to 'brush it off' was particularly

helpful in male-dominated work because this was a skill that most men had. They found that

men are better able to hear negative feedback without taking it personally and that, as women in

the field, they had to learn to remove their emotions from interactions in the workplace:

> P2: I would never raise my voice because the thing that I learned from working in male-dominated business is to never take anything personally because guys, they can just scream at each other or insult each other and then the next day they're fine because it's work to them and they can still go out for drinks afterwards whereas for me, if someone says, 'oh, what are you doing here, this makes no sense', I'm heartbroken. 'What am I doing?' and I'll totally take it to a whole new level in my head and think I'm incompetent, so I've really had to work to just take it in stride.

Hindering incidents. There were 6 hindering incidents identified by 3 participants in

this category. These incidents highlighted moments when participants found it difficult to 'brush

it off'. Most often these hindering incidents seemed to concern sexist attitudes that male

colleagues had towards the women working in their fields. Although no participant used the

language of sexual discrimination, the examples cited are all highlight inappropriate behaviour or

treatment towards participants because of their gender. Participants in this category shared

stories of wanting to challenge a colleague on their attitudes while knowing that it would not be

well received. They indicated that they chose to "work it out by myself in my head, rather than

to actually approach them [male colleagues] and their attitudes" (P3). They shared how

challenging "working it out" on one's own could be:

> P6: It's kind of learning the skills in terms of how to deal with that, or not, I mean sometimes I think the strongest thing you know, the strongest come back is just to do a good job and so it's just trying to figure out that balance and then be comfortable in the decision that I made in that moment.

> P7: Yeah, it does take strength, it takes strength to be tolerant, I guess.
> C: Hmm, it takes strength to be tolerant.
> P7: Haha, sometimes it does.
> C: Can you say a little bit more about that?

P7: Um, well, I guess, it's just, those comments that are directed towards my gender and understanding that its not a personal attack towards me and being tolerant of where they're at and then, also just being patient with myself as well, but being tolerant, to a degree and then be able to be expressive as well. It just takes a lot of energy, all that stuff takes a lot.

Wish list items. Only 2 participants identified wish list items in this category (N = 2) and therefore the 25% participation criterion was not met.

Category 10: Support from parents

Participants in this category identified parents who supported their career choices as important factors in their success.

Helping incidents. There were 7 helping incidents identified by four participants (44% participation) in this category. Fathers in particular seemed like important role models. In fact 4 out 9 participants were working in the same career as their father whereas only one participant shared that she had she same profession as her mother. Even those women whose fathers worked in another field shared how important their fathers were to their career growth (e.g. "Like, my dad's my mentor. He doesn't know anything about business." (P5)). Of the participants who identified their parents as support, three indicated that their father was particularly important:

P6: It's very validating [having your father work with you] especially when you have moments, you know I've certainly had experiences in the industry where, people aren't as welcoming to a woman in the flight deck, and so to be able to fall back on the men in my life that are more supportive is, I think, is pretty amazing.

Interestingly, no participant indicated that she chose her career because of the career her father had chosen.

Hindering incidents. No hindering incidents were identified in this category.

Wish list items. No wish list items were identified in this category.

Category 11: Support from female colleagues

This category pertains to support received from colleagues and leaders in participant's workplaces.

Helping incidents. There were 12 helping incidents identified by 3 participants (33% participation) in this category. In particular, support from other women was found to be very helpful in doing well. All participants in this category shared that this was often the case when they were feeling challenged in their male-dominated workplaces. Simply having another female presence and perspective seemed calming and validating:

> P7: I do have female friends there and it actually makes a huge difference. Yeah, it really does. Sometimes, I just can't stand being in the lunchroom and I just have to go upstairs to the office and find a woman to talk to, haha. Well I have a friend there and we get along really well so that makes a difference.

Hindering incidents. Only 1 participant identified hindering incidents in this category (N = 3) and therefore the 25% participation criterion was not met.

Wish list items. There were 6 wish list items identified by 3 participants (33% participation in this category. These incidents spoke to the same two themes highlighted in the helping incidents: a) desire for more women for companionship (N=3) and b) better leadership (N=3):

> P8: Just in general, it would just be better if there were more of us. So we work on a four platoon system so there are four shifts all the time, so they wanted one woman per shift and you're like, 'really, you never had any intent of having more than one? Why?' Like if we all ticked the same boxes and passed the same tests, like in theory, I'm no better or no worse than anybody else, right, so, if they kind of got rid of that attitude of like, 'we filled our quota' you know what I mean, because, going to a field of, you know, my fire department has 105 people and only 4 of them are firefighters that are women. Yeah, coming in with that attitude already that 'well we don't need more of you. We have our 2% or 3% or whatever it is that we aim for and we're done now'.

> P4: What do I wish I had... well I think, overall, I wished I had another female within the company that could, we could have done it together.

Category 12: Mentors

This category pertains to the mentors and their role in participant career paths.

Helping incidents. There were 3 helping incidents identified by 3 participants (33%

participation) in this category. These participants identified the importance of mentors in their

lives, particularly bosses:

> P2: And I think a big part of why I'm having such a good time with the company is
> because of my mentor, because of my boss. He's very very good. He's very focused on
> each one of us individually. He's been pushing our boundaries a little bit but also focused
> on what we're really strong at and making sure that we do a lot of that.

Hindering incidents. No hindering incidents were identified in this category.

Wish list items. There were 8 wish list items identified by 5 participants (56%

participation) in this category. The majority of incidents in Category 11 were wish list items, all

of which highlighted participants desires a better mentorship program or better mentors:

> P1: And just, yeah, a sense of mentorship, I think it's really unfortunate that I didn't
> admire anyone or envy anyone. Not that I didn't admire anyone but I didn't see anyone
> who's circumstances I wished to emulate until, I would say the last year.

> P7: I think another thing that would be helpful systemically is having more of a
> mentorship program and it doesn't necessarily have to be a woman, but just having
> someone to sort of show the ropes of the situation and haha, show the ropes of the space
> (hmm, ok). When I started there, I sort of got thrown in with alligators and no one really
> showed me how to do anything and I had to sort of figure it out.

Participants did not specify whether they would prefer male or female mentors, although one

indicated that having a female mentor "would be nice" (P7). In fact, three participants in this

category lamented the lack of women who they admired, women whose work and priorities they

could emulate in their careers. These participants shared that as younger women in their fields,

there were no woman in their workplaces who modeled a lifestyle that they admired. As a result,

some of these women indicated that they had to generate their own model of how to work in their

careers as women:

P1: I mean those big firms that I worked at in [city], that that senior architect who really helped me out existed on like two grapefruits a day and lived in her office, pretty much. And she was a wonderful person and I'm really grateful for everything we did together but it was a number of years before I saw anyone higher up who I was like, "I want to do your job', You know, 'that actually looks like you've got it figured out.' It was 3-4 years before I really encountered anyone I envied higher up. Which is kind of funny. I'm surprised I stuck to it.

As a result, women sometimes indicated that they wished they could have been their own mentors. When asked about wish list items, 3 participants shared wishes that involved going back to talk to one's younger self:

P2: Umm, I wish I could have talked to myself now, 10 years ago (hmm, ok). Yeah, cause then I could tell myself, 'Hey, you have to focus on these 5 things'. (Right) 'Starting now, not 10 years from now'.

Other findings

The following are two other findings that could not be classified as helping categories but which had particular high participation rates and thus seemed relevant to the results.

Luck (67% participation). Throughout the interviews, participants often seemed quite humble, insisting that they were in no way unique or that their skills were particularly impressive. Six out of nine participants them shared that they felt very lucky to be in their chosen profession or workplace

P2: Yeah, and probably in many companies you don't have that opportunity to jump around so, so I feel lucky that I've been able to do that. Worked out well, yeah.

Four of the participants indicated that anyone could be doing their work and that they felt that they were not special in any way. They shared that they had worked hard to achieve their positions but that this did not make them stand out in any way:

P4: I guess anyone could do it but it's just someone has to take a stand, and do it and it turned out to be me.

P2: And, it makes me seem like I'm in some way someone special and I'm not. This is really not, like it's just a job. You know, it's not that difficult. You just work to it and you

get training and this is what you do and it shouldn't be such a big deal and it is for some
reason.

This sense of normalcy was communicated by the majority (78% participation, 16 incidents) of

participants and seemed to be an important aspect of identity. Participants seemed to want to

communicate their humility and by extension, a belief that working in male-dominated careers

was more accessible than other women might think.

Career by happenstance (67% participation). The other interesting finding is that the

majority of women interviewed did not have childhood aspirations of following their eventual

chosen field. In fact, 6 participants shared that they did not pick their career until their early 20's

or later.

P7: Because I didn't come into it, wanting it, like it's something that I sort of fell upon.

Often, they indicated that they had already started on a particular career path when, by chance,

circumstances led them to their chosen career.

> P2: Actually, I was in psychology the first year and then my boyfriend at the time, he was
> an electrical engineer and I was helping him with his homework all of the time and then I
> thought 'hang on'. So even I wasn't thinking about doing it. It's just by chance that I
> started dating someone who was in engineering and I thought well I'm much better at this
> then what I'm doing now, so.
>
> P6: I was off to [university] and I was going to do my math degree and I wanted to be a
> math and PE teacher because that was what inspired me at the time. And then I decided
> to do my private pilot license, at the [club] and I ended up, with a female instructor, and it
> was life changing in that I realized, it was like a light bulb going off. 'Why haven't I ever
> thought of doing this myself?' haha. So, whatever you want to call it, aha moment, life
> changer, sort of fork in the road and I went a different way, and from then on, I basically
> started, I dove right in from there.
>
> P4: I was set to do my Masters, wanting just some work experience. My dad is really
> good at keeping work and personal life really separate but one of his girls at the office
> ended up going on mat leave so he'd asked, 'you know what, do you mind helping me at
> the office for a little bit?' and I went, 'I'll come in. I'll help you out' and then I loved it. I
> ended up asking if I could run my first project within the first year and a half so.

These findings, along with the 11 identified categories will be explored in the final chapter.

Chapter V

Discussion

The results from the previous chapter are an indicator of the rich narratives shared by the 9 individuals who participated in this study on women working in historically male-dominated careers. In this final chapter, I will situate my findings in existing literature and theory and I will explore how some of my results provide new insights and opportunities for further research in the area of women and their careers. This process not only serves to expand the discussion around the results from chapter IV, it is also one of the final validity checks required by the Enhanced Critical Incident method. In this chapter, I will also examine implications for counselling practice and research and I will conclude with an exploration of the limitations of this study.

Theoretical agreement

Twelve categories emerged from the analysis of interviews with the 9 participants. I have chosen to group these categories into 4 larger overarching themes: a) traditional success markers, b) support, c) self-concept, and d) self in relation. These four themes consistently arose as common threads throughout my interview notes, analysis and coding memos. Accordingly, it seems appropriate to discuss the data using these broader concepts. In the table below, I have summarized the four themes.

Table 3

Categorization of Results of Chapter IV

Themes	Categories
Traditional Success Markers	Category 3 - Traditional success markers
Support	Category 10 - Support from parents
	Category 11 - Support from female colleagues
	Category 12 – Mentors
Self-concept	Category 5 - Self-supplied recognition
	Category 7 - Believing in the unique qualities of women
	Category 9 - Brush it off
Self in relation	Category 1 - Recognition from peers
	Category 2 - I'm making a difference
	Category 4 – Belonging
	Category 6 - Being seen for one's strengths
	Category 8 - Creating a sense of family

Traditional success markers. Traditional success markers emerged as the category with the third highest participation (78%) in this study. Examples from this category mostly emerged as incidents of pay or position, sometimes considered "external criteria" in the literature (e.g. Martin & Barnard, 2013; Sturges, 1999). To date, some literature has addressed the value that women in male-dominated work place on external criteria and a common theme has emerged: studies over the last 30 years have indicated that women often base their success on external criteria but they are more likely to emphasize "internal and intangible" (Martin & Barnard, 2013, p. 11) criteria compared to their male colleagues (e.g. Greenfeld et al., 1980; Spain et al., 1998). Greenfeld and her colleagues compared women in male-dominated work to those working in other sectors and found that those in male-dominated jobs tended to attach more importance to traditional success values than other women. The researchers, however, also emphasized that in comparison with their male colleagues, women in male-dominated work did not value traditional success to the same degree.

Similar results were found in an extensive study that explored what success meant for a group of participants in middle management positions. Sturges (1999) interviewed 36 men and women, asking them to define success and based on their responses, divided the participants into four categories: climbers, experts, influencers and self-realizers. Sturges noted that all 'climbers', individuals who cited external criteria as paramount to success, were men, whereas the majority of 'experts' (individuals who valued positive feedback, responsibility and autonomy) and 'self-realizers' (individuals who had idiosyncratic, internal definitions of success) were women. They state that, "for all of the women, including the 'influencers', success defined in terms of achievement, personal recognition or influence transcended material career success" (Sturges, 1999, p. 247). Most importantly, Sturges notes that while all participants shared

external and internal indicators of success, for women external indicators were "never central to any of their descriptions of career success" (Sturges, 1999, p. 247).

These findings match the results from my study. Although 7 out of 9 participants in my research indicated that pay and promotions were important indicators of success, they were never seen as paramount. References to these measures were often said in passing and were never the first incident mentioned by participants. There are likely a number of reasons for this, many of which will be explored later in this chapter. Sturges postulates the following as an explanation for why women in historically male-dominated fields may emphasize less tangible factors: "If women perceive that the traditional model of organizational success, based on hierarchical position and level of pay, is not readily available to them, then they might choose to refocus their ideas of what success is on other less tangible and more internal criteria, which they believe to be more easily attainable" (Sturges, 1999, p. 250). This is a concept that other studies have also explored (e.g. Clance & Imes, 1978; Shroedel, 1990), however the hypothesis alone may be challenging to measure. It is worth noting that no participants in my study indicated that they currently felt limited in their mobility.

Support. Participants in this study identified three different types of support when identifying factors that promoted feelings of success: support from parents, support from female colleagues and support from mentors. While support is often a theme that emerges from Enhanced Critical Incident Studies (Butterfield et al., 2009), it is interesting to note that these three themes had the lowest participation rates (44%, 33% and 33% respectively) of all the categories. Literature highlighting the importance of supports in one's career certainly exists (e.g. Greenfeld et al., 1980; Tomas & Castro, 2013) and is often cited as a tenet of certain well established career theories (e.g. social learning theory, developmental theories), however a large

proportion of the research focuses on career choice or development rather than career success (e.g Hui, Piontkowski, Raque-Bogdan, Lucas, & Miller, 2013; e.g. Stringer & Kerpelman, 2010).

This is particularly the case in regards to studying the role of parents in career. Longitudinal studies have been conducted following girls into their early twenties in order to establish factors that influenced their choice to pursue a male-dominated career. For example, Zeldin and Pajares (2000) found that having parents who supported their daughters in a wide range of interests was a positive factor and Greenfeld found that having a brother was a negative factor (Greenfeld et al., 1980). While these results prove interesting, I was challenged to find information on the role that parents play in career success. I focused closely on data relating to fathers, given the emphasis that participants gave to this role. Again, certain studies relate important factors that promote the choice of male-dominated careers, including having a father who attended college (Greenfeld et al., 1980) and having important male role models in childhood (Zeldin & Pajares, 2000) but only one study examined the role of fathers in career success or satisfaction. In a study released this year, Buschor and colleagues (2014) conducted a longitudinal study using questionnaires that examined perseverance in 843 women in STEM (science, technology, engineering and math) fields. Their results indicated that perceived support from the father had no effect on perseverance. Interestingly, they found that the most important factor in promoting perseverance in STEM fields was parents who provided positive learning settings throughout childhood, including materials from a wide range of careers (e.g. chemistry sets, telescopes) and emotional support.

Participants in my study indicated that having the support of female colleagues was an important aspect of success. As was cited in the review of the literature, in Chapter II, much of the research indicates reverse findings. A number of studies found that women working in male

dominated careers often do not find support amongst their female colleagues. In fact these women often report conflicts or hostility from female colleagues (Derks et al., 2011; Marshall, 1995; Zeldin & Pajares, 2000). Marshall's (1995) study of women in senior management positions indicates that women often experienced antagonistic behaviour from peers in similar roles and from subordinates. Marshall argues that this is likely because this group of women have developed the skills to function in a male-dominated world and may not have skills that other women might expect from them. Furthermore, Marshall's data and another study on 'queen bee behaviours' in a Dutch police force both indicated that some women in male-dominated careers did not want to be associated with other women in their workplace as they did not wish to be perceived as acquiescent or sexualized beings. By creating distance between themselves and other women, women in male dominated work aimed to distance themselves from being conceptualized as feminine (Derks et al., 2011; Marshall, 1995).

In an encouraging twist, women in this current study did not follow this trend. Participants shared the importance of spending time with female colleagues, individuals who were understanding and compassionate. This may be because participants did not feel threatened by other women or it may be that women in this study identified female supports with whom they were not in direct competition. Research indicates that although women in male-dominated work rarely find support amongst female colleagues, they often find a group of supportive women outside of their workplace (Braid, 2012; Shroedel, 1990; Tomas & Castro, 2013). These women often represent the greater network of women in a particular field. For example, Shroedel's (1990) research on women working in the trades indicates that these women found support after the workday was complete and Tomas and Castro's research (2013) indicated that women in academia took advantage of formal support groups outside of their universities. In this

current study, women identified supportive colleagues at work but in all three cases, the women

that were identified held very different positions. For example, the engineer (P2) identified

women who worked on a different floor and the labourer (P7) identified a woman who worked in

the "office", not on site. Further research on the support provided by women colleagues would

certainly prove beneficial.

Finally, participants indicated that mentors were important aspects of success.

Interestingly this category was the only one where wish list items (56% participation) exceeded

helping incidents. In other words, some women identified current mentors as supportive but

more women (N=5) identified mentors as a support that was missing. The research cites a

number of benefits related to having a mentor, including a stronger sense self-efficacy (Zeldin &

Pajares, 2000), the internalization of role models (Barratt, Bergman, & Thompson, 2014) and the

development of resilience (Kuo-Yang Kao, Rogers, Spitzmueller, Mi-Ting Lin, & Chun-Hung

Lin, 2014). Furthermore studies have also documented the desire that women in male-dominated

careers have for mentors. In Zeldin and Pajares' (2000) study on women in STEM fields, they

indicated that some of their participants had mentors and teachers that proved very supportive

but that a large number of participants shared a desire for more female mentors who could

provide encouragement and serve as role models.

It is important to note that participants who had mentors or who wished for a mentor

made no indication of gender preference. One participant indicated that having a mentor who

was a woman "would be nice" (P7) but it was not necessary. These results are common (e.g.

Tomas & Castro, 2013). In fact, one study on sales professionals in Taiwan found that

mentoring that was 'cross-gendered' resulted in higher resiliency rates for mentees, if the mentor

was not also a supervisor. (The results indicate that if one's mentor is one's supervisor, one

benefits more from a supervisor of the same gender (Kuo-Yang Kao1 et al., 2014)). In their study, Tomas and Castro (2013) suggest that this might be the case simply because female mentors are not available, so finding a role model who is a woman is simply not a choice. It may also be possible that women may not want to seek out female mentors. In a study conducted in the United States, researchers examined expressions of masculinity in women law enforcement officers and found that more 'masculine' officers received more mentoring and role-modelling from superiors (Barratt et al., 2014). In other words, it may be that de-emphasizing one's gender in male-dominated professions is beneficial when seeking mentorship.

Self concept. The three categories in this area ('self-supplied recognition', 'believing in the unique qualities of women', and brush it off) are all indicative of an attitude that participants adopted in order to succeed in their male-dominated careers. All three categories speak to the ability on the part of the participant to trust one's own insights and judgments. More generally, they emphasize the need for a certain degree of self-confidence.

This trust in self could be understood as 'self-efficacy', a term coined by the father of social cognitive theory, Albert Bandura (Lent & Fouad, 2011). Defined as "beliefs about [one's] capabilities to organize and perform particular behaviors or courses of action" (Lent & Fouad, 2011, p. 74), self-efficacy is a corner stone of social cognitive career theory, a theory that emphasizes a person-environment-behaviour interaction (Lent & Fouad, 2011). Bandura's theory states that high levels of self-efficacy are achieved through a number of means but that the most important source of self-efficacy is based in 'mastery experiences' or experiences wherein one feels confident in one's skills. "The self-efficacy beliefs that people hold influence the choices they make, the amount of effort they expend, their resilience to encountered hardships, their persistence in the face of adversity, the anxiety they experience, and the level of success

they ultimately achieve. Individuals with strong self-efficacy beliefs work harder and persist longer when they encounter difficulties than those who doubt their capabilities" (Zeldin & Pajares, 2000, p. 218).

A study examining self-efficacy in women working in STEM careers found that women who felt that they were succeeding had higher levels of self-efficacy than women in other careers (Zeldin & Pajares, 2000). This finding could be explained in a number of different ways. Research examining why university students left STEM fields indicates that the small minority who stay had a higher self-concept of their abilities in maths and sciences, an indication that higher levels of self-efficacy almost function as a pre-requisite for participation in male-dominated fields. In fact, a number of studies highlight the higher standards to which women have to hold themselves in order to succeed in male-dominated fields (e.g. Davey & Davidson, 2000; Denissen, 2010; Peterson, 2010).   As was explained in the review of the literature, often women in these fields are unable to ascribe to the standards that their male colleagues set for themselves, because their male colleagues hold women to higher standards. In her study on tradeswomen, Denissen explains that women in male dominated work are "held accountable to contradictory expectations for a feminine presentation of self and a masculine performance of work" (Denissen, 2010, p. 1051). Consequently women in these fields might benefit from creating their own definition of achievement.

In their analysis of narratives from 15 women in STEM careers, Zeldin and Pajares also indicated that their participants showed a high level of "social resiliency" (Zeldin & Pajares, 2000, p. 236). This was illustrated by the fact that all of their participants shared stories of negative verbal interactions, which participants "either ignored or [participants] did not let such messages deter them from their goals" (Zeldin & Pajares, 2000, p. 236). This dynamic very

closely mirrors the experiences highlighted in the "brush it off" category of this current study. Others studies show similar findings. In a study examining stereotype threat in England, female engineering students and psychology students were asked to complete a math test. Half of the participants were told prior to the study that women rarely did well on the test they were about to complete. The results from this study indicate that engineering students were less impacted by this statement than the psychology students. In fact, for engineering students the stereotype threat seemed to result in a boost in performance. The authors believe that this occurs because women in historically male dominated roles tend to have experiences that help them to believe that they can cope better. In other words, they use past experiences as proof against the gender threat (Crisp, Bache, & Maitner, 2009).

Further results from a survey conducted through this study reveal that the female engineers tended to identify more with their major than with their gender, whereas the psychology majors tended to identify equally with their gender and their major. The researchers hypothesize that women in engineering may be more adept at adopting alternative social identities. They may "disidentify" (Crisp et al., 2009, p. 181) from the low-status group (women) and identify more with a high status group (engineering students), an action the researchers called "recategorization" (Crisp et al., 2009, p. 181). A study looking at women working in the trades had similar findings, in that women would try to emphasize their career identity over their gender identity and that they would try to highlight aspects of self that communicated a shared identity with male colleagues (e.g. shared class or cultural background) (Denissen, 2010). Martin and Barnard's study on women in the trades also found that women who were succeeding in their work enjoyed the challenge of overcoming any problems that their gender presented. They concluded the following: "it seems to the authors that overcoming the

unique difficulties that they find in male-dominated occupations positively challenge the women, who remain in these occupations, to overcome the unique difficulties they find there" (Martin & Barnard, 2013, pp. 10–11).

The idea of 'disidentifying' from one's gendered self seems at odds with the final category in this theme: women's belief in their own unique skills sets. This last theme is well supported in the literature. In interviews conducted with women priests in England, the participants shared that they felt that a woman's skill set and perspective would be a benefit to their role and that they believed they were involved in redefining the concept of priest (Bagilhole, 2006). In another study that examined women engineers who persisted in their careers, women indicated that they held "superior capabilities" (Buse et al., 2013, p. 144) that gave them a certain edge in the field. In chapter II, the concept of bilingualism was introduced, in which individuals were most successful when they saw gender as a tool whereby feminine and masculine identities could be used interchangeably (Denissen, 2010). It is likely the case that women in male-dominated careers benefit when they move between identifying and disidentifying in a fluid way. This is an area that certainly requires more exploration.

Self in relation. The final five themes all centre on the motif of relationships. These themes (Recognition from peers, I'm making a difference, Belonging, Being seen for one's strengths, and Creating a sense of family) view the participant as a social individual who defines self in part through the perceptions of others. Current discussions about career increasingly include a focus on social context (Blustein, Prezioso, & Schultheiss, 1995). Theories with a focus on the relational hypothesize that "that human beings are dispositionally and perhaps even biologically oriented toward developing and sustaining meaningful connections with others" (Blustein et al., 1995, p. 426). In relational theories, identity is seen as fluid and ever-changing

depending on relevant relationships and interactions, resulting in the existence of multiple truths as individuals construct and recreate their sense of self. This concept seems to resonate with many of the categories that make up this section.

Much of the research presented in the review of the literature supports a relational perspective for women in career as well. Buse and colleagues studied women engineers who were succeeding and found that those who indicated that they were engaging in "reciprocal engagement" (Buse et al., 2013, p. 145) reported higher levels of career satisfaction than engineers who were focused on personal achievement. Tomas and Castro found that compared to male academics, female academics were more likely to see their research and their work as activities based in dialogue with others (Tomas & Castro, 2013). Bagilhole's research on female priests indicates that they placed less value on hierarchical structures than their male peers, fostering communication and transparency (Bagilhole, 2006). All of these studies highlight the fact that women are defining their work based on relationships with others.

Other studies emphasize the importance that women in male-dominated careers place on meaning making or creating meaningful contributions. As the review of the literature demonstrated, studies that cover a wide range of careers (priests, senior management, executives) have indicated that women feel a sense of success when they perceive themselves as agents of change within an organization (Bagilhole, 2006; Marshall, 1995; Sheridan, 2002). Although, it seems clear that examples cited in the "I'm making a difference category" in this study were more subtle, the intent was still focused on meaningful contribution to something greater than self.

Further findings that are well supported in the literature are those related to conceptualizing colleagues as family. Five participants in this study used terminology that one

would use to describe family relations (e.g. mother, sister, brother) to describe colleagues. A number of studies cite the fact that women in male-dominated work sometimes define themselves based on sex-roles and not work roles. Almost 40 years ago, Kanter conducted research in a predominantly male organization and observed the fact that women were often perceived by male colleagues as a mother, a little sister or as a sex object (Kanter, 1977). In Kanter's study, the women were not actively participating in this categorization, and therefore it is interesting to note that more recent studies continue to see these themes but terms like 'mother' or 'sister' are being self-prescribed by women working in male-dominated careers (Clark, 1998; Coles, 2013; Scullen et al., 2008; Shroedel, 1990). In her study on tradeswomen, Shroedel (1990) argued that this occurs because women receive the message that they cannot be accepted based on performance, but that they also recognize that pressure to adhere to their sex-role could be detrimental to their work-role. What is interesting to note is that the women in this current study most often saw this sense of family as a large benefit to their work and some even indicated that their 'work family was a motivating factor in their workday.

Relational career theory seems to be closely related to many of the findings in this study. Zeldin and Pajares (2000) explored success for women in STEM fields using Bandura's relational model and found that a) perceiving accomplishments of others and b) verbal messages and encouragement, were key factors for women developing high self-efficacy. Given this, the researchers concluded that "the perceived importance of these sources of self-efficacy beliefs may be stronger for women in male-oriented domains than for individuals operating in traditional settings." (Zeldin & Pajares, 2000, p. 227). They go on to explain that when women's beliefs in their skills are rooted in their relationships with others, self-efficacy is higher and perceived obstacles appear manageable.

Theories continue to emerge that support a relational perspective on career development. In a 2001 paper, Flum presented an attachment-based career theory with dimensions that closely match the results in this study. Advocates for relational theory propose that our main goal in career is to achieve secure attachments in our place of work, just as we aim to create secure attachments in our family of origin and personal relationships (Blustein et al., 1995; Flum, 2001).

Generally speaking it seems that taking a relational perspective regarding women in career fits quite well with all of the themes presented in this chapter.

Summary and implications for future research

When framed around larger concepts of career theory and embedded in the literature, it is worth noting that many of the results match research that has already emerged. There are however a couple of areas that require further investigation, in particular the role of father figures, the role of female colleagues and self-concept as worker versus self-concept as woman. Interestingly, the results from this study did not support a number of concepts that we often associate with women in historically male-dominated work. For example, longitudinal studies show that women in male-dominated careers are more likely to be single with no children, results which were not repeated in this study (Greenfeld et al., 1980; Jagacinski, 1987). More than half of the participants had significant others and two participants had children, a number that was likely low because the median age of participants was 32. Participants made no reference to issues like the second shift, long work days (Martin & Barnard, 2013), tomboy childhoods (Greenfeld et al., 1980) low self-confidence (Bury, 2011) or overt sexism (Marshall, 1995). More subtle forms of sexism were certainly highlighted but they were framed using terms like "exclusion" or "bad manners" rather than seen as discrimination. It is possible that for these participants, it is a benefit to frame these experiences through a non-gendered lens. These results

could also be related to the recruitment strategy used, in that women who felt that they were succeeding were invited to share their stories. Therefore, those who did not feel that they had stories of success did not volunteer.

Implications for counselling practice

Clearly, the experiences of women in male-dominated fields are unique and nuanced and as a result, counsellors working with this population would be wise to explore each individual's experiences as well as the perceptions that they hold about their role in the workplace. In particular, it will prove helpful to unpack with clients the degree of congruence between their gendered concept of self and their career choice, as well as levels of self-efficacy (Walsh & Heppner, 2006). Also, given the strong focus that these results had on relational aspects of career, it will be essential to explore women's support systems and relational practices in their workplace. Walsh and Hepner's (2006) guidelines for counselling women in historically career dominated work provide a number of recommendations: a) explore realistic concerns that may arise in the client's educational or career pursuits (e.g. What will it be like to be the only woman? Have you decided whether you would like to have children) b) develop hard skills like resume writing and effective interviewing, c) emphasize support systems and encourage clients to foster more connections and d) acknowledge and discuss issues like tokenism, sexual harassment and intersectionality. All of these strategies serve to develop stronger self-efficacy, stronger relationships and provide a framework where women in male dominated careers are rendered thinkable.

Finally, some studies emphasize how important it is to challenge women's perceptions around barriers that they might face in order to encourage the idea that women can accomplish whatever goals they have set. Although, it is essential to be supportive and encouraging when

working with women working in male-dominated fields, recommendations from other studies indicate that it is more important to take a systemic perspective and to help clients understand the system within which they exist (e.g. Walsh & Heppner, 2006). If counsellors do not address systemic issues in the counselling room, clients may internalize structural or systemic issues because they have been unintentionally lead to believe that they have been provided with equal opportunities (Walsh & Heppner, 2006) Instead counsellors should examine systemic issues with clients thus providing context and knowledge of the barriers and challenges that exist. Furthermore, counsellors should acknowledge their role as "social change agents", by "engaging in efforts to positively change society" (Walsh & Heppner, 2006, p. 34) through endeavours to challenge educational, legal and political policy and initiatives. The Canadian Counselling Psychology Association Code of Ethics indicates an expectation for all counsellors to abide by the fundamental principles of justice and social interest. Essentially, we have a responsibility to examine our cases from a systemic perspective and to speak up when we see that these principles are being violated.

Study limitations

I recognize that my study has certain limitations. First, I have chosen to interview participants from a number of different fields. Although this is beneficial in that I was able to identify broad themes across career types and sectors, it also means I could not explore particular challenges or successes in any particular area. This is problematic because it means that concerns that only appear in certain sectors or trades may not have been highlighted as effectively as they could be. In acquiring data that spanned an array of participants, some nuance may have been lost.

Another limitation can be found in my method of recruitment. Those who chose to respond to my request may represent a certain demographic that may skew my data. The participants who responded may be particularly interested in the topic of women in minority positions or may identify in a particular social or political way and this could distort the themes and concerns that they identify.

Finally, participants did not represent the diversity of women. Although, this might be due to the fact that women in male-dominated careers may be less representative of the general population, not having as much diversity makes it more challenging to examine issues of race, sexuality, ageism and intersectionality.

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Appendix A

Consent form

Faculty of Education Vancouver Campus
Educational & Counselling Psychology,
And Special Education
2125 Main Mall
Vancouver, B.C. Canada V6T 1Z4

Phone 604-822-4625
Fax 604-822-3302
www.ecps.educ.ubc.ca

What helps and hinders women doing well in occupations that are male-dominated
An enhanced critical incident study
Consent Form for Research Project Participation

I. Who is conducting this study?

Principal Investigator:

William Borgen, PhD Professor, University of British Colombia
Department of Educational & Counselling Psychology, and Special Education,

Co-Investigators:

Ciara Moran, BA, Masters Student, University of British Colombia
Department of Educational & Counselling Psychology, and Special Education,

Norman Amundson, PhD Professor, University of British Colombia
Department of Educational & Counselling Psychology, and Special Education,

Shauna Butterwick, PhD Professor, University of British Colombia
Department of Educational Studies

This research is being conducted as one of the requirements for Ciara Moran for the completion of a Masters degree in Counselling Psychology at University of British Columbia. The results of the research will be documented in a thesis that will become a public document in the University library. The results may also be published in a relevant peer-reviewed journal.

II. Why should you take part in this study?

You have been invited to participate in this research study, which aims to identify what helps and hinders women working in careers that typically employ men. Your personal perspectives are of interest to our research because you have identified yourself as a woman who is doing well in a profession that is currently employs a majority of men. Our hope is that your insights into what has helped and hindered your accomplishments will deepen our understanding of the experience of women in these careers and that this information may help in developing appropriate tools, resources or supports for women working in male-dominated areas.

III. What happens in this study?

If you agree to be part of the study, you will be asked to participate in the following procedures:

1. An Interview: The interview will last around 60-90 minutes and will consist of questions asked by the co-investigator. These questions will focus on what helps and hinders doing well in your work. Interviews will be audio-recorded
2. A Demographics Questionnaire: This form will require 5 minutes. The questionnaire will ask basic identifying information like age, background, career. All answers to the questionnaire are optional.
3. Follow Up Interview: You will be asked to participate in a follow-up interview. This will last around 15-30 minutes. We will ask you to review a summary of information taken from your previous interview and to let us know if the summary is accurate and fits your experience.

IV. The results of the research

The results of the research will be documented in a Masters thesis and may also be published in academic journals.

Would you like to ☐ receive updates about the research or a ☐ final copy of the results?

If so, please provide an email address or mailing address where we can contact you

_____

V. Potential Risks

We do not think there is anything in this study that could harm you or be bad for you. We may discuss some topics that you may find difficult to talk about. All questions are optional and you can stop the interview at any time. You do not have to answer any question if you do not want to. Please let one of the study staff know if you have any concerns.

VI. Potential Benefits

You may find it helpful to talk about your experiences as a woman in field that employs a majority of men. We are not aware of any other benefits however, in the future, others may benefit from what we find in this study.

VII. How will your identity be protected?

Your confidentiality will be respected. Information that discloses your identity will not be released without your consent unless required by law. Interviews will be transcribed and will be stored on a password protected encrypted computer drive. All participants will be identified only

by a participant number and subjects will not be identified by name in any reports of the completed study. All paper files will be kept in a locked filing cabinet. All records will be kept for 5 years and will then be destroyed.

VIII. Payment

We will not pay you for the time you take to participate in this study.

IX. Who can you contact if you have more questions?

If you have any questions or concerns about any aspect of this research, please feel free to contact the lead investigator or co-investigators. Contact information for all members of the research team can all be found on the first page of this form.

X. Who can you contact if you have complaints or concerns?

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

XI. Participant Consent

Taking part in this study is entirely up to you. You have the right to refuse to participate in this study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without any negative impact.
- Your signature below indicates that you have received a copy of this consent form for your own records.
- Your signature indicates that you consent to participate in this study.

_____   _____
Participant Signature   Date

_____
Printed Name of the Participant

Appendix B

Letter of Recruitment for Businesses

Dear Prospective Participant,

My name is Ciara Moran and I am investigating the experiences of women working in jobs that typically employ more men than women. This research is one of the requirements for the completion of my Masters degree in Counselling Psychology at the University of British Columbia. Upon completion of this research, the results will be documented in a thesis that will become a public document in the University library.

To date, much research has been done on the reasons that women leave or struggle in careers where women are in the minority. Little research has been done on the women who stayed and who feel that they are doing well in their workplaces. In my research, I am interested in learning more about what helps and hinders women working in these careers as well as how this population can be better supported.

You are receiving this letter because I contacted the agency that you work in to see if there may be anyone who might be interested in participating in my study. I will not be informed of the names of people who receive this letter. Only those who are interested in participating in the study will become known to me. There is no obligation to participate and no one in your work place will be informed of your choice to participate or not participate. It is entirely voluntary.

I am seeking adult volunteers who identify as women and who are willing to talk about their experiences working in careers that typically employ more men than women. Other criteria include:
- You must have worked in your current field for at least five years with the intent to stay
- You feel that you are doing well in your career

The study will include one face-to-face interview, which will last 60-90 minutes and a follow up interview by email or phone a few weeks later (approximately 15-30 minutes). Participants will be asked to describe their experiences in their workplace as well as what has supported and hindered you. Some demographic information will be collected as well. Any and all questions, including biographical information, will be optional to answer. All information will be kept strictly confidential.

The interviews will be audiotaped and transcribed and given a code number to ensure that your confidentiality is protected. Participants will never be identified by name or by initials, only by a code number. Any and all information collected for this research will be kept strictly confidential. All research documents will be kept in a locked filing cabinet and all data will be kept on a password protected and encrypted computer drive. Only my supervisor, Dr. William Borgen and I will have access to the interviews.

Within a few months following the first interview, a summary of the themes and findings of the research will be sent to you for review. You will be asked whether or not the themes represent

your experience and if you would like to add or remove anything from the report. Before the study is complete, it is essential that all participants feel comfortable with the findings and the way in which they are presented.

Your participation in this study is completely voluntary. You can refuse to participate in any section of the study or withdraw at anytime without any negative consequences.

If you wish to participate in this study or if you have questions, please contact me. The principal investigator for this project is my dissertation supervisor, Dr. William Borgen.

Thank you in advance for your interest in this study. I look forward to hearing from you.

Warm regards,

Ciara Moran
MA Student
University of British Columbia
Department of Educational & Counselling Psychology, and Special Education

Appendix C

Recruitment Email to Colleagues and Friends

Dear colleagues and friends,

As some of you may know, I have begun recruitment for my thesis research. I am investigating the experiences of women working in jobs that typically employ more men than women with a particular focus on women who feel that they are doing well in their work. This research is one of the requirements for the completion of my Masters degree in Counselling Psychology at the University of British Columbia.

To date, much research has been done on the reasons that women leave or struggle in careers where women are in the minority. Little research has been done on the women who stayed and who feel that they are doing well in their workplaces. In my research, I am interested in learning more about what helps and hinders women working in these careers as well as how this population can be better supported.

You are receiving this letter because it is my hope that you may know women who might be interested in participating in my research. In order to maintain confidentiality, I am not to be informed of the names of any prospective participants who you share this information with and I, in turn, will not inform you of the names of people who make contact with me. I have attached a letter to prospective participants and I would so appreciate if you would forward the information on to anyone who might be interested. I am happy to provide hard copies of the invitation as well.

 Here is a little more information about the study

I am seeking adult volunteers who identify as women and who are willing to talk about their experiences working in careers that typically employ more men than women. Other criteria include:
• You must have worked in your current field for at least five years with the intent to stay
• You feel that you are doing well in your career

The study will include one face-to-face interview, which will last 60-90 minutes and a follow up interview by email or phone a few weeks later (approximately 15-30 minutes). Participants will be asked to describe their experiences in their workplace as well as what has supported and hindered them in their work. Some demographic information will be collected as well. Any and all questions, including biographical information, will be optional to answer. All information will be kept strictly confidential.

The interviews will be audiotaped and transcribed and given a code number to ensure that your confidentiality is protected. Participants will never be identified by name or by initials, only by a code number. Any and all information collected for this research will be kept strictly confidential. All research documents will be kept in a locked filing cabinet and all data will be

kept on a password protected and encrypted computer drive. Only my supervisor, Dr. William Borgen and I will have access to the interviews.

Within a few months following the first interview, a summary of the themes and findings of the research will be sent to participants for review. Participants will be asked whether or not the themes represent their experience and if they would like to add or remove anything from the report. Before the study is complete, it is essential that all participants feel comfortable with the findings and the way in which they are presented.

Participation in this study is completely voluntary. Individuals can refuse to participate in any section of the study or withdraw at anytime without any negative consequences.

If you wish to participate in this study or if you know of someone who might be interested, please contact me. The principal investigator for this project is my dissertation supervisor, Dr. William Borgen.

Thanks so much for helping me out.

Warm regards,

Ciara Moran
MA Student
University of British Columbia
Department of Educational & Counselling Psychology, and Special Education

Appendix D

Interview Guide

This protocol is designed for all participants. Some wording may vary with each participant

Research Question: What helps and hinders the ability for women working in historically male-dominated careers to do well?

Interview Phases:

Phase 1: Participants will be given an overview of the study and the types of questions they will be asked. At this time, participants will be invited to ask any questions they might have. If they wish to continue, participants will sign the consent form.

Phase 2: Participants will be invited to answer the questions outlined in this interview guide. The questions are broken down into three sections

  a) Contextualization and defining success
  b) Identifying helping and hindering factors
  c) Identifying wish list items

Phase 3: Participants are invited to complete the demographics form (See appendix F)

Introduction

Thank you for agreeing to meet with me. The reason that we're meeting today is to talk about your experiences of work in a male-dominated career. I believe that you can help me to understand what it is like to work in your profession and what the challenges and successes might be. I will be asking you some questions and ask you to reply to them in whatever way makes you feel comfortable and open. Please remember that there are no right or wrong answers because your experience belongs to you, and only you.

It is possible that some of questions may stir up some emotions for you during the interview. If at any time, you feel that you wish to take a break or stop the interview, please let me know.

This interview is broken down into three parts. The first section asks about your work and how you define success. The second section will focus on what has helped you in your work and what has hindered your work in a male-dominated career. The third section will ask you to identify anything that you wish you could have had that would have supported you in your career.

During the interview, I may stop you to ask some clarifying questions, to ensure that I am understanding you to the best of my ability. Please feel free to ask me any questions throughout the interview. Any time you need a break, please let me know. As you know, I will be using a

tape recorder during the session and you are welcome to reach over and stop it at any time. Do you have any questions at this time?

a) **Contextualization and defining success**
- I am interested in your experience of work in a male-dominated career. Please tell me a bit about where you work and what you do.

- As you know, we are exploring what success looks like in this study. What does success in your work mean to you?

b) **Identifying Helping and hindering factors**
- Helping factors: Can you think of a time when you felt particularly successful in your work? What about the event gave that sense of success? What contributed to that feeling of success? What were the elements of the event that gave you the sense that you were doing well? Can you think of any other times?
- Hindering factors: Can you think of a time when felt unsuccessful in your work? What contributed to feeling unsuccessful? What were the elements of the event that gave you the sense that you were not doing well? Can you think of any other times?

c) **Identifying wish list items**
- As you know, we are interested in knowing what kinds of things or experiences may help women working in male-dominated careers. Could you share with me a wish list of other things that would have helped you emotionally or otherwise during your career?

- Is there anything else that you would like to share about your experience in male-dominated work?

Thank you so much for your time and your interest in the study. Within a few months, I will forward you the initial results of the study that came from this interview and ask for your feedback. It will be important that you agree on how what you have said today is reported and described. It is of utmost importance that you feel that it reflects your experience as much as possible, so nothing will be published without your consent. This marks the end of the interview. I wanted to give you another opportunity to ask any further questions that you might have at this time.

I very much look forward to speaking with you soon again. Please do not hesitate to contact me if you have any questions or concerns about the study.

Appendix E

Participant Check Letter

Dear ,

Thank you for participating in the study and for your patience in receiving this report summary. As you may remember, the purpose of this study is to explore what helped and hindered your success working in a male-dominated career.

This section of the research involved me presenting you a summary of my findings so that you can check them and see if:
1. The categories and incidents make sense to you (even if some of them were not reported by you)
2. You are comfortable with any quotes of yours that I am using for the report (highlighted)
3. You feel that I accurately described you and your situation at work

I am very interested in your feedback. It is, in many ways, the most critical part of the study. It is essential that I represent what you shared with me as closely as possible. If there is anything that feels wrong, doesn't make sense, needs to be corrected or is missing, please let me know and I will change things for the final report. We can discuss any concerns or questions that you may have over the phone or by email.

*Please also remember that the purpose of the research was to explore what helped or challenged your success in your work in a male-dominated career. **The short narratives that I have written about you in no way represent the depth and richness of the stories that you shared with me.** I apologize if I left any important information out. I hope that the short story honours your experience. Remember that I can add or remove anything that you wish.*

You have been signed a participant number. Please check your quotes with your participant number beside it.

I also request that you do not share with information with anyone else at this time as it must be checked by all participants before being shared.

This package includes
1. Your demographic information
2. Your brief narrative – about your experience working in a male-dominated career
3. The categories that I have created with a short description and the incidents (incidents refer to examples pulled directly from interviews or factors that make up the categories)
   - **HE** refers to things that helped you
   - **HI** refers to things that hindered you
4. Any quotes of yours that I'm proposing to use

You are welcome to attend my final University defense at UBC which will be held in the fall. I will keep you posted and would be honoured to have you there.

Thank you so very much,

Ciara Moran

Appendix F

Demographics and Biographical Information

ALL QUESTIONS ARE OPTIONAL

Age: _____

Cultural Background: _____

Education: _____

Are you in a supportive intimate relationship? □ Yes   □ No

Do you have children? □ Yes   □ No

    If yes, how many? _____

Occupation: _____

Number of years in current role: _____

Employment Level (e.g. Entry level, middle management, senior management, etc):

    _____

Number of years in occupation: _____